

Review Assessment

of

Houma Navigation Canal Deepening Project
Section 203 Integrated Feasibility Report and
DRAFT Environmental Impact Statement
(June 2018)



July 2018

Executive Summary

Louisiana Department of Transportation & Development (LADOTD) conducted a feasibility study to address navigation improvements on the Houma Navigation Canal. The study was conducted under Section 203 of the Water Resources Development Act (WRDA) of 1986 (P.L. 99-662), as amended. The office of the Assistant Secretary of the Army for Civil Works (OASACW) has conducted a concurrent review of this submittal with the Headquarters, U.S. Army Corps of Engineers (Corps) with the purpose of determining federal interest and that the study demonstrates engineering, economic and environmental feasibility that all reports seeking construction authorization must demonstrate.

Based on the results of the review process, the Secretary has made the determination that the project is feasible. As documented in the report, the project is technically sound, and the benefits of the recommended plan outweigh the costs. However, prior to implementation of the project, the Federal government will need to complete the associated environmental compliance activities. Additionally, because LADOTD's recommended mitigation measure for its recommended project requires modifications to another federal project, the non-Federal interest will need to complete the section 408 process prior to construction of LADOTD's recommended project.

Table of Contents

| | |
|---|---|
| Executive Summary | i |
| I. Background..... | 1 |
| II. Louisiana Department of Transportation & Development's Section 203 Recommended Plan..... | 1 |
| A. Location..... | 1 |
| B. Congressional Interest: | 1 |
| C. Senators:..... | 1 |
| D. Problems: | 1 |
| E. Project Objectives: | 1 |
| F. Recommended Plan:..... | 2 |
| G. Price Level: | 2 |
| I. Total Project First Cost..... | 2 |
| J. Benefits:..... | 2 |
| K. Cost Sharing:..... | 2 |
| III. Section 203 Review Assessment Summary..... | 3 |
| A. Feasibility determination (Whether the project is feasible (i.e. technically sound, economically justified and environmentally compliant)?..... | 3 |
| B. Recommendations concerning the plan or design of the proposed project..... | 3 |
| C. Identify any conditions required for construction of the project..... | 3 |
| IV. Review History and Findings..... | 3 |

I. Background

Louisiana Department of Transportation & Development (LADOTD) conducted a feasibility study to address navigation improvements on the Houma Navigation Canal (HNC). The study was conducted under Section 203 of the Water Resources Development Act (WRDA) of 1986 (P.L. 99-662), as amended. The office of the Assistant Secretary of the Army for Civil Works (OASACW) conducted a concurrent review of the submittal with the Headquarters, U.S. Army Corps of Engineers (Corps, also referred to as USACE) with the purpose of determining federal interest and that the study demonstrates engineering, economic and environmental feasibility that all reports seeking construction authorization must demonstrate.

This Review Assessment provides the results of the Washington-level review. This review has been conducted to determine whether the study and the process under which the study was developed, each comply with Federal laws and regulations; a determination of whether the project is feasible; and identification of any conditions that the Secretary may require for construction of the project.

II. Louisiana Department of Transportation & Development's Section 203 Recommended Plan

This section provides a summary of the recommended project, as contained within the Houma Navigation Canal Deepening Project, Section 203 Integrated Feasibility Report and DRAFT Environmental Impact Statement (June 2018).

A. Location: The Houma Navigation Canal (HNC) is a Federally maintained waterway that connects the Gulf Intracoastal Waterway (GIWW) in Houma with the Gulf of Mexico (Gulf). The HNC Channel is located in south-central Terrebonne Parish, approximately 50 miles southwest of New Orleans. The project area is within the Barataria-Terrebonne National Estuary, one of the most expansive and productive estuaries in the United States.

B. Congressional Interest: Steve Scalise (LA-1) and Garret Graves (LA-6)

C. Senators: Bill Cassidy and John Kennedy (Louisiana)

D. Problems: The Louisiana Department of Transportation & Development conducted this study to investigate navigation improvements on the Houma Navigation Canal (HNC). The current channel depth causes marine interests to use less efficient methods to service the offshore oil and gas facilities located in the Gulf of Mexico

E. Project Objectives:

- Improve HNC Channel to support larger vessels providing support service to Gulf of Mexico oil and gas production facilities;

- Provide transportation cost savings to the shipping industry that utilizes the HNC Channel;
- Increase channel depth sustainability over the 100-year period of evaluation; and
- Reasonably maximize beneficial use of dredged material disposal.

F. Recommended Plan:

The Recommended Plan, which is the national economic development plan, consists of deepening the HNC channel to -20 (North American Vertical Datum of 1988) feet compared to the currently authorized channel depth of -15 feet. The plan also provides for the construction of rock foreshore protection and retention dikes for channel bank erosion control, reduction of sedimentation in the channel, and for retention of dredged material. The disposal plan provides for beneficial use of dredged material by placing material in locations and quantities with earthen containment structures to restore wetland habitats.

G. Price Level: October 2017

H. Interest Rate: 2.75%

I. Total Project First Cost: The first cost of the Recommended Plan is estimated at \$253,458,000 (2018 price levels), which equates to an estimated annualized first cost of \$12,521,700. The cost of operation, maintenance, repair, replacement and rehabilitation (OMRR&R) is estimated at \$1,354,100 annually. Adding the annualized first cost to the annual OMRR&R cost results in an estimated average annual cost of \$13,875,800.

J. Benefits: Deepening the HNC channel to -20 feet would achieve transportation cost savings from more efficient transportation. The Recommended Plan would also provide benefits by allowing fabrication industries along the HNC channel to be competitive in responding to contract solicitations calling for fully integrated offshore platforms. Benefits, in the form of transportation savings, are estimated at \$42,439,900, yielding net benefits of \$28,564,100 and a benefit to cost ratio of 3.06 to 1.

K. Cost Sharing: The project cost sharing will be determined in accordance with section 101 of the Water Resources Development Act of 1986, as amended.

III. Section 203 Review Assessment Summary

In accordance with section 203 of WRDA 1986, as amended, the Secretary is required to provide a report to Congress that describes the following:

A. Feasibility determination (Whether the project is feasible (i.e. technically sound, economically justified and environmentally compliant)?

The Secretary has determined that the recommended plan is feasible. As documented in the Feasibility Report, the project is technically sound, and the benefits of the recommended plan outweigh the costs. However, prior to implementation of the project, the Federal government will need to complete the associated environmental compliance activities.

B. Recommendations concerning the plan or design of the proposed project.

The majority of concerns with the plan and design of the project, as documented within this Review Assessment, have been resolved. Concerns requiring further action, should the recommended plan be authorized, are related to local service facilities, real estate, and environmental compliance.

C. Identify any conditions required for construction of the project.

Conditions for construction of the project include completion of NEPA and environmental compliance activities. Additionally, the non-Federal interest will need to complete the section 408 process for modifications to the Houma Lock facilities prior to construction of the proposed project.

IV. Review History and Findings

Two Washington-level review cycles were conducted for the study. The initial review was conducted for the November 2017 Feasibility Report submittal and the second was for the revised Feasibility Report, dated June 2018. The following section documents the issue resolution process from those reviews.

General Comments

1. Feasibility of the Recommended Plan. The plan is dependent on the Houma Navigation Lock Complex evaluated and recommended in the Morganza to the Gulf (M2G) PACR/PEIS and Chiefs Report 2014. This feature was authorized to provide coastal storm risk reduction with the understanding that it could be modified to accommodate the Houma navigation channel deepening with modifications funded by the local sponsor for the Houma navigation channel. The Section 203 Houma Navigation Canal Report adopts the Morganza Environmental Impact Statement (EIS) and then describes dependencies on the completion of that project feature prior to construction of the navigation deepening to manage environmental salinity impacts.

Due to these impacts, the implementation assumption states that the deepening would not start until the gate was completed. Yet in Chapter 4, the implementation is planned for 2020-2025 with construction completion in 2025. It is unlikely that the \$10.3B M2G will initiate the Houma Navigation Lock Complex within this timeframe. If the Houma Navigation deepening needs to occur within this timeframe, the Section 203 report must address the economics of constructing the navigation deepening project in the absence of the M2G Houma Navigation Lock Complex.

