

APPENDIX G
REVIEW REPORTS

DISTRICT QUALITY CONTROL (DQC)

DISTRICT QUALITY CONTROL CERTIFICATION SHEET
VILLAGE OF POMEROY, MEIGS COUNTY, OHIO STATE ROUTE 833
SECTION 14 EMERGENCY STREAMBANK PROTECTION PROJECT
DETAILED PROJECT REPORT/ENVIRONMENTAL ASSESSMENT

A District Quality Control (DQC) review has been completed for the Detailed Project Report/ Environmental Assessment documenting the peer review requirements for the decision document being prepared to address streambank erosion in the Village of Pomeroy located in Meigs County, Ohio. DQC was accomplished in accordance with the regional ISO procedure for Quality Control and Quality Assurance and all DQC comments have been resolved.

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Rebecca Albert
Planning Formulation Chief, PM-PD-F

11 May 2016

Date

District (Internal) Quality Control - Village of Pomeroy, State Route 833, Section 14 - DPR/EA

Review comments

Date	Review/Editor	Comment	Resolution
4/22/2016	Rebecca Albert (Planning)	1) Editorial Comments	1) Changed as suggested
		2) Change Recommendation Section to reflect that we are seeking MSC concurrence rather than permission to complete feasibility study since permission has already been given.	2) Changed as suggested
		3) In the Plan Formulation section distinguish between measures and plans.	3) Section re-written to reflect the difference between the measures and alternative plans.
		4) Insert a table to show whether the measure is effective, efficient, acceptable, and complete.	4)A Table was inserted.
		5) Move draft FONSI to an Appendix	5) Draft FONSI was placed in Appendix B
6/3/2016	Andrew Keffer (Geotechnical Engineer)	1) Editorial Comments	1) Reviewed comments and made necessary changes
		2) Stone size change due to additional study information. Change all stone size references from 24" to 12".	2) Changed as suggested
		3) Cost certification change due to stone size reduction. Replace all cost references with certified costs.	3) Changed as suggested

AGENCY TECHNICAL REVIEW (ATR)

CEMVN-PD-P

19 June 2016

Agency Technical Review Report

Subject: Agency Technical Review (ATR) Report for the Pomeroy Continuing Authorities Program (CAP) Section 14 Emergency Streambank Protection Detailed Project Report and Integrated Environmental Assessment (DPR/EA). The DPR/EA was developed by the U.S. Army Corps of Engineers Huntington District (LRH).

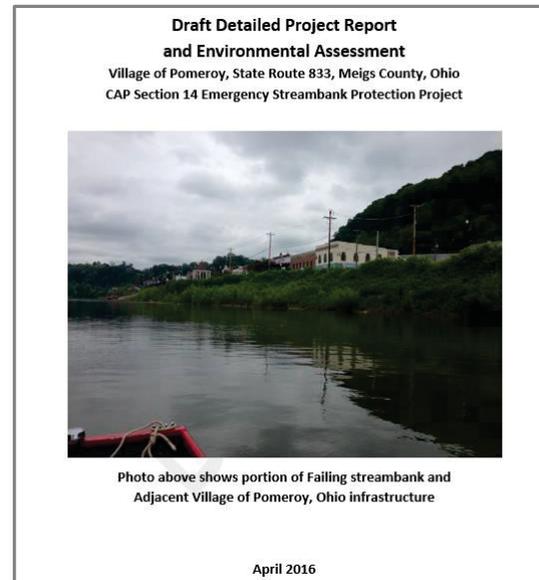
1. Scope and Purpose of Review. The purpose of this report is to document completion of ATR for the subject DPR/EA. The ATR is commensurate with the level of detail expected for this type of project.

2. Study Purpose. The purpose of the DPR is to identify and describe a solution for streambank erosion problems along the Ohio River that are threatening Ohio State Route 833 and adjacent utilities in Meigs County, Ohio. The Project Delivery Team considered multiple alternatives to address the problems in a cost-effective manner. Based on Cost Certification, the Project First Cost is approximately \$1,921,000, with a Federal share of the total cost of approximately \$1,415,000.

3. Required Disciplines for Technical Review. The ATR was conducted for LRH. ATR disciplines and team members were identified in accordance with the provided Review Plan. The LRH primary point of contact for study related issues was Ms. Megan Wilburn. The ATR team was led by Andrew MacInnes, MVN (ATR Lead and Plan Formulation Reviewer). The remaining ATR team members include Cindy Upah (NWO) for Environmental; Kirk Sunderman (MVR) for Civil Engineering/Hazardous Waste; Ron Silver (MVR) for Real Estate; John Winkelman (NAE) for hydraulics and hydrology (H&H); and Michael Ferguson (NWW) for Cost Engineering. A brief bio for each reviewer is included as **Attachment 3**.

4. District Quality Control Review. District Quality Control (DQC) on the 2015 DPR was conducted but only a signed certification statement documenting its completion was provided. No review of the DQC was conducted as part of this ATR.

5. ATR Results. Review of the DPR resulted in a total of 63 comments entered into DrChecks. This included 19 comments for Plan Formulation; 9 comments for Environmental; 6 comments from Civil; 3 comments from Real Estate; 7 comments from H&H; and 19 comments for Cost Engineering. There are 3 'Critical' significance comments related to Plan Formulation, Environmental, and Cost Engineering. The PDT concurred with and addressed the critical



comments and provided responses in DrChecks that clarified the issues. All ATR comments have been resolved and closed out. **Attachment 2** provides the DrChecks report containing all ATR comments and PDT responses.

6. ATR Certification. **Attachment 1** contains a Completion of ATR Statement, signatures confirming ATR completion, and the ATR Certification. Final cost certification was provided by Jim Neubauer of the Cost Engineering Mandatory Center of Expertise (CEMCX; NWW) on 16 June 2016 and is included as **Attachment 4**.

7. Huntington District should coordinate with their Major Subordinate Command, as appropriate, on any remaining issues with this report as it relates to USACE policy.

8. The ATR Team appreciates the opportunity to provide this review. Please contact me if you have any further questions.

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Andrew D. MacInnes
ATR Team Lead
CEMVN-PD-P

Attachment 1. Statement of Technical Review for Decision Documents

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the Detailed Project Report and Environmental Assessment for the Continuing Authorities Program Section 14 Village of Pomeroy study. The ATR was conducted as defined in the project’s Review Plan to comply with the requirements of EC 1165-2-214. During the ATR, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of: assumptions, methods, procedures, and material used in analyses, alternatives evaluated, the appropriateness of data used and level obtained, and reasonableness of the results, including whether the product meets the customer’s needs consistent with law and existing US Army Corps of Engineers policy. The ATR was not able to assess the District Quality Control (DQC) documentation and therefore is unable to comment on its effectiveness. All comments resulting from the ATR have been resolved and the comments have been closed in DrChecks.

CERTIFICATION OF AGENCY TECHNICAL REVIEW

The ATR yielded three ‘critical’ significance comments. The critical concerns and the explanation of the resolution are as follows:

- Plan Formulation Comment 6519967 focused on discrepancies in the breakdown of project costs and apportionment. Numbers presented in the table did not add up and a proper breakdown of costs was not presented. The comment was backchecked and closed after the PDT provided an updated table.
- Environmental Comment 6519964 focused on discrepancies between the Draft Project Report and the Environmental Appendix regarding the length of shoreline protection. Some documents referenced 3,300 feet, others referenced 2,200 feet, while another referenced 2,100 feet. The comment was backchecked and closed without additional reviewer comment.
- Cost Engineering Comment 6526653 focused on potential quantity cost over-runs on stone quantities due to estimates being taken from topographic maps. The comment was backchecked and closed without additional comment.

As noted above, all concerns resulting from the ATR of the project have been fully resolved.

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Andrew D. MacInnes
ATR Team Leader
CEMVN-PD-P

Date

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Megan Wilburn
Planning Lead
CELRH-PM-PD-R

Date

Noel Clay
Review Management Office Representative
CELRD-RB

Date

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August Martin
Chief, Engineering and Construction Division
Huntington District

Date

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for Amy Frantz
Chief, Planning Division
Huntington District

Date

Attachment 2. ATR Comments Summary Report.

<u>Id</u>	<u>Discipline</u>	<u>Section/Figure</u>	<u>Page Number</u>	<u>Line Number</u>
6513846	Real Estate	n/a	n/a	n/a
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>Paragraph 1 should specifically state what Decision Document it support and should specifically state whether it is a full federal or cost shared project with the name of the non federal sponsor, per ER 405-1-12 (17)(b),and should state whether there have been any previous REPs for this project per ER 405-1-12 (17)(1).</p> <p>Submitted By: Ronald Silver (309-794-5506). Submitted On: May 10 2016</p>				
<p>1-0 Evaluation Concurred</p> <p>The REP has been changed to incorporate your comments. The REP now says the following:</p> <p>"This Real Estate Plan is in support of the Village of Pomeroy Detailed Project Report and Environmental Assessment. Section 14 of the Flood Control Act of 1946, as amended 33 U.S.C. 701r, authorizes the Project. This Real Estate Plan (REP) is being submitted in accordance with Chapter 12 of ER 405-1-12 for approval. No previous Real Estate Plans have been submitted for this project. This REP is to be considered tentative in nature and for planning purposes only. Both the final and real property acquisition line and the estimate of cost are subject to change, even after the approval of this report.</p> <p>The Village of Pomeroy has been identified as the cost-sharing non-Federal Sponsor. This project will be cost-shared at 35%.</p> <p>Submitted By: Elizabeth Cooper ((304)399-6935) Submitted On: May 24 2016</p>				
<p>1-1 Backcheck Recommendation Close Comment</p> <p>Closed without comment.</p> <p>Submitted By: Ronald Silver (309-794-5506) Submitted On: May 26 2016</p>				
<p>Current Comment Status: Comment Closed</p>				
6513854	Real Estate	n/a	n/a	n/a
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>Paragraph 4 should include a definitive statement as to whether any sponsor owned land was acquired: ". . . as a requirement of, or with the use of (any federal project funds). . .", per ER 405-1-12 (17)(c)(4).</p>				

Submitted By: [Ronald Silver](#) (309-794-5506). Submitted On: May 10 2016

1-0 Evaluation Concurred

Paragraph 4 has been changed to say the following:

"No LER was acquired by the non-Federal Sponsor as a requirement of, or with the use of funds from, another Federal program or project."

Submitted By: [Elizabeth Cooper](#) ((304)399-6935) Submitted On: May 24 2016

1-1 Backcheck Recommendation Close Comment

Closed without comment.

Submitted By: [Ronald Silver](#) (309-794-5506) Submitted On: May 26 2016

Current Comment Status: **Comment Closed**

6513869

Real Estate

n/a

n/a

n/a

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

Paragraph 7 states that there are existing flowage easements in the project area in favor of the Corps of Engineers. Will the bank protection easement be place over the top of the flowage easement? This needs further explanation and detail.

Submitted By: [Ronald Silver](#) (309-794-5506). Submitted On: May 10 2016

1-0 Evaluation Concurred

Paragraph 7 now states the following:

"The United States, under the jurisdiction of the U.S. Army Corps of Engineers, owns a flowage easement over a portion of the project area. The easement is for the purpose of maintaining the R.C. Byrd Lock and Dam pool up to the elevation of 541 feet, mean sea level. Portions of the bank protection treatments will be located within the flowage easement. It is the view of Huntington District representatives that the proposed project will have no impact on the operation of the R.C. Byrd navigational pool. The lands acquired by the non-Federal Sponsor will be subject to the existing flowage easement. Crediting for the value of the land to be acquired within the flowage easement will be available to the Sponsor and have been included in the cost estimates."

