

**Environmental Assessment  
Millstone Residential Structure Relocations &  
Elevations  
Millstone Borough, Somerset County, New Jersey  
Hazard Mitigation Grant Program  
4048-DR-NJ**

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**FEMA**

**U.S. Department of Homeland Security**  
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## Table of Contents

1.0	Introduction .....	1
2.0	Purpose and Need .....	1
3.0	Background Information.....	2
4.0	Description of Alternatives Considered .....	2
4.1	Site Alternatives Considered and Dismissed .....	2
4.2	Site Alternatives Considered in this EA .....	3
4.2.1	No Action Alternative .....	3
4.2.2	Proposed Action .....	4
	Elevations .....	4
	Relocations .....	4
5.0	Affected Environment and Environmental Consequences .....	5
5.1	Topography, Soils, and Geology .....	5
5.1.1	Existing Conditions .....	5
5.1.2	Potential Impacts and Proposed Mitigation.....	7
5.2	Land Use and Zoning.....	7
5.2.1	Existing Conditions .....	7
5.2.2	Potential Impacts and Proposed Mitigation.....	7
5.3	Water Resources and Water Quality.....	8
5.3.1	Existing Conditions .....	8
5.3.2	Potential Impacts and Proposed Mitigation.....	8
5.4	Wetlands .....	8
5.4.1	Existing Conditions .....	9
5.4.2	Potential Impacts and Proposed Mitigation.....	9
5.5	Floodplains.....	9
5.5.1	Existing Conditions .....	9
5.5.2	Potential Impacts and Proposed Mitigation.....	9
5.6	Vegetation.....	10
5.6.1	Existing Conditions .....	10
5.6.2	Potential Impacts and Proposed Mitigation.....	10
5.7	Wildlife and Fisheries Habitat .....	10
5.7.1	Existing Conditions .....	10
5.7.2	Potential Impacts and Proposed Mitigation.....	11
5.8	Threatened and Endangered Species and Critical Habitat.....	11
5.8.1	Existing Conditions .....	11
5.8.2	Potential Impacts and Proposed Mitigation.....	11
5.9	Cultural Resources .....	11
5.9.1	Existing Conditions .....	12
5.9.2	Potential Impacts and Proposed Mitigation.....	12
5.10	Aesthetics and Visual Resources .....	14
5.10.1	Existing Conditions.....	14
5.10.2	Potential Impacts and Proposed Mitigation .....	14
5.11	Socioeconomic Resources.....	15
5.11.1	Existing Conditions.....	15
5.11.2	Potential Impacts and Proposed Mitigation .....	15
5.12	Environmental Justice .....	15
5.12.1	Existing Conditions.....	15

5.12.2	Potential Impacts and Proposed Mitigation .....	15
5.13	Air Quality.....	15
5.13.1	Existing Conditions.....	16
5.13.2	Potential Impacts and Proposed Mitigation .....	16
5.14	Contaminated Materials .....	16
5.14.1	Existing Conditions.....	16
5.14.2	Potential Impacts and Proposed Mitigation .....	16
5.15	Noise .....	17
5.15.1	Existing Conditions.....	17
5.15.2	Potential Impacts and Proposed Mitigation .....	18
5.16	Traffic.....	18
5.16.1	Existing Conditions.....	18
5.16.2	Potential Impacts and Proposed Mitigation .....	18
5.17	Infrastructure .....	18
5.17.1	Existing Conditions.....	18
5.17.2	Potential Impacts and Proposed Mitigation .....	18
5.18	Public Health and Safety .....	19
5.18.1	Existing Conditions.....	19
5.18.2	Potential Impacts and Proposed Mitigation .....	19
5.19	Climate Change .....	19
5.19.1	Existing Conditions.....	19
5.19.2	Potential Impacts and Proposed Mitigation .....	20
5.20	Cumulative Impacts.....	20
6.0	Permits and Project Conditions .....	20
7.0	Public Involvement.....	23
8.0	Conclusion.....	26
9.0	List of Preparers.....	26
10.0	References.....	27

**LIST OF TABLES**

Table 1: Summary of Potential Environmental Impacts and Mitigation .....	7
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**LIST OF APPENDICES**

Appendix A	Maps and Figures
Appendix B	Correspondence
Appendix C	EO 11988 and EO 11990 Eight-Step Review Documentation
Appendix D	Cultural Resources

**LIST OF ACRONYMS**

amsl	Above Mean Sea Level
ACHP	Advisory Council on Historic Preservation
AD	Area of Disturbance

APE	Area of Potential Effect
BFE	Base Flood Elevation
BMP	Best Management Practices
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CWA	Clean Water Act
dB	Decibel
dBA	Decibel
DBH	Diameter at Breast Height
DFE	Design Flood Elevation
EA	Environmental Assessment
EAB	Emerald Ash Borer
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESA	Endangered Species Act
EO	Executive Order
FEMA	Federal Emergency Management Agency
FFE	First Floor Elevation
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
HMGP	Hazard Mitigation Grant Program
Leq	Equivalent Noise Level
Ldn	Day-Night Noise Level
MOA	Memorandum of Agreement
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
N.J.A.C	New Jersey Administrative Code
NJDEP	New Jersey Department of Environmental Protection
NJOEM	New Jersey Office of Emergency Management
N.J.S.A.	New Jersey Statutes Annotated
NJSHPO	New Jersey State Historic Preservation Office
NMFS	National Marine Fisheries Services
NO2	Nitrogen Dioxide
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OSHA	Occupational Safety & Health Administration
Pb	Lead
PM	Particulate Matter
SO2	Sulfur Dioxide
SPL	Sound Pressure Level

TSP	Total Suspended Particulate
USACE	United State Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

## **1.0 Introduction**

Millstone Borough, herein referred to as the Subgrantee, has requested financial assistance from the U.S. Department of Homeland Security-Federal Emergency Management Agency (FEMA) Hazard Mitigation Grant Program (HMGP) pursuant to Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. §5121-5206 (Stafford Act) to elevate four residential structures above the base floodplain elevation and relocate two residential structures outside the floodplain within the community. All of the structures have been subject to repetitive and catastrophic flooding events. Millstone in Somerset County, New Jersey, experienced storm damages and flooding from a severe storm that occurred during the incident period of November 7-9, 2011. The storm incident period was declared a major disaster by President Barack Obama on November 30, 2011 (FEMA 4048-DR-NJ). The New Jersey Office of Emergency Management (NJOEM) was designated as Grantee for this disaster declaration and is the Grantee for the HMGP.

All of the residential structures were damaged as a result of flooding that occurred during Hurricane Irene and Tropical Storm Lee, and determined eligible for HMGP Federal grant funding made available from the 4048-DR-NJ Federal disaster declaration. All of the structures are located in the 100-year floodplain. The proposed action, to elevate four of the residential structures above the base flood elevation and relocate two of the structures outside of the 500-year floodplain, would reduce the risk of future flood-related damage.

FEMA is required as a Federal agency to evaluate the potential environmental impacts of its proposed actions, and alternatives to proposed actions, in order to make an informed decision in defining a proposed project for implementation. FEMA must consider and incorporate, to the extent practicable, measures to avoid, minimize, or mitigate adverse impacts to the human environment. The environmental analysis is conducted in compliance with the National Environmental Policy Act (NEPA), and its implementing regulations at 40 Code of Federal Regulation (CFR) Parts 1500-1508 and FEMA's regulations at 44 CFR Part 10. FEMA evaluates financial assistance projects prior to grant approval.