Basis of the Concern. ER 1105-2-100 habitat mitigation requirements need to be efficient and implementable and most likely FWOP setting for baseline of the plan formulation.

Significance of the Concern. Without the Houma Navigation lock constructed, the project may not be feasible due to the significance of salinity impacts and the inability to establish alternative mitigation strategies.

Action needed to resolve the concern. Additional implementation strategies between the two projects need to be developed to insure that the environmental mitigation is feasible. Further description on how the two sponsors will coordinate construction and a coordinated implementation schedule should be developed. The feasibility of a joint multipurpose operation plan should be described to support the multipurpose operations. If the navigation project does construct the HNC locks, then a separable costs-remaining benefits method (SC-RB) of cost allocation analysis should be prepared to allocate costs and benefits between the two projects.

LADOTD Response: Initially this Report did adopt the Morganza EIS and then described dependencies on the completion of that project feature prior to construction of the navigation deepening to manage environmental salinity impacts. However, this link has been changed since the writing of the report. The Coastal Protection and Restoration Authority (CPRA) of the State of Louisiana received full funding to design and build the HNC Lock. Therefore, construction of the lock is being pursued by the State of Louisiana independently and all required permits have already been submitted and are close to approval. All references in the report linking the deepening efforts to the Lock and associated EIS for the Morganza to the Gulf project will be removed. The following will be inserted for clarity:

"The Louisiana Coastal Protection and Restoration Authority (CPRA) initiated their own plans to design and construct the HNC lock complex in 2016. Their intent is to further the progress of the Morganza to the Gulf project. A permit is being processed by the U.S. Army Corps of Engineers, New Orleans District for construction of the lock by the State of Louisiana at their own expense. Pending approval of the permit, construction is scheduled to begin in 2019."

Also, there appears to be some confusion about what "HNC" is. HNC is an acronym for the name of the waterway. When used alone, it refers to the channel. When

referring to the Lock, HNC will always be followed by the word "Lock". Therefore, the report has been edited to have "Lock" or "Channel" follows the term HNC.

The deepening project is not contributing to the construction cost of the lock. The State is paying for it in full as indicated in the inserted language mentioned above. Therefore, the referenced SC-RB analysis would not be applicable. It should also be noted that the local stakeholders were adamant about wanting the lock in place before any construction on the deepening commenced. This study was formulated accordingly. That is the only link between this project and the lock aside from operations of the lock for salinity.

The operational plans for the permitted lock will be the same as for the lock outlined in the Morganza to the Gulf project. Those operational plans are described in Section 4.10.2. These operational plans fully address the saltwater prevention measures needed for the deepening of the channel. It is worth noting that the ultimate operator of the lock will be the local Parish officials who are the same stakeholders who want the lock in place before deepening of the Channel. Therefore, coordination between two sponsors is a non-issue. A letter from the Parish Levee and Conservation District has been provided (Appendix A – Annex XI) committing to the operation of the lock to support prevention measures for salinity intrusion. Regardless, the operation plans for the lock align with what is needed for the deepening project.

Additional language will be added to the Real Estate Plan, describing the real estate rights to be used and acquired by the Terrebonne Conservation and Levee District during construction of the Houma Lock Complex.

Discussion: We need to determine within the present study phase whether the HNC will be a feature of the recommended plan for new authorization in order to properly describe to Congress the scope, cost etc. of the plan. If the Houma navigation project includes the HNC and can justify the costs of the HNC, then no SC-RB analysis is needed. If it is being constructed under Morganza to the Gulf, a SC-RB analysis would be needed to complete the formulation because both projects would be paying for the HNC and there are separable benefits for navigation and for costal storm risk reduction.

OASACW/HQUSACE Assessment: Clarification on which authority the HNC will be constructed under and who will pay is needed to determine the allocation of costs that could impact the total project cost of the recommended plan. Comment may be resolved pending back-check of modified sections of the report.

OASACW/HQUSACE Final Assessment: Further action required prior to implementation. The Non-Federal Sponsor will need to comply with the policy and procedures for modifications and alterations to USACE federally authorized Civil Works projects in accordance with 33 USC 408 (Section 408). The 408 process evaluating the modification of the Houma Lock facilities must be completed in order to implement the deepening project.

2. Incomplete technical review documentation. In general the documentation does not meet the standards employed by the Corps for Agency Technical Review (ATR).

Basis of concern: Per ER 1165-2-209, App B, par j, the non-Federal interests “must certify the quality and technical accuracy of the feasibility study” by “documenting the quality control, quality assurance, and technical reviews that were conducted... In addition, the study must meet the requirements for independent peer review”. While the technical certification was included in Appendix O, a substantial number of technical comments were not closed out because they were not back-checked. Quality control documentation should either reflect closed comments (as addressed within the associated report) or provide an issue evaluation resolution to address the unresolved (unclosed) comments. It is not clear if the comments remain unresolved or if they would impact the overall plan selection.

Significance of concern: High. Without adequate documentation the Review Team is unable to attest to or support the technical quality of the report (including cost).

Action needed to resolve concern: Sponsor should include full documentation of concerns raised by the review and how they were resolved and close them out with the back check of the Final Report.

LADOTD Response: A more thorough description of how ATR comments were addressed (without backcheck) will be provided. A complete list of the ATR and CostDX comments, along with a description of how and where the comments were addressed will be added to Appendix O. GEC's QA/QC plan is also included in this appendix. Once completed, the modified sections will be provided to ASA for review.

OASACW/HQUSACE Assessment: Response adequate. Comment may be resolved pending back-check of modified sections of the report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

Economics

1. Base Plan: The report does not clearly lay out the base plan for disposal of Houma Navigation Canal sediments under the with or without project conditions. In addition, it is unclear as to how the various beneficial use sites were evaluated/justified. While environmental outputs were determined, there does not appear to be any cost effectiveness/incremental cost analysis (CE/ICA) to provide justification of the sites selected.

Basis of Concern: Per Paragraph E-15a.(3) of Appendix E of ER 1105-2-100 “it is the Corps of Engineers policy to accomplish the disposal of dredged material associated with the construction or maintenance dredging of navigation projects in the least costly manner. Disposal is to be consistent with sound engineering practice and meet all Federal environmental standards including the environmental standards established by

Section 404 of the Clean Water Act of 1972 or Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972, as amended”.

Significance of Concern: High

Action Needed to Resolve Concern: Clearly outline the base plan for disposal of the dredged material, including costs for the future with and without project conditions. Provide additional discussion as to how the disposal sites were evaluated, the comparison of costs/benefits to the base plan, and any impacts to cost sharing that may occur due to selection of a plan more costly than the base plan.

LADOTD Response: Language will be added to Section 4.4.3 and 4.4.4 (Dredged Material Information, by Alternative) of the report, specifying that the disposal plan that is applied for the No-Action Plan represents the Federal Standard for disposal of material within the study area. Once completed, the modified sections will be provided to ASA for review.

OASACW/HQUSACE Assessment: Unclear if this response is adequate. Need to review modified text to determine adequacy.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

2. CAP Limits: The CAP limits as described in Sections 1.1.7 -10 of the main report are no longer current.

Basis of Concern: Per Section 1030 of the Water Resources Reform and Development Act of 2014, the per project limits for Sections 204, 206, and 1135 are now \$10M.

Significance of Concern: Low

Action Needed to Resolve Concern: Revise Sections 1.1.7 -10 to reflect the current CAP limits.

LADOTD Response: The CAP limits presented in Section 1.1.7 will be increased to \$10 Million

OASACW/HQUSACE Assessment: Response is adequate to resolve the concern.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

3. Discount Rate/Price Levels: The report presents project costs for the recommended plan in Fiscal Year (FY) 2017 price levels and uses the FY17 discount rate of 2.875%. While it is acceptable to present the costs and benefits of the analysis using these prices levels, the recommended plan should be presented in current (FY18) dollars. In

addition, the FY 16 discount rate is utilized but is incorrectly listed as being 3.979 percent.