Submitted By: [Elizabeth Cooper](#) ((304)399-6935) Submitted On: May 24 2016

	<p>1-1 Backcheck Recommendation Close Comment</p> <p>Closed without comment.</p> <p>Submitted By: Ronald Silver (309-794-5506) Submitted On: May 26 2016</p>			
<p>Current Comment Status: Comment Closed</p>				
<p>6516803</p>	<p>Planning - Plan Formulation</p>	<p>Section 1.1</p>	<p>PDF Page 5, RPT Page 1</p>	<p>n/a</p>
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>Perhaps an image showing the damage and the relocation would be helpful?</p> <p>Submitted By: John Winkelman (978-318-8615). Submitted On: May 11 2016</p>				
<p>1-0 Evaluation Concurred</p> <p>The following photos include Ohio River right descending bank erosion and wall failure adjacent to SR 833 and the relocation alignment alternative. Relocation was determined to be temporary, since this alignment would also require the wall stabilization component.</p> <p>Submitted By: Andrew Keffer (304-399-5063) Submitted On: May 23 2016 (Attachment: Pomeroy Figures.zip)</p>				
<p>1-1 Backcheck Recommendation Close Comment</p> <p>The comment is closed.</p> <p>Submitted By: John Winkelman (978-318-8615) Submitted On: Jun 01 2016</p> <p>Current Comment Status: Comment Closed</p>				
<p>6516811</p>	<p>Planning - Plan Formulation</p>	<p>Section 2.2.1</p>	<p>PDF Page 10, RPT Page 8</p>	<p>n/a</p>
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>Is the elevation range of 200 ft to 400 ft correct? Looking at Google Earth the elevations in this area are shown to be greater than 700 ft.</p> <p>Submitted By: John Winkelman (978-318-8615). Submitted On: May 11 2016</p>				
<p>1-0 Evaluation Concurred</p> <p>Noted. This description will be changed to reflect the actual elevation of this region.</p>				

Submitted By: Megan Wilburn (304-399-5797) Submitted On: May 22 2016				
1-1 Backcheck Recommendation Close Comment				
The comment is closed.				
Submitted By: John Winkelman (978-318-8615) Submitted On: Jun 01 2016				
Current Comment Status: Comment Closed				
6516820	Hydraulics	Section 3.3	PDF Page 18, RPT Page 14	n/a
Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)				
Is there any shoreline erosion rate or change information to support this? Historical structure damage ratings, etc.?				
Submitted By: John Winkelman (978-318-8615). Submitted On: May 11 2016				
1-0 Evaluation Concurred				
The below hydraulic analysis was included in the original DPR draft and is re-submitted as follows. Since shoreline erosion is determined by infrequently occurring high water events, rates may not be an appropriate measurement to define episodic conditions resulting in bank retreat and wall failure. The relic sandstone wall, which was constructed in 1900, has been partially maintained by the Village. However, these maintenance efforts have not, and cannot, fully address significant wall misalignment and collapse during and subsequent to effective or dominant flow events.				
Submitted By: Andrew Keffer (304-399-5063) Submitted On: May 23 2016 (Attachment: HYDRAULIC ANALYSIS.docx)				
1-1 Backcheck Recommendation Close Comment				
The comment is closed.				
Submitted By: John Winkelman (978-318-8615) Submitted On: Jun 01 2016				
Current Comment Status: Comment Closed				
6516825	Hydraulics	Section 3.5.1	PDF Page 19, RPT Page 15	n/a
Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)				

In Section 1.4 and existing Section 14 project is mentioned. What type of construction was used there? Similar to the proposals? Has it been successful? Perhaps an image of the existing Section 14 project would be helpful.

Submitted By: [John Winkelman](#) (978-318-8615). Submitted On: May 11 2016

1-0 Evaluation Concurred

A previous draft included this section, which was omitted from the ATR submittal: The District completed bank stabilization projects along the Ohio River in the vicinity of Pomeroy. Stabilization was required along State Route (SR) 124 within Minersville and adjacent to sewage treatment lagoons within Middleport. Minersville is the adjacent community upstream from Pomeroy, and Middleport is downstream. Evaluations conducted during these projects determined that bank erosion and failures had resulted from flood flows and recession conditions. Seeps, piping features, and scour were observed during and subsequent to these events. The project at Minersville included the stabilization of a relic sandstone retaining wall that, similar to Pomeroy, was a component of the Ohio River Electric railway. Additionally, similar wall and road failure conditions and causative processes existed at Minersville and Pomeroy. Flood flows and recession-related piping resulted in subsidence features adjacent to this wall. A Section 14 project was completed in 1975 and included retaining walls and interior drainage features to stabilize a riverfront parking lot and boat launch ramp together with the adjacent SR 833. Erosion and failure at this location required partial demolition of the collapsed relic sandstone wall and the construction of a reinforced concrete retaining wall together with extensions of interior drainage interception and control features.

Submitted By: [Andrew Keffer](#) (304-399-5063) Submitted On: May 23 2016 (Attachment: [01.jpg](#))

1-1 Backcheck Recommendation Close Comment

The comment is closed.

Submitted By: [John Winkelman](#) (978-318-8615) Submitted On: Jun 01 2016

Current Comment Status: **Comment Closed**

6516828	Hydraulics	Section 3.5.1	PDF Page 19, RPT Page 15	n/a
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Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

What is the difference between a longitudinal dike and a stone buttress? Looking at the sections in Appendix A, they look the same except the crest elevation of the dike is lower?

Submitted By: [John Winkelman](#) (978-318-8615). Submitted On: May 11 2016

1-0 Evaluation Concurred

The proposed longitudinal dike would preclude additional lower wall failures by addressing flood flow erosional undercutting and oversteepening together with recessional and piping-related losses of soil and fill. The proposed buttress would stabilize both lower and mid-wall erosion and failure conditions. Causative processes, which were previously referenced, have progressed and caused partial wall collapse.

Submitted By: [Andrew Keffer](#) (304-399-5063) Submitted On: May 23 2016

1-1 Backcheck Recommendation Close Comment

The comment is closed.

Submitted By: [John Winkelman](#) (978-318-8615) Submitted On: Jun 01 2016

Current Comment Status: **Comment Closed**

6516831

Hydraulics

Section 3.5.1

PDF Page 19, RPT
Page 15

n/a

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

Perhaps cross sectional drawings would be useful to illustrate the alternatives?

Submitted By: [John Winkelman](#) (978-318-8615). Submitted On: May 11 2016

1-0 Evaluation Concurred

The relocation alternative has been described in the response to Comment 6516803. A typical cross section and photograph for the sheet pile wall alternative is included below.

Submitted By: [Andrew Keffer](#) (304-399-5063) Submitted On: May 23 2016 (Attachment: [01.png](#))

1-1 Backcheck Recommendation Close Comment

The comment is closed.

Submitted By: [John Winkelman](#) (978-318-8615) Submitted On: Jun 01 2016

Current Comment Status: **Comment Closed**

6516837	Planning - Plan Formulation	Section 3.5.5 Alt D	PDF Page 22, RPT Page 18	n/a
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>I understand all of the issues stated but ask the following question since others may ask. Is there an opportunity here to perform ecosystem restoration through the development of stable riparian habitat.</p> <p>Submitted By: John Winkelman (978-318-8615). Submitted On: May 11 2016 Revised May 11 2016.</p>				
<p>1-0 Evaluation For Information Only</p> <p>Due to the steepness of the bank and the limited work area, it would not be practical to develop this area for suitable stable riparian habitat</p> <p>Submitted By: Megan Wilburn (304-399-5797) Submitted On: May 22 2016</p>				
<p>1-1 Backcheck Recommendation Close Comment</p> <p>The comment is closed.</p> <p>Submitted By: John Winkelman (978-318-8615) Submitted On: Jun 01 2016</p>				
<p>Current Comment Status: Comment Closed</p>				
6516839	Planning - Plan Formulation	Section 3.5.5 Alt E	PDF Page 22, RPT Page 18	n/a
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>Seems like the significant environmental impacts are being oversold since it is tree removal in a developed area. is there something valuable about the habitat and the specific trees? Seems like long term, the movement of the road would be an environmental plus due to more riparian habitat? Based on cost though this is a non starter.</p> <p>Submitted By: John Winkelman (978-318-8615). Submitted On: May 11 2016 Revised May 11 2016.</p>				
<p>1-0 Evaluation For Information Only</p> <p>In addition to the cost of the relocation, there would be the potential to affect two Federally listed bat species for tree removal in this area. USFWS in the state of Ohio is very stringent concerning tree removal and would require additional coordination for this effort. The area around Pomeroy is forested and has the potential for a significant amount tree removal.</p> <p>Submitted By: Megan Wilburn (304-399-5797) Submitted On: May 22 2016</p>				

<p>1-1 Backcheck Recommendation Close Comment</p> <p>The comment is closed.</p> <p>Submitted By: John Winkelman (978-318-8615) Submitted On: Jun 01 2016</p> <p>Current Comment Status: Comment Closed</p>				
6516845	Hydraulics	Section 3.6	PDF Page 23, RPT Page 19	n/a
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>How was the design of the dike developed - i.e. what engineering was done. How was the stone sized, crest elevation set, etc.</p> <p>Submitted By: John Winkelman (978-318-8615). Submitted On: May 11 2016</p>				
<p>1-0 Evaluation Concurred</p> <p>Stone was sized predicated on the hydraulic analysis included in Comment 6516820. Dike and buttress are designed to address flood flow erosional undercutting and oversteepening together with the interruption of recessional and piping-related losses of soil and fill. Extents of treatment were defined by near-bank scour features and upslope wall collapse.</p> <p>Submitted By: Andrew Keffer (304-399-5063) Submitted On: May 23 2016</p>				
<p>1-1 Backcheck Recommendation Close Comment</p> <p>The comment is closed.</p> <p>Submitted By: John Winkelman (978-318-8615) Submitted On: Jun 01 2016</p> <p>Current Comment Status: Comment Closed</p>				
6516868	Planning - Plan Formulation	Table 4	PDF Page 25, RPT Page 21	n/a
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>Is the design analyses and plans and specs included in the 1.768 million dollar cost in table row 5?</p> <p>Submitted By: John Winkelman (978-318-8615). Submitted On: May 11 2016</p>				
<p>1-0 Evaluation Concurred</p> <p>This will be visited and all references to cost will be changed to be consistent throughout the document.</p>				

Submitted By: Megan Wilburn (304-399-5797) Submitted On: May 22 2016				
1-1 Backcheck Recommendation Close Comment				
The comment is closed.				
Submitted By: John Winkelman (978-318-8615) Submitted On: Jun 01 2016				
Current Comment Status: Comment Closed				
6516871	Planning - Plan Formulation	Table 4	PDF Page 25, RPT Page 21	n/a
Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)				
Last row in the table Fed Share and Non Fed Share - Is this right? I am not sure how the math is working here.				
Submitted By: John Winkelman (978-318-8615). Submitted On: May 11 2016				
1-0 Evaluation Concurred				
This will be visited and the math will be corrected.				
Submitted By: Megan Wilburn (304-399-5797) Submitted On: May 22 2016				
1-1 Backcheck Recommendation Close Comment				
The comment is closed.				
Submitted By: John Winkelman (978-318-8615) Submitted On: Jun 01 2016				
Current Comment Status: Comment Closed				
6516881	Hydraulics	Section 4.1	PDF Page 26, RPT Page 22	n/a
Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)				
Will the project be impacted by climate change as far as increased rainfall intensity and therefore more severe forcing conditions or more frequent flood conditions that would alter the design of the erosion treatments. Bigger stone, deeper toe, etc.				
Submitted By: John Winkelman (978-318-8615). Submitted On: May 11 2016				
1-0 Evaluation Concurred				
Although extents of climate change are not fully defined at this time, the treatment would remain relevant since the slackwater pool is defined by the R.C.				

	<p>Byrd navigation dam at elevation 538 ft-msl and the top of wall was set at approximately 560 ft-msl during construction. Should more frequent Ohio River fluctuations occur as a result of climate change, these conditions would be addressed by existing wall design features including drains and stone tieback courses.</p> <p>Submitted By: Andrew Keffer (304-399-5063) Submitted On: May 23 2016</p>			
	<p>1-1 Backcheck Recommendation Close Comment</p> <p>The comment is closed.</p> <p>Submitted By: John Winkelman (978-318-8615) Submitted On: Jun 01 2016</p>			
	<p>Current Comment Status: Comment Closed</p>			
6516893	Hydraulics	Section 4.2	PDF Page 27, RPT Page 23	n/a
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>How does the proposed dike prevent piping and internal erosion since the sandstone block wall will still rise above the proposed dike.</p> <p>Submitted By: John Winkelman (978-318-8615). Submitted On: May 11 2016 Revised May 11 2016.</p>				
	<p>1-0 Evaluation Concurred</p> <p>As previously noted, the longitudinal dike and buttress include interior filter components, which will preclude internal erosion-related loss of fill at locations where flood flow erosion and related groundwater discharge have resulted in incremental lower wall collapse. Since this collapse sequence is initiated in the toe of wall area, which will be stabilized by the proposed treatment, additional failures would not occur since the integrity of this structure would continue to be defined by tiebacks, which were constructed at each fifth course of stone.</p> <p>Submitted By: Andrew Keffer (304-399-5063) Submitted On: May 23 2016</p>			
	<p>1-1 Backcheck Recommendation Close Comment</p> <p>The comment is closed.</p> <p>Submitted By: John Winkelman (978-318-8615) Submitted On: Jun 01 2016</p>			
	<p>Current Comment Status: Comment Closed</p>			

6519960	Planning - Plan Formulation	n/a	n/a	n/a
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>Concern: Potential impacts of streambank erosion are not fully described.</p> <p>Basis for Concern: Threatened utilities are mentioned several times in the DPR (i.e. Sec. 1.1, 1.2.1, 3.1, etc.) yet there is no description of what they are or where they're located. Not describing the utilities presents an incomplete picture of why the streambank protection is needed.</p> <p>Significance: Medium.</p> <p>Actions to Resolve: Fully describe the utilities in the aforementioned sections, why they are threatened, and what the consequences could be if they are damaged.</p> <p>Submitted By: Andrew MacInnes (504 862-1062). Submitted On: May 12 2016</p>				
<p>1-0 Evaluation Concurred</p> <p>The utilities will be researched and will be identified within the reach to provide further details in the EA. Description of the consequences if the utilities are damaged will be included in the EA.</p> <p>Submitted By: Megan Wilburn (304-399-5797) Submitted On: May 22 2016</p>				
<p>1-1 Backcheck Recommendation Close Comment</p> <p>Closed without comment.</p> <p>Submitted By: Andrew MacInnes (504 862-1062) Submitted On: Jun 01 2016</p>				
<p>Current Comment Status: Comment Closed</p>				
6519961	Planning - Plan Formulation	n/a	n/a	n/a
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>Concern: The DPR does not contain a map of the Recommended Plan (RP). The maps in Appendix A are not very compelling in highlighting the RP features, especially in relation to threatened utilities.</p> <p>Basis for Concern: Showing all of the facilities that will be impacted by the streambank erosion helps justify the Federal action. Depicting them on a map with the RP features presents a clearer understanding of where erosion is occurring in relation to threatened facilities.</p> <p>Significance: High.</p> <p>Action to Resolve: Add a map that depicts the RP with the threatened facilities as described in DPR Secs. 1.1, 1.2.1, and 3.1. The map should be placed in Sec. 3.6.1.</p>				

Submitted By: [Andrew MacInnes](#) (504 862-1062). Submitted On: May 12 2016

1-0 Evaluation Concurred

The utilities will be researched and will be identified within the reach to provide further details in the EA. A map of the utility location will also be provided in the EA.