This Environmental Assessment (EA) serves as documentation of FEMA's analysis of the potential environmental impacts of the proposed elevations and relocations, including analysis of project alternatives, and identification of impact minimization measures. The document serves as written communication of the environmental evaluation for public and interested party comment. Public involvement is a component of NEPA to inform an agency's determination of whether to prepare an Environmental Impact Statement (EIS) or issue a Finding of No Significant Impact (FONSI).

## **2.0 Purpose and Need**

The purpose of the Hazard Mitigation Grant Program (HMGP) is to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. The purpose of this grant project is to minimize risk of flood damage to residential structures in Millstone Borough. The need for the project is due to

repetitive flooding that the Borough and the individual structures have experienced during past incidents.

### **3.0 Background Information**

Millstone Borough is located along the Millstone River, which has been an important corridor for both economic and military activity. Main Street, along which both the buildings to be elevated and the parcels slated for placement of the relocated building are located, is also known as the Washington-Rochambeau Revolutionary Route, due to its importance during the Revolutionary War. The areas of the borough closest to the river, especially South River Street (which drops to a much lower elevation than Maine Street) have been subject to repetitive flooding events in recent years. Borough leadership has been very interested in implementing mitigation measures that would protect the Borough's buildings and inhabitants, while allowing them to continue to live within the Borough.

The current locations of the six residential structures to be addressed through this proposed grant are within the 100-year floodplain, which has proven to be hazardous during flooding events such as Hurricane Irene. The Borough has investigated the most practicable mitigation measures to protect these structures, and has determined that the most vulnerable two (along South River Street) should be relocated, while the other four (located on Main Street) can be elevated in place.

### **4.0 Description of Alternatives Considered**

NEPA requires the analysis of practicable alternatives as part of the environmental review process for the proposed project. Inclusion of a No Action Alternative in the environmental analysis and documentation is required under NEPA. The No Action Alternative is used to evaluate the effects of not providing Federal financial assistance for the project, thus providing a "without project" benchmark against which "action alternatives" may be evaluated. FEMA reviewed all applicable Federal, State, and local laws and Executive Orders for each alternative considered.

#### **4.1 Site Alternatives Considered and Dismissed**

The Subgrantee considered acquisition and demolition of the repetitively-flooded homes. This alternative was rejected as a practicable alternative, based on several factors including:

- (1) Many of the structures are historic homes that function as contributing elements to the Borough's historic district. Removing the homes would have a more substantial effect on the national designation of the historic district than elevating them.
- (2) Homeowners were not interested in acquisition, and wished to remain Borough residents. The Borough is extremely small and does not have equivalent housing stock available within the boundaries.

Construction of a levee or floodwall was also considered. This alternative was rejected because it would possibly affect the historic district designation, and was deemed too expensive. This

alternative has been visited before, with similar results, in the Millstone River Watershed Flood Damage and Mitigation Analysis Report, conducted by the USDA Natural Resources Conservation Service (NRCS) in 2004. In that analysis, NRCS concluded that a floodwall would not meet the benefit-cost test and, in general, was not publicly acceptable due to the impact to viewshed of the River in National and State Historic Districts such as Millstone Borough.

Factoring in the current and future costs and risk considerations, the Subgrantee's preferred alternative is to elevate four structures above the 100-year base flood elevation, and relocate two structures outside of the 100-year floodplain, to minimize future damages and protect human health and safety during future flooding events. The relocated structures would be placed on a site provided by the County of Somerset. Because available land in the Borough is extremely limited, only the two properties most at risk of extreme flooding would be relocated to this property. The four other structures lie only one foot below base flood elevation; elevation was the most practicable alternative for those properties.

## **4.2 Site Alternatives Considered in this EA**

Proposed Site: The four properties to be elevated would be elevated within their current footprints at 1393 Main Street, 1403 Main Street, 1413 Main Street, and 1444 Main Street within Millstone Borough. The two properties to be relocated are currently sited at 7 South River Street and 13 South River Street. The proposed relocation sites for these two structures are proposed lot 1.021 and proposed lot 1.022, both located on the western side of Main Street just north of the intersection with North River Street. Maps of the elevation sites and relocation sites can be found in Appendix A.

The proposed site for the relocations is considered practicable because: it is located above the 100-year and 500-year floodplains; it meets the 20,000 square foot lot minimum; it has existing access to major utilities; it is centrally located in the borough; and it has a potential building site that is open (agricultural fields) with a slight slope; and it is possible to have primary access to Main Street.

The No Action Alternative and the Proposed Action Alternative are considered further in this EA and are summarized below.

### **4.2.1 No Action Alternative**

As the No Action Alternative, it is anticipated that, absent Federal financial assistance, the original structures would remain in place and the homeowners would be subject to additional flooding events. In future flooding events, homeowners would be forced to make additional claims with the National Flood Insurance Program (NFIP). This alternative would not fully address the project's purpose and need. Flood damage risk reduction would not be achieved through this alternative. The risk to human health and safety and private property during flood events would not be addressed by this alternative.

#### 4.2.2 Proposed Action

As the Proposed Action, the Subgrantee would elevate the residential structures located at 1393 Main Street, 1403 Main Street, 1413 Main Street, and 1444 Main Street. The Subgrantee would also relocate the residential structures at 7 South River Street and 13 South River Street to the proposed lots 1.021 and 1.022 on Main Street. This alternative would address the project's purpose and need. The elevations and relocations are part of a FEMA program that is entirely voluntary for the homeowners. Through the course of program implementation, some homeowners may decide to withdraw and forego elevation or relocation. Additionally, some homeowners may choose to elevate rather than relocate their homes. This EA address the proposed action with the most likelihood of significant environmental impact: two relocations and four elevations. Any adjustments to implementation of this action will involve elevations in place of relocations, or total withdrawal from the program, and thus will reduce the likelihood of significant environmental impact.

##### Elevations

As a flood damage risk reduction measure, four of the residential structures would be elevated so that the elevation of the lowest floors would be several feet above the 100-year base flood elevation as described in more detail below. This alternative would be in compliance with the Millstone Borough Floodplain Ordinance and NFIP requirements. The formula to determine the needed elevation of a building is that it be elevated to at or above the level of the base flood elevation (BFE). The State of New Jersey and the New Jersey Department of Environmental Protection mandate a freeboard of at least 1 foot above BFE, and at certain floodplain and studied waterways, up to an additional 1 foot may be required. With a known BFE, and an assumed freeboard of 2 feet, the design flood elevation (DFE) has been established by adding these two elements. By taking the known first floor elevation (FFE) obtained from survey and subtracting it from the DFE, the result is the required elevation (undertaking).

- The BFE for 1393 Main Street is 43.4 feet, adding the 2 feet freeboard gives a DFE of 45.4 feet. The FFE is 41 feet, thus the required elevation/ undertaking for 1393 Main Street is to elevate the building 4.4 feet.
- The BFE for 1403 Main Street is 43.4 feet, adding the 2 feet freeboard gives a DFE of 45.4 feet. The FFE is 32 feet, thus the required elevation/ undertaking for 1403 Main Street is to elevate it 13.4 feet.
- The BFE for 1413 Main Street is 43.4 feet, adding the 2 feet freeboard gives a DFE of 45.4 feet. The FFE is 40 feet, thus the required elevation/ undertaking for 1413 Main Street is to elevate the building 5.4 feet.
- The BFE for 1444 Main Street is 43.4 feet, adding the 2 feet freeboard gives a DFE of 45.4 feet. The FFE is 43 feet, thus the required elevation of the building is 2.4 feet.

