Comment Report: All Comments
Project: Puerto Rico_Rio Grande de Manati
Review: FY20 Flood Risk Management - Draft Feasibility Study DQC Rvw
Displaying 89 comments for the criteria specified in this report.

Id	Discipline	DocType	Spec	Sheet	Detail
8388267	Hydraulics	Feasibility Study	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

Section 2.3.2.1 indicates No change to geology or topography is expected under the No-Action alternative. Wouldn't the topography change for the No Action alternative due to flood-induced erosion and bank failure land use activities as indicated in Section 2.3.2.2 and Section 2.3.2.3?

Submitted By: William O'Shea (4123957604). Submitted On: Feb 07 2020

1-0 Evaluation **Concurred**
(JR Response) Agree with basis of question. Will revise language to reflect extent to which topography may change

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 18 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: William O'Shea (4123957604) Submitted On: Feb 18 2020
Current Comment Status: **Comment Closed**

8388273	Hydrology	Feasibility Study	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

In Section 2.3.3.2, was any consideration given to future land use conditions for the period of analysis, i.e., the effect of increased development on the hydrologic conditions of the study area?

Submitted By: William O'Shea (4123957604). Submitted On: Feb 07 2020

1-0 Evaluation **For Information Only**
No, the existing conditions (future without project) hydraulic model was obtained from FEMA and assumed to be representative of existing conditions because no additional LiDAR or survey data was available when the project began. Under the TSP, buyouts are considered, so development would potentially decrease as a result, thus the model may be more conservative for future conditions.

Submitted By: Christina Urbanczyk (4123957202) Submitted On: Feb 14 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: William O'Shea (4123957604) Submitted On: Feb 18 2020
Current Comment Status: **Comment Closed**

8388282 Hydrology Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

Section 3.3.3, Alternative 1. Levee/Floodwall System, indicates the height of the floodwall will vary to maintain a constant elevation to protect against the 0.4 AEP event. This should be the 0.04 AEP event.

Submitted By: William O'Shea (4123957604). Submitted On: Feb 07 2020

Revised Feb 07 2020.

1-0 Evaluation **Concurred**
(JR response) this was a typo. Will correct AEP return periods as appropriate.

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 13 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: William O'Shea (4123957604) Submitted On: Feb 18 2020
Current Comment Status: **Comment Closed**

8388306 Hydraulics Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

Will any of the Hydrologic Engineering Center's Flood Damage Assessment (HEC-FDA)analyses mentioned in Section 3.4.2 be included in the Appendix?

Submitted By: William O'Shea (4123957604). Submitted On: Feb 07 2020

1-0 Evaluation **Concurred**
Yes, the economics analysis/results (including the results from the HEC-FDA analysis and associated assumptions) is included in a separate appendix (Appendix C).

Submitted By: Christina Urbanczyk (4123957202) Submitted On: Feb 14 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: William O'Shea (4123957604) Submitted On: Feb 18 2020
Current Comment Status: **Comment Closed**

8388315 Hydrology Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

Section 3.5.3.1 Alternative 4 Channelization indicates that "The concrete lined channel would permanently eliminate groundwater contributions to the Rio Grande de Manati along the 9,000 linear foot reach of trapezoidal channel." Wouldn't a concrete lined channel include weep holes to relieve water pressure and thus still contribute groundwater to the Rio Grande de Manati?

Submitted By: William O'Shea (4123957604). Submitted On: Feb 07 2020

1-0 Evaluation **Concurred**

(JR response) language will be revised to indicate that the channel would "...significantly reduce the amount of groundwater contribution..."

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 14 2020

1-1 Backcheck Recommendation **Close Comment**

Closed without comment.

Submitted By: William O'Shea (4123957604) Submitted On: Feb 18 2020

Current Comment Status: **Comment Closed**

8388354	Hydraulics	Engineering Appendix	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

Section 1.3.1.1 indicates "No design information is available for the temporary and/or proposed bridge crossing at the approximate location, so Route 145 was retained in the model to be conservative." How do we know that modeling the existing bridge is conservative in comparison to the proposed bridge crossing?

Submitted By: William O'Shea (4123957604). Submitted On: Feb 07 2020

1-0 Evaluation **For Information Only**

According to the FEMA FIS, the Route 145 would have been overtopped in a 10-year storm event. Current design standards would require the a proposed bridge to have more capacity. Because the design information was not available at the time of this study, no new information for the bridge was able to be incorporated. Recommended that information, if available, on the proposed bridge be included in the design phase of this study.

Submitted By: Christina Urbanczyk (4123957202) Submitted On: Feb 14 2020

1-1 Backcheck Recommendation **Close Comment**

Closed without comment.

Submitted By: William O'Shea (4123957604) Submitted On: Feb 18 2020

Current Comment Status: **Comment Closed**

8388389	Hydraulics	Engineering Appendix	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

In the Attachment: HEC-RAS results, a schematic of the HEC-RAS model geometry (reach and cross-sections) would aid in interpreting the HEC-RAS results.

Submitted By: William O'Shea (4123957604). Submitted On: Feb 07 2020

1-0 Evaluation **Concurred**

A screenshot will be added in the attachment to assist with interpretation of the HEC-RAS results.

Submitted By: Christina Urbanczyk (4123957202) Submitted On: Feb 14 2020

1-1 Backcheck Recommendation **Close Comment**

Closed without comment.

Submitted By: William O'Shea (4123957604) Submitted On: Feb 18 2020

Current Comment Status: **Comment Closed**

8388659	Engineering Management	Feasibility Study	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

Redline comments (i.e. grammar, punctuation) for the Integrated Feasibility Report and Environmental Assessment were provided to the team leader in Adobe PDF format through email.

Submitted By: William O'Shea (4123957604). Submitted On: Feb 07 2020

1-0 Evaluation **Concurred**

(JR response) Grammar and spelling corrections will be made and Engineering Appendix as well as the Study Report will be revised.

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 13 2020

1-1 Backcheck Recommendation **Close Comment**

Closed without comment.

Submitted By: William O'Shea (4123957604) Submitted On: Feb 18 2020

Current Comment Status: **Comment Closed**

8390944	Hydrology	Engineering Appendix	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
Coordinating Discipline(s): Hydrology

Section 2.1.4.2 indicates "Height of the floodwall will vary to maintain a constant elevation to protect against the 0.4 AEP event (25-year storm)." This should be 0.04 AEP event.

Submitted By: William O'Shea (4123957604). Submitted On: Feb 10 2020

1-0 Evaluation **Concurred**
(JR response) this was a typo. AEP return period will be corrected and Appendix revised.

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 13 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: William O'Shea (4123957604) Submitted On: Feb 18 2020

Current Comment Status: **Comment Closed**

8390948	Hydrology	Engineering Appendix	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
Coordinating Discipline(s): Hydrology

On Figure 12, what inundation limits are depicted and which alternative do they correspond with?

Submitted By: William O'Shea (4123957604). Submitted On: Feb 10 2020

1-0 Evaluation **Concurred**
The figure will be updated to represent solely the 100-year flood event for the no action alternative, which will be noted in the figure's caption for clarification.

Submitted By: Christina Urbanczyk (4123957202) Submitted On: Feb 14 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: William O'Shea (4123957604) Submitted On: Feb 18 2020

Current Comment Status: **Comment Closed**

8393394	Other	Plans	n/a	ALL	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

Project Area/Boundary is not the same shape/size in all maps shown (Engineering, Environmental, Real Estate) and vary by color in each map. Need consistency in ALL mapping in ALL reports as same boundary shape and color/line type.

Submitted By: Jeffrey Horneman (412-395-7132). Submitted On: Feb 11 2020

1-0 Evaluation **Concurred**

I agree that consistency is important. Planning worked with Real Estate to ensure that the study area boundaries are consistent among all maps.

Submitted By: Eric Merriam (412-395-7185) Submitted On: Feb 20 2020

1-1 Backcheck Recommendation **Close Comment**

Closed without comment.

Submitted By: Jeffrey Horneman (412-395-7132) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8393399	Real Estate	Technical Report	n/a	ALL	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: 1)

Should reference be made that the REP was produced by LRP (as other parts reference other District data?)