Submitted By: [Megan Wilburn](#) (304-399-5797) Submitted On: May 26 2016

1-1 Backcheck Recommendation Close Comment

Suggest adding the utilities to the map that depicts the recommended plan and adding it to Sec. 3.6.1.

Submitted By: [Andrew MacInnes](#) (504 862-1062) Submitted On: Jun 01 2016

Current Comment Status: **Comment Closed**

6519962

Planning - Plan
Formulation

n/a

n/a

n/a

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

Concern: Sec. 3.3 is inconsistent with Sec. 4.4.1 and 4.4.3.

Basis for Concern: Secs. 4.4.1 and 4.4.3 describe "some small stabilization projects would most likely be undertaken to repair unstable reaches". ER 1105-2-100, 2-3(b) states "The future without-project condition provides the basis from which alternative plans are formulated and impacts are assessed. Since impact assessment is the basis for plan evaluation, comparison and selection, clear definition and full documentation of the without-project condition are essential." If future stabilization projects will be implemented this could affect the TSP recommendation.

Significance: High.

Actions to Resolve: Fully capture and describe any future stabilization features and how they relate to the alternatives development and TSP.

Submitted By: [Andrew MacInnes](#) (504 862-1062). Submitted On: May 12 2016

1-0 Evaluation Concurred

3.3 had been updated to reflect the comment concerns:

Without protection of the streambank, there would continue to be erosion and wall failure due to flooding on the Ohio River. Erosion and wall failure would eventually lead to the collapse of approximately 3,300 LF of streambank –

adversely impacting SR 833 and adjacent utilities. Failure to implement treatment would result in loss of the streambank along with access for the public, industries, and commercial operations within the Village of Pomeroy. With no action, some small stabilization projects would likely be undertaken to repair unstable or failed reaches but may be insufficient and could result in relocation of SR 833 and adjacent utilities.

Submitted By: [Megan Wilburn](#) (304-399-5797) Submitted On: May 22 2016

1-1 Backcheck Recommendation Open Comment

The suggested text does not get to the root of the issue. Are new, future stabilization projects to be completed by the Corps? Sponsor? Industry? If they are to be emergency response measures how are they different than a Sec. 14 project (i.e. why would they be insufficient)? I'm trying to understand who else may be performing emergency work and if they are, does that undermine the need for the CAP project? If FWOP projects will do what we're now proposing, we don't need to do our project. It should be clarified why our project is still needed (i.e. more robust design, comprehensive approach, expertise, etc).

Submitted By: [Andrew MacInnes](#) (504 862-1062) Submitted On: Jun 01 2016

2-0 Evaluation Concurred

This will be further clarified in the document also. There are no foreseeable projects within the reach. One bank stabilization project was completed by the Village in the recent past out of necessity. The Village of Pomeroy does not have adequate funding to complete as robust a project as the proposed project on its own. If the USACE funded CAP project does not occur then the Village would be forced to fix areas of the streambank as they worsen and if the funding is available. Without the CAP project the Village would likely not be able to come up with the funding for all of the failing reaches and SR 833 would fail, cutting off the only route through the Village. No other projects will occur in the area in the foreseeable future.

Submitted By: [Megan Wilburn](#) (304-399-5797) Submitted On: Jun 02 2016

2-1 Backcheck Recommendation Close Comment

Thank you for the clarification.

Submitted By: [Andrew MacInnes](#) (504 862-1062) Submitted On: Jun 03 2016

Current Comment Status: **Comment Closed**

6519963	Planning - Plan Formulation	n/a	n/a	n/a
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>Concern: The Risk and Uncertainty section (Sec. 3.5.4) does not contain a summary of potential risks that could affect the TSP. While reference is made to the Abbreviated Risk Analysis in App. C, this section only describes risk in terms of cost contingencies. Risks to project performance should be described in the DPR. Noteworthy risks could include what happens to streambank sections in the project area that are not protected (i.e. potential for future/induced erosion), risks of HTRW discovery, or the potential for structures identified as eligible for listing per the SHPO.</p> <p>Also, a Risk Register was not provided despite being identified in App. C as a section. The Risk Register should be added to the appendix.</p> <p>Basis for Concern: The 1983 P+G states that "Planners shall identify areas of risk and uncertainty in their analysis and describe them clearly, so that decisions can be made with knowledge of the degree of reliability of the estimated benefits and costs and of the effectiveness of alternative plans."</p> <p>Significance: High.</p> <p>Action to Resolve: Summarize project risks in DPR Sec. 3.5.3 and add the full Risk Register to App. C</p> <p>Submitted By: Andrew MacInnes (504 862-1062). Submitted On: May 12 2016</p>				
<p>1-0 Evaluation Concurred</p> <p>Per an answer from our Cost Engineer: For a project this size, a full Cost and Schedule Risk Analysis (CSRA) isn't required to be completed, but an abbreviated CSRA must be completed.</p> <p>Submitted By: Megan Wilburn (304-399-5797) Submitted On: May 31 2016</p>				
<p>1-1 Backcheck Recommendation Open Comment</p> <p>The response does not address the comment. Risks described in the CSRA are not the same as risks that could affect the plan selection or design features. For example, SHPO eligibility concerns and HTRW concerns are suggested in the DPR but are not part of the R/U section. These should be clearly stated especially since more work on them will occur during the design phase.</p> <p>Submitted By: Andrew MacInnes (504 862-1062) Submitted On: Jun 01 2016</p>				
<p>2-0 Evaluation Concurred</p> <p>The risks and uncertainties will be further described in Sec. 3.5.4 along with a further explanation in the associated environmental sections (i.e. cultural resources, T&E, etc.). We will describe the Risks we are taking by pushing certain aspects of the analysis out due to funding and that we are aware of if something is found would could happen to our schedule and budget.</p>				

	Submitted By: Megan Wilburn (304-399-5797) Submitted On: Jun 02 2016		
2-1	Backcheck Recommendation	Close Comment	
	Closed without comment.		
	Submitted By: Andrew MacInnes (504 862-1062) Submitted On: Jun 03 2016		
	Current Comment Status: Comment Closed		
6519964	Environmental	n/a	n/a
Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)			
Concern: There are numerous discrepancies between the DPR and App B regarding the length of shoreline protection to be installed. The DPR Secs. 3.5.1 and 3.6.1 state 3,300 feet while multiple documents in App B state 2,200 feet (i.e. ODNR Letter, Wilburn email dated 17 Feb 2016, and USFWS Letter). The HTRW Executive Summary states 2,100 feet.			
Basis for Concern: Coordination with cooperating agencies will be undermined if the project is not jointly understood. The basis for the FONSI will be incorrect if it does not fully describe the project features and impacts.			
Significance: Critical.			
Action to Resolve: Clarify the discrepancy between the DPR and environmental coordination documentation. Ensure cooperating agencies are fully aware of all project features. Ensure adequate NEPA clearance exists to implement the Recommended Plan.			
Submitted By: Andrew MacInnes (504 862-1062). Submitted On: May 12 2016			
1-0	Evaluation	Concurred	
	During early scoping with the agencies, 2,200 LF was estimated. Upon further investigation from Engineering they determined that additional length would be necessary to accomplish stable treatments. The draft EA along with additional correspondence will be coordinated with the agencies as we proceed with the EA process and they will be made aware of this change and will be given a chance to reevaluate the project. The 3,300 LF will be consistent through the remainder of the document and any future coordination.		
	Submitted By: Megan Wilburn (304-399-5797) Submitted On: May 22 2016		
1-1	Backcheck Recommendation	Close Comment	
	Closed without comment.		
	Submitted By: Andrew MacInnes (504 862-1062) Submitted On: Jun 01 2016		

Current Comment Status: Comment Closed				
6519965	Planning - Plan Formulation	n/a	n/a	n/a
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>Concern: The Recommended Plan section (Sec. 3.6.1) does not fully describe the Plan.</p> <p>Basis for Concern: There is no mention of quantities/size of stone. Acreages of clearing and amounts of fill are not described. The information in App. A describing the treatment plan only shows where the dike and buttresses would be placed. This section and App. A are severely incomplete in fully depicting the entire Recommended Plan (RP).</p> <p>Significance: High.</p> <p>Action to Resolve: Add text to DPR Sec. 3.6.1 that fully describes all aspects of the RP including quantities of material excavated and placed, cleared acreage, and types of debris removed. Update graphics in App. A to depict the same.</p> <p>Submitted By: Andrew MacInnes (504 862-1062). Submitted On: May 12 2016</p>				
<p>1-0 Evaluation Concurred</p> <p>Line item quantities, which were the basis for the cost estimate, are included below. The treatment plan is considered to be sufficient, since the reaches for clearing and the construction dike and buttress features are defined. The entire Recommended Plan has been defined by repetitive site visits from 1986 to present and the construction of dikes and reinforced concrete pile wall systems at locations where erosion and failure had extended into the SR833 travelway. Clearing and grubbing would include woody debris removal and has been defined by the below line item quantities. Failed sandstone blocks would be incorporated in the proposed treatment.</p> <p>Submitted By: Andrew Keffer (304-399-5063) Submitted On: May 23 2016 (Attachment: 011.png)</p>				
<p>1-1 Backcheck Recommendation Open Comment</p> <p>The response does not address the comment. If acreages of impacts have been calculated, they should be described either in the DPR or the EA (such as in Sec. 4.4.1). Likewise, a brief summary of the construction materials from the 011.png file should be added to Sec. 3.6.1 since the quantities are readily available. Still suggest depicting where clearing would occur on the App a map.</p> <p>Submitted By: Andrew MacInnes (504 862-1062) Submitted On: Jun 01 2016</p>				

Submitted By: Andrew MacInnes (504 862-1062) Submitted On: Jun 01 2016				
Current Comment Status: Comment Closed				
6519967	Planning - Plan Formulation	n/a	n/a	n/a
Comment Classification: Unclassified\\For Official Use Only (U\\FOUO) [Critical/Flagged]				
Concern: Table 4 does not present a full breakdown of costs and cost apportionment. The math also does not add up.				
Basis for Concern: The construction cost in Row 5 is listed as \$1,768,000. Row 6 breaks this total down to the 65/35 split. Row 7 outlines non-Fed costs based on the Row 5 split. However, Row 9 adds the non-Fed costs to the full construction cost Fed share of \$1,768,000. This is either incorrect or the true construction cost is not fully captured. Design costs, including PED and S&A are not identified at all. See ER 1105-2-100, Exhibit G-1, Item 4 and Sec. F-6(b) for more info.				
Significance: Critical.				
Action to Resolve: Ensure the proper construction cost per App. C is captured. Ensure all breakdowns of costs, including the separation of the Design costs are identified and listed out.				
Submitted By: Andrew MacInnes (504 862-1062). Submitted On: May 12 2016				
1-0 Evaluation Concurred				
Attached is an updated Table 4 with a breakdown of costs and cost apportionment. All cost references throughout the document will be updated to match this table to be consistent throughout the EA.				
Submitted By: Megan Wilburn (304-399-5797) Submitted On: May 26 2016 (Attachment: Table 4 from submitted DPR amended 5-23-16.docx)				
1-1 Backcheck Recommendation Open Comment				
There is an extra '0' in the total construction cost. Please fix. Also, will design costs be provided/broken out?				
Submitted By: Andrew MacInnes (504 862-1062) Submitted On: Jun 01 2016				
2-0 Evaluation Concurred				
The '0' will be removed. The Design Cost will be further sharpened and broken out in the design and construction phase of the project.				
Submitted By: Megan Wilburn (304-399-5797) Submitted On: Jun 02 2016				

