

From: [Davenport, Corey](#)
To: [Jim Fisher](#)
Subject: Manheim Borough Awarded Notification
Date: Friday, August 4, 2023 12:16:28 PM
Attachments: [4506-0077 Manheim Borough Phased Stream Restoration Project-Phase I Approval Letter Signed.pdf](#)
[4506-0077 Obligation Report Signed.pdf](#)
[DR-4506-0077 Manheim Borough Full scope review TSB Report.pdf](#)
[HMGP-4506-0077-PA \(1\) REC.pdf](#)

Good Afternoon, Jim

Congratulations, the Manheim Borough phase 1 of the streambank stabilization project has been awarded (Attached are the award documents). Moving forward there will be a few items we will need to complete (See the below bullets). Also, in this phase of the project, we will be in greater contact with each other to ensure the fiscal documents are being completed as required and within the time frame they are needed. If you have any questions don't hesitate to contact me.

- Fiscal Brief: There will be a follow up email for this briefing. The fiscal brief will outline the procedures to ensure that we are being financially responsible with the appointed funds.
- Grant Documents: These documents will be provided and will need to be completed & returned (May already be completed).
- FEMA Assurances Documents: These documents will be provided and will need to be completed & returned (May already be completed).

Thanks

Respectfully,

Corey Davenport | Emergency Management Specialist

PA Emergency Management Agency

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FEMA

August 2, 2023

Jonathan Skripka
Governor's Authorized Representative
Pennsylvania Emergency Management Agency
1310 Elmerton Ave
Harrisburg, Pennsylvania 17110

**Re: Infrastructure Project Award Letter, Phase I
FEMA-4506-DR-PA-0077
Manheim Borough Phased Stream Restoration Project (Lancaster)**

Governor's Authorized Representative Skripka:

I am pleased to inform you of the award of the **Manheim Borough Phased Stream Restoration Project (Lancaster) submitted under FEMA-4506-DR-PA-0077**. Manheim Borough, Lancaster County, PA is requesting HMGP funding for a phased stream restoration project for flood mitigation.

This Phase I Award is to complete engineering and design work to implement two of the alternatives developed in the SRBC/USACE Chiques Creek Flood Resiliency Study. No physical work or ground disturbing activities are approved at this time.

The Work Schedule Timeframe for Phase I designs and engineering is 12 months from the date of the subaward. All activities and deliverables specified in the Scope of Work for Phase I must be submitted and reviewed by FEMA prior to the Award of Phase II.

Phase I deliverables expected include:

- Phase II Scope of Work
- Phase II Preliminary Project Cost Estimate
- Completed Engineering and Construction Plans
- Final Benefit-Cost Analysis

	Federal Share	Non-Federal Share	Total
Project Costs	\$184,500.00	\$ 20,500.00	\$205,000.00
Sub-Recipient Management Costs	\$10,250.00	\$0.00	\$10,250.00
Total	\$194,750.00	\$20,500.00	\$215,250.00

This Phase 1 award approved funding includes a Total Project Cost of \$205,000.00 with a 90% Federal Share of \$184,500.00 and a 10% Non-Federal Share of \$20,500.00. Sub-Recipient Management Costs at 100% Federal Share in the amount of \$10,250.00 is also included in this award. The total Federal Share in the amount of \$194,750.00 has been obligated and is available in the SMARTLINK system. A copy of the obligation report is enclosed for your records.

Per the approved Administrative Plan, the Commonwealth of Pennsylvania will cover the 10% non-Federal match requirements for 4506-DR-PA. In implementing this project, the Pennsylvania Emergency Management Agency (PEMA), as the recipient, shall ensure that the sub-recipient, complies with the applicable Grant Agreement Articles and all applicable laws, assurances, and guidance.

The sub-recipient must adhere to all requirements and conditions outlined in the enclosed Record of Environmental Consideration (REC) document. Special Conditions required on implementation of this project are:

NEPA Determination Approval is for engineering, design, and planning costs only. No physical work or ground disturbing activities are approved at this time. Failure to comply with this condition jeopardizes the receipt of federal funding.

Please be aware that all projects approved under 4506-DR-PA have a Period of Performance (POP) that ends on **August 5, 2025**. All work and administrative tasks must be completed within this POP to request reimbursement for eligible project cost.