Submitted By: Jeffrey Horneman (412-395-7132). Submitted On: Feb 11 2020

1-0 Evaluation **Concurred**

Added

Submitted By: James Kelly (412-395-7135) Submitted On: Feb 18 2020

1-1 Backcheck Recommendation **Close Comment**

Closed without comment.

Submitted By: Jeffrey Horneman (412-395-7132) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8393400	Real Estate	Technical Report	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: 2)

Add Appendices (A, B, C) to the numerical listing?

Submitted By: Jeffrey Horneman (412-395-7132). Submitted On: Feb 11 2020

1-0 Evaluation **Concurred**

Added

Submitted By: James Kelly (412-395-7135) Submitted On: Feb 18 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Jeffrey Horneman (412-395-7132) Submitted On: Feb 21 2020
Current Comment Status: **Comment Closed**

8393402 Real Estate Technical Report n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: 3)

Should reference Appendix "E" not "F" in top title

Submitted By: Jeffrey Horneman (412-395-7132). Submitted On: Feb 11 2020

1-0 Evaluation **Concurred**
This was changed.

Submitted By: James Kelly (412-395-7135) Submitted On: Feb 13 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Jeffrey Horneman (412-395-7132) Submitted On: Feb 21 2020
Current Comment Status: **Comment Closed**

8393411 Real Estate Technical Report n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: 5)

should show (0.2%) after 0.002 in section 4.
Section 5 non structural should show (4%) after 0.04 AEP (which should be spelled out again).

Stability and Scout Measure - first sentence - is PR-6685 a bridge? Should be referenced (it appears to be later on?)

(1%) should be added after 0.01 and spell out AEP

Remove dash after 6-feet

Should reference be made to 'clean fill' for stone and concrete material being sourced?

Submitted By: Jeffrey Horneman (412-395-7132). Submitted On: Feb 11 2020

1-0 Evaluation **Concurred**
Will clarify with PM.

Submitted By: James Kelly (412-395-7135) Submitted On: Feb 18 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Jeffrey Horneman (412-395-7132) Submitted On: Feb 21 2020
Current Comment Status: **Comment Closed**

8393415 Real Estate Technical Report n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: 6-8)

Maps show a different Project Boundary from Engineering and Environmental maps and need to be consistent.

Submitted By: Jeffrey Horneman (412-395-7132). Submitted On: Feb 11 2020

1-0 Evaluation **Concurred**
These are being changed.

Submitted By: James Kelly (412-395-7135) Submitted On: Feb 13 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Jeffrey Horneman (412-395-7132) Submitted On: Feb 21 2020
Current Comment Status: **Comment Closed**

8393429 Real Estate Technical Report n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: 10)

second page of table missing (showing rest of buyout tracts and totals). Show as two pages or combine entire matrix to one page

Submitted By: Jeffrey Horneman (412-395-7132). Submitted On: Feb 11 2020

1-0 Evaluation **Concurred**
Will Change that.

Submitted By: James Kelly (412-395-7135) Submitted On: Feb 13 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Jeffrey Horneman (412-395-7132) Submitted On: Feb 21 2020
Current Comment Status: **Comment Closed**

8393437 Real Estate Technical Report n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: 11)

Format so all in line

Add "B" before Channel Improvement Easement and remove "A" below it.

Add "C" before Temporary Work Area Easement (remove "B") and line up with "A. Fee Simple" at top

Submitted By: Jeffrey Horneman (412-395-7132). Submitted On: Feb 11 2020

1-0 Evaluation **Concurred**
Changed.

Submitted By: James Kelly (412-395-7135) Submitted On: Feb 13 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Jeffrey Horneman (412-395-7132) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8393449 Real Estate Technical Report n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: 12)

add "Puerto Rico Department of Natural and Environmental Resources (DNER) after "Non-Federal Sponsor" in section 9

Section 10 - references the PCA - should that actual document be included as an appendix?

Submitted By: Jeffrey Horneman (412-395-7132). Submitted On: Feb 11 2020

1-0 Evaluation **Concurred**
PCA is not signed yet.

Submitted By: James Kelly (412-395-7135) Submitted On: Feb 18 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Jeffrey Horneman (412-395-7132) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8393453 Real Estate Technical Report n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: 13)

14. Minerals - last sentence should read "... of them are on OR within the project limits."

15. Haz/Toxic - indent the description under each category - (Non-Structural and Stability & Scout)

17. Ad space after first sentence (only one space apparent after period).

Submitted By: Jeffrey Horneman (412-395-7132). Submitted On: Feb 11 2020

1-0 Evaluation **Concurred**
Completed

Submitted By: James Kelly (412-395-7135) Submitted On: Feb 13 2020

1-1 Backcheck Recommendation **Close Comment**

Submitted By: Jeffrey Horneman (412-395-7132) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8393458	Real Estate	Technical Report	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: 14)

Section 19 (Zoning)
Appears to say two different things? Says there are no zoning ordinances regarding LERRD, then says there IS zoning, but will not require changes?

Section 22 (Timber) - is this statement verifiable? I can see some landowners wanting timber value on some trees being removed?

Submitted By: Jeffrey Horneman (412-395-7132). Submitted On: Feb 11 2020

1-0 Evaluation **Concurred**
Changed.

Submitted By: James Kelly (412-395-7135) Submitted On: Feb 13 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Jeffrey Horneman (412-395-7132) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8393469	Real Estate	Technical Report	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: 16)

27 Project Sponsor

first paragraph, last sentence - should be Exhibit "A" (not "B") - which is missing in the appendices? There is a title cover for it - but no attached Capability analysis?

Submitted By: Jeffrey Horneman (412-395-7132). Submitted On: Feb 11 2020

1-0 Evaluation **Concurred**
Changed.

Submitted By: James Kelly (412-395-7135) Submitted On: Feb 13 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Jeffrey Horneman (412-395-7132) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8393471 Real Estate Technical Report n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: 18)

No capability assessment attached?

Submitted By: Jeffrey Horneman (412-395-7132). Submitted On: Feb 11 2020

1-0 Evaluation **Concurred**
Waiting on NFS sheet.

Submitted By: James Kelly (412-395-7135) Submitted On: Feb 13 2020

1-1 Backcheck Recommendation **Open Comment**
Although the sponsor has had the SCA, they have yet to return it - this is a critical item for the REP. Once received from the LS - it will be attached to the REP.

Submitted By: Jeffrey Horneman (412-395-7132) Submitted On: Feb 21 2020

1-2 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Jeffrey Horneman (412-395-7132) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8393474 Real Estate Technical Report n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: 30)

ADD:

"By Savanah District"

Submitted By: Jeffrey Horneman (412-395-7132). Submitted On: Feb 11 2020

1-0 Evaluation **Concurred**
Added

Submitted By: James Kelly (412-395-7135) Submitted On: Feb 18 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Jeffrey Horneman (412-395-7132) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8393480 Real Estate Technical Report n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: 31)

Skewed top images (Corps logo and District logo) - should be clear.

Pittsburgh is spelled with an "H" at the end (although this was not true during a 10 year period in the early 1900's) - but that is of no consequence here.

Submitted By: Jeffrey Horneman (412-395-7132). Submitted On: Feb 11 2020

1-0 Evaluation **Concurred**
Savanah District

Submitted By: James Kelly (412-395-7135) Submitted On: Feb 18 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Jeffrey Horneman (412-395-7132) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8393851 Cultural Resources Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: ES-vi)
Coordinating Discipline(s): Cultural Resources

Existing language, "USACE has developed a Programmatic Agreement...the project enters the Preconstruction Engineering and Design phase" should be changed to:

USACE has developed a Programmatic Agreement in coordination with the Puerto Rico State Historic Preservation Office to defer final identification and evaluation of historic properties until the study is approved and the project enters the Preconstruction Engineering and Design phase in compliance with Section 106 of the National Historic Preservation Act (36 CFR § 800.4[b][2]).

Submitted By: Meredith Moreno (904-232-1577). Submitted On: Feb 11 2020

1-0 Evaluation **Concurred**
Language modified to conform.