	<p>2-1 Backcheck Recommendation Close Comment</p>			
	<p>Thank you for the clarification.</p>			
	<p>Submitted By: Andrew MacInnes (504 862-1062) Submitted On: Jun 03 2016</p>			
	<p>Current Comment Status: Comment Closed</p>			
<p>6519968</p>	<p>Planning - Plan Formulation</p>	<p>n/a</p>	<p>n/a</p>	<p>n/a</p>
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p>				
<p>Concern: The DPR is missing several report requirements.</p>				
<p>Basis for Concern: ER 1105-2-100, Sec. F-10(f)(2) requires CAP reports to contain: 1) A detailed description of the non-Federal sponsor's local cooperation requirements; 2) The feasibility level ATR certification; and 3) District Counsel statement of legal sufficiency for the decision documentation and NEPA process. It is understood these items may not now be included in the DPR, but they need to be included in the Final Report version.</p>				
<p>Significance: High.</p>				
<p>Action to Resolve: Add the required items to the Final Report.</p>				
<p>Submitted By: Andrew MacInnes (504 862-1062). Submitted On: May 12 2016</p>				
	<p>1-0 Evaluation Concurred</p>			
	<p>Following ATR certification, review documentation including the certification sheets along with the review report containing comments and responses will be added to Appendix G of the Detailed Project Report (DPR). In addition, the DPR will be coordinated with the LRH Planning Branch Chief and District Counsel in order to complete the policy and legal reviews. Documentation of these reviews (Policy Compliance Certification and Statement of Legal Sufficiency) will also be included within the submission to the MSC. Chapter 6 of the DPR addresses the requirements of the local sponsor (LERRDS, OMRR&R, etc.). To ensure the cost share requirements are clear, Section 6.1 was modified as follows:</p>			
	<p>"Costs for emergency streambank and shore protection projects are shared between the Federal government and a non-Federal sponsor in accordance with the Water Resources Development Act of 1986, as amended. The first \$100,000 of the feasibility phase for a Section 14 project is funded at full Federal expense and the balance is cost shared 50-50 with a non-Federal sponsor. Given the feasibility phase for the CAP Section 14 project for the Village of Pomeroy will be completed within the \$100,000 limit, a Federal Cost Share Agreement (FCSA) will not be</p>			

	<p>required.</p> <p>During construction of a Section 14 project, the non-Federal sponsor must contribute a minimum of 35% of the total cost of a project, with credit granted toward the amount for providing lands, easements and rights-of-way. The non-Federal sponsor must also pay a minimum cash requirement of 5% of the total project cost. The non-Federal sponsor must have the legal and financial capability to fulfill the requirements of cost sharing and local cooperation.</p> <p>The Village provided a Letter of Intent in July 2014 requesting Federal assistance under the Section 14 authority. Prior to submittal of the Federal Interest Determination Report, the non-Federal sponsor submitted a new Letter of Intent reaffirming interest in the project and their understanding of cost share requirements. Both Letters of Intent are included in Appendix H.</p> <p>The Huntington District is scheduled to start development of the Project Partnership Agreement (PPA) in September 2016 following approval of the Detailed Project Report. The PPA is currently scheduled to be executed in February 2017 and will succinctly detail the requirements of the non-Federal sponsor."</p> <p>In addition, the following lead-in statement was added to Section 6.2:</p> <p>"The non-Federal sponsor is required to provide all lands, easements, rights-of-way, relocations, and disposal areas."</p> <p>Submitted By: Megan Wilburn (304-399-5797) Submitted On: May 26 2016</p>				
<p>1-1</p>	<p>Backcheck Recommendation Close Comment</p> <p>Closed without comment.</p> <p>Submitted By: Andrew MacInnes (504 862-1062) Submitted On: Jun 01 2016</p>				
	<p>Current Comment Status: Comment Closed</p>				
<p>6520418</p>	<table border="1"> <tr> <td data-bbox="422 1501 665 1554"> <p>Planning - Plan Formulation</p> </td> <td data-bbox="665 1501 909 1554"> <p>4.2.1</p> </td> <td data-bbox="909 1501 1153 1554"> <p>PDF Page 27, RPT Page 23</p> </td> <td data-bbox="1153 1501 1421 1554"> <p>n/a</p> </td> </tr> </table>	<p>Planning - Plan Formulation</p>	<p>4.2.1</p>	<p>PDF Page 27, RPT Page 23</p>	<p>n/a</p>
<p>Planning - Plan Formulation</p>	<p>4.2.1</p>	<p>PDF Page 27, RPT Page 23</p>	<p>n/a</p>		
	<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>Why is Appendix A referenced here - I do not see anything in Appendix A regarding farmland?</p> <p>Submitted By: John Winkelman (978-318-8615). Submitted On: May 13 2016</p>				

	<p>1-0 Evaluation Concurred</p>			
<p>This is a typo and should be appendix B. Has been changed.</p>				
<p>Submitted By: Megan Wilburn (304-399-5797) Submitted On: May 22 2016</p>				
	<p>1-1 Backcheck Recommendation Close Comment</p>			
<p>The comment is closed.</p>				
<p>Submitted By: John Winkelman (978-318-8615) Submitted On: Jun 01 2016</p>				
<p>Current Comment Status: Comment Closed</p>				
<p>6520419</p>	<p>Planning - Plan Formulation</p>	<p>4.4.3</p>	<p>PDF Page 28, RPT Page 24</p>	<p>n/a</p>
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p>				
<p>Why the same language as 4.4.1.</p>				
<p>Submitted By: John Winkelman (978-318-8615). Submitted On: May 13 2016</p>				
	<p>1-0 Evaluation For Information Only</p>			
<p>There are similar impact overlap in habitat between 4.4.1 and 4.4.3 and thus would have similar effects and language.</p>				
<p>Submitted By: Megan Wilburn (304-399-5797) Submitted On: May 22 2016</p>				
	<p>1-1 Backcheck Recommendation Close Comment</p>			
<p>The comment is closed.</p>				
<p>Submitted By: John Winkelman (978-318-8615) Submitted On: Jun 01 2016</p>				
<p>Current Comment Status: Comment Closed</p>				
<p>6520420</p>	<p>Planning - Plan Formulation</p>	<p>4.4.3</p>	<p>PDF Page 29, RPT Page 25</p>	<p>n/a</p>
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p>				
<p>Could the stone dike provide or enhance the aquatic environment - i.e provide foundation for mussels or provide other type of fish habitat?</p>				
<p>Submitted By: John Winkelman (978-318-8615). Submitted On: May 13 2016</p>				
	<p>1-0 Evaluation For Information Only</p>			
<p>This is not the intent for the project but the rock structure may provide indirect</p>				

	benefits to the aquatic habitat.			
	Submitted By: Megan Wilburn (304-399-5797) Submitted On: May 22 2016			
	1-1 Backcheck Recommendation Close Comment			
	The comment is closed.			
	Submitted By: John Winkelman (978-318-8615) Submitted On: Jun 01 2016			
	Current Comment Status: Comment Closed			
6520423	Planning - Plan Formulation	4.5.1	PDF Page 29, RPT Page 25	n/a
Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)				
Has the mussel survey and result implications been captured in the risk register?				
Submitted By: John Winkelman (978-318-8615). Submitted On: May 13 2016				
	1-0 Evaluation Concurred			
	Per an answer from our Cost Engineer: For a project this size, a full Cost and Schedule Risk Analysis (CSRA) isn't required to be completed, but an abbreviated CSRA must be completed.			
	However, the impact of the mussel survey and potential findings will be further addressed and discussed in the document.			
	Submitted By: Megan Wilburn (304-399-5797) Submitted On: May 31 2016			
	1-1 Backcheck Recommendation Close Comment			
	The comment is closed.			
	Submitted By: John Winkelman (978-318-8615) Submitted On: Jun 01 2016			
	Current Comment Status: Comment Closed			
6520433	Planning - Plan Formulation	4.10	PDF Page 32, RPT Page 28	n/a
Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)				
Considering the discussion of potential materials from the railroad and coal operations and the need for excavation it would seem that the probability is not negligible that "waste" material will be found and have to be dealt with. Is that included in the Risk Register and perhaps this should be considered more strongly?				

Submitted By: [John Winkelman](#) (978-318-8615). Submitted On: May 13 2016

1-0 Evaluation Concurred

Materials from railroad and coal operations are located landward of the relic wall and will therefore not be impacted during construction. Rails, ties, ballast, and coal refuse were initially encapsulated during the construction of SR 833.

Submitted By: [Andrew Keffer](#) (304-399-5063) Submitted On: May 23 2016

1-1 Backcheck Recommendation Close Comment

The comment is closed.

Submitted By: [John Winkelman](#) (978-318-8615) Submitted On: Jun 01 2016

Current Comment Status: **Comment Closed**

6520438

Planning - Plan
Formulation

4.14

PDF Page 34, RPT
Page 30

n/a

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

So based on this it is not expected that river bank in the near vicinity will need to be protected using similar means i.e piece mealing a larger project out into small Section 14s?

Submitted By: [John Winkelman](#) (978-318-8615). Submitted On: May 13 2016

1-0 Evaluation Concurred

The statement: "No reasonably foreseeable future actions that would have similar impacts as the proposed action were identified" would seem to reference possible future cumulative environmental impacts, and would not be relevant in defining future flood-related consequences which may further endanger adjacent critically essential public facilities. As was determined in 1974-1975, and is proposed in this project, reaches of SR 833 which are immediately endangered by flood damage, and cannot be affordably relocated, have been included for treatment as required for compliance with the Flood Control Act of 1946, as amended. Adjacent reaches of SR 833 have been stabilized by the Village utilizing locally available rubble to construct longitudinal dikes. Although this construction was not subject to District oversight, these treatments appear satisfactory and have been considered in developing the extent of the proposed project.

Submitted By: [Andrew Keffer](#) (304-399-5063) Submitted On: May 23 2016

	<p>1-1 Backcheck Recommendation Close Comment</p> <p>The comment is closed.</p> <p>Submitted By: John Winkelman (978-318-8615) Submitted On: Jun 01 2016</p>
	<p>Current Comment Status: Comment Closed</p>
6521438	<p>Civil</p> <p>n/a</p> <p>n/a</p> <p>n/a</p>
	<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>Review Concern: Several places within the main body of the report indicate that in 2013, bankline erosion and a stone retaining wall collapse caused displacement of the north bound lane of a state highway. Since this is the primary driver to justify an emergency streambank and shoreline protection project, I find myself looking for more robust information beyond just the text provided.</p> <p>Basis for Concern: Describing the severity of the problem at hand.</p> <p>Significance of Concern: Medium</p> <p>Probable Action Needed to Resolve: Recommend at a minimum that photographs with descriptions be added to the main report that show the collapsed section of retaining wall along with photographs of the displaced highway on top.</p> <p>Submitted By: Kirk Sunderman (309-794-5140). Submitted On: May 13 2016</p>
	<p>1-0 Evaluation Concurred</p> <p>The response to Comment 6516803 includes photographs of the relic wall adjacent to SR 833 together with photographs which show the horizontal and vertical misalignment of the travelway. Since 1986, the travelway and intersections have been repaved several times to restore the original width and superelevation together with reconstruction of partially subsided catch basins and cross-drains. Without this project, these temporary measures will be encompassed by more extensive collapse features with resulting breaching of SR 833.</p> <p>Submitted By: Andrew Keffer (304-399-5063) Submitted On: May 23 2016 (Attachment: 011.jpg)</p>
	<p>1-1 Backcheck Recommendation Close Comment</p> <p>Closed without comment.</p> <p>Submitted By: Kirk Sunderman (309-794-5140) Submitted On: May 26 2016</p>
	<p>Current Comment Status: Comment Closed</p>

6521448	Environmental	2.1 and 4.1 climate change	n/a	n/a
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>Concern – This information is climatic/weather conditions, it does not address climate change.</p> <p>Basis - ETL_1100-2-1 procedure to evaluate climate change; ER_1100-2-8162 sea level change (has some climate change info).</p> <p>Significance – Without a demonstration of an understanding of the climate change science in the area (it can be brief), document is not in compliance with the TL.</p> <p>Action(s) - May keep climate separate, have climate change discussion separate or sub-section.</p> <p>Sentence about region not being projected to experience severe drought from Section 4.1 could be moved and expanded upon for Section 2.1. Add information about recent climate change studies in the area. In Section 4.1 should also note how climate change might affect the project during the life of the project.</p> <p>Submitted By: Cynthia Upah ((402) 995-2672). Submitted On: May 13 2016</p>				
<p>1-0 Evaluation Concurred</p> <p>The EA will be modified to incorporate the projected climate change in the area and how this may affect the project. We have studies of the climate change in the area and will add details from these studies to the EA. A copy of the modified EA will be sent to the environmental reviewer once it has been completed for final review and concurrence.</p> <p>Submitted By: Megan Wilburn (304-399-5797) Submitted On: May 26 2016</p>				
<p>1-1 Backcheck Recommendation Close Comment</p> <p>Good. It's good you have CC studies for your area. If you need other resources, ERDC and NOAA also have websites and tools.</p> <p>Submitted By: Cynthia Upah ((402) 995-2672) Submitted On: May 26 2016</p>				
<p>Current Comment Status: Comment Closed</p>				
6521453	Environmental	2.10	n/a	n/a
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>Concern – currently no clear sense of where the identified HTRW are in relation to the project.</p> <p>Basis –ER 200-2-3</p> <p>Significance – medium, provides context for the extent of HTRW in the area</p> <p>Action(s) – add a map(s) showing the area with the specific HTRW called out – AMD, LUST, CSO, etc. (and/or add maps in the effects section and cross reference)</p>				

Submitted By: [Cynthia Upah](#) ((402) 995-2672). Submitted On: May 13 2016

1-0 Evaluation Concurred

Abandoned mine mapping was included to better define groundwater conditions and seeps and springs, which occur along the right descending bank of the Ohio River. This project will require limited excavation of placement surfaces within recently deposited Ohio River alluvium. AMD, LUST, CSO, and other HTRW-related conditions will not be affected by site preparation, construction, or maintenance of the proposed project.