Refer to *Appendix C*, Executive Orders Eight-Step 11988/11990 Review Documentation and FIRM Map #36039C1058F.

##### Relocations

The relocations would be performed by a professional house-moving service. The structures would be lifted onto trailers and moved via the existing road network to their new locations. A minimal number of trees on the original properties would be removed to allow removal of the structures. Utilities at the original site would be capped. Electrical utilities at the proposed relocation sites would be connected to existing overhead lines along Main Street. A new driveway would be constructed for each property connecting to Main Street.

## **5.0 Affected Environment and Environmental Consequences**

Table 1 on Page 7 summarizes potential impacts of the No Action and the Proposed Action. The following sections provide a more detailed description of the affected environment and potential environmental impacts of the No Action and Proposed Action alternatives.

### **5.1 Topography, Soils, and Geology**

#### **5.1.1 Existing Conditions**

##### **Topography**

The Proposed Action Alternative – Site #1 (relocation site) is located in the Millstone River valley, which is part of the Raritan River basin. Within the Area of Disturbance (AD) at the relocation site, there is an approximately twenty-one foot elevation change, sloping down from north to south across three lots. Ground surface elevation at the relocation site varies from approximately 79 feet above mean sea level (amsl) to 100 feet amsl. To the east of the project site, the topography slopes down to the Millstone River.

##### **Soils**

The U.S. Department of Agriculture’s (USDA) Natural Resources Conservation Service (NRCS) operates the Web Soil Survey, which includes the soils of Somerset County (NRCS USDA, 2014). The proposed relocation site consists entirely of Royce silt loam (RoyB), with 2 to 6 percent slopes.

The Farmland Protection Policy Act (FPPA) requires Federal agencies to minimize the extent to which Federal programs contribute to the unnecessary conversion of farmland to non-agricultural use and to assess potential conversion of farmland to developed property. RoyB is considered prime farmland soils (EPA EJView, accessed 7/15/2014).

##### **Geology**

Executive Order 12699 requires Federal agencies assisting in the financing, through Federal grants or loans, or guaranteeing the financing, through loan or mortgage insurance programs, of newly constructed buildings to initiate measures to assure appropriate consideration of seismic safety. The United States Geological Survey (USGS) Percent Peak Ground Acceleration Seismic Hazard Maps (USGS, 2008) indicate that the project site is located within a moderate seismic hazard area, as is most of New Jersey. Since seismic activity is low for this seismic hazard area, and no new buildings are being constructed, the relocations would not have to meet any higher standards than those required by the State of New Jersey.

**Table 1 Summary of Potential Environmental Impacts and Mitigation**

Resource	Potential Impacts No Action	Potential Impacts Proposed Action	Agency/ Permits	Mitigation
Topography, Geology and Soils	No impact	Minor impacts	Somerset-Union Soil Conservation District	Best management practices for erosion and sediment control and post-construction management practices.
Land Use and Zoning	No impact	Change in land use on relocation sites	Town Site Plan Approval	
Water Resources and Water Quality	No impact	No impact	Somerset-Union Soil Conservation District	Best management practices for erosion and sediment control and post-construction management practices.
Wetlands	No impact	No impact		
Floodplains	Adverse impact may result if facility remains in floodplain.	Future flood damage risk reduction would be achieved via relocation outside 500-year floodplain and elevation above BFE.	Local Floodplain Permit	Compliance with Local Floodplain Ordinance. Elevation/Floodproofing to at/above the 100-year floodplain elevation.
Vegetation	No impact	Minor impact as a minimal amount of trees would be removed during construction		Native plant species would be used for re-vegetation
Wildlife and Fisheries Habitat	No impact	No impact		
Threatened and Endangered Species and Critical Habitat	No impact	No impact, as timing restrictions for tree removal would be in place	USFWS	Timing restrictions for tree removal, restrictions on work near bald eagle nests
Cultural Resources	Residences would be subject to repetitive flooding and potential demolition of not repaired and maintained	Adverse impacts to historic properties	NJSHPO	Memorandum of Agreement (MOA) providing mitigation measures to decrease visual impacts of 3 elevated properties and to reduce potential impact to archeological resources during the elevation and relocation process.
Aesthetic and Visual Resources	Residences would be subject to repetitive flooding and potential demolition of not repaired and maintained.	Some impact to aesthetic of neighborhood		Mitigation measures in MOA under Section 106 would mitigate visual impacts of three of the four elevated properties.
Socioeconomic Resources	Adverse impact may result if facility remains in floodplain.	Beneficial impacts, as residents would be able to remain in Borough		
Environmental Justice	Adverse impact may result if facility remains in floodplain.	Beneficial impacts, as residents would be able to remain in Borough		
Air Quality	No impact	Minimal temporary impacts during construction. Construction emissions below deminis levels for criteria pollutants,		Best management practices.
Contaminated Materials	No impact	No impact		
Noise	No impact	Minimal temporary impacts during construction		Compliance with local ordinances and best management practices.
Traffic	No impact	Minimal temporary impacts during construction		Compliance with local ordinances and best management practices.
Infrastructure	No impact	Minimal temporary impacts during construction	Borough of Millstone Water Connection. Borough of Millstone Sewer Connection.	Design in accordance with local standards.
Public Health and Safety	Adverse impact may result if facility remains in floodplain.	Beneficial impacts from removing residents from floodplain		Compliance with Federal, State, and local safety standards and codes.
Climate Change	No impact	No impact		
Cumulative Impacts	No impact	No impact		

### **5.1.2 Potential Impacts and Proposed Mitigation**

#### **No Action Alternative**

The No Action Alternative would not impact topography, geology, or soils.

#### **Proposed Action**

The Proposed Action Alternative would have minor impacts to the physical features of the relocation project site including ground disturbance during construction. There is no proposal to excavate or to discharge any waste on site. No impact to the bedrock or geology would be expected. The proposed action would comply with the current soil erosion controls standards set by both the State of New Jersey and the Somerset-Union County Soil Conservation District. Any grading or construction activities at either the elevation sites or relocation sites that would result in soil disturbance would be subject to the requirements of both sets of standards.

The project is located in Urban Area on the 2010 census map; therefore, the project area is not defined as prime or protected farmland in accordance with 7 CFR § 658.2(a), and the action does not require an impact conversion rating form for Farmland Protection Policy Act compliance.

## **5.2 Land Use and Zoning**

### **5.2.1 Existing Conditions**

The two existing residential structures to be relocated are located on South River Street in Millstone Borough, Somerset County, New Jersey. The proposed relocation site is located within the borough limit, along Highway 533/Main Street, and fully outside the 500-year floodplain. The sites are approximately 20,000 square feet each, with 130 to 140 feet of street frontage. The proposed relocation site is an agricultural field with a slight downward slope north to south, and is currently part of the Green Acres program administered by the NJ Department of Environmental Protection. Adjacent to the sites are the remainder of the agricultural field to the north and west, Main Street to the east, and an existing residential building to the south. The site is located within Zone B of the Delaware and Raritan Canal Commission Review Zone. Projects that are located in Zone B and are not major projects are exempt from the Commission's review process. FEMA has determined that the proposed action would be a minor project, and the subgrantee is not subject to the Commission's review and approval.