Submitted By: Christopher Altes (904-2321694) Submitted On: Feb 13 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Meredith Moreno (904-232-1577) Submitted On: Feb 20 2020
Current Comment Status: **Comment Closed**

8393894	Cultural Resources	Feasibility Study	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: page 29 - section 2.2.8)
Coordinating Discipline(s): Cultural Resources

Check spacing of 40 CFR §1508.27(b)(3) - looks odd

Submitted By: Meredith Moreno (904-232-1577). Submitted On: Feb 11 2020

1-0 Evaluation **Concurred**
Removed an extra space.

Submitted By: Christopher Altes (904-2321694) Submitted On: Feb 13 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Meredith Moreno (904-232-1577) Submitted On: Feb 20 2020
Current Comment Status: **Comment Closed**

8394004	Cultural Resources	Feasibility Study	n/a	second full paragraph	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: page 79 - section 3.5.11)
Coordinating Discipline(s): Cultural Resources

APE misspelled

Submitted By: Meredith Moreno (904-232-1577). Submitted On: Feb 11 2020

1-0 Evaluation **Concurred**
fixed typo

Submitted By: Christopher Altes (904-2321694) Submitted On: Feb 13 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Meredith Moreno (904-232-1577) Submitted On: Feb 20 2020

Current Comment Status: **Comment Closed**

8394016	Cultural Resources	Feasibility Study	n/a	fourth full paragraph	third sentenct

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: page 79 - section 3.5.11)
Coordinating Discipline(s): Cultural Resources

remove "PR" before SHPO (all instances) and use acronym for NRHP (all instances)

Submitted By: Meredith Moreno (904-232-1577). Submitted On: Feb 11 2020

Revised Feb 11 2020.

1-0 Evaluation **Concurred**
replaced all be the first instances.

Submitted By: Christopher Altes (904-2321694) Submitted On: Feb 13 2020

1-1 Backcheck Recommendation **Open Comment**

Submitted By: Meredith Moreno (904-232-1577) Submitted On: Feb 20 2020

1-2 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Meredith Moreno (904-232-1577) Submitted On: Feb 20 2020

Current Comment Status: **Comment Closed**

8394019	Cultural Resources	Feasibility Study	n/a	first and third paragraph	first sentence

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: page 80 - section 3.5.11)
Coordinating Discipline(s): Cultural Resources

add an "a" before historic hacienda

Submitted By: Meredith Moreno (904-232-1577). Submitted On: Feb 11 2020

Revised Feb 11 2020.

1-0 Evaluation **Concurred**
article added.

Submitted By: Christopher Altes (904-2321694) Submitted On: Feb 13 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Meredith Moreno (904-232-1577) Submitted On: Feb 20 2020

Current Comment Status: **Comment Closed**

8394026 Cultural Resources Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: page 103 - SEction 5.1.7)
Coordinating Discipline(s): Cultural Resources

need reason why we are doing a PA, something like: due to budgetary and access constraints, the Corps is deferring final identification and evaluation of historic properties until the study is approved and the project enters the Preconstruction Engineering and Design phase in compliance with Section 106 of the National Historic Preservation Act (36 CFR § 800.4[b][2])

Submitted By: Meredith Moreno (904-232-1577). Submitted On: Feb 11 2020

Revised Feb 11 2020.

1-0 Evaluation **Concurred**
Included budget, schedule, and access; did not include design refinements but potentially could if backcheck thinks it would make a stronger argument.

Submitted By: Christopher Altes (904-2321694) Submitted On: Feb 13 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Meredith Moreno (904-232-1577) Submitted On: Feb 20 2020

Current Comment Status: **Comment Closed**

8394050 Cultural Resources Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: page 107 - section 5.4)
Coordinating Discipline(s): Cultural Resources

Under NHPA compliance, change MOU with PA - implementing a phased approach to identification and evaluation

Submitted By: Meredith Moreno (904-232-1577). Submitted On: Feb 11 2020

Revised Feb 11 2020.

1-0 Evaluation **Concurred**
Modifed text to PA

Submitted By: Christopher Altes (904-2321694) Submitted On: Feb 13 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Meredith Moreno (904-232-1577) Submitted On: Feb 20 2020

Current Comment Status: **Comment Closed**

8394073 Cultural Resources Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: page 109 - section 5.4.4)
Coordinating Discipline(s): Cultural Resources

last sentence keep consistent with rest of document, use NHPA language; defer final identification and evaluation of historic properties until the study is approved and the project enters the Preconstruction Engineering and Design phase in compliance with Section 106 of the National Historic Preservation Act (36 CFR § 800.4[b][2]).

Submitted By: Meredith Moreno (904-232-1577). Submitted On: Feb 11 2020

Revised Feb 11 2020.

1-0 Evaluation **Concurred**
Replaced language.

Submitted By: Christopher Altes (904-2321694) Submitted On: Feb 13 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Meredith Moreno (904-232-1577) Submitted On: Feb 20 2020

Current Comment Status: **Comment Closed**

8394109 Cultural Resources Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
Coordinating Discipline(s): Cultural Resources

Did not find correspondence in the appendices. Please add and reference in main report.

Submitted By: Meredith Moreno (904-232-1577). Submitted On: Feb 11 2020

1-0 Evaluation **Concurred**
Sent additional correspondence to team received since drafting report language. Referenced in newer correspondence text.

Submitted By: Christopher Altes (904-2321694) Submitted On: Feb 13 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Meredith Moreno (904-232-1577) Submitted On: Feb 20 2020

Current Comment Status: **Comment Closed**

8394177	Cultural Resources	Feasibility Study	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Page 9 - Section 1.4.2)
Coordinating Discipline(s): Planning - Plan Formulation

How are cultural resources a constraint within the study? The project has yet to identify historic properties and do not seem to be considered in the selection of a TSP. Suggest cultural resources is moved to planning consideration.

Submitted By: Meredith Moreno (904-232-1577). Submitted On: Feb 11 2020

1-0 Evaluation **Concurred**
Great point. Per the reviewer's suggesting, the cultural resources description was moved from 'Constraint' to 'Planning Considerations'.

Submitted By: Eric Merriam (412-395-7185) Submitted On: Feb 14 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Meredith Moreno (904-232-1577) Submitted On: Feb 20 2020

Current Comment Status: **Comment Closed**

8394659	Real Estate	Feasibility Study	n/a	Appendix A and Appendix E Notes	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

General comments: Maps and formats for all Appendices not consistent in formatting and maps do not seem to match up. Main comments pertain to the App E:Real Estate Plan with some notes for App A.

App A Engineering

Low quality images used throughout, recommend replacing with higher resolution.
Pg 12 has Table 2 but no where in that section makes reference to this Table.
Pg 13 refers to the Real Estate Appendix as Appendix X - change to Appendix E

Draft Attachment 3 refers to only X for exhibits and figures.
Figure 25 Conceptual view does not match in regards to buyout structures when compared to Buyout Map in Appendix E

Appendix E Real Estate

Pg 2
-Table of Contents does not list any of the maps or exhibits.
-Table uses a shadowed font different from the rest of the document.

Pg 3
-Appendix E not F

Pg 4
3. References mentions the References for ROM and Gross Appraisals that should be included in the Table of Contents.

Pg 5

PR-6685 should continued to be called PR-6685 Bridge.
This section refers to different maps that are not labeled accordingly: (Non Structural Relocation Map and Stability & Scour Maps)

Pg 9
-Temporary Work area total in table shows 11.45 (Pg 38 table number does not match Pg 10) , change 11.46 to reflect the table's total acreage.
-Reword sentence for part mentioning staging and storage.

Pg 10

Need an figure number, reference number or exhibit number property naming and numbering this table. Reference that table number in section 6.

Pg 11

-describe change to describED
-eliminate the use of A and B a they are used in different ways for both Non Structural and Stability/Scour Measures.

Pg 13

-Section Minerals: Mines - none of them are within project limits.

Pg 16

-Misspelled Savannah District
-Show total number of days total for start to finish to illustrate the time needed for RE Acquisition.
-Non Fed Sponsor's Capability is show as Exhibit B whereas the Maps are Exhibit B. It should say

Exhibit A.

Pg 17.

-It should be clear that the author of the report did not conduct any field visits and relied upon information from other sources to complete the report.

Pg 18

-No Assessment was attached for NFS Capability.