Please provide our office with a quarterly report thirty days after the end of each federal fiscal year quarter. If you have any questions concerning this grant, please contact Caleb Taylor, Project Officer, at caleb.taylor@fema.dhs.gov.

Sincerely,

Tessa Nolan
Acting Deputy Director, Mitigation Division

Enclosure: Obligation Report
 Record of Environmental Consideration (REC)
 FEMA Technical Services Branch Memorandum

cc: David R. Padfield, Alternate Governor's Representative, PEMA
 Thomas Hughes, State Hazard Mitigation Officer, PEMA
 Rick Deal, Deputy State Hazard Mitigation Officer, PEMA
 Maura Hannigan-Pierce, HMGP Branch Chief, FEMA Region 3

Sarah Cobelli, HMGP Section Supervisor, FEMA Region 3
Caleb Taylor, HMGP Project Officer, FEMA Region 3

Technical Services Branch (TSB) Engineering Review

MEMORANDUM FOR TECHNICAL FEASIBILITY AND COST-EFFECTIVENESS

Sub application Number DR-4506-0077-PA
Project Title: Manheim Borough Stormwater/Infrastructure Improvements
Subject: Recommendation of Technical Feasibility and Effectiveness
Sub-Applicant: Borough of Manheim
Prepared by: Casto Velazquez Perez, PE HM EASP
Reviewed by: Brian E. Wagner, P.E.
To: Caleb Taylor, Project Officer, HMA Region 3
Date: June 7, 2023,
Estimated Total cost: \$6,066,436, Phase 1 - \$1,500,000, Phase 2 – \$4,566,436
Conclusion: **Phased project funding request. Preliminary evaluation indicates proposal is Technically Feasible and Cost Effective**

This document is intended to present findings and issues of concerns found during the review of the submitted rescoping request documents as part of the deliverables for Manheim Borough Stormwater/Infrastructure Improvements. Additional Environmental Planning and Historic Preservation (EHP), eligibility and completeness, and funding limitation considerations may affect the selection and funding of this project.

Project Overview:

Manheim Borough has submitted a Request under HMGP for funding for a proposed flood mitigation phased project. The proposed project seeks to implement two of the alternatives – specifically Alternative C2 and Alternative C3 – developed in the SRBC/USACE Chiques Creek Flood Resiliency Study developed in conjunction by the SRBC and USACE. The summary of scope and justification are included in Table 1 below:

Table 1: Summary of Scope of Work of Project

#	Scope of Work	Justification
1	Alternative C2 is a stream improvement project to take place between Eby Street and South Main Street in Manheim. The stream will be re-aligned, with a natural channel being created to improve the flow of the creek. The natural channel, at a length of approximately 1,700 feet (when measured in a linear fashion), would be trapezoidal with a 40' wide bottom width, a 64' wide top width, and a 3' depth. The top of banks would be at the same elevation of a large floodplain bench that would tie into existing high ground on the outer edges. The bottom of the channel would remain at the existing elevation, so no dredging will be necessary. The floodplain bench would contain low	When compared to existing flood elevation measurements for this stretch of Chiques Creek, computed flood elevations for Alternative C2 predict a maximum decrease in flood depth of 2.5' for a 10-year flood event. This is particularly relevant when considering the past plight of Hondru Ford, and the considerable flood damage that business experienced in previous years. This will significantly reduce – or perhaps even fully prevent – the flooding the Hondru Ford underwent. While Alternative C2 would be beneficial as a stand-alone measure for flood mitigation at Chiques Creek, it has been proposed that adding Alternative C3 to this project can increase its flood mitigation potential by geographically expanding it to include another troublesome stretch of the creek.