### **5.2.2 Potential Impacts and Proposed Mitigation**

#### **No Action Alternative**

The No Action Alternative would not impact land use as it would continue the existing use of the land.

#### **Proposed Action**

The proposed relocation action would include the placement of residential structures in a field currently used for agriculture, which would result in a change in land use. However, the lots have already been previously proposed for residential zoning by the Borough, and the new use of the lot would be consistent or complementary to the surrounding development and therefore would not result in any adverse impacts to land use. The Subgrantee would be required to abide by any

local subdivision regulations, site plan reviews, and NJDEP Watershed regulations in the development of the project.

### **5.3 Water Resources and Water Quality**

Congress enacted the Federal Water Pollution Control Act in 1948, which was reorganized and expanded in 1972 and became known as the Clean Water Act (CWA) in 1977, as amended. The CWA regulates discharge of pollutants into water with sections falling under the jurisdiction of the U.S Army Corps of Engineers (USACE) and the Environmental Protection Agency (EPA). Section 404 of the CWA establishes the USACE permit requirements for discharging dredged or fill materials into Waters of the United States and traditional navigable waterways. Under the National Pollutant Discharge Elimination System (NPDES), the EPA regulates both point and non-point pollutant sources, including stormwater.

#### **5.3.1 Existing Conditions**

The Proposed Action Alternative is located in the Millstone River watershed. The closest mapped water body to the proposed building location is the Millstone River, located approximately 500 feet southeast of the nearest proposed relocation site.

#### **5.3.2 Potential Impacts and Proposed Mitigation**

##### **No Action Alternative**

The No Action Alternative would not impact water resources and water quality.

##### **Proposed Action**

The Proposed Action Alternative would not impact Millstone River surface water quality. Stormwater would be controlled during construction through best construction management practices to prevent pollutants from entering water sources. No impacts to Millstone River bed and banks would be involved. No impact to groundwater quality is expected; excavations are not expected to reach high water table depths and no sanitary waste would be discharged into groundwater. Potential storm water quality impacts and soil erosion and sedimentation can be mitigated both during and after construction by required compliance with the current soil erosion controls standards set by both the State of New Jersey and the Somerset-Union County Soil Conservation District.

### **5.4 Wetlands**

Executive Order (EO) 11990 “Wetlands Protection” requires that Federal agencies take actions to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the beneficial effects of wetlands. Compliance with this EO is insured through the process of identifying whether the action would be located within or would potentially affect Federally-regulated wetlands (USFWS, 2013). Federal regulation of wetlands is under the jurisdiction of the USACE. Federal actions within wetlands require the Federal agency to conduct an Eight-Step Review Process. This process, like NEPA, requires the evaluation of alternatives prior to funding the action. FEMA’s regulations for conducting the Eight-Step Review process are contained in 44 CFR § 9.5. NJDEP also regulates and protects freshwater wetlands as defined by New Jersey State Act 13:9B. The Eight-Step Review Documentation for this project can be found in *Appendix C*.

#### **5.4.1 Existing Conditions**

Based on a wetlands review of the proposed project site for the presence of regulated freshwater wetlands conducted at the NJDEP's "GeoWeb" website; no state regulated wetlands are within the AD. Based on a review of the United States Fish and Wildlife Service's (USFWS) National Wetlands Inventory (NWI) website; no Federally regulated wetlands are located within the AD (USFWS-NWI, 2014).

#### **5.4.2 Potential Impacts and Proposed Mitigation**

None of the project alternatives would have an impact on wetlands due to the absence of wetlands on all sites.

### **5.5 Floodplains**

EO 11988 Floodplain Management requires that Federal agencies avoid funding activities that directly or indirectly support occupancy, modification, or development of the 100-year floodplain (BFE) whenever there are practicable alternatives. FEMA uses Flood Insurance Rate Maps (FIRM) to identify floodplains for the NFIP. Federal actions within the 100-year floodplain, or 500-year floodplain for critical actions, require the Federal agency to conduct an Eight-Step Review Decision-Making Process. This process, like NEPA, requires the evaluation of alternatives prior to funding the action. FEMA's regulations for conducting Eight-Step Review Process are contained in 44 CFR Part 9. The Eight-Step Review Documentation conducted for this project can be found in *Appendix C*.

#### **5.5.1 Existing Conditions**

According to the FIRM (Community Panel Number 34035C0164E, effective 9/28/2007), all of the residential structures are currently located in Zone AE, referred to as the 100-year floodplain. The Proposed Action Alternative relocation site is located in Zone X, outside of the 500-year floodplain.

#### **5.5.2 Potential Impacts and Proposed Mitigation**

##### **No Action Alternative**

The No Action Alternative may have a negative impact on the floodplain if the existing structures remain in the floodplain. The structures have been damaged by flooding numerous times; for permanent compliant future use, repairs and modifications in accordance with NFIP and other code requirements would be required. The occupancy of the floodplain would continue under the No Action Alternative; therefore, flood damage risk reduction would not be achieved to the extent practicable under the Proposed Action and Alternative Action alternatives.

##### **Proposed Action**

The Proposed Action site for relocation would be located outside the 500-year floodplain, while the structures identified for elevation would be elevated well above the base flood elevation of the 100-year floodplain. The Proposed Action would reduce risk of future flood damage to all of the residential buildings. The proposed action would not adversely impact natural habitat values or other functions of the floodplain.

## **5.6 Vegetation**

### **5.6.1 Existing Conditions**

The proposed site is an open field covered almost entirely with grassy vegetation surrounded by a row of trees along the property line. As of early 2014, the invasive insect Emerald Ash Borer (EAB) has been found in Somerset County. The EAB was accidentally introduced from Asia and has killed millions of ash trees in forested and urban areas. EAB larvae hatch inside boreholes in the tree and feed on the phloem and cambium, disrupting the ability of the tree to transport water and nutrients (Herms & McCullough, 2014). The county is currently identified as a quarantine zone for EAB.

Executive Order 13122; Invasive Species mandated that federal agencies not authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States.

### **5.6.2 Potential Impacts and Proposed Mitigation**

#### **No Action Alternative**

The No Action Alternative would not impact vegetation. The No Action Alternative would also not promote the introduction or spread of invasive species

#### **Proposed Action**

A minor impact to vegetation is anticipated. The total proposed area of disturbance at the relocation sites is estimated to be just over one acre of agricultural fields, and a minimal amount of trees and shrubs from the tree line along Main Street, to establish a driveway and connect overhead electrical wires. The removal of these trees does not present a notable change in any forested area. Native plant species would be selected for site landscape seeding and plantings. The proposed action would have a beneficial impact on vegetation in the lots from which the homes to be relocated would be removed, as the former home sites would be deeded as to remain open space in perpetuity. In order to adhere with EO13112 Invasive Species, woody tree and shrub material to be removed for the proposed action would be chipped on site to chips of less than one inch in two dimensions or would not be transported whole outside the community.

Re-seeding and/or vegetation of the existing and relocation sites with native vegetation would post-site disturbance would help minimize establishment of non-native vegetation species.