Submitted By: [Andrew Keffer](#) (304-399-5063) Submitted On: May 23 2016

1-1 Backcheck Recommendation Close Comment

Thank you, the maps should help. Please ensure similar copy explaining how HTRW related conditions is included in effects.

Submitted By: [Cynthia Upah](#) ((402) 995-2672) Submitted On: May 26 2016

Current Comment Status: **Comment Closed**

6521457

Environmental

3.2.2

n/a

n/a

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

concern – planning constraints – closure, coordination and permits are called out as constraints, tied to impacts to construction schedule and costs. However, these are pretty universal considerations.

Basis - PGNS

Significance – low, see action below

Action – ID why these are constraints, it seems to be tied to overall funding constraints.

Submitted By: [Cynthia Upah](#) ((402) 995-2672). Submitted On: May 13 2016

1-0 Evaluation Concurred

Additional information will be added to the EA to further describe the constraints, the risks we are taking pushing out the requirements, and that the underlying cause of funding. A copy of the modified EA will be sent to the environmental reviewer once it has been completed for final review and concurrence.

Submitted By: [Megan Wilburn](#) (304-399-5797) Submitted On: May 26 2016

1-1 Backcheck Recommendation Close Comment

Sounds good, thank you

Submitted By: Cynthia Upah ((402) 995-2672) Submitted On: May 26 2016				
Current Comment Status: Comment Closed				
6521459	Environmental	3.5.2	n/a	n/a
Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)				
concern – Alts a, b, and c note minimal impacts, yet there are risks of discoveries that could drive up impacts, costs and mitigation.				
Basis - PGN				
Significance – low, address with few edits				
Action – may note the potential to escalate for HTRW, mussels and cultural				
Submitted By: Cynthia Upah ((402) 995-2672). Submitted On: May 13 2016				
1-0 Evaluation Concurred				
The EA will be modified to include that there are potential issues that could occur in Alternatives A,B, and C that could drive up the impacts, costs, and mitigation. An explanation will be given as to why we are willing to take these risks compared to the overall project. A copy of the modified EA will be sent to the environmental reviewer once it has been completed for final review and concurrence.				
Submitted By: Megan Wilburn (304-399-5797) Submitted On: May 26 2016				
1-1 Backcheck Recommendation Close Comment				
Thank you. If you have a sense of the magnitude of the potential costs or timeline impacts (not exact estimates, but a range or evidence from other projects in the area) that could be helpful. I like framing it in the context of the area and scale of work you are performing.				
Submitted By: Cynthia Upah ((402) 995-2672) Submitted On: May 26 2016				
Current Comment Status: Comment Closed				
6521468	Civil	n/a	n/a	n/a
Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)				
Review Concern: Concern exists with the report not providing recent knowledge or data on what the bankline condition is underneath the water surface. The bankline is on the outside bend where higher water velocities occur frequently resulting in active erosion all the way down to the submerged toe of the bankline.				
Basis for Concern: The report has a picture of the stone retaining wall in Figure 3 that shows stones from the wall extending down to or below the water line. Typical cross sections provided on the last				

drawing plate also show the stone retaining wall extending several feet below the normal pool elevation. No assurances below the water surface are found in the report, such as visual observations, probes, or survey points, to indicate a stable horizontal surface currently exists for placement of the recommended plan, a longitudinal dike.

Significance of Concern: High

Probable Action Needed to Resolve: Need to further elaborate within the report what is known about the condition of the bankline below the river surface. If no recent additional information exists, then risks associated with the unknowns need to be stated. The risks of finding significant erosion to the bankline below the waterline during PED need to be captured within report and accounted for within the C&SRA.

Submitted By: [Kirk Sunderman](#) (309-794-5140). Submitted On: May 13 2016

Revised May 14 2016.

1-0 Evaluation Concurred

As previously referenced, the relic wall was built in 1900, prior to the construction of wicket dam 25 and the subsequent retention of the Gallipolis (now R.C. Byrd) navigation pool to provide for coal transport by railroad and river. Subsequent to the abandonment of the railroad in 1929 and the cessation of extensive underground mining around 1935, this right of way was utilized for the construction and operation of SR 833. To better define near-bank subaqueous topography, bathymetric surveys together with cross sections were obtained by side-scan sonar and shallow water soundings. This data was evaluated to determine the extent of shallow water features and navigation pool inundation of coal transfer mooring structures including tipples, landings, and ice piers.

Therefore, it is not probable that flood flow erosional oversteepening, within this outside of bend reach, would result in the destabilization of the proposed treatments. Additionally, the 238 similar projects which have been constructed within navigation pool-defined shallow water bench features along the Ohio River and inundated tributaries within the Huntington District since 1969 have been recently re-evaluated. These evaluations, which were submitted to ERDC in December 2015, confirmed that the site-specific construction of longitudinal dikes have resulted in the stabilization of adjacent river banks and critically essential public facilities. The risk of finding significant erosion to the bankline below the navigation pool have been determined to be minimal for this project.

Submitted By: [Andrew Keffer](#) (304-399-5063) Submitted On: May 23 2016

1-1 Backcheck Recommendation Close Comment

Evaluation response above is the detailed information I was looking for to verify existing conditions. It needs to be included within the main report or engineering

	<p>appendix. Include the dates when the data was obtained.</p> <p>Submitted By: Kirk Sunderman (309-794-5140) Submitted On: May 26 2016</p> <p>Current Comment Status: Comment Closed</p>			
6521470	Environmental	4.5.1	n/a	n/a
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>concern – information provided does not make the risk of finding endangered mussels or the timeframes for surveying clear.</p> <p>Basis - ESA</p> <p>Significance – moderate to high, due to potential impact on cost and schedule; could finding of and need to mitigate for an endangered mussel impact BCR?</p> <p>4. action – note USFWS comments that due to size and location of the project, it did not anticipate adverse impacts. Can also note lack of findings from similar projects in the area. Noting when phase 1 and 2 (if needed) surveys, or relocation (if needed) will be conducted, both the timeframe and in relation to construction, would provide clarity. If relocation is needed, provide examples of other projects and their monitoring/success.</p> <p>Submitted By: Cynthia Upah ((402) 995-2672). Submitted On: May 13 2016</p>				
<p>1-0 Evaluation Concurred</p> <p>Clarification will be given in the EA to note the risk of finding mussels and the timing of the mussel survey that will be conducted between the initial DPR/EA and the final due to the mussel survey season in the area. Will also note that USFWS provided additional information of the area and that mussels are not expected. A copy of the modified EA will be sent to the environmental reviewer once it has been completed for final review and concurrence.</p> <p>Submitted By: Megan Wilburn (304-399-5797) Submitted On: May 26 2016</p>				
<p>1-1 Backcheck Recommendation Close Comment</p> <p>Thank you for your effort.</p> <p>Submitted By: Cynthia Upah ((402) 995-2672) Submitted On: May 26 2016</p> <p>Current Comment Status: Comment Closed</p>				
6521478	Environmental	4.7	n/a	n/a
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>concern – existence of the sandstone wall and potential impacts and mitigation, as well as clarity on proximity and impacts to other relic components of the electric railway. It seems as if the SHPO has expressed concerns, that eligibility of the site for the NRHP should be known.</p>				

Basis for the concern - NHPA Section 106
 Significance – moderate to high due to potential impact on cost and schedule; could mitigation impact BCR?
 Action – add figure showing location of the wall compared to the project actions. I did not gather that the dike or buttress may be placed in front of the historic wall. Clearly state how the wall will be impacted – directly through removal? Contextually through covering/blocking it from view? It would be better if programmatic agreement could be completed prior to design. If this cannot happen, explain how coordination to date has assisted in reducing impacts, such as possible mitigation. Clarify if eligibility is known.

Submitted By: [Cynthia Upah](#) ((402) 995-2672). Submitted On: May 13 2016

1-0 Evaluation Concurred

In accordance with 800.14(b)(1)(ii), the Corps has prepared a draft Programmatic Agreement, to address potential effects that cannot be fully determined prior to approval of the undertaking. The Draft Programmatic Agreement is currently being reviewed by the agencies and consulting party. Compliance with the procedures established in an approved Programmatic Agreement satisfies the agency's section 106 responsibilities.

Further clarification will also be added to the EA describing the treatments affect on the wall.)A copy of the modified EA will be sent to the environmental reviewer once it has been completed for final review and concurrence.

Submitted By: [Megan Wilburn](#) (304-399-5797) Submitted On: May 26 2016

1-1 Backcheck Recommendation Close Comment

Thank you for your information on the coordination. The additional information on treatments and coordination within the text will be helpful.

Submitted By: [Cynthia Upah](#) ((402) 995-2672) Submitted On: May 26 2016

Current Comment Status: **Comment Closed**

6521484	Environmental	4.10	n/a	n/a
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Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

concern – It seems as if there are HTRW concerns on the site; it is unclear if a limited Phase 1 is enough. The document seems to indicate we expect there might be something. The Corps will not take on the liability. We should not pursue work there if we are not sure. The sponsor is supposed to provide a clean site to work in, or we develop a report that indicates very low risk.

Basis – ER 200-2-3

Significance – moderate to high, potential impact on cost and schedule; could mitigation impact BCR?

Action – as noted in Section 2.10 add map. Why is a limited Phase 1 deemed appropriate? Are the sites

active, closed, what chemicals/acids are present? How would a contractor know if they have discovered or mobilized contaminated soil or water? Are there BMPs that are in place? Are any of the sites currently being monitored? What are possible mitigation and cost/schedule impacts if something is discovered. Additional coordination with sponsor or landowners may be required.

Submitted By: [Cynthia Upah](#) ((402) 995-2672). Submitted On: May 13 2016

Revised May 13 2016.

1-0 Evaluation Concurred

Comments regarding site-specific HTRW concerns have been previously referenced (Comment 6521453). Since the proposed project includes limited excavation of recently deposited alluvium within areas at the toe of, and up to 30' channelward from, the relic wall, adjacent LUST, CSO, AMD, and other HTRW-related concerns would not be affected during construction or subsequent maintenance. Adjacent industries have been inactive for more than 60 years. These buildings are presently utilized as warehouses for the storage of construction supplies. It is probable that underground storage tanks were backfilled with sand when these facilities were abandoned.

Submitted By: [Andrew Keffer](#) (304-399-5063) Submitted On: May 23 2016

1-1 Backcheck Recommendation Close Comment

Maps included to address comment 6521453 will be helpful. Please include this comment response copy in the affects analysis.

Submitted By: [Cynthia Upah](#) ((402) 995-2672) Submitted On: May 26 2016

Current Comment Status: **Comment Closed**

6522200

Civil

n/a

n/a

n/a

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

Review Concern: Section 2.1 Climate – Paragraph starts with Executive Order 13653 that addresses climate change. Section 4.1 of the report also discusses climate change but vacillates with its content.

Basis for Concern: I'm not finding definitive content that makes a case on how climate change is impacting plans within this report but rather just a general description of the existing climate in Section 2.1. Section 4.1 states how the recommended plan would be beneficial to protect erosion from increased river floods but then goes on to state that NOAA determined this project location would not be impacted by climate change.

Significance of Concern: Medium

Probable Action Needed to Resolve: Recommend climate change content be simplified and discarded

with a sentence or two based on what appears to the authoritative determination provided by NOAA that the project will not be impacted by climate change.

Submitted By: [Kirk Sunderman](#) (309-794-5140). Submitted On: May 14 2016

Revised May 14 2016.

1-0 Evaluation Concurred

The EA will be modified to incorporate the projected climate change in the area and how this may affect the project. We have studies of the climate change in the area and will add details from these studies to the EA.