	vegetative cover, making for a more natural aesthetic. -----	
2	Alternative C3 is situated between Fruitville Pike and Stiegel Street, the latter of which includes a bridge over the creek that itself might be closed two or three times a year when the waters runs high, and will restore a natural floodplain on the creek's east bank by adding a floodplain bench with a stone or concrete wall. -----	With this stream improvement the existing streambed would be maintained, and the conveyance of water and sediment under the existing railroad bridge (just downstream from the often-closed Stiegel Street bridge) would be improved. This last detail is of particular interest for the following reasons. First, according to the Chiques Creek Flood Resiliency Study, this bridge acts as a "bottleneck" where sediment deposits will collect and build up, and its design is too narrow to "accommodate the flows even from smaller events" of inclement weather. Second, the tracks that cross this bridge serve the Ferrellgas propane facility in the northeastern part of Manheim. The only way for trains leaving the Ferrellgas siding to reach the rest of the rail network is to cross Chiques Creek, so any flooding that occurs there could disrupt train traffic, and could also disrupt business operations at this local employer. Implementing Alternative C3 should reduce several flood-related risks at its location, including the risk of flooding taking place and the risk of rail service being interrupted. Finally, according to computer models, the implementation of both C2 and C3 would add an extra 1.4 feet in flood depth reduction for a 10-year level event, on top of the 2.5-foot reduction that could be achieved with C2 alone, for a grand total of 3.9 feet in flood depth reduction. Along with affording Hondru Ford and other local businesses greater safety from flooding, the combined results of C2 and C3 could likely eliminate the threat of flooding at the key road intersection of South Main Street and Fruitville Pike during a 10-year flood, as well as remove multiple homes in this less-affluent part of Manheim from the projected 10-year floodplain.

The total project cost is estimated to be approximately \$6,066,436, Phase 1 - \$1,500,000, Phase 2 – \$4,566,436. This cost reflects the scope information and current market conditions as estimated by the project Design Engineer at 30% design. The proposed phases will complete the project cost estimate, the design to above 90% including the construction specification and construction contractor requirements.

As part of deliverables, FEMA received the following for review:

- Scope of Work
- Preliminary Project Cost Estimate
- Preliminary Benefit-Cost Analysis (pdf)

- Technical Memorandum Manheim Borough Chiques Creek Channel Stream Improvements Benefit-Cost Analysis Report includes as appendices:
 - A. Chiques Creek Flood Resiliency Study
 - B. 30% Design and Construction Memorandum
 - C. 30% Design Drawings
 - D. 30% Design Quantities
 - E. Construction costs
 - F. FEMA Guidance on Channel Improvement Projects
 - G. FEMA Flood Technical Manual Version 2.1
 - H. RS Means 2021 Values for Assigned Occupancy Classes
 - I. RS Means 2021 Location Factor
 - J. Estimated Damages in Project Area
 - K. Historical Losses in Manheim Borough
 - L. NOAA Atlas 14 Table for Manheim Borough
 - M. 2019 American Community Survey 5-Year Population Estimates for Manheim Borough

Technical Feasibility:

STATEMENT OF WORK:

The proposed flood mitigation project will be the stream improvement measures as recommended in the Chiques Creek Flood Resiliency Study. The alternative identified as C2 proposes a stream improvement project to take place between Eby Street and South Main Street in Manheim. The stream will be re-aligned, with a natural channel being created to improve the flow of the creek. Alternative C3 situated between Fruitville Pike and Stiegel Street, the latter of which includes a bridge over the creek, will restore a natural floodplain on the creek's east bank by adding a floodplain bench with a stone or concrete wall. The applicant proposes phased funding with phase 1 to complete up to 60% design, perform a design review, then complete final design (100%). Phase 2 will include mobilization, dewatering, diversion/control waters, traffic control, site clearing, stormwater pollution prevention measures implementation, earthwork excavation/backfill, excess earthwork disposal, floodwall build, rock riprap install, landscaping/hydroseeding, and relocation of existing utilities.

The scope of work is well defined and clearly explains the activities necessary to complete the work.

DESIGN REQUIREMENTS AND CONSTRAINTS

The project objective is to reduce the extent and duration of stormwater flooding within the Chiques Creek watershed. Site surveys and stormwater modeling studies for the Chiques Creek Flood Resiliency Study indicate that the implementation of alternatives C2 and C3 would add an extra 1.4 feet in flood depth reduction for a 10-year level event, on top of the 2.5-foot reduction that could be achieved with C2 alone, for a grand total of 3.9 feet in flood depth reduction. This will likely eliminate the threat of flooding at the key road intersection of South Main Street and Fruitville Pike during a 10-year flood, as well as remove multiple homes in this less-affluent part of Manheim from the projected 10-year floodplain.

The final design preparation and all required project permitting shall meet the minimum standard requirements set forth by local, state, and federal locations.