Pg 19

-Not only should the table of contents list this as Exhibit but also list what types of maps on this page (Buyout maps & Buyout maps 1-B through 4-B for Non Structural Relocations, Parcel maps & Parcel maps 1-P through 4-P for Stability and Scour Measures for example)

Pg 38

Seems to be a random table. Would this be better served at the end of the report after the Land Sales Addendum and cites the Addendum as the source? Need a title and some reference notes?

Submitted By: Ken Lieu (412-395-7535). Submitted On: Feb 11 2020

1-0 Evaluation **Concurred**

(JR response to Civil comments)
Higher resolution images will be used if available.
Table 2 to be referenced in Para 1.2.1.3 Subsurface Soils
Real Estate Appendix to be appropriately identified (Appendix E)
Draft Attachment 3 revisions in progress, will revise Engineering Appendix accordingly
Real Estate buyout map to be reproduced and included in Engineering Appendix where needed.

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 14 2020

1-1 Backcheck Recommendation **Close Comment**

Closed without comment.

Submitted By: Ken Lieu (412-395-7535) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8396866 Real Estate Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Draft Integrated Feasibility Report)

Page 96 and Page 97. Though the non-federal sponsor is aware of their responsibilities, do they have the capabilities necessary to acquire the real estate. There was no mention of assessment of the NFS's capabilities or if they completed the Sponsor real estate acquisition capabilities for this

project. Neither the Real Estate Appendix nor the main body of the report captures this detail.

Submitted By: Ken Lieu (412-395-7535). Submitted On: Feb 12 2020

1-0 Evaluation **Concurred**
Waiting on NFS to complete form.

Submitted By: James Kelly (412-395-7135) Submitted On: Feb 18 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Ken Lieu (412-395-7535) Submitted On: Feb 21 2020
Current Comment Status: **Comment Closed**

8397202	Civil	Engineering Appendix	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

Attached file has spelling/grammar markups included for you to incorporate.

(Attachment: Markup_Appendix_A_Engineering.pdf)

Submitted By: Tim Sturm (4123957560). Submitted On: Feb 12 2020

Revised Feb 13 2020.

1-0 Evaluation **Concurred**
(JR response) Spelling and grammar changes will be made and Engineering Appendix will be revised accordingly.

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 13 2020

1-1 Backcheck Recommendation **Open Comment**
Page 15 - figures is not capitalized like other references.
Page 35 - include Figure 25 with 23 and 24.

Submitted By: Tim Sturm (4123957560) Submitted On: Feb 18 2020

2-0 Evaluation **Concurred**
Revisions made to items on noted Engineering Appendix pages.

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 19 2020

2-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Tim Sturm (4123957560) Submitted On: Feb 19 2020
Current Comment Status: **Comment Closed**

8397207	Civil	Engineering Appendix	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

Page 41 of Engineering Appendix has uncompleted section on structural features and conclusions.

Submitted By: Tim Sturm (4123957560). Submitted On: Feb 12 2020

Revised Feb 13 2020.

1-0 Evaluation **Concurred**
(JR response) Structural features section was not complete at time of Draft Appendix. This section to be revised and updated.

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 13 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Tim Sturm (4123957560) Submitted On: Feb 18 2020
Current Comment Status: **Comment Closed**

8397218	Civil	Engineering Appendix	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

On pages 27 and 44 of the engineering appendix, the Stationing of concrete lined channelization (STA 33704 to STA 30753) does not match the 9,000 linear feet presented.

Submitted By: Tim Sturm (4123957560). Submitted On: Feb 12 2020

Revised Feb 13 2020.

1-0 Evaluation **Concurred**
(JR responses) River stationing will be removed and / or revised to match reach length.

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 18 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Tim Sturm (4123957560) Submitted On: Feb 18 2020
Current Comment Status: **Comment Closed**

8398505	Geotechnical	Engineering Appendix	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Attachment 4, PDF Page 4)

Critical velocities reported in Table A-2 for the soil types do not match with USACE EM 1110-2-1601& NRCS as referenced in the paragraph. Please provide an appropriate reference to backup the reported critical velocities or revise Table A-2 to match EM 1110-2-1601 (Table 2-5)& update the report accordingly.

Submitted By: Prem Itani (4123597532). Submitted On: Feb 13 2020

Revised Feb 13 2020.

1-0 Evaluation **Concurred**
(JR response)
CVs have been reviewed and revised. Expert elicitation table to be revised to better reflect EM 1110-2-1601 Table A-2. Engineering Appendix will be revised accordingly.

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 14 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Prem Itani (4123597532) Submitted On: Feb 19 2020
Current Comment Status: **Comment Closed**

8398529	Geotechnical	Engineering Appendix	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Attachment 4, PDF Page 4)

Summary of existing geotechnical borings reported in Table A-1 do not list the peat materials in the project location. Therefore, please consider removing the critical velocities for reported in Table A-2. Also, include critical velocities for gravel & silt materials in Table A-2.

Submitted By: Prem Itani (4123597532). Submitted On: Feb 13 2020

Revised Feb 13 2020.

1-0 Evaluation **Concurred**
(JR response)
Peat removed from referenced table. CVs revised to better reflect EM 1110-2-1601.

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 14 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Prem Itani (4123597532) Submitted On: Feb 19 2020
Current Comment Status: **Comment Closed**

8398582	Geotechnical	Engineering Appendix	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Attachment 4, Page 4)

It is very difficult to estimate the percent of clay and silt contents in the erodible soils during field observations. Therefore, please move the shaded red area in Figures A-3 and A-6 to start from 0.001 mm in order to consider silt and clay content in the eroded materials during flood events.

Submitted By: Prem Itani (4123597532). Submitted On: Feb 13 2020

Revised Feb 13 2020.

1-0 Evaluation **Concurred**
(JR response)
Hjulstrom diagrams for all cross section areas revised. Shaded areas revised based on revised CV values and Q values in the "Erosion Zone". Left vertical soil grain diameter demarcation line moved halfway between clay and silt to include more clay.

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 18 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Prem Itani (4123597532) Submitted On: Feb 19 2020

Current Comment Status: **Comment Closed**

8398599	Geotechnical	Engineering Appendix	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Attachment 4, Page 4)

The unit systems as the report read is very confusing (mix match of two unit systems). Please include the scour depth/scour elevation in feet adjacent to meter in the parenthesis in Table A-6.

Submitted By: Prem Itani (4123597532). Submitted On: Feb 13 2020

Revised Feb 13 2020.

1-0 Evaluation **Concurred**
Depth and elevation in feet will be added.

Submitted By: Deepak Neupane (412-395-7349) Submitted On: Feb 18 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Prem Itani (4123597532) Submitted On: Feb 19 2020

Current Comment Status: **Comment Closed**

8398619	Geotechnical	Engineering Appendix	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Attachment 2)

Please update the Table number ("Table XX") throughout the report.

Submitted By: Prem Itani (4123597532). Submitted On: Feb 13 2020

1-0 Evaluation **Concurred**
(JR response)
Table numbers added. Table list in Table of contents added.

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 14 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Prem Itani (4123597532) Submitted On: Feb 19 2020
Current Comment Status: **Comment Closed**

8398623	Geotechnical	Engineering Appendix	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Attachment 2, Page 9)

Match font size of second paragraph of Section 1.2.1.

Submitted By: Prem Itani (4123597532). Submitted On: Feb 13 2020

Revised Feb 13 2020.

1-0 Evaluation **Concurred**
(JR response)
font to be consistent throughout Report, Engineering Appendix and related attachments where feasible.

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 14 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Prem Itani (4123597532) Submitted On: Feb 19 2020
Current Comment Status: **Comment Closed**

8398627	Geotechnical	Engineering Appendix	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Attachment 2)

Update the Figure number (Figure xx) throughout the report.

Submitted By: Prem Itani (4123597532). Submitted On: Feb 13 2020

1-0 Evaluation **Concurred**
(JR response)
Missing Figure numbers added and figure (table) updated .