Submitted By: [Megan Wilburn](#) (304-399-5797) Submitted On: May 26 2016

1-1 Backcheck Recommendation Close Comment

Closed without comment.

Submitted By: [Kirk Sunderman](#) (309-794-5140) Submitted On: Jun 01 2016

Current Comment Status: **Comment Closed**

6522201

Civil

n/a

n/a

n/a

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

Review Concern: Hazardous and Toxic Substances appear to have a possibility of being present within the project footprint.

Basis for Concern: ER 1165-2-132 requires the complete removal of all CERCLA hazardous substances to a non-detect level for the real estate interest obtained for a Civil Works project. The non-Federal sponsor must remediate the site at their sole cost to include any hazardous substances discovered during construction.

Significance of Concern: High

Probable Action Needed to Resolve: The report needs to be clear that the non-Federal sponsor is required to pay for 100% of any CERCLA remediation actions and should hold the Corps harmless from any future enforcement actions. The latest interpretation by the HTRW Center of Expertise, Omaha District, is all CERCLA hazardous substance contamination shall be below all Federal and State cleanup levels. Should HTRW be discovered during design or construction, then remediation will need to be cleaned to soil screening levels as defined by the State of Ohio regulations.

The risks of encountering HTRW substances need to be accounted for within the report text and C&SRA. The report needs to be clear to the non-Federal sponsor that significant remediation costs may be placed on their shoulders if HTRW substances are discovered any time during design or construction of the project.

Submitted By: [Kirk Sunderman](#) (309-794-5140). Submitted On: May 14 2016

Revised May 14 2016.

1-0 Evaluation Concurred

This project will require limited excavation of placement surfaces within recently deposited Ohio River alluvium. AMD, LUST, CSO, and other HTRW-related conditions will not be affected by site preparation, construction, or maintenance of the proposed project.

Submitted By: [Andrew Keffer](#) (304-399-5063) Submitted On: May 23 2016

1-1 Backcheck Recommendation Open Comment

My understanding from the Center of Expertise is that it does not matter if HTRW material is buried or capped and will not be disturbed during construction. Any HTRW materials within the footprint of real estate interest obtained for the project is subject to being cleaned up to soil screening levels as define by the state regulating office. Attached is a response from the Center of Expertise on a similar project where known HTRW materials existed underneath the project.

Submitted By: [Kirk Sunderman](#) (309-794-5140) Submitted On: May 26 2016 (Attachment:

[Response to North Shore 206 HTRW Question \(UNCLASSIFIED\).pdf](#))

2-0 Evaluation Concurred

Phase 1 investigations have not encountered specific contamination or point sources within project limits. The local sponsor has been notified that any HTRW substances within the real estate interest, obtained for this project, would be the responsibility of the local sponsor to clean up. Should HTRW-impacted soils be encountered during excavation, then these materials would be characterized and disposed at an approved landfill. Screening levels, as necessary, would be defined by State of Ohio regulations. Although local or nearby activities may have affected the quality of fill at the riverbank, this fill, as retained by the relic wall, will not be excavated. Minimal excavation of recently deposited Ohio River alluvium will be necessary to form suitable placement surfaces for the longitudinal dike and buttress treatments. Problematic alluvial soils have not been encountered within this reach of the Ohio River.

Submitted By: [Andrew Keffer](#) (304-399-5063) Submitted On: Jun 01 2016

2-1 Backcheck Recommendation Close Comment

Closed without comment.

Submitted By: Kirk Sunderman (309-794-5140) Submitted On: Jun 03 2016				
Current Comment Status: Comment Closed				
6522202	Civil	n/a	n/a	n/a
Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)				
Review Concern: Title of Report				
Basis for Concern: ER 1105-2-100, Appendix F indicates Section 14 decision documents should be titled as a Planning and Design Analysis (PDA).				
Significance of Concern: Low				
Probable Action Needed to Resolve: Change title designation of "Detailed Project Report" to that of "Planning and Design Analysis".				
Submitted By: Kirk Sunderman (309-794-5140). Submitted On: May 14 2016				
1-0 Evaluation For Information Only				
Appendix F of ER 1105-2-100 is currently under revision. It is the District's understanding all decision documents associated with Continuing Authorities Program (CAP) will be Detailed Project Reports and Planning and Design Analysis (PDA) will no longer be used for Section 14 projects. Being proactive, the Great Lakes and Ohio River Division (LRD) recently updated the Division's CAP Standard Operating Procedure (SOP) based on the draft version of Appendix F. Within the LRD CAP Programmatic Management Plan (PgMP) SOP, the following statement is made: "For LRD CAP projects, a decision document is a LRD Commander approved Detailed Project Report (DPR)." While the District acknowledges the current version of Appendix F still refers to PDAs as the name of the decision document for a Section 14 project, the District does not concur with the recommendation to change the title based on the language included within the LRD CAP PgMP-SOP. The LRD CAP PgMP-SOP can be provided upon request. Huntington District also coordinated with LRD HQ on the naming convention to be used for the this document. LRD advised Huntington District to follow the LRD CAP PgMP-SOP naming convention.				
Submitted By: Megan Wilburn (304-399-5797) Submitted On: May 26 2016				
1-1 Backcheck Recommendation Close Comment				
Closed without comment.				

Submitted By: Kirk Sunderman (309-794-5140) Submitted On: Jun 01 2016				
Current Comment Status: Comment Closed				
6522212	Civil	n/a	n/a	n/a
Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)				
Review Concern: Definition of erosion and retaining wall collapses and how that relates to the alternatives presented.				
Basis for Concern: The draft report contains limited descriptions as to the root cause(s) that is leading to failures of the bankline and existing retaining wall. Is the bankline soil erosion tied directly to the wall collapse, river velocities, embankment stability issues, etc...? What is causing the existing stone wall to collapse? Is it foundation failure, loss of soil behind the wall, saturated soil collapsing the wall after the river elevation drops, wall tiebacks failing, soil global stability failure plains, river velocities, etc...? Knowing more details on failure cause(s) helps reviewers better understand suitability of recommended repairs.				
Little to no engineering analysis is presented to define the alternatives presented. Selecting a recommend alternative based on a nearby successful project has merit but it lacks the description/analysis as to how it and the other alternatives considered are designed to address the root cause(s) of the failure modes.				
Significance of Concern: High				
Probably Action Needed to Resolve: Augment report by further defining failure cause(s) and how proposed alternatives within the report adequately address the failure mode(s) to include first level of engineering analysis.				
Submitted By: Kirk Sunderman (309-794-5140). Submitted On: May 14 2016				
Revised May 14 2016.				
1-0	Evaluation Concurred			
	See attached Word document for comment response			
	Submitted By: Andrew Keffer (304-399-5063) Submitted On: May 23 2016 (Attachment: comment_response.docx)			
1-1	Backcheck Recommendation Close Comment			
	Concur with response. Add to main report write up.			
	Also a sentence or two on the composition of materials for the proposed longitudinal dike would be good. My assumption is the dike would be comprised of a well graded riprap that includes fines to lock in finer materials behind the			

	existing stone wall.			
	Submitted By: Kirk Sunderman (309-794-5140) Submitted On: May 26 2016			
	Current Comment Status: Comment Closed			
6523190	Environmental	4.3	n/a	n/a
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>Concern – there is no mention of Section 10/404 or 404b1 analysis performed.</p> <p>Basis – CWA Section 10 and 404</p> <p>Significance of the concern – low, understand compliance with CWA is ongoing</p> <p>Action(s) – provide 404b1 paperwork in appendix, or state if a Nationwide and/or Regional General permits are applicable and why. Include copy of those permits in appendix.</p> <p>Submitted By: Cynthia Upah ((402) 995-2672). Submitted On: May 16 2016</p>				
	1-0 Evaluation Concurred			
	Initial coordination for the Section 401 Water Quality Certification has been initiated. Based upon on-going coordination and similar actions within the watershed it is anticipated a Section 401 Certification could be obtained. A 401 Certification shall be obtained prior to initiation of construction. 404(b)1 analysis will be completed and placed into the EA prior to the signing of the FONSI.			
	Submitted By: Megan Wilburn (304-399-5797) Submitted On: May 22 2016			
	1-1 Backcheck Recommendation Close Comment			
	Thank you this will be appropriate.			
	Submitted By: Cynthia Upah ((402) 995-2672) Submitted On: May 26 2016			
	Current Comment Status: Comment Closed			
6526637	Cost Engineering	n/a	n/a	n/a
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>1. CONCERN: How was the Mob and Demob calculated? Seeding: Hydro seeding would require a subcontractor. Subcontractor would charge at least 8 hrs to cover mob and demob, SIGNIFICANCE: Limit details pertaining to the numbers which could result in higher project cost.</p> <p>Submitted By: Mike Ferguson (509-683-3018). Submitted On: May 18 2016</p>				
	1-0 Evaluation Concurred			
	Mob and demob was calculated using negotiated rates in IDIQ contract. A note			

	<p>has been added to the MII file.</p> <p>Estimate assumes manual seeding, not requiring a subcontractor, therefore no subcontractor mob/demob.</p> <p>Submitted By: Thomas Rice (304-399-5674) Submitted On: May 19 2016</p>		
1-1	<p>Backcheck Recommendation Close Comment</p> <p>Concur</p> <p>Submitted By: Mike Ferguson (509-683-3018) Submitted On: May 26 2016</p> <p>Current Comment Status: Comment Closed</p>		
6526638	Cost Engineering	n/a	n/a
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>2. CONCERN: No QC of quantities provided or QC documentation for the Cost Estimate. SIGNIFICANCE: High risk of cost over runs due to errors in quantities. Provide QC documentation of the cost products.</p> <p>Submitted By: Mike Ferguson (509-683-3018). Submitted On: May 18 2016</p>			
1-0	<p>Evaluation Concurred</p> <p>QC documentation included with original estimate package. Quantities from geotech were QCd by estimator. Documentation will be sent by email.</p> <p>Submitted By: Thomas Rice (304-399-5674) Submitted On: May 19 2016</p>		
1-1	<p>Backcheck Recommendation Close Comment</p> <p>Concur</p> <p>Submitted By: Mike Ferguson (509-683-3018) Submitted On: May 26 2016</p> <p>Current Comment Status: Comment Closed</p>		
6526642	Cost Engineering	n/a	n/a
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>3. CONCERN: The Real Estate cost estimate was provided by Real Estate in their appendix. SIGNIFICANCE: The contingencies were estimated at 10% which could be low, based on site access.</p> <p>Ensure that any disposal area is required has been address in the MII cost estimate.</p>			

Submitted By: [Mike Ferguson](#) (509-683-3018). Submitted On: May 18 2016

1-0 Evaluation Concurred

Estimate has been discussed with real estate and disposal areas have been considered.

Submitted By: [Thomas Rice](#) (304-399-5674) Submitted On: May 24 2016

1-1 Backcheck Recommendation Close Comment

Concur

Submitted By: [Mike Ferguson](#) (509-683-3018) Submitted On: May 26 2016

Current Comment Status: **Comment Closed**

6526645 Cost Engineering n/a n/a n/a

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

4. No Relocation cost in the estimates.

SIGNIFICANCE: The project could encounter utilities which run along the stream bank.

Submitted By: [Mike Ferguson](#) (509-683-3018). Submitted On: May 18 2016

1-0 Evaluation For Information Only

There will be minor excavation at toe of wall with little to no risk of encountering utilities.

Submitted By: [Thomas Rice](#) (304-399-5674) Submitted On: May 19 2016

1-1 Backcheck Recommendation Close Comment

Concur

Submitted By: [Mike Ferguson](#) (509-683-3018) Submitted On: May 26 2016

Current Comment Status: **Comment Closed**

6526646 Cost Engineering n/a n/a n/a

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

5. CONCERN: The MII cost estimate has very few notes or assumptions on how work is going to be performed.

SIGNIFICANCE: The estimate should provide notes and assumptions on how the work is going to be accomplished.

Submitted By: [Mike Ferguson](#) (509-683-3018). Submitted On: May 18 2016

1-0 Evaluation Concurred

Notes have been added to MII estimate

Submitted By: [Thomas Rice](#) (304-399-5674) Submitted On: May 24 2016

1-1 Backcheck Recommendation Close Comment

Concur

Submitted By: [Mike Ferguson](#) (509-683-3018) Submitted On: May 26 2016

Current Comment Status: **Comment Closed**

6526647

Cost Engineering

n/a

n/a

n/a

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

6. CONCERN: Clearing and Grubbing costs are not addressed as well as there are no disposal methods addressed?

SIGNIFICANCE: This could result in higher project cost.