ENGINEERING PLANS:

The preliminary drawings (30% Design Level) were developed to estimate cost of the project and complete a preliminary BCA. Phase 1 includes the development of the 60% percent design and review; complete the development of 100% design and estimates. This will allow that construction means and methods be more thoroughly defined to develop an accurate and reasonable cost estimate.

COST ESTIMATE:

Total project cost is estimated to be approximately \$6,066,436, Phase 1 - \$1,500,000, Phase 2 – \$4,566,436. Detailed line-item cost estimates will be developed and included under the Final Design (100%) report. The use of Work Breakdown Structure (WBS) is recommended in developing project timetable, detail tasks and cost estimates on the 60% and 100% deliverables. The 30% design was developed to estimate cost of the project and complete a preliminary BCA. The preliminary project cost is reasonable.

Benefit Cost Analysis:

The Technical Memorandum which includes Benefit-Cost Analysis Methodology by consultant was submitted. The applicant submitted a preliminary BCA which indicated an overall project BCR of 1.25. The below table depicts the BCR summary:

Description	Benefits	Costs	BCR
BCR Estimates submitted by applicant	\$6,345,814	\$5,024,878	1.25
BCR Estimates by FEMA using NEMIS Funding request, 0.5% maintenance & Historic damages for a 100-year event (TS Lee)	\$7,264,356	\$6,442,840	1.13

Commented [WB1]: 1.26 is listed in the table below.
Rectify

1. Details of the Submitted BCA:**1.1. Structure of the BCA:**

The technical memorandum identified the data and methodology used to complete a benefit cost analysis (BCA) for the Manheim Borough Chiques Creek Channel Stream Improvements.

1.2 Proposed Mitigation Scope of Work

The proposed improvements will increase the capacity of the Chiques Creek Channel by increasing the flow conveyance within the floodplain, thus lowering flood elevations for the 2-, 5-, 10-, 25-, 50-, 100-, 200-, and 500-year flood events.

1.3. Documentation:

The Benefit-Cost Analysis Methodology Technical Memorandum includes sufficient documentation for how hazard type selected for this assessment from the assortment available within the BCA Tool was made. The hazard selected was riverine, and the mitigation type selected was drainage improvements for channel improvements along Chiques Creek. The "Professional expected damages" module of the BCA tool was utilized for this benefit cost analysis. Detailed list of data used in this analysis is outlined in the memorandum. Historical damages were used for the Car Dealerships based on TS Lee that impacted the area on September 8, 2011.

1.4. Project Useful Life (PUL):

The analysis utilized a FEMA's standard project useful life of 30-years for this project.

1.5. Total Costs:

The project phase 2 construction cost (\$4,566,436) overall reasonable with sufficient explanation provided for cost escalation factors. \$6,066,436, Phase 1 - \$1,500,000, Phase 2 – \$4,566,436

1.6. Maintenance Costs:

The updated project costs inclusive of the estimated project annual operation and maintenance costs of \$30,332 (0.5%) over the useful life of the project is \$6,442,840.

1.7. Recurrence Interval (RI) & Flood Depths

The USACE report indicates the analysts used NWS radar-based rainfall data to determine the average amount of rainfall that occurred in Manheim Borough on September 4th through September 9th, 2011. The average rainfall over the 4-day period was modeled to be 11 inches in the project area. According to National Oceanic and Atmospheric Administration (NOAA) Atlas 14, 11 inches of rainfall over a 4-day period is considered a 200- to 500-year rainfall event. This modeled rainfall was included in the 1D H&H models produced by USACE to estimate Chiques Creek discharge rate (cfs) during the September 8th, 2011 event. Additionally, the stream discharge during the 2011 storm approximately ranged between a 5- and 100-year event which was determined using the discharge rate of Chiques Creek near the project area from the Lancaster County 2018 Flood Insurance Study (FIS). The estimated return intervals of the discharge rate modeled for the historical event were interpolated using the FIS study discharge values. To maintain a lower bound analysis, the analysis assigned the return interval for the historical losses as a 500-year event.

1.6 PHYSICAL DAMAGES

Direct physical damages include the degradation and destruction of property due to flood inundation that would occur should these actions not take place and are quantified through monetary losses. The below tables provide the pre-mitigation and post-mitigation losses for the Manheim Borough Chiques Creek Channel Stream Improvements project.