## **5.7 Wildlife and Fisheries Habitat**

### **5.7.1 Existing Conditions**

The existing residential lots and proposed relocation sites do not support any sensitive landscape features such as wetlands, streams, or water bodies. The proposed relocation site is an agricultural field with disturbed soil and may provide transitional habitat for some wildlife and birds. There is no sensitive migratory bird habitat at the site. The Millstone River is nearby, but is between 300 and 600 feet east of the boundary of the proposed elevation and relocation sites, and would not be impacted by the proposed action.

### **5.7.2 Potential Impacts and Proposed Mitigation**

None of the alternatives would impact wildlife, birds, or fisheries habitat. The project would not affect the Millstone River. In accordance with Migratory Bird Treaty Act, FEMA has determined that there would be no significant adverse impact to migratory bird habitat and no take of migratory bird species associated with any of the project alternatives.

## **5.8 Threatened and Endangered Species and Critical Habitat**

The Endangered Species Act (ESA) of 1973 provides a program for the conservation of threatened and endangered plants and animals and the habitats in which they are found. The lead Federal agencies for implementing ESA are USFWS and U.S. National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS). The law requires Federal agencies to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species. The law also prohibits any action that causes a “taking” of any listed species of endangered fish or wildlife.

### **5.8.1 Existing Conditions**

The USFWS’s Endangered Species Program webpage was reviewed to determine whether any Federally-threatened or endangered species were known to be located at or near the site (USFWS-Species, 2014). The USFWS identified the Indiana bat (*Myotis sodalis*) as an endangered species and the Northern long-eared bat (*Myotis septentrionalis*) as a proposed endangered species under USFWS jurisdiction with the potential to occur in the proposed project area (USFWS-Endangered, 2014).

### **5.8.2 Potential Impacts and Proposed Mitigation**

#### **No Action Alternative**

The No Action Alternative would not affect endangered, threatened, or rare species or any critical habitat.

#### **Proposed Action**

Both the Indiana and Northern long-eared bats require mature specific tree species for habitat during migration. Minimal tree removal is proposed for heavy equipment to gain access to the properties for elevation and relocation operations. FEMA consulted with USFWS regarding the proposed action and determined that the project may affect but is not likely to adversely affect both the Indiana bat and the Northern long-eared bat. USFWS concurred with FEMA’s findings (December 5, 2014; *Appendix B*). FEMA’s determination of “may affect, but not likely to adversely affect” is dependent upon the Subgrantee’s compliance with the specific conditions listed in Section 6.0 of this document.

## **5.9 Cultural Resources**

Section 106 of the National Historic Preservation Act (NHPA), as amended, and implemented by 36 CFR Part 800 requires Federal agencies to consider the effects of their actions on historic

properties and provide the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on Federal projects that would have an effect on historic properties. These actions must take place prior to the expenditure of Federal funds. Historic properties include districts, buildings, structures, objects, landscapes, archaeological sites and traditional cultural properties that are listed in or eligible for listing in the National Register of Historic Places (NRHP).

### **5.9.1 Existing Conditions**

Within the New Jersey and Mid-Atlantic region, areas of well-drained soils that are located near a perennial water source, such as the Millstone River, provide favorable habitats for prehistoric occupants from the Paleo-Indian (13,000-11,600 B.P.) to the Late Woodland Period (1,000-4,000 B.P. and into the early historic period. While areas closest to wetlands or water are considered areas of high sensitivity for archaeological resources, other factors such as levelness of terrain, proximity to historic trails and viewshed are also important considerations. Prehistoric sites located in the New Jersey Piedmont, where this project is located, are generally found on elevated knolls and terraces, but can also be found on bluffs, floodplains, and stream terraces.

Millstone Borough was formed in Somerset County in 1894 from Hillsborough Township, which was incorporated in 1771. Settlement in the area on large farms began in the late seventeenth century and was focused along the Millstone River, an essential transportation route during that time. In 1738, Millstone was chosen as the seat of Somerset County that led to the development of Millstone village as a commercial and civil center. It became a strategic point for troop movements being located in the Millstone Valley at the intersection of two colonial roads. Between 1776 and 1782, it was occupied by all of the forces including American, British, Hessian, Loyalist, and French. In addition, during the Revolutionary War, the Somerset County Courthouse and jail (believed to be located at the site of 13 South River Street), built in 1738 were burned by the British in 1779. The village was destroyed by the end of the Revolutionary War and was slow to rebuild until the early nineteenth century. The existence of prehistoric habitation and the occupation of the forces during the Revolutionary War combine to make the project site archeologically sensitive.

In addition, the six properties are located within the Millstone National Register Historic District (76001188), which is comprised of approximately 58 properties on 70 acres and includes the extant 19<sup>th</sup> century village within its boundaries but also encompasses buildings constructed between the seventeenth and twentieth centuries. Most of the buildings within the district are single family residences. The historic district ranges along Main Street, running north and south, and stretches to the Millstone River to the east. Just to the east of the river is the Delaware and Raritan Canal constructed in 1830 which sparked the 19<sup>th</sup> century development in Millstone. It is listed on the National Register under Criterion C and is significant under the areas of education, military, transportation, and settlement.

### **5.9.2 Potential Impacts and Proposed Mitigation**

#### **No Action Alternative**

The No Action Alternative would affect the six properties in that they would continue to be impacted by flooding and overtime would continue to deteriorate to the point where, if not maintained, would require demolition.

### **Proposed Action**

Standing structures: FEMA consulted with the New Jersey State Historic Preservation Officer (SHPO) pursuant to Section 106 of the NHPA on January 2, 2013 and December 1, 2014, and SHPO responded to FEMA's determinations of effects in its responses dated January 31, 2013 and December 9, 2014. FEMA and SHPO concurred that the elevations of 1393, 1413 and 1444 Street would have no effect on the historic district provided that certain conditions are met including review and approval of the design plans for elevation by the Millstone Historic District Commission and elevating the properties in such a manner that ground disturbance be avoided. These conditions will be included in the HMGP agreement letter between FEMA and NJOEM (Grantee).

FEMA and SHPO concurred that the elevation of 1403 Main Street to a total of 13.5 feet could not be appropriately mitigated and would constitute an adverse effect to the building and the historic district. Likewise, FEMA and SHPO concurred that the relocation of the properties at 7 and 13 South River Streets outside the historic district would have an adverse impact on the historic district (i.e., loss of two historic structures). However, the fact that the new locations are just outside historic district boundaries and adjacent to a residence located within the historic district helps to mitigate the adverse impact to the district, as does relocating the properties outside the floodplain, thereby assuring their long-term preservation.

Archeological resources: Richard Grubb and Associates, Cultural Resource Consultants, were retained to conduct a Phase 1A Archaeological Survey and a site visit for 7 and 13 South River Street. Based on the information summarized above and in correspondence from SHPO to FEMA on September 19, 2014, FEMA determined and SHPO concurred that while portions of the area of potential effect have a high potential to contain significant archaeological resources, the relocation project would include minimal ground disturbances and that measures to protect the resources would be required by FEMA during the relocation. See Appendix D for correspondence.