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 18 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Prem Itani (4123597532) Submitted On: Feb 19 2020

Current Comment Status: **Comment Closed**

8398686	Geotechnical	Engineering Appendix	Section 1.2.2.1.1 PR 149 Bridge	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Engineering Appendix, Page 15)

6th Sentence of 2nd paragraph states that the piles are assumed to be driven to refusal and embedded in various materials from volcanic rocks and clays. Are these piles embedded into bedrock or driven to refusal/to bedrock? Suggest rewording as " The piles are assumed to be driven through various materials such as clays and driven to refusal into volcanic rocks."

Submitted By: Prem Itani (4123597532). Submitted On: Feb 13 2020

1-0 Evaluation **Concurred**
We will change the 6th sentence of 2nd paragraph as:

Piles are assumed to be driven and tipped in very dense sand and gravel/boulder to volcanic rock.

Submitted By: Deepak Neupane (412-395-7349) Submitted On: Feb 18 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Prem Itani (4123597532) Submitted On: Feb 19 2020

Current Comment Status: **Comment Closed**

8399385	Geotechnical	Engineering Appendix	Section 2.1.1, Page 25	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Engineering Appendix)

Table 4: Structure Elevation (Raise structures) appears to relate with physical features. Shall it be structural measures? Please verify.

Submitted By: Prem Itani (4123597532). Submitted On: Feb 13 2020

1-0 Evaluation **Non-concurred**
For the purpose of this Study, raising structures is considered a non-structural measure. It would be considered a "physical" non structural measure as opposed to a structural measure that affects the characteristics of a flood.

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 18 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Prem Itani (4123597532) Submitted On: Feb 19 2020

Current Comment Status: **Comment Closed**

8399460	Geotechnical	Engineering Appendix	Section 3.1.2.2, Page 39	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Engineering Appendix)

Add a note just before the last sentence of Section 3.1.2.2, " A detailed slope stability analysis shall be performed for the proposed slope in the final design"

Submitted By: Prem Itani (4123597532). Submitted On: Feb 13 2020

Revised Feb 13 2020.

1-0 Evaluation **Concurred**
It will be added as per the comment.

Submitted By: Deepak Neupane (412-395-7349) Submitted On: Feb 18 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Prem Itani (4123597532) Submitted On: Feb 19 2020

Current Comment Status: **Comment Closed**

8399481	Geotechnical	Engineering Appendix	Section 2.1.4.11, Page 27	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Engineering Appendix)

The excavation depth & width mentioned in the second sentence of the first bullet does not match with the cross section shown in Figure 14. Please verify.

Submitted By: Prem Itani (4123597532). Submitted On: Feb 13 2020

1-0 Evaluation **Concurred**
(JR response)
The dimensions of the proposed concrete channel will be verified and the correct dimension placed within the referenced paragraph and in Figure 14.

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 18 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Prem Itani (4123597532) Submitted On: Feb 19 2020

Current Comment Status: **Comment Closed**

8399674	Geotechnical	Engineering Appendix	Section 2.1.4.1, Page 28	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Engineering Appendix)

Figure 14: Verify the top width of channel (280 feet). It should be 190 feet as shown in cross section.

Submitted By: Prem Itani (4123597532). Submitted On: Feb 13 2020

1-0 Evaluation **Concurred**
(JR response)
Dimension to be checked and correct dimension to be in Para 2.1.4.1 and Figure 14.

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 18 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Prem Itani (4123597532) Submitted On: Feb 19 2020

Current Comment Status: **Comment Closed**

8399886	Civil	Engineering Appendix	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

It is unclear if the drawings included in Appendix A are part of Attachments and should be reviewed or are reference and unable to be commented on/revised.

If a reference drawing set, a banner page stating as such before the drawings would be helpful (similar to the callouts in the first page of Attachment 2 and 3)

Submitted By: Tim Sturm (4123957560). Submitted On: Feb 13 2020

Revised Feb 13 2020.

1-0 Evaluation **Concurred**

(JR response) The Appendix A Attachments will be provided with coversheets with title.

The drawings referred to here (Attachment 1) are provided as a reference only.

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 18 2020

1-1 Backcheck Recommendation **Close Comment**

Closed without comment.

Submitted By: Tim Sturm (4123957560) Submitted On: Feb 18 2020

Current Comment Status: **Comment Closed**

8400222 Economics Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

(Document Reference: Appendix C – Economic Analysis, Section 1.2 Economic Analysis: Purpose and Methodology, Page 4, Assumptions used in the evaluation of alternatives #1, #2, and #3:)

Coordinating Discipline(s): Economics

Benefits and non-structural relocation cost are at August 2019 price level, while all other costs are at October 2019 price level. This 2-month difference in price level is unlikely to change the positive BCR of the report so no calculation update is necessary. Recommend adding note on why the price levels differ, that overall BCR is unlikely to be impacted, and that price level will be updated after feasibility phase.

Submitted By: Joe DeLucia (412-395-7204). Submitted On: Feb 13 2020

1-0 Evaluation **Concurred**

Concur; added a note under the 'Assumptions used in the evaluation of alternatives' on Page 4.

Submitted By: Susannah Byrd (412-395-7164) Submitted On: Feb 20 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Joe DeLucia (412-395-7204) Submitted On: Feb 21 2020
Current Comment Status: **Comment Closed**

8400223 Economics Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Appendix C – Economic Analysis, Section 2.3.1 Structure Inventory, Page 9)
Coordinating Discipline(s): Economics

Infrastructure such as roads and bridged can also be included in damages estimates. Why were these not considered part of the analysis?

Submitted By: Joe DeLucia (412-395-7204). Submitted On: Feb 13 2020

1-0 Evaluation **For Information Only**
We currently do not have enough cost/DRV information for the roads and bridges in the study area to consider them in the FDA model. Additionally, roads have not historically been damaged by inundation only; damage/failure of roads and brides are considered in the streambank erosion analyses.

Submitted By: Susannah Byrd (412-395-7164) Submitted On: Feb 20 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Joe DeLucia (412-395-7204) Submitted On: Feb 21 2020
Current Comment Status: **Comment Closed**

8400226 Economics Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Appendix C – Economic Analysis, Section 2.3.1.3 Structure Depreciated Replacement Value (DRVs), Page 10, Table 4:)
Coordinating Discipline(s): Economics

Recommend more detailed explanation on why it is justified to use the commercial DRV on industrial and public structures.

Submitted By: Joe DeLucia (412-395-7204). Submitted On: Feb 13 2020

1-0 Evaluation **Concurred**
Concur; added more detail to Section 2.3.1.3 on Page 11 (under Table 3).

Submitted By: Susannah Byrd (412-395-7164) Submitted On: Feb 20 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Joe DeLucia (412-395-7204) Submitted On: Feb 21 2020
Current Comment Status: **Comment Closed**

8400228 Economics Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Appendix C – Economic Analysis, Section 2.3.1.7 Depth-Damage Function, Page 14, Table 5:)
Coordinating Discipline(s): Economics

Structure occupancy types were identified in relation to the depth damage functions source used. Are the number of structure in each occupancy type identified anywhere in the report, and was consideration given to structure occupancy type when estimating depreciated replacement value?

Submitted By: Joe DeLucia (412-395-7204). Submitted On: Feb 13 2020

1-0 Evaluation **Concurred**
Concur; a column showing the number of structures per occupancy type was added to Table 5.

The structure occupancy type was not considered when estimating depreciated replacement values. The best method given the available time and resources was estimating DRVs based on structure category only (i.e. residential, commercial). Additionally, the sample was not large enough to develop a reasonable DRV per occupancy type. Following the feasibility phase, an exact DRV for each structure will be estimated by real estate.

Submitted By: Susannah Byrd (412-395-7164) Submitted On: Feb 20 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Joe DeLucia (412-395-7204) Submitted On: Feb 21 2020
Current Comment Status: **Comment Closed**

8400237 Economics Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Appendix C – Economic Analysis, Section 3.3.4.1 Damages Reduced By Reach, Page 31, Tables 25, 26, & 27:)
Coordinating Discipline(s): Economics

Tables would tell the story better if Total Annual Damages Without Project were included. Recommend making the tables more closely resemble Table 36 on page 38 so that columns read Total Annual Damages Without Project, Total Annual Damages With Project, and Total Annual Damages Reduced.

Submitted By: Joe DeLucia (412-395-7204). Submitted On: Feb 13 2020

1-0 Evaluation **Concurred**

Concur; the tables have been updated to be more similar to Table 36.