Table 1: Pre-Project Structural Damages in the Manheim Borough Project Area

Return Interval	Pre-Project			
	Number of Impacted Structures	Building Damages	Content Damages	Inventory Damages
2-Year	1	\$5,215	\$3,334	\$0
5-Year	9	\$17,138	\$27,180	\$623
10-Year	23	\$54,882	\$138,932	\$5,445
25-Year	55	\$635,263	\$1,205,284	\$23,738
50-Year	100	\$1,936,872	\$3,625,579	\$63,360
100-Year	172	\$6,256,406	\$10,216,786	\$383,900
200-Year	238	\$13,357,627	\$21,347,010	\$1,148,453
500-Year	319	\$23,147,122	\$39,862,585	\$2,532,522

Table 2: Post-Project Structural Damages in the Manheim Borough Project Area

Return Interval	Post-Project			
	Number of Impacted Structures	Building Damages	Content Damages	Inventory Damages
2-Year	0	\$0	\$0	\$0
5-Year	2	\$9,522	\$14,141	\$0
10-Year	12	\$19,865	\$37,651	\$922
25-Year	40	\$333,138	\$594,387	\$16,200
50-Year	78	\$1,466,099	\$2,791,121	\$48,921
100-Year	159	\$5,429,804	\$8,752,312	\$319,525
200-Year	233	\$12,983,137	\$20,567,461	\$1,129,513
500-Year	310	\$22,584,658	\$39,050,519	\$2,497,045

1.7 Level of Protection

In the analysis for the level of protection provided by the project, the analyst referred to the modeled professional damages to determine the 30-percent design's estimated level of protection if a 500-year event were to occur and impact the car dealerships in the project area. According to the pre- and post-project 500-year modeled damages, the change in expected damage will decrease by approximately 2.2-percent (i.e., $(\$64,132,222 - \$65,542,229) / \$65,542,229 = -2.2\%$). Therefore, the analyst reduced historical losses by 2.2-percent to calculate expected post-project damages.

1.8 Assumptions

The technical memorandum noted the following assumptions to account for uncertainties and limitations of the analysis:

- Survey Detail survey, including structural/bridge surveys, has not been conducted. Prior to final design, detailed survey within the project limits is recommended.
- Utilities The existing waterlines, water valves, sewer manholes, and power pole locations are approximate, and based off information provided and Google Maps, Earth, and Street View. Information on existing electrical, telephone or gas lines was not provided as part of the 30% design. Prior to final design, test pitting, as-built research, and ground surveys are recommended. Existing sewer and water services are anticipated to be located within the project limits and may require relocation prior to earthwork activities associated with this project. Coordination with the utility providers/purveyors on the design relocation and performance of work (by others), to be established prior to commencement of final design services.
- Existing Low Flow Channel The USACE's existing HEC-RAS model cross-sections has manually entered elevations that vary (lower) than the existing LiDAR-based DEM. Existing vegetation and water levels typically have impacts to aerial based LiDAR and image-based surveys. Prior to final design, verification of the low flow channel invert and dimensions is recommended. The 30% design is based upon unadjusted LiDAR data.
- Retaining Wall, The design of the concrete retaining wall will require geotechnical investigation, testing, and recommendations to establish soil characteristics for structural design. Detailed survey to complete the design in future design phases will be required. The proposed retaining

wall has been proposed to create a vertical channel bank where a sloped bank is not feasible due to lack of available land within the project limits. It is anticipated that for less frequent, larger storm events, the channel will over top the wall. Additional retaining wall length is proposed beyond the limits provided in the Flood Resiliency Study to prevent scour by the returning breakout flow from the upstream of the creek.

- Right-of-Way Proposed improvements extend outside of the existing creek Right-of-Way/Property limits. Acquisition of additional Right-of-Way will be needed to construct the creek channel improvements. Proposed Right of-Way is approximate and unknown at the 30% design, will be coordinated with the various stakeholders and delineated as a part of the final design.
- Landscaping Existing vegetation includes a variety of plant species from low vegetative cover to large trees. Hydroseeding the floodplain bench is proposed. Additional landscaping outside of the bench areas has not been developed for this feasibility phase of design and will be the client's discretion during final design.
- Erosion Protection 100-year event channel velocities average 3.3 ft/s (max 5.85 ft/s) in the proposed condition, and as a result, additional erosion protection measures beyond hydroseeding have not been implemented in the feasibility stage of the project.