In addition, Richard Grubb and Associates were hired to conduct a Phase 1B Archaeological Survey and metal detection for the new location for the relocated properties. Archaeological fieldwork was conducted in summer of 2014, and while three Native American and 87 historic-period artifacts were recovered, none were military objects dating to the Revolutionary War and no cultural features were identified. Richard Grubb and Associates sent a letter with the Phase 1B report to the SHPO on July 24, 2014 with a determination of No Historic Properties Affected and the SHPO concurred with the finding in a letter dated August 22, 2014. See Appendix B for correspondence.

A Memorandum of Agreement (MOA) will be signed by the consulting parties including the SHPO, FEMA, New Jersey Office of Emergency Management and Millstone Borough to mitigate the adverse effects to conclude the Section 106 consultation process. A copy of the Final Draft MOA is included in Appendix D. Mitigation measures include (1) Millstone Borough to apply to the New Jersey Historic Sites Council in accordance with the New Jersey Register of Historic Places Act, Chapter 268, Laws of 1970 for project authorization and to comply with conditions placed on the project; (2) Millstone Borough to comply with unanticipated discoveries clause,

and guidelines for demolishing basements and staging equipment during the elevation and relocation process to protect potential historic resources; and (3) FEMA to complete a case study documenting the ground disturbance that occurs during the elevation process.

On July 23, 2013, FEMA notified the Delaware Nation, the Delaware Tribe of Indians, and the Shawnee Tribe of Oklahoma as set out in 36 CFR § 800.3(f)(2) and provided information regarding identified historic properties in the APE, information regarding the history and topography of the APE, and afforded the Tribes an opportunity to participate in the consultation. The Cultural Preservation Director of the Delaware Nation acknowledged receipt of the invitation and stated that the location of the Undertaking did not endanger known archaeological sites of interest to the Delaware Nation; however, if there was an inadvertent uncovering of an archaeological site during construction, they requested immediate contact. The Delaware Tribe of Indians acknowledged receipt of the invitation and stated that no religious or cultural significant sites were located within the APE of the Undertaking; however, they wished to receive copies of final signed MOA and Phase I Archaeological report, and stated that if an archaeological site was inadvertently uncovered during construction, they requested to be immediately contacted. The Shawnee Tribe of Oklahoma did not respond to FEMA's notification and request for participation. In addition, outreach was made to the Borough of Millstone's Historical Commission and Ernest Bower for information regarding the Revolutionary War and events within the Borough. See Appendix D of the Phase 1B report for copies of correspondence attached in Appendix B.

## **5.10 Aesthetics and Visual Resources**

### **5.10.1 Existing Conditions**

The proposed elevated properties are on large lots within a neighborhood of primarily nineteenth century residences and are not part of a contiguous row of buildings of which the heights of the buildings or their architectural style or physical locations in relation to one another form a visual cadence. The two properties that would be relocated would be placed on what currently consists of an agricultural field with a slight slope on the edge of that neighborhood. There are existing tree lines along the perimeter of the property.

### **5.10.2 Potential Impacts and Proposed Mitigation**

#### **No Action Alternative**

The No Action Alternative would not have a significant immediate impact on visual or aesthetic resources although overtime repetitive flooding could render the six structures uninhabitable if not repaired and maintained. As a result, a no action alternative could have a negative visual impact in that there is a potential for empty lots within the neighborhood.

#### **Proposed Action**

Three of the four elevations would have a minimal visual impact to the Historic District and building itself, as they would be elevated 5.4 feet or less and materials consistent with local foundation treatments would be used. The house that is proposed to be elevated 13.4 would have a greater visual impact due to the height of elevation, but would be minimized to the extent practicable with foundation treatments. While the visual and aesthetic nature of the Historic

District would be adversely impacted by the relocation of the two other buildings to an area outside the Historic District, the relocation at the edge of the neighborhood would minimize the impact to the extent practicable.

## **5.11 Socioeconomic Resources**

### **5.11.1 Existing Conditions**

According to the U.S. Census Bureau 2010 Population, the population for Millstone was 418 persons, while Somerset County had a population of 323,444 persons. The total number of households located in the Town is approximately 162, and the County consists of approximately 117,759 households (US Census Bureau, 2007-2011). The 2012 median household income for the Town and the County are \$74,750 and \$98,571, respectively (US Census Bureau, 2007-2011).

### **5.11.2 Potential Impacts and Proposed Mitigation**

#### **No Action Alternative**

This alternative would likely have an adverse impact on the socioeconomic resources of Millstone Borough. Repetitive flooding of these six residential structures would render them uninhabitable, if not destroy them completely. Residents would be unable to remain in the area, which could have an impact on local business and tax revenue.

#### **Proposed Action**

A short-term positive impact to socioeconomic resources would be anticipated as a result of construction jobs and activity in the area that may support shopping, restaurants, gasoline, hardware, construction supplies and other. The long-term positive impact would be the ability of the residents to remain in Millstone and continue to contribute to the economic base of the area.

## **5.12 Environmental Justice**

Executive Order 12898, entitled “Federal Actions to Address Environmental Justice in Minority Populations and Low- Income Populations,” guides Federal agencies to “make environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations” (EPA-EO, 2013).

### **5.12.1 Existing Conditions**

The EPA Environmental Justice (EJ) Mapper indicated that there are no potentially sensitive EJ communities within Millstone Borough (EPA EJView, accessed 7/15/2014) .

### **5.12.2 Potential Impacts and Proposed Mitigation**

None of the project alternatives would have disproportionately high or adverse impacts on human health and human environment of minority or low-income populations. There are no low income or minority populations identified for the project area.

## **5.13 Air Quality**

The Federal Clean Air Act (CAA) of 1963 (amended 1970, 1977 and 1990) requires each state to attain and maintain specified air quality standards. National Ambient Air Quality Standards

(NAAQS) have been promulgated by the Federal government and by NYS for carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), total suspended particulate (TSP), sulfur dioxide (SO<sub>2</sub>) and lead (Pb). Primary air quality standards are set to protect human health and secondary standards are set to protect human welfare. The EPA implements 2008 ozone standards as required by the CAA and meets the standards to provide public environmental health benefits.

#### **5.13.1 Existing Conditions**

As identified on the EPA NEPAAssist, the proposed project is located in non-attainment areas for Ozone 8-Hour, Particulate Matter (PM) 2.5 Annual, and PM 2.5 24-Hour Standard, and is located in an attainment area for Lead 2008 Standard,.

#### **5.13.2 Potential Impacts and Proposed Mitigation**

##### **No Action Alternative**

The No Action Alternative would not impact air quality.

##### **Proposed Action**

The proposed action would result in a temporary minor impact to air quality due to construction activities; no long-term impacts are anticipated. Construction activities on the project site may have a potential impact on the local air quality through the generation of fugitive dust or airborne dust. Fugitive dust is generated during ground breaking and excavation activities. Emissions from diesel construction vehicles are also a potential source of air pollution. The use of best management practices (BMPs) would help minimize dust and vehicle emissions. Occupational Safety and Health Administration (OSHA) standards would be followed to preserve public health of construction workers and future occupants of the facility. Construction emissions would be below de minimis levels of all National Ambient Air Quality Standards (NAAQS) for Ozone, PM, and Lead under the provisions of the Clean Air Act (CAA). FEMA has determined that, due to the minimal and temporary nature of the emissions, a general conformity analysis is not required.