Basis of the Concern: Per the Director of Civil Works (DCW) Memorandum signed by DCW Stockton on August 25, 2011, "Constant Dollar Cost at current price levels is the cost estimate used in feasibility reports and Chief's Reports". Per EGM 18-01, the FY 18 Federal discount rate is 2.75%. Per EGM 16-01, the FY 16 discount rate is 3.125%

Significance of Concern: Medium

Action Needed to Resolve Concern: Ensure that the final report submission presents all costs for the recommended plan in current FY dollars and utilizing the current (FY18) discount rate. For other fiscal years, ensure that the discount rate is appropriate for that year. In all cases it should be clear what price levels are being used.

LADOTD Response: Most of the costs provided were developed for FY '18, but were mislabeled. The references will be corrected. Other costs will be updated to FY '18, as needed. Benefits will be updated throughout the report with a FY '18 discount rate of 2.75%, as well as 7%.

OASACW/HQUSACE Assessment: Response is adequate pending back-check of the revised report. Calculations at the 7% price level/discount rate are not required in the report, rather they should be provided separately to facilitate discussions with the Office of Management & Budget during their review.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

4. Alternative 1A: The text in Section 4.6.4 incorrectly states that alternative 1A is marginally unjustified.

Basis for Concern: Per Table 4-19, Alternative 1A provides a benefit to cost ratio of 1.19 and is thus economically justified.

Significance of Concern: Low

Action Needed to Resolve Concern: Revise the text in Section 4.6.4 to indicate that Alternative 1A is economically justified.

LADOTD Response: The language will be modified in Section 4.6.4 to state that Alternative 1A is economically justified.

OASACW/HQUSACE Assessment: Response is adequate to resolve the concern.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

5. OMRR&R: The discussion of OMRR&R presented in Section 4.9.2 of the main report includes references to Sections 4.5.3 and 4.5.5. However, neither of these sections exist in the main report

Basis of Concern: Referenced sections do not exist.

Significance of Concern: Low

Action Needed to Resolve Concern: Revise Section 4.9.2 of the main report such that references to other sections are correct.

LADOTD Response: The referenced sections will be modified to be Section 4.4.3.1 and 4.4.4, within Section 4.9.2

OASACW/HQUSACE Assessment: Response is adequate to resolve the concern.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

6. Conversion to Average Annual Values: Much of the Economic Appendix and Sections of the main report present project benefits in net present value (NPV) rather than average annual values. This results in some confusion when comparing project costs and benefits. For example, it is extremely difficult to understand how the net benefits and benefit to cost ratios presented in Table 4-24 are actually determined due to the use of a combination of average annual and NPV dollars.

Basis of Concern: Per Section 1.7.1 (h) of the 1983 Principles and Guidelines, "Monetary values are to be expressed in average annual equivalents by appropriate discounting and annualizing techniques using the applicable discount rate.

Significance of Concern: Low

Action Needed to Resolve Concern: Revise the text such that dollar and costs are presented in average annual terms, including Table 4-24.

LADOTD Response: The tables as presented show average annual costs and average annual benefits such as Table 4-24. Table 4-24 is taken from the first column of Table 4-19. Both of these tables have entries for average annual values. In Table 4-24 the entries are expressed as "Total Average Annual Benefits" and "Total Average Annual Cost". These entries correspond to Table 4-19 entries of "AAEC" and "AAEB". There is a note to Table 4-19 that expresses how the AAEC and AAEB values are calculated by the appropriate annualization factor for discount rate of 3.125 percent for a fifty year period. These notes will be copied from Table 4-19 to Table 4-24. Similarly, the text will be revised to make reference to average annual values.

OASACW/HQUSACE Assessment: Response adequate. Comment will be resolved pending back-check of the report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

7. Local Service Facilities/Associated Costs: It is unclear as to what associated costs are included in Table 4-26. While this discussion is included in Section 4.9, including a value in the table results in some confusion without a description of what those costs include. Additionally, there appears to be a discrepancy in the value of associated costs between Table 4-26 and 4-34. Lastly, it is unclear as to when the local service facilities are expected to be constructed. Since they appear to be necessary for the project benefits to be realized, these local service facilities will need to be constructed prior to project completion.

Basis of Concern: Per Section 3-2b.9 of ER 1105-2-100, "Local Service Facilities are the responsibility of non-Federal entities and shall be required as part of the cooperation agreements if they are necessary for project benefits to accrue."

Significance of Concern: Medium

Action Needed to Resolve Concern: Provide discussion of the associated costs prior to their being displayed in Table 4-26 and provide additional clarification as to the discrepancy between the values presented in Table 4-26 and 4-34. Provide additional clarification as to when the local service facilities are expected to be constructed.

LADOTD Response: Additional language will be added to section 4.7.4 describing the purpose and timing of the construction of Local Service Facilities. The cost presented in Table 4-34 will be updated in Table 4-26. Once completed, the modified sections will be provided to ASA for review.

OASACW/HQUSACE Assessment: Response adequate. Comment may be resolved pending back-check of modified sections of the report.

OASACW/HQUSACE Final Assessment: Further action required, prior to implementation, to develop an estimated schedule for the construction of local service facilities, and calculation of "Total Project Costs" as limited to shared GNF project costs, excluding LERR and local service facilities (as distinct from economic costs, which include these items).

8. Economic Costs: It is unclear as to what costs are considered in the presentation of the NED Plan as shown in Table 4-24. In addition to the construction costs, the economic analysis should include costs such as interest during construction, LERRs, O&M, mitigation, planning engineering and design, and construction management. In addition, the text in Section 4.6.9 indicates that the cost estimates are based on April 2014 price levels adjusted by an escalation factor to the midpoint of the projected

schedule for the construction contracts as opposed to the project first cost (constant dollar cost).

Basis of Concern: Per Section 4.a.ii of the August 25, 2011 memo signed by Director of Civil Works, "Constant Dollar Cost (Price Level) is the Estimated Cost BROUGHT TO THE EFFECTIVE PRICE LEVEL. The effective price level for Constant Dollar Cost (shown in MONTH YYYY format) is the date of the common point in time of the pricing used in the cost estimate. Constant Dollar Cost does not include inflation. Constant Dollar Cost at current price levels is the cost estimate used in feasibility reports and Chief's Reports". Per Section 4.b of the memo "Economic (NED) Cost is the monetary equivalent cost used by the economist in determining the benefit-to-cost ratio (BCR). The Economic Cost includes all of the opportunity costs, both explicit (out of pocket to realize project benefits) and implicit (noncash), of using the resource and is expressed in average annual equivalent terms. The Economic Cost should not be confused with the Financial Cost and should be clearly and separately described in reports. See the enclosed tables for more detail of what is or is not included in the Economic Cost."

Significance of Concern: Medium

Action Needed to Resolve Concern: Provide additional clarification as to what costs are included in Table 4-24 and confirm that all costs such as O&M, IDC, Local Service Facilities, Mitigation, Planning Engineering and Design and Construction Management are included. Ensure that the costs are constant dollar costs.

LADOTD Response: The requested costs will be provided in Table 4-24 at the updated price levels and discount rates. Cost will be shown in the appropriate Code of Accounts format. Once completed, the modified sections will be provided to ASA for review.

OASACW/HQUSACE Assessment: Response adequate. Comment may be resolved pending back-check of modified sections of the report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

9. Sea Level Rise Guidance: The report contains multiple incorrect references to EC 1100-2-8162 when discussing sea level rise.

Basis of Concern: ER 1100-2-8162 is the correct piece of guidance to use when discussing sea level rise.

Significance of Concern: Low

Action Needed to Resolve Concern: Revise the text throughout the report (including Sections 4.10.1 and 4.10.2) such that the correct reference to ER 1100-2-8162 is made.

LADOTD Response: All references to EC 1100-2-8162 will be modified to ER 1100-2-8162 throughout the report

OASACW/HQUSACE Assessment: Response is adequate. Comment will be resolved pending back-check of the revised report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

10. Cost Sharing: The cost sharing displayed in Table 4-26 differs from what is presented in Section 9.3 of the main report.