2. Cost Effectiveness:

The sub-applicant 30% design BCA resulted in:

30% benefits: \$6,345,814

30% cost estimate: \$4,470,161, Phase 1 - \$1,500,000, Phase 2 – \$2,970,161

30% total costs (including annual maintenance): \$5,024,878

Benefit Cost Ratio (BCR): 1.25

FEMA Revised:

Revised Costs as using NEMIS budget request entry results in the following:

30% benefits: \$7,264,356

30% cost estimate: \$6,066,436, Phase 1 - \$1,500,000, Phase 2 – \$4,566,436

30% total costs (including annual maintenance): \$6,442,840

Benefit Cost Ratio (BCR): 1.13

Based on the documentation provided, it is recommended that the project be approved since at 30% design the preliminary costs reflect a favorable BCR. The project is cost-effective.

Conclusions/Concerns:

Based on the documentation provided, this report concludes, the project is **technically feasible** and **cost effective**.

RECORD OF ENVIRONMENTAL CONSIDERATION (REC)

Project HMGP-4506-0077-PA (1)

Title: Lancaster County - Manheim Borough Phased Stream Restoration

NEPA DETERMINATION

Non Compliant Flag: No	EA Draft Date:	EA Final Date:
EA Public Notice Date:	EA Fonsi	Level: CATEX
EIS Notice of Intent	EIS ROD Date:	

Comment Manheim Borough, Lancaster County, PA is requesting HMGP funding for a phased stream restoration project for flood mitigation. This version of the proposed project will complete engineering and design work to implement two of the alternatives (Alternative C2 and Alternative C3) developed in the SRBC/USACE Chiques Creek Flood Resiliency Study. This version/phase of this project only approves engineering and design work. No physical work is to be performed nor is ground disturbance to occur under this version of the project. Any further work to be done as a result of these plans will require an additional version of the project to be written including the completed engineering and construction plans and will require further FEMA EHP review. - ejohns85 - 06/13/2023 19:41:37 GMT

CATEX CATEGORIES

Catex Category Code	Description	Selected
a7	(a7) The commitment of resources, personnel, and funding to conduct audits, surveys, and data collection of a minimally intrusive nature. If any of these commitments result in proposals for further action, those proposals must be covered by an appropriate CATEX. Examples include, but are not limited to: (a) Activities designed to support the improvement or upgrade management of natural resources, such as surveys for threatened and endangered species, wildlife and wildlife habitat, historic properties, and archeological sites; wetland delineations; timber stand examination; minimal water, air, waste, material and soil sampling; audits, photography, and interpretation. (b) Minimally-intrusive geological, geophysical, and geo-technical activities, including mapping and engineering surveys. (c) Conducting Facility Audits, Environmental Site Assessments and Environmental Baseline Surveys, and (d) Vulnerability, risk, and structural integrity assessments of infrastructure.	Yes

EXTRAORDINARY

Extraordinary Circumstance Code	Description	Selected ?
	No Extraordinary Circumstances were selected	

ENVIRONMENTAL LAW / EXECUTIVE ORDER

Environmental Law/ Executive Order	Status	Description	Comment
Clean Air Act (CAA)	Completed	Project will not result in permanent air emissions - Review concluded	
Coastal Barrier Resources Act (CBRA)	Completed	Project is not on or connected to CBRA Unit or otherwise protected area - Review concluded	

RECORD OF ENVIRONMENTAL CONSIDERATION (REC)

Project HMGP-4506-0077-PA (1)