Submitted By: Susannah Byrd (412-395-7164) Submitted On: Feb 20 2020

1-1 Backcheck Recommendation **Close Comment**

Closed without comment.

Submitted By: Joe DeLucia (412-395-7204) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8400239	Economics	Feasibility Study	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

(Document Reference: Appendix C – Economic Analysis, Section 4.3.4 Damages Reduced By Reach, Page 37, Table 35:)

Coordinating Discipline(s): Economics

Table would tell the story better if Total Annual Damages Without Project were included. Recommend making the table more closely resemble Table 36 on page 38 so that columns read Total Annual Damages Without Project, Total Annual Damages With Project, and Total Annual Damages Reduced.

Submitted By: Joe DeLucia (412-395-7204). Submitted On: Feb 13 2020

1-0 Evaluation **Concurred**

Concur; Table 35 has been updated.

Submitted By: Susannah Byrd (412-395-7164) Submitted On: Feb 20 2020

1-1 Backcheck Recommendation **Close Comment**

Closed without comment.

Submitted By: Joe DeLucia (412-395-7204) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8400241	Economics	Feasibility Study	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

(Document Reference: Appendix C – Economic Analysis, Section 5.1.3.5 Damages Reduced By Reach, Page 43, Table 43:)

Coordinating Discipline(s): Economics

Table would tell the story better if Total Annual Damages Without Project were included. Recommend making the table more closely resemble Table 36 on page 38 so that columns read Total Annual Damages Without Project, Total Annual Damages With Project, and Total Annual Damages Reduced.

Submitted By: Joe DeLucia (412-395-7204). Submitted On: Feb 13 2020

1-0 Evaluation **Concurred**

Concur; Table 43 was updated to more closely resemble Table 36.

Submitted By: Susannah Byrd (412-395-7164) Submitted On: Feb 20 2020

1-1 Backcheck Recommendation **Close Comment**

Closed without comment.

Submitted By: Joe DeLucia (412-395-7204) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8400243 Economics Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

(Document Reference: Appendix C – Economic Analysis, Section 5.1.4 Project Costs, Pages 43 & 44, Table 44:)

Coordinating Discipline(s): Economics

Recommend adding row under Interest During Construction and labeling it Total Investment Cost. Then add together the Total First Cost and Interest During Construction in this new row since this is the cost that will be annualized. Also recommend annotating the Interest During Construction Period in months for each of the alternatives somewhere.

Submitted By: Joe DeLucia (412-395-7204). Submitted On: Feb 13 2020

1-0 Evaluation **Concurred**

Concur; this row was added. Additionally, a new table was added to shows the construction period in months (Table 44).

Submitted By: Susannah Byrd (412-395-7164) Submitted On: Feb 20 2020

1-1 Backcheck Recommendation **Close Comment**

Closed without comment.

Submitted By: Joe DeLucia (412-395-7204) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8400245 Economics Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

(Document Reference: Appendix C – Economic Analysis, Section 1.4 & 1.5, Pages 56 & 57, Tables 59, 60, & 61:)

Coordinating Discipline(s): Economics

Recommend annotating the Interest During Construction Period in months somewhere.

Submitted By: Joe DeLucia (412-395-7204). Submitted On: Feb 13 2020

1-0 Evaluation **Concurred**
Concur; this information was added to a new table (Table 44, page 45).

Submitted By: Susannah Byrd (412-395-7164) Submitted On: Feb 20 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Joe DeLucia (412-395-7204) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8400248 Economics Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Appendix C – Economic Analysis, Section 1.5 Bank Stabilization and Bridge Scour Protection Alternative, Page 57, Table 61:)
Coordinating Discipline(s): Economics

I calculate Total Investment Cost = $1,568, which makes Annualized First Cost = $58, and Total Average Annual Cost = $136.

Submitted By: Joe DeLucia (412-395-7204). Submitted On: Feb 13 2020

1-0 Evaluation **Concurred**
Costs within Section 1.4 and Section 1.5 have been corrected and updated.

Submitted By: Susannah Byrd (412-395-7164) Submitted On: Feb 20 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Joe DeLucia (412-395-7204) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8400251 Economics Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Appendix C – Economic Analysis, Section 1.6 Benefit to Cost Ratios (BCR), Page 57, Table 62:)
Coordinating Discipline(s): Economics

Total Average Annual Benefits = $17,104 which would make Average Annual Net Benefits = $12,100, but BCR would still equal 3.4.

Submitted By: Joe DeLucia (412-395-7204). Submitted On: Feb 13 2020

1-0 Evaluation **Concurred**
Costs within the Streambank Erosion section of the appendix have been corrected and updated.

Submitted By: Susannah Byrd (412-395-7164) Submitted On: Feb 20 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Joe DeLucia (412-395-7204) Submitted On: Feb 21 2020
Current Comment Status: **Comment Closed**

8400254 Economics Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Appendix C – Economic Analysis, Section 1.6 Benefit to Cost Ratios (BCR), Page 58, Table 63:)
Coordinating Discipline(s): Economics

Total Average Annual Benefits = $7,831 and Average Annual Cost = $136 which would make Average Annual Net Benefits = $7,695, and BCR = 57.6.

Submitted By: Joe DeLucia (412-395-7204). Submitted On: Feb 13 2020

1-0 Evaluation **Concurred**
All costs and benefits have been updated in the Streambank Erosion portion of the report.

Submitted By: Susannah Byrd (412-395-7164) Submitted On: Feb 20 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Joe DeLucia (412-395-7204) Submitted On: Feb 21 2020
Current Comment Status: **Comment Closed**

8400257 Economics Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Appendix C – Economic Analysis, Section 1.6 Benefit to Cost Ratios (BCR), Page 57, Table 64:)
Coordinating Discipline(s): Economics

Total Average Annual Benefits = $9,273 which would make Average Annual Net Benefits = $8,640, but BCR would still equal 14.7.

Submitted By: Joe DeLucia (412-395-7204). Submitted On: Feb 13 2020

1-0 Evaluation **Concurred**
All benefits and costs have been updated in the Streambank Erosion portion of the appendix.

Submitted By: Susannah Byrd (412-395-7164) Submitted On: Feb 20 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Joe DeLucia (412-395-7204) Submitted On: Feb 21 2020
Current Comment Status: **Comment Closed**

8400258 Economics Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Appendix C – Economic Analysis, Section 1.9 Recommend Plan BCRs, Pages 60 & 61, Table 65:)
Coordinating Discipline(s): Economics

Total Project First Cost do not seem to be correct. Additionally previous changes to Average Annual Benefits will change results including Annual Benefits and Benefit Cost Ratio.

Submitted By: Joe DeLucia (412-395-7204). Submitted On: Feb 13 2020

1-0 Evaluation **Concurred**
All benefits and costs have been updated in the Streambank Erosion portion of the appendix.

Submitted By: Susannah Byrd (412-395-7164) Submitted On: Feb 20 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Joe DeLucia (412-395-7204) Submitted On: Feb 21 2020
Current Comment Status: **Comment Closed**

8400259 Economics Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Main Report, Section 3.4.1 Economic Assessment, Page 55 & 56, Table 3-3:)
Coordinating Discipline(s): Economics

Stability & Scour numbers should be verified and changed as necessary based on Appendix C-Economic Analysis comments. This would also change number for combined totals in Table 3-3.

Submitted By: Joe DeLucia (412-395-7204). Submitted On: Feb 13 2020

1-0 Evaluation **Concurred**
Numbers were changed based on comments to appendix. All numbers now match between appendix and main report document.

Submitted By: Eric Merriam (412-395-7185) Submitted On: Feb 21 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Joe DeLucia (412-395-7204) Submitted On: Feb 21 2020
Current Comment Status: **Comment Closed**

8400261 Economics Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Main Report, Section 3.7.1 Scour & Stabilization Measures, Page 82, Table 3-11:)
Coordinating Discipline(s): Economics

Numbers should be verified and changed as necessary based on Appendix C- Economic Analysis comments.

Submitted By: Joe DeLucia (412-395-7204). Submitted On: Feb 13 2020

1-0 Evaluation **Concurred**
Numbers were changed based on appendix comments and all numbers match between the two documents.