Basis of Concern: It is unclear as to why there is a discrepancy between what is presented in Table 4-26 and what is presented in Section 9.3.

Significance of Concern: Medium

Action Needed to Resolve Concern: Provide clarification as to why there is a discrepancy between Table 4-26 and Section 9.3 or revise the report accordingly.

LADOTD Response: Table 4-26 and Section 9.3 will be updated to present the same First Costs at a 90/10 cost share.

OASACW/HQUSACE Assessment: Response adequate. Comment will be resolved pending back-check of the revised report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

11. Future Without Project Condition Oil and Gas Development: It appears that the projections for future oil and gas development as presented in the Economic Appendix are highly speculative and based on projections that are almost a decade old (2009). As a result, it is difficult to fully understand the future without project conditions which ultimately drive the project benefits.

Basis for Concern: Per Section 2-3 of ER 1105-2-100, "the existing and future without project conditions are the basis by which plans are developed and evaluated and impacts are assessed." As a result, it imperative that the existing and future without project conditions be fully characterized so that the effects of the proposed alternatives can be fully analyzed.

Significance of Concern: Medium

Action Needed to Resolve Concern: Provide further discussion as to whether more recent projections are available and whether the projections used in the analysis remain

valid. Provide further discussion as to how project benefits may be affected if the Gulf of Mexico Oil and Gas development does not occur as expected.

LADOTD Response: Additional discussion will be provided about more recent projections and whether projections used in the report remain valid as well as how project benefits may be affected if Gulf of Mexico Oil and Gas development does not occur as expected. Once completed, the modified sections will be provided to ASA for review.

OASACW/HQUSACE Assessment: Response adequate. Comment may be resolved pending back-check of modified sections of the report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

12. Vessel Operating Costs: Much of the information regarding the vessel operating costs appears to come from survey results conducted with shippers. However, it is unclear as to how reliable these costs are as it is likely that shippers would have an incentive to overstate the additional traffic that would occur with project implementation. As a result, the vessel operating costs and additional trips can easily be called into question which would affect the with and without project conditions and resulting project benefits.

Basis of Concern: Per Section 2-4bii of ER 1105-2-100, "The with-project condition is the most likely condition expected to exist in the future with the implementation of a particular water resources development project. Comparison of conditions with the project to conditions without the project will be performed to identify the beneficial and adverse effects of the proposed plans. These with and without-project comparisons provide the framework for the evaluation of alternative plans." As a result, it is critical that the assumptions associated with the future with project condition are clearly documented and defensible.

Significance of Concern: High

Action Needed to Resolve Concern: Provide additional information regarding the survey population including number of respondents and standard deviations associated with the values provided. In addition, a sensitivity analysis displaying how project benefits change due to varying operating costs would strengthen the case for utilizing the survey response data.

LADOTD Response: Language will be added to Appendix D (Economics) providing a description of how the design vessel was chosen. A sensitivity analysis will be provided to show the range of possible outcomes associated with choosing different design vessels. Discussion will be included that identifies the sources of the vessel operating costs and the reliability thereof, including sensitivity. If the vessel operating costs are increased or decreased by ten percent then project benefits arising there from will

likewise increase or decrease accordingly. Therefore, the sensitivity of project benefits to changes in vessel operating costs as part of sensitivity analyses thereof would have to fairly significant such as plus or minus 50 percent to have a significant effect on benefits. Once completed, the modified sections will be provided to ASA for review.

OASACW/HQUSACE Assessment: Response adequate. Comment may be resolved pending back-check of modified sections of the report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

13. Future Deepwater Marine Risers: The discussion of deeper loadings in Section V of the Economic Appendix indicates that the market for deepwater marine risers at Houma ceased after Hurricane Katrina in part because of the expense of shipping by truck and asserts that the market will return post project construction. However, it is unclear as to whether there may have been other factors that lead to the collapse of the industry that could impact the likelihood of return post project construction. Without this information, it is unclear as to whether the future with project conditions and associated benefits have been accurately determined.

Basis of Concern: Per Section 2-4bii of ER 1105-2-100, "The with-project condition is the most likely condition expected to exist in the future with the implementation of a particular water resources development project. Comparison of conditions with the project to conditions without the project will be performed to identify the beneficial and adverse effects of the proposed plans. These with and without-project comparisons provide the framework for the evaluation of alternative plans." As a result, it is critical that the assumptions associated with the future with project condition are clearly documented and defensible.

Significance of Concern: Medium

Action Needed to Resolve Concern: Provide further clarification as to whether there were other factors other than the cost of shipping via truck that lead to the crash of the market at Houma/Fourchon and how this would impact the assumptions regarding the future with and without project conditions.

LADOTD Response: Further information will be provided as to whether there were other factors other than the cost of shipping by truck that led to the crash of the market at Houma/Fourchon and how this would impact the assumptions regarding the future with and without project conditions. Once completed, the modified sections will be provided to ASA for review.

OASACW/HQUSACE Assessment: Response adequate. Comment may be resolved pending back-check of modified sections of the report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

14. Fabrication Benefits at 7% Discount Rate: It is unclear as to why the benefits due to transportation cost savings are reduced to almost 50% when evaluated at the 7% discount rate whereas fabrication benefits are reduced by only 10%.

Basis for Concern: Due to the decline in fabrication activities in the future, it is unclear as to why a higher discount rate would have a minimal impact on project benefits.

Significance of Concern: Low

Action Needed to Resolve Concern: Provide additional discussion as to why fabrication benefits are affected only minimally by a 7% discount rate.

LADOTD Response: Additional discussion will be provided as to why fabrication benefits are affected only minimally by a 7% discount rate. Once completed, the modified sections will be provided to ASA for review.

OASACW/HQUSACE Assessment: Response adequate. Comment may be resolved pending back-check of modified sections of the report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

15. Sensitive Information:

Basis for Concern: The economics appendix includes detailed information that appears to be specific to individual firms. This information could disclose sensitive information about the operation of individual firms.

Significance of Concern: Low

Action Needed to Resolve Concern: Care should be taken when discussing information that relates to data for individual firms. Review the appendix and aggregate data where necessary to protect sensitive information about individual firms.

LADOTD Response: The appendix will be reviewed and data aggregated where necessary to protect sensitive information about individual firms.

OASACW/HQUSACE Assessment: Response adequate. Comment will be resolved pending back-check of the revised report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

Engineering

1. Project Life Period of Analysis. Although the economic analysis is conducted using a 50 year period of analysis, extended timeframes are typically used when considering life cycle design and performance. Design engineers use life cycle design as the basis for selection of all project elements such as materials, structural systems, mechanical equipment, and scour protection on all projects. These design decisions will be consistent throughout all project phases and will be based on a minimum project service life of 100 years for major infrastructure projects such as locks, dams, and levees. The main report and associated engineering appendix denotes that period of analysis is established at 50 years. Similarly, projections for impacts as a result of sea level change should also consider the 100 year projections.

Significance of Concern. Medium to High

Basis of Concern. Compliance with USACE Guidance.

Action needed to resolve concern. Care must be taken to differentiate project service life and period of analysis. However, project service life established within ER 1110-2-8159 indicates that the minimum project life for major infrastructure is 100 years for projects such as locks, dams and levees. Given this guidance and consideration of the saline environment, all analyses, to include all costs for associated repairs and maintenance should be based on a 100 year period of analysis while in operation.

LADOTD Response: The language in Sections 4.8 (Environmental Considerations) and Section 4.10 (Risk and Uncertainties) will be provided to describe the impacts relative sea level rise (RSLR) would have over 100 years for project features such as dredging, disposal, and lock operation. The risks associated with the long-term impacts of RSLR will also be provided to allow for future adaptive management of the project. Once completed, the modified sections will be provided to ASA for review.