Submitted By: [Mike Ferguson](#) (509-683-3018). Submitted On: May 18 2016

1-0 Evaluation Concurred

Clearing and grubbing addressed under "Excavation, Culverts, & Erosion Control"

Submitted By: [Thomas Rice](#) (304-399-5674) Submitted On: May 19 2016

1-1 Backcheck Recommendation Close Comment

Concur

Submitted By: [Mike Ferguson](#) (509-683-3018) Submitted On: May 26 2016

Current Comment Status: **Comment Closed**

6526648

Cost Engineering

n/a

n/a

n/a

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

7. CONCERN: There are limited price quotes? Example: wing walls - no dimensions or quotes.

SIGNIFICANCE: This could result in cost over runs during construction of the project.

Submitted By: [Mike Ferguson](#) (509-683-3018). Submitted On: May 18 2016

1-0	<p>Evaluation Concurred</p> <p>Cost of rip rap is over 85% of project cost, whereas cost of wing walls is approximately 1% of project costs, thus it was not deemed important to get updated quotes for minor costs. Costs are based on previous projects.</p> <p>Submitted By: Thomas Rice (304-399-5674) Submitted On: May 19 2016</p>
1-1	<p>Backcheck Recommendation Close Comment</p> <p>Concur</p> <p>Submitted By: Mike Ferguson (509-683-3018) Submitted On: May 26 2016</p> <p>Current Comment Status: Comment Closed</p>
6526649	<p>Cost Engineering n/a n/a n/a</p>
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>8. CONCERN: The MII file does not address Prime Markups. Also, there are no costs for JOOH, HOOH, and Profit. Please verify that these costs are included in the IDIQ contractor's rates.</p> <p>SIGNIFICANCE: The estimator should provide more details and notes in the MII cost estimate notes.</p> <p>Submitted By: Mike Ferguson (509-683-3018). Submitted On: May 18 2016</p>	
1-0	<p>Evaluation Concurred</p> <p>JOOH, HOOH, and Profit are included in IDIQ rates. Markups for overhead and profit were applied to all materials and sub bid costs. Note has been added to MII file for clarification.</p> <p>Submitted By: Thomas Rice (304-399-5674) Submitted On: May 19 2016</p>
1-1	<p>Backcheck Recommendation Close Comment</p> <p>Concur</p> <p>Submitted By: Mike Ferguson (509-683-3018) Submitted On: May 26 2016</p> <p>Current Comment Status: Comment Closed</p>
6526652	<p>Cost Engineering n/a n/a n/a</p>
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>9. CONCERN: Riprap unit price seems low if installed via floating plant and grouted.</p> <p>SIGNIFICANCE: Higher project costs during construction of the project.</p> <p>Submitted By: Mike Ferguson (509-683-3018). Submitted On: May 18 2016</p>	

	<p>1-0 Evaluation Concurred</p>			
<p>Rip rap material price was obtained from a vendor and the crew and productivity were based on previous contractor proposal and actual work on a previous project. CSRA has been updated to reflect risk of higher costs.</p>				
<p>Submitted By: Thomas Rice (304-399-5674) Submitted On: May 19 2016</p>				
	<p>1-1 Backcheck Recommendation Close Comment</p>			
<p>Concur</p>				
<p>Submitted By: Mike Ferguson (509-683-3018) Submitted On: May 26 2016</p>				
<p>Current Comment Status: Comment Closed</p>				
<p>6526653</p>	<p>Cost Engineering</p>	<p>n/a</p>	<p>n/a</p>	<p>n/a</p>
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p>				
<p>[Critical/Flagged]</p>				
<p>10. Concern: The stone quantities should be checked since the quantities were taken from topographic maps.</p>				
<p>SIGNIFICANCE: Quantities over runs resulting in higher project cost during project implementation.</p>				
<p>Submitted By: Mike Ferguson (509-683-3018). Submitted On: May 18 2016</p>				
	<p>1-0 Evaluation Concurred</p>			
<p>Quantities were obtained from Geotech and checked by EC-TC. Risk has been adjusted in CSRA to account for quantity risk.</p>				
<p>Submitted By: Thomas Rice (304-399-5674) Submitted On: May 19 2016</p>				
	<p>1-1 Backcheck Recommendation Close Comment</p>			
<p>Concur</p>				
<p>Submitted By: Mike Ferguson (509-683-3018) Submitted On: May 26 2016</p>				
<p>Current Comment Status: Comment Closed</p>				
<p>6526654</p>	<p>Cost Engineering</p>	<p>n/a</p>	<p>n/a</p>	<p>n/a</p>
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p>				
<p>11. CONCERN: It is assumed that the prime contractor will perform all work items since there are no subcontractor work items.</p>				
<p>SIGNIFICANCE: Higher project costs will be applied if subcontractors are required for some of the work items, for example hydro seeding, head wall construction, etc.</p>				

Submitted By: [Mike Ferguson](#) (509-683-3018). Submitted On: May 18 2016

1-0 Evaluation For Information Only

It was assumed there would be no subcontractors based on discussion with the PDT and work completed on previous projects

Submitted By: [Thomas Rice](#) (304-399-5674) Submitted On: May 20 2016

1-1 Backcheck Recommendation Close Comment

Concur

Submitted By: [Mike Ferguson](#) (509-683-3018) Submitted On: May 26 2016

Current Comment Status: **Comment Closed**

6526656	Cost Engineering	n/a	n/a	n/a
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Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

12. CONCERN: The TPCS lacks a Project Number.
SIGNIFICANCE: Add project number to the TPCS.

Submitted By: [Mike Ferguson](#) (509-683-3018). Submitted On: May 18 2016

1-0 Evaluation Concurred

Project number added to TPCS

Submitted By: [Thomas Rice](#) (304-399-5674) Submitted On: May 19 2016

1-1 Backcheck Recommendation Close Comment

Concur

Submitted By: [Mike Ferguson](#) (509-683-3018) Submitted On: May 26 2016

Current Comment Status: **Comment Closed**

6526657	Cost Engineering	n/a	n/a	n/a
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Comment Classification: **Unclassified\\For Official Use Only (U\\FOUO)**

13. CONCERN: TCPS: The CWCCIS tables are outdated and the current CWCCIS is March 2016.
SIGNIFICANCE: Use the current CWCCIS tables.

Submitted By: [Mike Ferguson](#) (509-683-3018). Submitted On: May 18 2016

	<p>1-0 Evaluation Concurred Current CWCCIS tables have been added and used in TPCS Submitted By: Thomas Rice (304-399-5674) Submitted On: May 19 2016</p>
	<p>1-1 Backcheck Recommendation Close Comment Concur Submitted By: Mike Ferguson (509-683-3018) Submitted On: May 26 2016</p>
<p>Current Comment Status: Comment Closed</p>	
6526658	<p>Cost Engineering n/a n/a n/a</p>
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO) 14. CONCERN: TCPS: The current spend cost of \$36K if associated with the feasibility cost, should not be included in the project. SIGNIFICANCE: Feasibility costs are not part of the project cost. Submitted By: Mike Ferguson (509-683-3018). Submitted On: May 18 2016</p>	
	<p>1-0 Evaluation Concurred Current spent cost has been removed from TPCS Submitted By: Thomas Rice (304-399-5674) Submitted On: May 19 2016</p>
	<p>1-1 Backcheck Recommendation Close Comment Concur Submitted By: Mike Ferguson (509-683-3018) Submitted On: May 26 2016</p>
<p>Current Comment Status: Comment Closed</p>	
6526659	<p>Cost Engineering n/a n/a n/a</p>
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO) 15. CONCERN: The MII file should contain most of the information in the cost appendix. SIGNIFICANCE: MII files needs more notes and documentation. Submitted By: Mike Ferguson (509-683-3018). Submitted On: May 18 2016</p>	
	<p>1-0 Evaluation Concurred Notes have been added to MII estimate.</p>

	Submitted By: Thomas Rice (304-399-5674) Submitted On: May 24 2016		
	1-1 Backcheck Recommendation Close Comment		
	Concur		
	Submitted By: Mike Ferguson (509-683-3018) Submitted On: May 26 2016		
	Current Comment Status: Comment Closed		
6526660	Cost Engineering	n/a	n/a
Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)			
16. CONCERN: The 30 and 31 accounts appear low based on the size of the project.			
SIGNIFICANCE: The 30 and 31 accounts should be verified with the PDT and Chief of E&C.			
Submitted By: Mike Ferguson (509-683-3018). Submitted On: May 18 2016			
	1-0 Evaluation Concurred		
	30 and 31 accounts have been altered based on discussions with PDT.		
	Submitted By: Thomas Rice (304-399-5674) Submitted On: May 24 2016		
	1-1 Backcheck Recommendation Close Comment		
	Concur		
	Submitted By: Mike Ferguson (509-683-3018) Submitted On: May 26 2016		
	Current Comment Status: Comment Closed		
6526661	Cost Engineering	n/a	n/a
Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)			
17. CONCERN: The schedule reflects the design completed in first quarter of 2018 which is optimistic assuming the design is fully funded.			
SIGNIFICANCE: There is a potential for the construction schedule not being achieved			
Submitted By: Mike Ferguson (509-683-3018). Submitted On: May 18 2016			
	1-0 Evaluation Non-concurred		
	Design for this project is very minimal. It is unlikely that design will cause the schedule to slip.		
	Submitted By: Thomas Rice (304-399-5674) Submitted On: May 24 2016		

	<p>1-1 Backcheck Recommendation Close Comment</p> <p>Concur</p> <p>Submitted By: Mike Ferguson (509-683-3018) Submitted On: May 26 2016</p>
	<p>Current Comment Status: Comment Closed</p>
6526662	<p>Cost Engineering n/a n/a n/a</p>
<p>Comment Classification: Unclassified\\For Official Use Only (U\\FOUO)</p> <p>18. CONCERN: CSRA: The contingencies at 10% is low and should be closer to 25 to 30 percent. The CSRA should address the risk of negotiation with the IDIQ contractor (sole source procurement/task order). Other concerns should address construction risks such as weather, high river conditions, etc. The estimate assumption such as change in site conditions over the next two years and the accuracy of the quantities take off from topographic sheets should also be addressed.</p> <p>SIGNIFICANCE: The project contingencies are under estimated and CSRA should be reworked.</p> <p>Submitted By: Mike Ferguson (509-683-3018). Submitted On: May 18 2016</p>	
	<p>1-0 Evaluation Concurred</p> <p>These risks have been adjusted in the CSRA. Updated file will be sent.</p> <p>Submitted By: Thomas Rice (304-399-5674) Submitted On: May 20 2016</p>
	<p>1-1 Backcheck Recommendation Open Comment</p> <p>It noted that the project contingencies should be between 25 and 30%.</p> <p>Submitted By: Mike Ferguson (509-683-3018) Submitted On: May 26 2016</p>
	<p>1-2 Backcheck Recommendation Close Comment</p> <p>Concur with the revised CSRA.</p> <p>Submitted By: Mike Ferguson (509-683-3018) Submitted On: Jun 01 2016</p>
	<p>2-0 Evaluation Concurred</p> <p>Project contingencies have been increased. Updated files will be emailed.</p> <p>Submitted By: Thomas Rice (304-399-5674) Submitted On: Jun 01 2016</p>
	<p><i>Backcheck not conducted</i></p>
	<p>Current Comment Status: Comment Closed</p>

Attachment 3. ATR Team Bios.

ATR Lead/Plan Formulation Reviewer – Andrew MacInnes, CEMVN-PD-P; Phone: (504) 862-1062; Email: andrew.d.macinnes@usace.army.mil. Mr. MacInnes resides at the New Orleans District and is a certified Agency Technical Reviewer for plan formulation as well as a Regional Technical Specialist for Ecosystem Planning within Mississippi Valley Division. He has led several ATR efforts across different districts and he has over six years in Corps ecosystem restoration, CAP, and flood risk management planning experience, and has served as a planning lead and supporting team member on many complex studies. Mr. MacInnes also supports the Ecosystem Restoration Planning Center of Expertise by managing the Independent External Peer Review process for ecosystem restoration studies.

Environmental Reviewer – Cindy Upah, CENWO-PM-AE; (402) 995-2672; Email: cynthia.s.upah@usace.army.mil. Cindy is an Environmental Resources Specialist in the Omaha District and has worked with the Corps since 2008. She holds the Project Management Professional certification from Project Management Institute (PMI) and completed the Corps Planning Associates Program in 2014. Cindy is certified as an Environmental Compliance Agency Technical Reviewer. She received a B.S. in Business Administration, with an emphasis in Marketing, and a Minor in Environmental Studies, from the University of Northern Colorado. She obtained her M.S. in biology from the University of Nebraska at Omaha. She has been substantially involved with Missouri River Recovery Program and was the planning lead or PM for several large studies including the 2012 Programmatic Environmental Impact Statement for the Mechanical Creation and Maintenance of Emergent Sandbar Habitat on the Upper Missouri River, the Emergent Sandbar Habitat Program, and the 2015 Study of Least Tern and Piping Plover Habitat on Reservoirs of the Missouri River Main Stem Reservoir System. In addition, Cindy is currently the lead biologist/NEPA specialist on the Dam Safety Modification Study and Water Control Plan Modification study at Cherry Creek in Colorado.