Title: Lancaster County - Manheim Borough Phased Stream Restoration

Environmental Law/ Executive Order	Status	Description	Comment
Clean Water Act (CWA)	Completed	Project would not affect any water of the U.S. - Review concluded	This phase/version of the project is for engineering and design only and will not involve work in water, however, a future version of this project for the construction phase will require work in water. The applicant should coordinate with the Pennsylvania Department of Environmental Protection and the US Army Corps of Engineers to obtain all necessary permits prior to construction during future versions of this project. - ejohns85 - 06/13/2023 18:53:54 GMT
Coastal Zone Management Act (CZMA)	Completed	Project is not located in a coastal zone area and does not affect a coastal zone area - Review concluded	
Executive Order 11988 - Floodplains	Completed	Located in floodplain or effects on floodplain/flood levels	Proposed project is located within floodplains and/or the floodway. This phase/version of the project is for engineering and design only and will not involve work in water or the floodplain, however, a future version of the project for the construction phase will require an 8-step review and additional coordination with floodplain regulators. - ejohns85 - 06/13/2023 18:55:32 GMT
	Completed	No adverse effect on floodplain and not adversely affected by the floodplain - Review concluded	
Executive Order 11990 - Wetlands	Completed	No effects on wetlands and project outside wetlands - Review concluded	Per National Wetlands Inventory, project is not likely to impact wetlands, however, this version of the project is for engineering and design only. Future versions of this project for the construction phase will need to be reviewed for impacts to wetlands when final engineering plans are available. - ejohns85 - 06/13/2023 18:55:53 GMT
Executive Order 12898 - Environmental Justice for Low Income and Minority Populations	Completed	Low income or minority population in or near project area	This version project is for engineering and design only and will not have any impacts on human or environmental health. Any future versions of the project for the construction phase will require evaluation of the scope of work to determine if the project will have a disproportionately high or adverse human health or environmental effects on minority and low-income populations and if it is in compliance with E.O. 12898. - ejohns85 - 06/13/2023 18:56:18 GMT
	Completed	No disproportionately high and adverse impact on low income or minority population - Review concluded	

RECORD OF ENVIRONMENTAL CONSIDERATION (REC)

Project HMGP-4506-0077-PA (1)

Title: Lancaster County - Manheim Borough Phased Stream Restoration

Environmental Law/ Executive Order	Status	Description	Comment
Endangered Species Act (ESA)	Completed	Listed species and/or designated critical habitat present in areas affected directly or indirectly by the federal action	The proposed project located in an area with a listed species. This phase/version of the project is for engineering and design only and will not directly or indirectly affect species or habitat. A future version of the project for the construction phase will require additional review and coordination to ensure compliance with the Endangered Species Act. - ejohns85 - 06/13/2023 18:53:24 GMT
	Completed	No effect to species or designated critical habitat (See comments for justification) - Review concluded	
Farmland Protection Policy Act (FPPA)	Completed	Project does not affect designated prime or unique farmland - Review concluded	
Fish and Wildlife Coordination Act (FWCA)	Completed	Project does not affect, control, or modify a waterway/body of water - Review concluded	
Migratory Bird Treaty Act (MBTA)	Completed	Project located within a flyway zone	
	Completed	Project does not have potential to take migratory birds - Review concluded	
Magnuson-Stevens Fishery Conservation and Management Act (MSA)	Completed	Project not located in or near Essential Fish Habitat - Review concluded	
National Historic Preservation Act (NHPA)	Completed	Applicable executed Programmatic Agreement. Activity meets Programmatic Allowance (enter date and # in comments) - Review concluded	This phase/version of the project is for engineering and design only and meets stipulation I.A.7.f of the executed 2018 Pennsylvania and Seneca Nation of Indians of New York Programmatic Agreement (Amended 2021) (Assistance provided for planning, studies, design and engineering costs that involve no commitment of resources other than staffing and associated funding.). Any future versions of this project for the construction phase will require additional Section 106 review. A full scope of work and project plans will be required to determine the potential impacts to cultural, archeological and historic resources. - ejohns85 - 06/13/2023 18:42:21 GMT
Wild and Scenic Rivers Act (WSR)	Completed	Project is not along and does not affect Wild and Scenic River - Review concluded	

FEDERAL EMERGENCY MANAGEMENT AGENCY
RECORD OF ENVIRONMENTAL CONSIDERATION (REC)

Project HMGP-4506-0077-PA (1)
Title: Lancaster County - Manheim Borough Phased Stream Restoration

CONDITIONS

Special Conditions required on implementation of Projects:

Approval is for engineering, design and planning costs only. No physical work or ground disturbing activities are approved at this time.
Failure to comply with this condition jeopardizes the receipt of federal funding.
Source of condition: NEPA Determination

Monitoring Required: No

Standard Conditions:

Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other Laws and Executive Orders.

This review does not address all federal, state and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize federal funding.

If ground disturbing activities occur during construction, applicant will monitor ground disturbance and if any potential archeological resources are discovered, will immediately cease construction in that area and notify the State and FEMA.