OASACW/HQUSACE Assessment: Response adequate. Comment will be resolved pending back-check of modified sections of the report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

2. Salinity Modeling and Associated Mitigation. The engineering appendix discussed a great deal of uncertainty associated with the numerical modeling for salinity and denoted the increased levels of salinity given the incremental depths proposed in the alternatives. The report goes on to discuss potential mitigation measures (mainly operational) that could be employed to reduce the increased salinity. To what degree, if any, can these large uncertainties be lessened and would that lessening have any impact on the plan selection? To what degree, if any, was there consideration given to the long-term increases in salinity due to natural processes (i.e., sea level change) in comparison to that experienced through deepening? Is there any potential that the natural effects from sea level change may naturally offset impacts from the deepening? If not, what other considerations were given to lessen the impacts of the salinity increase other than pure operational (i.e., low level salinity barriers, etc....)?

Significance of Concern. High

Basis of Concern. Acceptability of the alternatives under consideration (environmental principles).

Action needed to resolve concern. The impacts associated with the increased salinity could be rather substantial and the associated mitigation for such increases could be detrimental and costly over the long-term of the project life. It would be essential to understand if these increases in salinity would be viewed as extensive when comparing the deepening alternative to back-ground expectancies from natural processes (i.e., sea level change). Additional analyses should be explored to assess the full impacts of this documented uncertainty and what impacts, if any, that the uncertainty would have on plan selection and/or associated mitigation.

LADOTD Response: Salinity modeling results from the MTG project, along with the findings of this project, will be evaluated to provide the range of salinity-related impacts that could occur over the 100-year period of evaluation. This would include a brief sensitivity analysis of the potential salinity levels that would occur under specific RSLR scenarios over a 100-year period. The effects of salinity on the operation of the lock

and its impact on navigation will be discussed. Once completed, the modified sections will be provided to ASA for review.

OASACW/HQUSACE Assessment: Response adequate. Comment may be resolved pending back-check of modified sections of the report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

3. Areas of Unresolved Controversy. There is mention in the main report and supporting documents that a major item of concern is the HNC Lock construction and the assumption that the HNC lock complex will be constructed prior to the requested deepening authorization. If that is the case, the low lock sill elevation would be preventing passage of deeper draft vessels. There is also mention in the report that the non-Federal sponsor would be open to pay the incremental difference for all costs associated with deepening the low sill elevation of the HNC lock complex. It was not apparent within the Engineering Appendix or Cost Appendix what these incremental costs would be; however, the more pressing decision would be on the decisions to deepen or not deepen the low sill of the HNC lock complex. It is not apparent how the non-Federal sponsor would pursue a next course of action. Over-all effectiveness of the deepening depends on the low sill elevation of the HNC lock complex.

Significance of Concern. High

Basis of Concern. Completeness of the Alternatives.

Action needed to resolve concern. It would be necessary to present a course of action to address the areas of unresolved controversy with respect to the HNC lock complex in order to fully justify the benefits (or the overall viability) of the alternatives presented.

LADOTD Response: Additional language will be added to the Executive Summary, Sections 1 through 9 and Appendix A, specifying that funding for design of the lock complex has been obtained. An update on the construction schedule and the pending permit application will also be provided. Once completed, the modified sections will be provided to ASA for review.

OASACW/HQUSACE Assessment: Response adequate. Comment may be resolved pending back-check of modified sections of the report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

4. Cost Accounts: The real estate plan states that total real estate costs are \$12,843,000. (See Baseline Costs Estimate Section, Page C-5) and the Chart of Accounts appendix to the Real Estate Plan. The Cost Estimate shows \$44,797,000 in relocations (02 Account) costs. In addition, the Executive Summary, page ES-iv, states

in the Mitigation Section, in part: "Impacts to fresh marsh would be mitigated through the creation of freshwater marsh habitat in some of the Inland Reach disposal areas.", yet no lands costs appear to be costed to the 06 Mitigation Account. In addition, the cost estimate shows a 90-10 cost sharing, while the LERRs alone would exceed 10 percent of project cost. Finally, note that the report and REP refer to LERRDs, for this navigation project, the reference should be to LERRs.

Basis of the Concern: Relocation costs are part of LERR. See WRDA 1986, ER 405-1-12, Chapter 12, and cost guidance. Lands required for mitigation purposes are to be costed to 06 Mitigation. See CECW-P/CECC-G Memorandum, Cost Sharing for Lands Associated with Fish and Wildlife Mitigation, 19 September 2006.

Significance of the Concern: High. Accurate costing is essential to water projects.

Action needed to resolve concern: The cost breakdown be amended in accordance with the law, regulations and policy.

LADOTD Response: It is unclear why the references to LERRDs need to be modified to LERR outside of Sections 4.7.4 and 9.3 (such as in the RE Plan). The project involves disposal of dredged material, which will be handled by the non-Federal Sponsor (NFS). Portions of the report that refer to credits or the NFS cost share will use the LERR acronym. All other portions of the report will still refer to LERRDs. Mitigation costs will be separated out in the cost estimates as a 06 Account. Relocation costs will be included in all presented Real Estate costs, including in Section 4.7.5 (Real Estate) and in the Real Estate Plan.

OASACW/HQUSACE Assessment: Response adequate. The report needs to distinguish the difference between LERR versus LERRDS with respect to crediting. Comment may be resolved pending back-check of modified sections of the report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

Environmental

1. Planning objectives, Section 2.3: The planning objectives in Section 2.3 of the report are vague and do not incorporate specific or measureable outputs, such as duration of the outputs or desired levels of improvement. In addition, the last two objectives, while described in terms of ecosystem restoration, would appear to be better characterized as ways to dispose of dredged material in an environmentally acceptable manner (i.e., beneficial use).

Basis for the concern: As discussed in the Planning Manual (IWR Report 96-R-1) and ER-1105-2-100 (Section 2-3a4), objectives should address specific measureable elements of the plan to the extent possible in order to provide the basis for the plan formulation process.

- Objective 1 as written, provide increased efficiency, could be satisfied by either the -18 or -20 foot plans discussed in the report.
- Objective 2, preserve and enhance opportunities for fabrication, does not appear to be a measurable objective because the baseline for this objective is not provided in the report and neither term is defined.
- Objectives 3 and 4 are not true objectives given that the degree and extent of these features are not independently formulated as factors to consider in the planning process, but are driven by the amount of dredged material produced by the proposed channel improvements. The purpose of the study is to improve the channel as discussed in Section 1.2.1 of the report, not improve the ecosystem.

Significance of the concern: High. The objectives as written do not reflect the purpose of the study or provide a meaningful description of the desired outputs of the plan formulation efforts.

Action needed to resolve concern: Develop objectives that better reflect the purpose of the, e.g., improve the navigation channel to support larger vessels providing support services to Gulf of Mexico oil production facilities, and reasonably maximize beneficial use of dredged material.

LADOTD Response: The planning objectives will be modified to provide measurable objectives that can be directly compared. Once completed, the modified sections will be provided to ASA for review.

OASACW/HQUSACE Assessment: Response adequate. Comment will be resolved pending back-check of modified sections of the report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

2. Management measures, Section 4.3.2: The management measures in Section 4.3.2 do not reflect Objectives 3 and 4 in Section 2.

Basis for the concern: The foreshore protection and bank stabilization measures that relate to Objective 3 address these features as mitigation actions for navigation-induced damages to the banks of the canal, while the measures that relate to Objective 4 characterize these features as beneficial use of dredged material as an alternative to existing disposal sites.

Significance of the concern: Medium

Action needed to resolve concern: Review report to reconcile any conflicts between the planning objectives and management measures.

LADOTD Response: Sections 4.3 (Management Measures) and 2.3 (Planning Objectives) will be modified based on the updated objectives with the appropriate links

between the measures and the objective they achieve. Once completed, the modified sections will be provided to ASA for review.

OASACW/HQUSACE Assessment: Response adequate. Comment may be resolved pending back-check of modified sections of the report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

3. Use of navigation servitude, Section 4.7.5: Report says that navigation servitude will be invoked for the proposed project.

Basis for the concern: The exercise of navigation servitude is a federal responsibility, and the report should be clear about how servitude would be invoked, given that the non-federal party does not have such authority.