### **5.14 Contaminated Materials**

#### **5.14.1 Existing Conditions**

The parcel designated for the structures relocations was already owned by the county, so no Phase I Environmental Site Assessment was conducted. No known contaminated sites, Superfund sites, or brownfields occur within, or immediately adjacent to, the parcel. One groundwater contamination area, associated with a gas station, is located 800 feet to the south, at the intersection of Main Street and Amwell Road/Millstone Bypass (NJGeoWeb & NEPAAssist 2014).

#### **5.14.2 Potential Impacts and Proposed Mitigation**

##### **No Action Alternative**

The No Action Alternative would not impact or be impacted by contaminated materials.

##### **Proposed Action**

During construction activities, hazardous materials may be present on-site. Best management practices would be used in the event of petroleum or other hazardous material leak; thereby avoiding or minimizing any potential impacts from contaminated materials. These practices include requiring all contractors to keep materials on hand to control and contain a petroleum

spill. Contractors are responsible for ensuring responsible action on the part of construction personnel. Best management practices would also be used in the event of the presence of asbestos or lead paint. The asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP) can be found in 40 CFR Part 61, Subpart M. Guidance for the disposal of lead materials can be found on the EPA's website (<http://www2.epa.gov/lead>).

## 5.15 Noise

Sound pressure level (SPL) is used to measure the magnitude of sound and is expressed in decibels (dB or dBA), with the threshold of human hearing defined as 0 dBA. The SPL increases logarithmically, so that when the intensity of a sound is increased by a factor of 10, its SPL rises by 10 dB, while a 100-fold increase in the intensity of a sound increases the SPL by 20 dB. Equivalent noise level (Leq) is the average of sound energy over time, so that one sound occurring for 2 minutes would have the same Leq of a sound twice as loud occurring for 1 minute. The day night noise level (Ldn) is based on the Leq, and is used to measure the average sound impacts for the purpose of guidance for compatible land use. It weights the impact of sound as it is perceived at night against the impact of the same sound heard during the day. This is done by adding 10 dBA to all noise levels measured between 10:00 pm and 7:00 am. For instance, the sound of a car on a rural highway may have an SPL of 50 dBA when *measured* from the front porch of a house. If the measurement were taken at night, a value of 60 dBA would be recorded and incorporated into the 24-hour Ldn.

Leq and Ldn are useful measures when used to determine levels of constant or regular sounds (such as road traffic or noise from a ventilation system). However, neither represents the sound level as it is perceived during discrete events, such as fire sirens and other impulse noises. They are averages that express the equivalent SPL over a given period of time. Because the decibel scale is logarithmic, louder sounds (higher SPL) are weighted more heavily; however, loud infrequent noises (such as fire sirens) with short durations would not significantly increase Leq or Ldn over the course of a day.

The Noise Control Act of 1972 required the EPA to create a set of noise criteria. In response, the EPA published *Information On Levels Of Environmental Noise Requisite To Protect Public Health and Welfare With An Adequate Margin Of Safety* in 1974 which explains the impact of noise on humans. The EPA report found that keeping the maximum 24-hour Ldn value below 70 dBA would protect the majority of people from hearing loss. The EPA recommends an outdoor Ldn of 55 dBA. According to published lists of noise sources, sound levels, and their effects, sound causes pain starting at approximately 120 to 125 dBA (depending on the individual) and can cause immediate irreparable damage at 140 dBA. OSHA has adopted a standard of 140 dBA for maximum impulse noise exposure.

### 5.15.1 Existing Conditions

The proposed relocation site is located just outside the central portion of Millstone Borough, Somerset County, NJ. Outside the central borough, most of the land is farmland or forested areas with pockets of residential development. Vehicle noise is generated near the proposed relocation site by traffic along Main Street (County Route 533) and Somerset Courthouse Road. The ambient noise level in the vicinity of the proposed project site is typical for a rural/residential area. The

Ldn is typically about 45 dBA for rural agricultural areas, and 55 dBA for small-town and suburban residential areas. (Reference: NYSDEC program policy memorandum “Assessing and Mitigating Noise Impacts,” [www.dec.ny.gov/docs/permits\\_ej\\_operations\\_pdf/noise2000.pdf](http://www.dec.ny.gov/docs/permits_ej_operations_pdf/noise2000.pdf) and “Environmental Noise: The Invisible Pollutant,” [www.nonoise.org/library/envarticle/](http://www.nonoise.org/library/envarticle/)).

### **5.15.2 Potential Impacts and Proposed Mitigation**

#### **No Action Alternative**

The No Action Alternative would not impact noise levels.

#### **Proposed Action**

##### **Construction Noise**

The Proposed Action would have a temporary impact to ambient noise level during construction; no long-term impacts are expected. Avoidance of construction related noise impacts can be mitigated by implementing a typical work-day schedule, such as limiting heavy machinery use to between the hours of 7:00 a.m. and 5:00 p.m. Monday through Friday.

## **5.16 Traffic**

### **5.16.1 Existing Conditions**

The residential structures to be relocated are currently located on South River Street, a small one-way road carrying only traffic to the four buildings located on the road. All other traffic transits the borough on the more modern Main Street (County Road 533). The four structures to be elevated are located on Main Street.

### **5.16.2 Potential Impacts and Proposed Mitigation**

#### **No Action Alternative**

The No Action Alternative would not impact traffic.

#### **Proposed Action**

Short-term impact to traffic would be anticipated during construction. The presence of construction and delivery vehicles is unavoidable; however, this impact would be temporary and all site construction activities would comply with Millstone ordinances that relate to operations on a construction site. The relocations would reduce traffic even further on South River Street (which is located in the 100-year floodplain) and transfer the traffic from the two relocated households to Main Street. Negative impacts to overall traffic patterns in the borough would be minimal. Residents in the relocated structures would no longer have to contend with restricted access to their properties during flooding events, so threats to human health and safety would be reduced.

## **5.17 Infrastructure**

### **5.17.1 Existing Conditions**

The proposed relocation site is in close proximity to nearby utilities along Main Street.

### **5.17.2 Potential Impacts and Proposed Mitigation**

#### **No Action Alternative**

The No Action Alternative would not have an impact on existing infrastructure.

### **Proposed Action**

During the proposed relocation, the houses would be tied into the existing sewer and water infrastructure along Main Street. As the relocated structures would operate within the capacity of the existing sewer and water systems, no significant impact on infrastructure would be anticipated.

## **5.18 Public Health and Safety**

### **5.18.1 Existing Conditions**

The existing residential structures are located within the 100-year floodplain, which has caused negative impacts to public health and safety during multiple flooding events.

### **5.18.2 Potential Impacts and Proposed Mitigation**

#### **No Action Alternative**

Because the existing residential structures are located within the 100-year floodplain, both private property and human health and safety would remain at risk during the increasingly-common flood events.

### **Proposed Action**

The Proposed Action would reduce risk to public health and safety by elevating four residential structures above the Base Flood Elevation, and relocating two residential structures outside of the 500-year floodplain. Implementation of the Proposed Action would result in a significant positive impact to Public Health and Safety.