Submitted By: Eric Merriam (412-395-7185) Submitted On: Feb 21 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Joe DeLucia (412-395-7204) Submitted On: Feb 21 2020
Current Comment Status: **Comment Closed**

8400264 Economics Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Main Report, Section 3.7.1 Flood Risk Management Measures, Page 83, Table 3-12:)
Coordinating Discipline(s): Economics

Numbers in Table do not match Appendix C- Economic Analysis comments. Verify and change as necessary.

Submitted By: Joe DeLucia (412-395-7204). Submitted On: Feb 13 2020

1-0 Evaluation **Concurred**
Numbers in all tables are now consistent between the two documents.

Submitted By: Eric Merriam (412-395-7185) Submitted On: Feb 21 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Joe DeLucia (412-395-7204) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8400265 Economics Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Main Report, Section 4.2.2 Cost-Benefit Analysis, Page 87, Table 4-2:)
Coordinating Discipline(s): Economics

Stability & Scour numbers should be verified and changed as necessary based on Appendix C-Economic Analysis comments. This would also change number for combined totals in Table 4-2.

Submitted By: Joe DeLucia (412-395-7204). Submitted On: Feb 13 2020

1-0 Evaluation **Concurred**
Numbers were changed based on appendix comments. All numbers should now be consistent between the two documents.

Submitted By: Eric Merriam (412-395-7185) Submitted On: Feb 21 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Joe DeLucia (412-395-7204) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8400267 Economics Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Main Report, General Comment:)
Coordinating Discipline(s): Economics

Economic numbers should be verified between the Main Report and Economic Appendix C to include both paragraphs and tables.

Submitted By: Joe DeLucia (412-395-7204). Submitted On: Feb 13 2020

1-0 Evaluation **Concurred**
All numbers were verified between the two documents and should now be consistent.

Submitted By: Eric Merriam (412-395-7185) Submitted On: Feb 21 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Joe DeLucia (412-395-7204) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8401014 Structural Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
Coordinating Discipline(s): Structural

Understanding that this option has been screened out, may need to address the fact that I-walls for USACE are subject to heavy scrutiny after the failures in New Orleans during Katrina.

Submitted By: Anna Hayes (304-399-5562). Submitted On: Feb 14 2020

Revised Feb 14 2020.

1-0 Evaluation **Concurred**
(JR response)
Will recommend to PM to include language regarding scrutiny per comment.

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 18 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Anna Hayes (304-399-5562) Submitted On: Feb 18 2020

Current Comment Status: **Comment Closed**

8401023 Structural Feasibility Study n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
(Document Reference: Paragraph 3.7.1)
Coordinating Discipline(s): Structural

Some concerns about overtopping the structure P6685 when the riprap is installed, potentially leading to a narrower channel. If it just barely cleared the bridge when the channel was wide open, is there a need to address the channel when it is narrowed by upstream riprap measures? Armoring the piers is a good step, but are we going to overtop the bridge when the other measures are installed?

Submitted By: Anna Hayes (304-399-5562). Submitted On: Feb 14 2020

1-0 Evaluation **Concurred**
per discussions with H&H (Christina) the following should answer the comment. "Results from the hydraulic model indicate that the PR 6685 bridge is overtopped during the 100-yr event - both during the No Action Alternative and TSP. This is a one-dimensional, steady state model, so the impacts from upstream proposed measures are not reflected at the cross sections bounding the PR 6685 bridge. In reality, there would likely be an increase in the water surface elevation with reduced channel capacity, however the extent of an increase would require additional survey of the existing conditions, refinement of the design in the next project phase, and increased model complexity."

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 19 2020

1-1 Backcheck Recommendation **Open Comment**
Understood that this will be addressed during the next phase of design/analysis.

Submitted By: Anna Hayes (304-399-5562) Submitted On: Feb 19 2020

1-2 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Anna Hayes (304-399-5562) Submitted On: Feb 19 2020

Current Comment Status: **Comment Closed**

8401029	General	Feasibility Study	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
Coordinating Discipline(s): General

General comments about the Engineering Appendix - appears to still be a lot of blanks that need to be filled in.

Submitted By: Anna Hayes (304-399-5562). Submitted On: Feb 14 2020

1-0 Evaluation **Concurred**
(JR response)
The blanks in the initially provided copy of the Fes Study will be filled in based on the revised Engineering Appendix items related to Structural items. A copy of the latest Engineering Appendix with most Structural items addressed was forwarded in a separate email. Please review the revised version and provide any additional comments if needed.

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 18 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Anna Hayes (304-399-5562) Submitted On: Feb 18 2020

Current Comment Status: **Comment Closed**

8401031	General	Feasibility Study	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
Coordinating Discipline(s): General

Appendix A - Engineering Appendix - need to clarify the installation of the scour protection around the piers for Bridge PR149 doesn't encroach into the channel causing "flume flow"

Submitted By: Anna Hayes (304-399-5562). Submitted On: Feb 14 2020

1-0 Evaluation **Concurred**
(JR response)
Revised Engineering Appendix Para 2.1.7 (Recommended Plan) description to include this language.

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 18 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Anna Hayes (304-399-5562) Submitted On: Feb 18 2020
Current Comment Status: **Comment Closed**

8401344	Structural	Engineering Appendix	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

General question (out of scope for flood proofing, but may be worth a mention that scour prevention needs to be added as a first phase) - has any recommendations been forwarded/made for a stability analysis of the PR149 bridge?

Submitted By: Anna Hayes (304-399-5562). Submitted On: Feb 14 2020

1-0 Evaluation **Concurred**
(JR response)
Emphasis will be placed on bridge pier scour protection needing to be a priority installed measure under the TSP.

Bridge stability analyses will most likely be a part of the Preliminary Engineering and Design (PED) Phase once project is approved and moves forward.

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 18 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Anna Hayes (304-399-5562) Submitted On: Feb 18 2020
Current Comment Status: **Comment Closed**

8401382	Environmental	Design Memorandum or Report	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

5.3.5 - we state that the recommended plan would reduce pollution entering the river from the wastewater treatment plant during flood events, helping improve water quality within and downstream of the study area. The recommended plan would restore natural floodplain area and associated wildlife habitats.

Is this the case? The recommended plan is riprap and buyouts – we aren't protecting the WWTP. Assuming "restoring the natural floodplain area" will be where the houses that are being bought out are now?

Submitted By: Anna Hayes (304-399-5562). Submitted On: Feb 14 2020

1-0 Evaluation **Concurred**

(JR response)
Para 5.2.5 "Systems and Watershed Context" language will be revised to remove reference to floodwall protection of the WWTP being part of the TSP and reducing pollution of the de Manati river.

Submitted By: John Rusnak (412-395-7239) Submitted On: Feb 18 2020

1-1 Backcheck Recommendation **Close Comment**

Closed without comment.

Submitted By: Anna Hayes (304-399-5562) Submitted On: Feb 18 2020

Current Comment Status: **Comment Closed**

8401905	Environmental	Other	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

References need to be globally checked to ensure thorough inclusion of all referenced documents within the reference section and formatting consistency in the document. The reference section formatting is also unusual – typically these are an alphabetical list of all references (not numbered). This formatting is difficult to search.

Submitted By: Bobbi McClain (412-395-7220). Submitted On: Feb 14 2020

1-0 Evaluation **Concurred**

I updated the formatting of internal citations, as well as the citations in the reference section to be consistent. The reference section is now left justified and alphabetized per the reviewer's suggestion.

I also added references to the reference section that were not originally included, including those that the reviewer highlighted, as well as others that were subsequently added.

Submitted By: Eric Merriam (412-395-7185) Submitted On: Feb 20 2020

1-1 Backcheck Recommendation **Close Comment**

Closed without comment.

Submitted By: Bobbi McClain (412-395-7220) Submitted On: Feb 20 2020

1-2 Backcheck Recommendation **Close Comment**

Closed without comment.