Significance of the concern: Medium.

Action needed to resolve concern: Revise report to state that the Federal government would have the ability to exercise navigation servitude on behalf of the project sponsors after the Section 203 report has been authorized by Congress.

LADOTD Response: Since this project is being proposed as a Federal project to be constructed by the Corps of Engineers under Section 203 authority, it is appropriate for the Navigation Servitude to be invoked. It would NOT be invoked by the Non-Federal sponsor. We will revise Section 4.7.5 to indicate that the Corps of Engineers, New Orleans District will exercise their rights to invoke a Navigational Servitude.

Discussion: If LADOTD wants to be empowered with the navigation servitude when constructing the project, they'll have to seek specific authorization from Congress. There's no mechanism for the Corps to exercise it on behalf of the sponsor for dredging associated with construction unless the Corps is carrying out the dredging. Otherwise, any feature that requires navigation servitude would have to be constructed by the Corps as part of a cost shared project.

OASACW/HQUSACE Assessment: Response needs to include the intent on who will exercise the navigation servitude. If it is LADOTD, specific authorization will be required. If the Corps is to construct those features under a PPA (potentially with contributed funds assuming federal dollars have been already appropriated), discuss which features require navigation servitude and under which project authority it will be implemented (ie Morganza to the Gulf (lock) and or new authority under this section 203 recommendation for the navigation features. Comment may be resolved pending back-check of modified sections of the report.

See comment 5 under Real Estate for resolution.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

4. Status of ESA consultation: Section 6.11 of the report does not include the status of consultation with USFWS and NMFS for all the listed species discussed. While Section 6.11.2 states that USFWS has concurred with the BA determinations for piping plover and brown pelican, similar determinations are not provided for the other ESA listed species, including red knot, sea turtles, manatee.

Basis for the concern: Compliance with ESA is not clear.

Significance of the concern: Medium

Action needed to resolve concern: Clarify the status of the consultations with USFWS and NMFS for all listed species.

LADOTD Response: Language in Section 6.11.2 will be modified to state that the Federal agencies agreed with the findings of the BA for ALL T&E species listed.

OASACW/HQUSACE Assessment: Response adequate. Comment will be resolved pending back-check the revised report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

5. Environmental Operating Principles. Section 4.2.5 of the report cites the 2002 EOPs. However, in 2016, the EOPs were re-issued. Suggest the report utilize the current EOP's, which are described at:
<http://www.usace.army.mil/Missions/Environmental/Environmental-Operating-Principles/>

LADOTD Response: The EOPs will be updated in Section 4.2.5

OASACW/HQUSACE Assessment: Response is adequate. Comment will be resolved pending back-check of the final report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

Climate Preparedness

1. General Comments: The project package provides a thorough analysis of dredging, dredged material placement, and beneficial use for conditions that are experienced today. However, given that Louisiana has some of the highest rates of local relative sea level change in the country due to local land subsidence and increases in global sea level, the study must address changing subsidence, sea level, and hydrology over the 100-year engineering life cycle per ER 1110-2-8159 per ER 1100-2-8162, ETL 1100-2-1, and ECB 2016-25. These future without project conditions have the potential to

substantially change the OMRRR costs and NED benefits, and could result in unreliable performance and additional OMRRR activities over both the 50-year period of economic analysis and the 100-yr engineering life cycle. These costs could be well beyond what would be expected in a normal risk-based contingency for costs and schedule, and thus require additional description and a rough order of magnitude estimate of work to be completed under Preconstruction Engineering and Design (PED). Complete plan formulation should account for the known future adaptation costs and real estate now.

LADOTD Response: The potential impacts of RLSR will be evaluated over a 100-year period for with- and without-project conditions and presented in Sections 4.8 (Environmental Considerations) and Section 4.10 (Risk and Uncertainties). Impacts to be discussed include dredging quantities, disposal locations, costs, benefits, and structure operation. A description of how RLSR impacts should be addressed during PED will also be provided. Once completed, the modified sections will be provided to ASA for review.

OASACW/HQUSACE Assessment: Response adequate. Comment may be resolved pending back-check of modified sections of the report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

2. Future Without Project Conditions: The future without project conditions relating to observed and expected changes in sea level and hydrology over the 100-yr engineering life-cycle (per ER 1110-2-8159) are not presented as required by ER (misidentified in the project as EC) 1100-2-8162 and ECB 2106-25 (which superseded ECB 2014-10).

Louisiana experiences some of the highest rates of local relative sea level change (SLC) in the country due to local land subsidence and increases in global sea level. Assessments of the impacts of changing sea levels over the 100-yr project life cycle are required to completely and effectively address how SLC impacts sediment deposition quantities, timing, and location; shoreline erosion; the stability and suitability of created marsh habitat to provided desired ecosystem benefits; frequency, magnitude, and occurrence of saline intrusion; configuration and elevations of disposal retention and foreshore protection dikes; and frequency of operation of the surge gate/lock gates. Furthermore, changes in hydrology could either mitigate or exacerbate saline intrusion and marsh stability, and could also affect operational plans for the gates.

Simply planning to evaluate the sufficiency of design heights for the bank protection structures and marsh areas would be examined during maintenance cycles at years 10, 25, and 40 (and beyond) is not sufficient if the real estate to accommodate these changes has not been identified and purchased, and if the costs have not been included in OMRRR. Similarly, structural and operation changes to the gate structures should plan now for the reasonably expected number of operations in the future, for potential overtopping, and for mitigation of expected inflow during periods of increasing gate closure in the future.

Significance of Concern: High

Basis of Concern: Completeness, effectiveness, efficiency, and acceptability of the alternatives; compliance with USACE Guidance ER 1110-2-8159, ER 1100-2-8162, and ECB 2106-25.

Action Needed to Resolve Concern: Conduct analyses to describe current and future without project conditions related to observed and expected sea level change and hydrology to understand the risks to the effectiveness and completeness of the project and establish the range of impacts that should be considered in structural and operational design.

LADOTD Response: The potential impacts of RLSR will be evaluated over a 100-year period for with- and without-project conditions and presented in Sections 4.8 (Environmental Considerations) and Section 4.10 (Risk and Uncertainties). Impacts to be discussed include dredging quantities, disposal locations, costs, benefits, and structure operation. The potential operational impacts to the lock will be discussed, including a description of the possible outcomes. Once completed, the modified sections will be provided to ASA for review.

OASACW/HQUSACE Assessment: Response adequate. Comment may be resolved pending back-check of modified sections of the report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

3. Areas of Unresolved Controversy: There is no controversy that Louisiana experiences some of the highest rates of local relative SLC in the country due to local land subsidence and increases in global sea level. USACE has developed policy and guidance to allow complete and acceptable analyses of climate change impacts and adaptation, and these are applied to other studies in other locations for a number of years. This policy and guidance should be used to develop effective, complete, and acceptable plans for the rock dikes, containment dikes, and gate operations now, especially where such plans would require future real estate or significant costs, or where reliability is adversely impacted.

Significance of Concern: High

Basis of Concern: Completeness and acceptability of the alternatives.

Action Needed to Resolve the Concern: Conduct analyses to address and resolve the areas identified.

LADOTD Response: The potential impacts of RLSR will be evaluated over a 100-year period for with- and without-project conditions and presented in Sections 4.8

(Environmental Considerations) and Section 4.10 (Risk and Uncertainties). Impacts to be discussed include dredging quantities, disposal locations, costs, benefits, and structure operation. Descriptions of potential real estate and cost impacts will be provided as well. Once completed, the modified sections will be provided to ASA for review.