Real Estate Reviewer – Ron Silver, CEMVR-RE-P; Phone: (309) 794-5506; Email: ronald.silver@usace.army.mil. Mr. Silver serves as the Chief of Planning and Acquisition for MVD, RREDN. He has been an Acquisition Realty Specialist since 2009. He has been the ATR real estate reviewer for 20+ studies. He has a Juris Doctorate degree and practiced law with emphasis on real estate and trial law. He was also an Abstract and Title Company owner for over 38 years.

Civil Engineering Reviewer – Kirk Sunderman, CEMVR-EC-DM; Phone: (309) 794-5140; Email: kirk.j.sunderman@usace.army.mil. Kirk Sunderman, PE, is a civil engineer with the Rock Island District Corps of Engineers. Mr. Sunderman is known for his expertise on leading regional, multi-discipline, technical design teams on large and complex flood risk management, navigation, and vertical construction projects. He has strong communication and collaboration skills developed through years of experience with customers, public, outside agencies and media outlets. Civil Engineering design skills include site planning and development, utilities, geometric design, civil plans and profile, and 3-D modeling (Inroads and Sketchup). He has over 20 years' experience in leading flood emergency response teams, conducting levee inspections and modification reviews. Conducted well over 100 reviews (DQCRs, ATRs, BCOES) on planning, engineering, and

construction documents. He co-authored a policy that set MVR guidelines for documenting civil engineering analysis.

H&H Reviewer – John Winkelman, CENAE-EPW; Phone: (509) 683-3018; Email: john.h.winkelman@usace.army.mil. Mr. Winkelman’s expertise includes 18 years of coastal and riverine engineering with significant experience in shore and bank protection/erosion prevention projects. Project experience includes planner/technical lead on several high profile coastal restoration and shore protection projects. Mr. Winkelman’s riverine based experience includes riverine hydraulic analysis using tools such as HEC-RAS and bank stabilization projects which included natural based features. Mr. Winkelman has performed numerous ATR’s as a Regional Technical Specialist for NAD throughout the country.

Cost Engineering Reviewer – Michael G. Ferguson, CENWW-EC-X; Phone: (509) 527-7332; Email: michael.g.ferguson@usace.army.mil. Mr. Ferguson has served 35 years as a civil engineer with experience in civil works cost engineering, surveying, value engineering, and engineering management. He is a licensed professional engineer, and a certified cost engineer. From 1987 to February 1997, Mr. Ferguson served as project manager and District Hydropower coordinator for the Huntington District pertaining to the engineering and construction of Belleville Hydropower project, West Columbus Local Protection Project and Marmet Lock Replacement Project. From 1997 to 2015 present serve as the Chief of the Cost and Technical Support Branch, Huntington District. Mr. Ferguson currently serves civil engineer/cost engineer for Walla Walla Cost Engineering MCX in this capacity of ATRs with all the responsibilities for cost engineering and oversight in addition to program manager for Department of Energy. He has extensive experience in cost ATRs, engineering management and cost engineering for Civil Works project and Department of Energy cost review and evaluation of larger scale construction projects.

Attachment 4. ATR Cost Certification.

**WALLA WALLA COST ENGINEERING
MANDATORY CENTER OF EXPERTISE**

COST AGENCY TECHNICAL REVIEW

CERTIFICATION STATEMENT

For Project No. 449640

LRH – Village of Pomeroy Streambank Protection
Section 14

The Village of Pomeroy Streambank Protection – Section 14 as presented by Huntington District, has undergone a successful Cost Agency Technical Review (Cost ATR), performed by the Walla Walla District Cost Engineering Mandatory Center of Expertise (Cost MCX) team. The Cost ATR included study of the project scope, report, cost estimates, schedules, escalation, and risk-based contingencies. This certification signifies the products meet the quality standards as prescribed in ER 1110-2-1150 Engineering and Design for Civil Works Projects and ER 1110-2-1302 Civil Works Cost Engineering.

As of June 16, 2016, the Cost MCX certifies the estimated total project cost:

FY 18 Project First Cost:	\$1,921,000
Total Project Cost:	\$1,924,000
Estimated Federal Cost:	\$1,415,000

It remains the responsibility of the District to correctly reflect these cost values within the Final Report and to implement effective project management controls and implementation procedures including risk management throughout the life of the project.



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Date: 2016.06.16 14:05:49 -07'00'

Kim C. Callan, PE, CCE, PM
Chief, Cost Engineering MCX
Walla Walla District

**** TOTAL PROJECT COST SUMMARY ****

Printed: 6/16/2016
Page 1 of 2

PROJECT: Village of Pomeroy Streambank Protection Project - Section 14
PROJECT NO: 449640
LOCATION: Pomeroy, OH

DISTRICT: LRH Huntington

PREPARED: 6/16/2016

POC: CHIEF, COST ENGINEERING, xxx

This Estimate reflects the scope and schedule in report; CAP Feasibility STUDY - Pomeroy, OH

Civil Works Work Breakdown Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)					TOTAL PROJECT COST (FULLY FUNDED)			
WBS NUMBER	Civil Works Feature & Sub-Feature Description	COST (\$K)	CNTG (\$K)	CNTG (%)	TOTAL (\$K)	Program Year (Budget EC): 2018		REMAINING COST (\$K)	TOTAL FIRST COST (\$K)	Effective Price Level Date: 1-Oct-17				
						Spent Thru: 10/1/2016 (\$K)	Spent Thru: 10/1/2016 (\$K)			ESC (%)	COST (\$K)	CNTG (%)	FULL (\$K)	
16	BANK STABILIZATION	\$1,121	\$324	29%	\$1,444		\$1,121	\$324	\$1,444	\$1,444		\$1,121	\$324	\$1,444
18	CULTURAL RESOURCE PRESERVATION	\$33	\$2	7%	\$35		\$33	\$2	\$35	\$35		\$33	\$2	\$35
Costs are based on 2018 Contracted IDIQ Rates:		Costs are based on 2018 Contracted IDIQ Rates:												
CONSTRUCTION ESTIMATE TOTALS:		\$1,154	\$326		\$1,480		\$1,154	\$326	\$1,480	\$1,480		\$1,154	\$326	\$1,480
01	LANDS AND DAMAGES	\$22	\$1	5%	\$23	3.3%	\$22	\$1	\$24	\$24		\$22	\$1	\$24
30	PLANNING, ENGINEERING & DESIGN	\$280	\$20	7%	\$300	6.4%	\$298	\$21	\$319	\$319	0.2%	\$298	\$21	\$320
31	CONSTRUCTION MANAGEMENT	\$87	\$6	7%	\$93	6.4%	\$93	\$7	\$99	\$99	1.9%	\$94	\$7	\$101
PROJECT COST TOTALS:		\$1,542	\$353	23%	\$1,895		\$1,566	\$355	\$1,921	\$1,921	0.1%	\$1,569	\$355	\$1,924

- _____ CHIEF, COST ENGINEERING, xxx
- _____ PROJECT MANAGER, xxx
- _____ CHIEF, REAL ESTATE, xxx
- _____ CHIEF, PLANNING, xxx
- _____ CHIEF, ENGINEERING, xxx
- _____ CHIEF, OPERATIONS, xxx
- _____ CHIEF, CONSTRUCTION, xxx
- _____ CHIEF, CONTRACTING, xxx
- _____ CHIEF, PM-PB, xxx
- _____ CHIEF, DPM, xxx

ESTIMATED TOTAL PROJECT COST: **\$1,924**
 ESTIMATED FEDERAL COST: **65%** \$1,250
 ESTIMATED NON-FEDERAL COST: **35%** \$673

22 - FEASIBILITY STUDY (CAP studies): **\$200**
 ESTIMATED FEDERAL COST: **\$165**
 ESTIMATED NON-FEDERAL COST: **\$35**

ESTIMATED FEDERAL COST OF PROJECT \$1,415

**** TOTAL PROJECT COST SUMMARY ****

Printed: 6/16/2016
Page 2 of 2

**** CONTRACT COST SUMMARY ****

PROJECT: Village of Pomeroy Streambank Protection Project - Section 14
 LOCATION: Pomeroy, OH
 This Estimate reflects the scope and schedule in report; CAP Feasibility STUDY - Pomeroy, OH

DISTRICT: LRH Huntington
 POC: CHIEF, COST ENGINEERING, xxx

PREPARED: 6/16/2016

WBS Structure		ESTIMATED COST				PROJECT FIRST COST (Constant Dollar Basis)				TOTAL PROJECT COST (FULLY FUNDED)				
		Estimate Prepared: 3/11/2018		Estimate Price Level: 1-Oct-15		Program Year (Budget EC): 2018		Effective Price Level Date: 1-Oct-17						
WBS NUMBER	Civil Works Feature & Sub-Feature Description	RISK BASED				ESC (%)	COST (\$K)	ONTG (\$K)	TOTAL (\$K)	Mid-Point Date	ESC (%)	COST (\$K)	ONTG (\$K)	FULL (\$K)
		COST (\$K)	ONTG (\$K)	ONTG (%)	TOTAL (\$K)									
A	B	C	D	E	F	G	H	I	J	P	L	M	N	O
PHASE 1 or CONTRACT 1														
16	BANK STABILIZATION	\$1,121	\$324	28.9%	\$1,444		\$1,121	\$324	\$1,444	2016Q1		\$1,121	\$324	\$1,444
18	CULTURAL RESOURCE PRESERVATION	\$33	\$2	7.0%	\$35		\$33	\$2	\$35	2016Q1		\$33	\$2	\$35
CONSTRUCTION ESTIMATE TOTALS:		\$1,154	\$326	28.3%	\$1,480		\$1,154	\$326	\$1,480			\$1,154	\$326	\$1,480
01	LANDS AND DAMAGES	\$22	\$1	5.0%	\$23	3.3%	\$22	\$1	\$24	2018Q1		\$22	\$1	\$24
30	PLANNING, ENGINEERING & DESIGN													
0.06	Project Management	\$58	\$4	7.1%	\$62	6.4%	\$62	\$4	\$66	2018Q1		\$62	\$4	\$66
0.07	Planning & Environmental Compliance	\$12	\$1	7.1%	\$13	6.4%	\$13	\$1	\$14	2018Q1		\$13	\$1	\$14
0.13	Engineering & Design	\$150	\$11	7.1%	\$161	6.4%	\$160	\$11	\$171	2018Q1		\$160	\$11	\$171
0.01	Engineering Tech Review ITR & VE	\$12	\$1	7.1%	\$13	6.4%	\$13	\$1	\$14	2018Q1		\$13	\$1	\$14
0.01	Contracting & Reprographics	\$12	\$1	7.1%	\$13	6.4%	\$13	\$1	\$14	2018Q1		\$13	\$1	\$14
0.01	Engineering During Construction	\$12	\$1	7.1%	\$13	6.4%	\$13	\$1	\$14	2018Q3	1.9%	\$13	\$1	\$14
0.01	Planning During Construction	\$12	\$1	7.1%	\$13	6.4%	\$13	\$1	\$14	2018Q3	1.9%	\$13	\$1	\$14
0.01	Project Operations	\$12	\$1	7.1%	\$13	6.4%	\$13	\$1	\$14	2018Q1		\$13	\$1	\$14
31	CONSTRUCTION MANAGEMENT													
0.075	Construction Management	\$87	\$6	7.1%	\$93	6.4%	\$93	\$7	\$99	2018Q3	1.9%	\$94	\$7	\$101
	Project Operation:			7.1%										
	Project Management:			7.1%										
CONTRACT COST TOTALS:		\$1,542	\$353		\$1,896		\$1,566	\$355	\$1,921			\$1,569	\$355	\$1,924

CERTIFICATION OF LEGAL REVIEW

CERTIFICATE OF LEGAL REVIEW

The Draft Detailed Project Report and Environmental Assessment for the Village of Pomeroy, State Route 833, Meigs County, Ohio, CAP Section 14 Emergency Streambank Protection Project, has been fully reviewed by the Office of Counsel, Huntington District, and is approved as legally sufficient and in accordance with applicable laws, policies and regulations.



HENRY J. IARRUSSO
District Counsel
Huntington District

Date: 19 June 18

CERTIFICATION OF PROGRAM AND POLICY COMPLIANCE REVIEW

PROGRAM & POLICY COMPLIANCE CERTIFICATION

I hereby certify the recommendation to release the Draft Detailed Project Report (DPR) and Environmental Assessment (EA) associated with the Section 14 Streambank Protection Project in the Village of Pomeroy, Ohio for public and resource agency review. The Draft DPR and EA package dated June 2016 were completed in compliance with all applicable Corps policies and regulations. I further certify the appropriate level of Quality Assurance and Quality Certification (QA/QC) has been conducted and all comments resulting from the District Quality Control (DQC) review and the Agency Technical Review (ATR) have been resolved.

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A.M.1266513590

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ou=DoD, ou=PKI, ou=USA,
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REBECCA M. ALBERT
Acting Chief, Planning Branch

22 June 2016

Date