Submitted By: Bobbi McClain (412-395-7220) Submitted On: Feb 20 2020

Current Comment Status: **Comment Closed**

8401908	Environmental	Other	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

Recommend some rework to the FWOP natural resources write ups (Sections 2.3.3 and 2.3.4). While the continued erosion of banks would certainly continue to change the landscape – it doesn't necessarily mean that the landscape doesn't recover. For example bank erosion may cause temporary and recurring loss of vegetation – but natural revegetation of slopes would likely occur. Additionally, erosion of high banks may actually create additional floodplain as the river valley naturally widens, allowing increased space for fringe wetlands and creating shallow depositional areas that may also recruit wetland plants. Recommend discussion in terms of periodic recurrent impacts and recovery times.

Submitted By: Bobbi McClain (412-395-7220). Submitted On: Feb 14 2020

1-0 Evaluation **Concurred**

All recommended changes included in the separate word document provided by the reviewer were made. Those included all of the issues defined in this DrChecks comment.

Submitted By: Eric Merriam (412-395-7185) Submitted On: Feb 19 2020

1-1 Backcheck Recommendation **Close Comment**

Closed without comment.

Submitted By: Bobbi McClain (412-395-7220) Submitted On: Feb 20 2020

Current Comment Status: **Comment Closed**

8401909	Environmental	Other	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

There is lack of clarity or inconsistency in the number of structures at risk of flooding. 2.3.6.1 seems to say 157 + 61 structures, but the executive summary and section 2.2.71 say 149 structures? Need to clarify.

Submitted By: Bobbi McClain (412-395-7220). Submitted On: Feb 14 2020

1-0 Evaluation **Concurred**

Great catch. The number should be 149. I removed all references to 157 structures. This number is now reported consistently throughout the document.

Submitted By: Eric Merriam (412-395-7185) Submitted On: Feb 19 2020

1-1 Backcheck Recommendation **Close Comment**

Closed without comment.

Submitted By: Bobbi McClain (412-395-7220) Submitted On: Feb 20 2020

Current Comment Status: **Comment Closed**

8401913	Environmental	Other	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

Recommend consideration of the use of will vs would. As the project is still being developed, and we are seeking input - nothing is certain and "would" is typically a better choice. We might (would) do stuff in the future (have specific impacts) if a specific Alt is chosen and funded – but we might not. And certainly not all Alts will be chosen so they won't all have these effects.

Submitted By: Bobbi McClain (412-395-7220). Submitted On: Feb 14 2020

1-0 Evaluation **Concurred**

We went through and updated all sections to use the word 'would' as opposed to 'will'.

Submitted By: Eric Merriam (412-395-7185) Submitted On: Feb 19 2020

1-1 Backcheck Recommendation **Close Comment**

Closed without comment.

Submitted By: Bobbi McClain (412-395-7220) Submitted On: Feb 20 2020

Current Comment Status: **Comment Closed**

8401915 Environmental Other n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

Was asbestos and lead-based paint considered when planning to demolish these buildings (relocations)? Demolishing buildings with asbestos and lead paint could contaminate soils, and is expensive to remediate and may also require air quality permits and costly safety precautions for workers.

Submitted By: Bobbi McClain (412-395-7220). Submitted On: Feb 14 2020

1-0 Evaluation **Concurred**

Report updated to include a discussion of potential impacts associated with asbestos and lead-based paint. We note that if permits/testing/abatement are needed, the contractor will be responsible.

These changes were made in all relevant sections of the report.

Submitted By: Eric Merriam (412-395-7185) Submitted On: Feb 19 2020

1-1 Backcheck Recommendation **Close Comment**

Closed without comment.

Submitted By: Bobbi McClain (412-395-7220) Submitted On: Feb 20 2020

Current Comment Status: **Comment Closed**

8401916 Environmental Other n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

The CR impact section (in 3.5) includes very specific site location for protected resources. Recommend removing site location information.

Submitted By: Bobbi McClain (412-395-7220). Submitted On: Feb 14 2020

1-0 Evaluation **Non-concurred**

I spoke with our cultural resources lead and he verified - after speaking with his supervisory - that this is the level of detail that is appropriate and typically included in a feasibility report. Consequently, no changes were made.

Submitted By: Eric Merriam (412-395-7185) Submitted On: Feb 19 2020

1-1 Backcheck Recommendation **Close Comment**

Closed without comment.

Submitted By: Bobbi McClain (412-395-7220) Submitted On: Feb 20 2020

Current Comment Status: **Comment Closed**

8402065	Cost Engineering	Cost Estimate	n/a	n/a	n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
Coordinating Discipline(s): Cost Engineering

Checked MII Cost Book, Labor, Equipment and Materials and Markups.

All look appropriate. I question the Davis Bacon Rates with $15 Fringe as being too expensive, but that seems to be USACE practice for PR projects.

Wasn't sure what 'Patente' markup of 0.5% was.

Submitted By: Rana Mishra (312-846-5428). Submitted On: Feb 14 2020

1-0 Evaluation **Concurred**

Concur. In discussions with Cost MCX and SAJ they recommend using the National Labor Rates and a $15/hr fringe benefit for potential per diem allowance in case workers are needed to be brought in from CONUS. This seems high compared to current wages but with so many projects being prepared for PR there will likely be a shortage of contractors/workers.

The Patente fee is a fee paid by all contractors in PR per SAJ.

Submitted By: David Druzbicki (312-846-5433) Submitted On: Feb 19 2020

1-1 Backcheck Recommendation **Close Comment**

Submitted By: Rana Mishra (312-846-5428) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8402085 Cost Engineering Cost Estimate n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
Coordinating Discipline(s): Cost Engineering

On Item for 2008 Floodwall\Levee Protection Works Project, the note puts in the escalation factor.

All of the numbers are hard entered, but no escalation applied. Were cost escalated outside of MII and then entered? Might make more sense to enter the original numbers in MII and then apply escalation markup.

Submitted By: Rana Mishra (312-846-5428). Submitted On: Feb 14 2020

1-0 Evaluation **Concurred**

Concur. I will make correction in future but for now will leave as is since overall cost will remain the same.

Submitted By: David Druzbicki (312-846-5433) Submitted On: Feb 19 2020

1-1 Backcheck Recommendation **Close Comment**

Closed without comment.

Submitted By: Rana Mishra (312-846-5428) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8402165 Cost Engineering Cost Estimate n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
Coordinating Discipline(s): Cost Engineering

We should probably see if it is possible to get a second Rip Rap quote. It may be tough, but there is lot of work going on down there so pricing may be going up.

Submitted By: Rana Mishra (312-846-5428). Submitted On: Feb 14 2020

1-0 Evaluation **Concurred**

I have found it very difficult to obtain quotes on material. I have included this in the abbreviated risk analysis and contingency.

Submitted By: David Druzbicki (312-846-5433) Submitted On: Feb 19 2020

1-1 Backcheck Recommendation **Close Comment**

Closed without comment.

Submitted By: Rana Mishra (312-846-5428) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8402175 Cost Engineering Cost Estimate n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
Coordinating Discipline(s): Cost Engineering

TPCS-
39% contingency overall seems reasonable.

Should we have different contingencies though for different options? I agree that the risks for construction are all mostly the same and can see those having the same %, but I would think Alt 3 (buyouts) might have different risks and different contingency.

Submitted By: Rana Mishra (312-846-5428). Submitted On: Feb 14 2020

1-0 Evaluation **Concurred**
Concur. I will put together an ARA for all of the Alternatives to determine the contingency for each. The construction elements are similar so the contingencies should be close (approx. 40%) I would expect.

Submitted By: David Druzbicki (312-846-5433) Submitted On: Feb 19 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Rana Mishra (312-846-5428) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

8402182 Cost Engineering Cost Estimate n/a n/a n/a

Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**
Coordinating Discipline(s): Cost Engineering

For Information Only- No action Comment:

Overall, estimate looks good with all scope included, reasonable contingences and everything included in TPCS.

Some minor comments posted, but overall costs look good.

Submitted By: Rana Mishra (312-846-5428). Submitted On: Feb 14 2020

1-0 Evaluation **Concurred**
No action required.

Submitted By: David Druzbicki (312-846-5433) Submitted On: Feb 19 2020

1-1 Backcheck Recommendation **Close Comment**
Closed without comment.

Submitted By: Rana Mishra (312-846-5428) Submitted On: Feb 21 2020

Current Comment Status: **Comment Closed**

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