OASACW/HQUSACE Assessment: Response adequate. Comment may be resolved pending back-check of modified sections of the report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

Real Estate

1. Acquisitions: From the Sponsor Capability Assessments, it is clear none of the proposed sponsors have quick take authority. From the Chart of Accounts in the Real Estate Plan, it appears that no condemnations are anticipated. From the Schedule in the Real Estate Plan, it appears all activities associated with real estate acquisition are to be done by the Corps District, yet there does not appear to be any proposed memorandum of agreement or arrangement for this (Note that any real estate acquisition conducted for a Non-Federal Sponsor must be 100 percent funded by the NFS in advance of the activity. That same schedule shows six months allotted to condemnation (while the Chart of Accounts exhibit to the REP says no condemnations are anticipated). (In addition, note all times listed in that schedule seem VERY optimistic). And the Chart of Accounts does not show any payments to the Government to perform any acquisition activity. Note also the second paragraph of the Local Sponsor Assessment (page C-6 of the REP) implies that USACE acquires the "rights-of-way" being acquired for the deepening of the channel and that the sponsor "would only be responsible for acquiring additional rights-of-way" for future maintenance of the channel, if necessary.

Basis of the Concern: ER 405-1-12, Chapter 12 and WRDA 1986. The Real Estate Plan (REP) must state what real estate is necessary for the project, what estates will be acquired, and by whom and at what cost.

Significance of the Concern: High. It must be clear who is to do the acquisition related activities (including relocations). Such activities are generally the responsibility of the Non-Federal Sponsor and cannot be performed by the Government except by agreement and with payment therefor in advance.

Action Needed to Resolve Concern: Resolve who is to perform these activities (note that if condemnations are to be performed by the Government, the necessary approval to do so must be obtained (ER 405-1-12, Chapter 12) and no more than five condemnations can be anticipated.

LADOTD Response: Language will be added to the Real Estate Plan clarifying who would be responsible for acquisition related activities and which of those responsibilities

are for the Non-Federal Sponsor. The appropriate changes will be made to the Chart of Accounts as well, including adding 02 Relocations and 06 Fish and Wildlife Facilities. Once completed, the modified sections will be provided to ASA for review.

Additional language will be added to the Real Estate Plan, describing the real estate rights to be used and acquired by the Terrebonne Conservation and Levee District during construction of the Houma Lock Complex.

OASACW/HQUSACE Assessment: Response adequate. Comment will be resolved pending back-check of modified sections of the report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

2. Non-Standard Estates: The REP proposes a not-previously coordinated non-standard estate and does not show that the estate was coordinated with Counsel or Real Estate above the district level.

Basis for the Concern: Such estates require careful analysis by the vertical team of the Corps and are submitted for approval to the Director of Real Estate. Although inclusion of such an estate in a final report generally approves the proposed non-standard estate, it is anticipated that there would have been a draft report and careful analysis of the estate during the review process before preparation of the final report. Since this is a 203 project, there was and is no draft report. Previous approval of a non-standard estate at another project or in the past is not necessarily an indication that the estate is appropriate now or for this project.

Significance of the Concern: High.

Action Needed to Resolve Concern: That the fact that a non-standard estate (NSE) will be requested be stated in the report, but that the report say that the NSE request will be handled separately. Given the terms of the proposed non-standard estate, it is assumed that the value for the estate would be tantamount to fee and that the cost estimate would not change. If this is so, it should also be stated as such in the final report. Approval of the final report in this instance will not constitute approval of the nonstandard estate, and the final report must so indicate. Note also the REP refers to a "Perpetual Dredged Material Pipeline Easement" (paragraph 5 of LERRD Requirements), but then proposes use of a standard utility and/or pipeline easement. The reference to what would otherwise be a NSE should be removed.

LADOTD Response: "Dredged Material" will be removed from the Pipeline Easement language in the Real Estate Plan. No standard estate is available for use on this project. Further discussion will take place with ASA RE reviewer.

OASACW/HQUSACE Assessment: LADOTD is encouraged to contact USACE New Orleans District for assistance to initiate a request for a non-standard estate.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

3. Pre-PPA Acquisition Risk Letters to NFSs: The required letters that must be sent to the proposed nonfederal sponsors warning of the potential consequences of acquisitions prior to the execution of the PPA are not included. Rather, the REP states the proposed NFS's do not intend to do any acquisition before the execution of a Project Partnership Agreement (PPA).

Basis of the Concern: Such letters are required by ER 405-1-12, Chapter 12, 12-16c(19). Recent practice is to include copies of the letters with the REP.

Significance of the Concern: Medium.

Action Needed to Resolve Concern: The required letters be sent and copies furnished with the REP.

LADOTD Response: The Non-Federal Sponsor will provide a letter stating they are aware of the risks associated with acquisitions. The letter will be provided in Appendix C (Real Estate Plan).

OASACW/HQUSACE Assessment: Response adequate. Comment will be resolved pending back-check of the final report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

4. Relocations Caveat: The caveat appearing as the third paragraph of the REP Section titled Relocations on page C-7 of the REP is required to be IN ALL CAPITAL LETTERS and to be the exact language required by the regulation. The report also does not expressly take into account the provisions of Real Estate Policy Guidance Letter 31, allowing preliminary real estate determinations at the planning stage, but seems to have relied on that process.

Basis of the Concern: ER 405-1-12, Chapter 12, 12-17c(6). Real Estate Policy Guidance Letter 31.

Significance of the Concern: Medium.

Action Needed to Resolve Concern: Amend the paragraph to comply with the regulation and to cite Real Estate Policy Guidance Letter 31, if it was used in making these preliminary determinations.

LADOTD Response: The RE Plan will be modified to include the updated language in all caps and to reference the correct guidance.

OASACW/HQUSACE Assessment: Response adequate. Comment will be resolved pending back-check of modified sections of the report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

5. Navigation Servitude: The report and REP contemplate use of the navigation servitude for this project.

Basis of the Concern, etc: See Environmental #3

LADOTD Response: Since this project is being proposed as a Federal project to be constructed by the Corps of Engineers under Section 203 authority, it is in fact appropriate for the Navigation Servitude to be invoked. It would NOT be invoked by the Non-Federal sponsor. We will revise the Real Estate Plan to indicate that the Corps of Engineers, New Orleans District will exercise their rights to invoke a Navigational Servitude for maintenance dredging.

Additional language will be added to the Real Estate Plan, describing the real estate rights to be used and acquired by the Terrebonne Conservation and Levee District during construction of the Houma Lock Complex.

OASACW/HQUSACE Assessment: Response adequate. Comment may be resolved pending back-check of modified sections of the report.

OASACW/HQUSACE Final Assessment: Further action required prior to implementation. The Real Estate Plan continues to assert the navigation servitude will be invoked by the Federal Government for utility/facility relocations. See particularly page C-6, Local Sponsor Capability Assessment and pp. C-8-9, Relocations. This is not consistent with PGL 44. The language in the plan must be modified to omit federal invoking of the navigation servitude for utility/facility relocations.

Navigation CoP

1. Section 4.4.4, paragraph 3 last sentence, remove "be".

LADOTD Response: The word "be" will be removed from the referenced sentence.

OASACW/HQUSACE Assessment: Response is adequate to resolve the concern.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

2. In paragraph 4.6.4 is 1A not economically justified or marginally justified? Possible typo, please clarify.

LADOTD Response: The language will be modified in Section 4.6.4 to state that Alternative 1A is economically justified.

OASACW/HQUSACE Assessment: Response adequate. Comment will be resolved pending back-check of the final report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

3. Throughout the document there is mention that construction of the MTG floodgate, lock, and levee is critical to the project and must be completed before deepening occurs. What is the status of the MTG floodgate, lock, and levee construction? Could impact 2021 construction start?

LADOTD Response: Additional language will be added to the Executive Summary, Sections 1 through 9 and Appendix A, presenting the current status and timeline for construction of the lock complex. Once completed, the modified sections will be provided to ASA for review.

OASACW/HQUSACE Assessment: Response adequate. Comment may be resolved pending back-check of modified sections of the report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

4. Design Vessel: No discussion of design vessel in main report or how recommended depth of 20' will be adequate.

Basis of Concern: To give full perspective of how 20' depth was determined and recommended. The engineering appendix identifies a 20' draft design vessel. Main report specifies that, "Evaluation of concerns expressed during agency coordination and scoping, analysis of lessons learned from previous projects, and historical information led to the following planning constraints: Maximum channel depth considered would be - 20 feet" However this doesn't explain why this depth is feasible from a safety and engineering perspective.

Action Needed to Resolve Concern: Full context given in Engineering Appendix paragraph 4.3, should be briefly explained in main report.

LADOTD Response: Additional discussion will be provided regarding the maximum project depth selected for the host vessels, offshore tugs and barges, that cannot utilize shallower depths that currently characterize the HNC resulting in a host of inefficiencies such as light loading of barges, rerouting vessels by other deeper channel waterways, use of shallow draft vessels in place ocean tugs or otherwise escorts of light loaded vessels. Once completed, the modified sections will be provided to ASA for review.

OASACW/HQUSACE Assessment: Response adequate. Comment may be resolved pending back-check of modified sections of the report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

Legal

1. Section 1.1.9 of the main report regarding Section 207 of WRDA 1996: This section should be revised to reflect that cost-sharing will be determined in accordance with 33 U.S.C. 2326 instead of saying that the non-Federal Interest pays 25% of the incremental cost in excess of the NED disposal option.

LADOTD Response: The referenced language in Section 1.1.9 will be modified to reference the correct information from Title 33 U.S.C. 2326.

OASACW/HQUSACE Assessment: Response adequate. Comment will be resolved pending back-check of the revised report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

2. Section 4.7.4 Plan Implementation, Pages 4-61 to 4-63: The "Approval and Implementation" and "Implementation Schedule" sub-sections should be deleted because they are not necessary and do not fully and accurately describe the implementation process. For example, this project would have to compete for a construction new start. Additionally, Section 203 submittals no longer result in a Chief of Engineers Report, and the Corps would not accept contributed funds for this project.

LADOTD Response: The referenced sub-sections will be removed from Section 4.7.4.

OASACW/HQUSACE Assessment: Response adequate. Comment will be resolved pending back-check of the revised report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

3. Sections 4.7.4 and 9.3, the additional 10% of GNF may be offset by creditable "LERR" not "LERRD".

LADOTD Response: The references to LERRDs will be changed to LERRs in Sections 4.7.4 and 9.3.

OASACW/HQUSACE Assessment: Response adequate. Comment will be resolved pending back-check of the revised report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

4. Regarding Item 9.3a, Design Agreements are now cost shared consistent with project cost sharing.

LADOTD Response: The language in Section 9.3, item a, will be modified to correctly represent the non-Federal cost share for design.

OASACW/HQUSACE Assessment: Response adequate. Comment will be resolved pending back-check of the revised report.

OASACW/HQUSACE Final Assessment: Concern resolved in the Final Report dated June 2018.

5. The Items of local cooperation (Section 9) included requirement to perform all utility relocations, See PGL #44 issued 14 Sep 17. Below are the current items of local cooperation that are required:

a. Provide 10 percent of the total cost of construction of the general navigation features (GNFs) attributable to dredging to a depth not in excess of 20 feet as further specified below:

(1) Provide 10 percent of design costs allocated by the Federal government to commercial navigation in accordance with the terms of a design agreement entered into prior to commencement of design work for the project;

(2) Provide, during construction, any additional funds necessary to make its total contribution for commercial navigation equal to 10 percent of the total cost of construction of the GNFs attributable to dredging to a depth not excess of 20 feet;

b. Provide all lands, easement, and rights-of-way (LER), including those necessary for the borrowing of material and disposal of dredged or excavated material, and perform or assure the performance of all relocations, including utility relocations, all as determined by the Federal government to be necessary for the construction or operation and maintenance of the GNFs;

c. Pay with interest, over a period not to exceed 30 years following completion of the period of construction of the GNFs, an additional amount equal to 10 percent of the total cost of construction of GNFs less the amount of credit afforded by the Federal government for the value of the LER and relocations, including utility relocations, provided by the non-Federal sponsor for the GNFs. If

the amount of credit afforded by the Federal government for the value of LER, and relocations, including utility relocations, provided by the non-Federal sponsor equals or exceeds 10 percent of the total cost of construction of the GNFs, the non-Federal sponsor shall not be required to make any contribution under this paragraph, nor shall it be entitled to any refund for the value of LER and relocations, including utility relocations, in excess of 10 percent of the total costs of construction of the GNFs;

d. Provide, operate, and maintain, at no cost to the Federal government, the local service facilities in a manner compatible with the project's authorized purposes and in accordance with applicable Federal and State laws and regulations and any specific directions prescribed by the Government;

e. Give the Federal government a right to enter, at reasonable times and in a reasonable manner, upon property that the non-Federal sponsor owns or controls for access to the project for the purpose of completing, inspecting, operating and maintaining the GNFs;

f. Hold and save the United States free from all damages arising from the construction or operation and maintenance of the project, any betterments, and the local service facilities, except for damages due to the fault or negligence of the United States or its contractors;

g. Keep and maintain books, records, documents, or other evidence pertaining to costs and expenses for a minimum of three years after the final accounting and assure that such materials are reasonably available for examination, audit, or reproduction by the Government;

h. Perform, or ensure performance of, any investigations for hazardous substances as are determined necessary to identify the existence and extent of any hazardous substances regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 USC 9601–9675, that may exist in, on, or under LER that the Federal government determines to be necessary for the construction or operation and maintenance of the GNFs. However, for lands, easements, or rights-of-way that the Federal government determines to be subject to the navigation servitude, only the Federal government shall perform such investigation unless the Government provides the non-Federal sponsor with prior specific written direction, in which case the non-Federal sponsor shall perform such investigations in accordance with such written direction;

i. Assume complete financial responsibility, as between the Federal government and the non-Federal sponsor, for all necessary cleanup and

response costs of any hazardous substances regulated under CERCLA that are located in, on, or under LER that the Government determines to be necessary for the construction or operation and maintenance of the project;

j. Agree, as between the Federal government and the non-Federal sponsor, that the non-Federal sponsor shall be considered the operator of the project for the purpose of CERCLA liability, and to the maximum extent practicable, perform its obligations in a manner that will not cause liability to arise under CERCLA;

k. Comply with Section 221 of PL 91-611, Flood Control Act of 1970, as amended, (42 U.S.C. 1962d-5b) and Section 101(e) of the WRDA 86, Public Law 99-662, as amended, (33 U.S.C. 2211(e)) which provides that the Secretary of the Army shall not commence the construction of any water resources project or separable element thereof, until the non-Federal sponsor has entered into a written agreement to furnish its required cooperation for the project or separable element;

l. Comply with the applicable provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, PL 91-646, as amended, (42 U.S.C. 4601-4655) and the Uniform Regulations contained in 49 CFR 24, in acquiring lands, easements, and rights-of-way, necessary for construction, operation and maintenance of the project including those necessary for relocations, the borrowing of material, or the disposal of dredged or excavated material; and inform all affected persons of applicable benefits, policies, and procedures in connection with said act;

m. Comply with all requirements of applicable Federal laws and implementing regulations, including, but not limited to: Section 601 of the Civil Rights Act of 1964 (42 U.S.C. 2000d), and Department of Defense Directive 5500.11 issued pursuant thereto; the Age Discrimination Act of 1975 (42 U.S.C. 6102); the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Army Regulation 600-7 issued pursuant thereto; and 40 U.S.C. 3141-3148 and 40 U.S.C. 3701-3708 (labor standards originally enacted as the Davis-Bacon Act, the Contract Work Hours and Safety Standards Act, and the Copeland Anti-Kickback Act);

n. Not use funds from other Federal programs, including any non-Federal contribution required as a matching share therefore, to meet any of the non-Federal sponsor's obligations for the project costs unless the Federal agency providing the Federal portion of such funds verifies in writing that such funds are authorized to be used to carry out the project.

LADOTD Response: The language referenced in Section 9.3 will be replaced with the language provided.

OASACW/HQUSACE Assessment: Response adequate. Comment may be resolved pending back-check of modified sections of the report.

OASACW/HQUSACE Final Assessment: Further attention required prior to implementation. The list of items of local cooperation from pages 4-60 to 4-63 contain inaccuracies and are inconsistent with the correct list of items of local cooperation contained in Section 9.