## **5.19 Climate Change**

According to the EPA, the premise of climate change "...refers to any significant change in the measures of climate lasting for an extended period of time" (EPA, no date). This includes major variations in precipitation, sea surface temperatures and levels, atmospheric temperature, wind patterns, and other variables resulting over several decades or longer. However EPA identifies and regulates anthropogenic or human actions that may affect climate change. This is dubbed "abrupt climate change," which occurs over decades and distinguishes it from natural variability that occurs gradually over centuries or millennia. Embodied energy measures sustainability to account for the energy used by structures or to create materials. Another measure of sustainability is life-cycle or cradle-to-grave analysis, which accounts for the extraction, manufacture, distribution, use, and disposal of materials. While resources exist to quantify embodied energy and life cycle analysis, the calculations were not prepared by the Subgrantee for the options presented in this EA.

### **5.19.1 Existing Conditions**

Climate change could potentially increase temperatures in the northeast United States; could potentially cause more severe weather incidents to occur; and could potentially cause sea levels to rise. More severe weather events could cause more repetitive flooding events in Millstone.

### 5.19.2 Potential Impacts and Proposed Mitigation

None of the alternatives would impact or be significantly or uniquely impacted by climate change. As noted in Section 5.13, the project area is located in a nonattainment area for air quality; however, construction emissions would be temporary and future operational use emissions would not be significant enough to exacerbate air quality attainment concerns. The proposed project would not be located in a coastal area with sea-level rise concerns, and as noted in Section 5.5 Floodplains, flood damage risk reduction is incorporated into the proposed project with elevations of four residential structures and relocations of two residential structures outside of the 500-year floodplain.

### 5.20 Cumulative Impacts

Cumulative effects are defined by the Council on Environmental Quality (CEQ) as the impact on the environment resulting from the incremental impacts of the evaluated actions when combined with other past, present, and reasonably foreseeable future actions, regardless of the source, such as Federal or non-Federal. Cumulative impacts can result from individually minor but collectively significant actions taken over time. The potential impacts from the proposed project described herein would not cumulatively have a significant adverse impact on the human environment. No other known elevation or relocation projects have taken place in Millstone Borough. Other reasonably foreseeable recovery or new construction projects in the flood-damaged community in proximity to the project area are not anticipated to cause a threshold to be exceeded in terms of cumulative impacts on the human environment.

## 6.0 Permits and Project Conditions

The Subgrantee is responsible to obtain all applicable Federal, state, and local permits for project implementation prior to construction, and to adhere to all permit conditions. Any substantive change to the approved scope of work will require re-evaluation by FEMA for compliance with NEPA and other laws and executive orders. The Subgrantee must also adhere to the following conditions during project implementation. Failure to comply with these conditions may jeopardize Federal funds:

1. The residential structures to be elevated must be elevated above the base flood elevation, or to the elevation required by NJDEP or local floodplain ordinances, whichever is more stringent. Elevations must be determined using the Best Available Data (*Flood Insurance Rate Map Community-Panel Number 34035C0164E, effective 9/28/2007*) in accordance with the National Flood Insurance Program and 44 CFR Part 9. The Subgrantee must provide copies of the elevation certificates to FEMA/NJOEM at or before grant project closeout per grant administrative procedures to be identified by the NJOEM.
2. Any proposed construction in the floodplain will need to be coordinated with the local floodplain administrator and must comply with Federal, state, and local floodplain laws and regulations.
3. Excavated soil and waste materials will be managed and disposed of in accordance with applicable Federal, state, and local regulations.
4. Applicant shall be responsible to obtain any applicable certifications or permits in accordance with the Soil Erosion and Sediment Control Act (N.J.S.A. 4:24 -39 et seq.) and Stormwater

Management Rules (N.J.A.C. 7:8) prior to start of construction. Copies of certifications or permits must be provided to FEMA and NJOEM at or before grant project closeout per grant administrative procedures to be identified by the NJOEM. For more information contact the: SOMERSET-UNION SOIL CONSERVATION DISTRICT at 308 Milltown Road, Bridgewater, NJ 08807; (908) 526-2701; fax (908) 526-7017; [thurlow@co.somerset.nj.us](mailto:thurlow@co.somerset.nj.us) The following website has general information about Soil Erosion & Sediment Control Plan requirements, as well as Stormwater Permits for new site construction: <http://www.nj.gov/agriculture/divisions/anr/nrc/njdep.html>

5. The Subgrantee shall ensure the original home sites on South River Street, once the structures are relocated, are safe and secure. All utilities shall be capped securely, and the property shall remain open space in perpetuity.
6. The construction and installation of the sanitary sewer connection will need to be coordinated with the NJDEP and Borough of Millstone.
7. The Subgrantee (and its contractors) will perform all the needed tree cutting after Sept. 30 and prior to April 1 to avoid the roosting period of the Indiana bat and the Northern long-eared bat. In addition, the removal of standing trees (live or dead) greater than or equal to 3 inches Diameter-at-Breast Height (DBH) should be avoided as much as possible and bright colored flagging or fencing should designate the trees to be removed prior to construction activities to differentiate them from protected trees.
8. The Subgrantee (and its contractors) must not conduct demolition or tree removal actions within 660 feet of a known Bald Eagle nest from late October through late August.
9. The Subgrantee (and its contractors) shall limit work area to the developed areas of the site and stage equipment on impervious surfaces, to the extent practicable.
10. The Subgrantee (and its contractors) must avoid unnecessary clearing of vegetation and protect large trees from construction equipment and disturbance.
11. Any fill material to be used for foundation backfill shall be brought from offsite and must be from a commercial supplier or other permitted source and meet the definition of clean fill at N.J.A.C. 7:26E- 1.8 and per guidance available at [www.nj.gov/dep/srp/guidance/srra/fill\\_protocol.pdf](http://www.nj.gov/dep/srp/guidance/srra/fill_protocol.pdf).
12. Subgrantee must adhere to the Memorandum Of Agreement executed between the Federal Emergency Management Agency, the New Jersey State Historic Preservation Officer, the New Jersey Office of Emergency Management, and the Borough of Millstone, Somerset County pursuant to 36 CFR § 800.6(c), appended here as Appendix D.
13. In the event that unmarked graves, burials, human remains, or archaeological deposits are uncovered, the Subgrantee and its contractors will immediately halt construction activities in the vicinity of the discovery, secure the site, and take reasonable measures to avoid or minimize harm to the finds. Personnel should take all reasonable measures to avoid or minimize harm to the archaeological find(s) and/or avoid or minimize further unanticipated effects. The person or persons encountering such properties or effects will immediately notify the Sub-grantee at 908-359-5783 and the Sub-grantee will immediately notify the SHPO at 609-984-6019, the FEMA Environmental/Historic Preservation section at 212-680-8677 or 917-561-3292, and the Grantee at 609-963-6900 ext. 6208.
  - The Sub-grantee will produce digital photographs of the unexpected find, which can be transmitted electronically, and which will be sent to FEMA and SHPO. These photos are for use by the agencies only for identification purposes and will not be duplicated or shared.

- FEMA and SHPO will then determine if the discovery warrants additional examination. If so, the signatories and invited signatories will consult to determine the appropriate course of action from that point forward in accordance with Federal, tribal, state, and local laws. In addition, The Delaware Nation, the Delaware Tribe of Indians, and the Shawnee Tribe of Oklahoma will be notified by FEMA regarding any inadvertent archaeological discovery. Construction in the area of such sites or effects shall not resume until the requirements of 36 CFR § 800.13(b) (3) have been met.
  - If human remains are discovered during the course of project implementation, the Sub-grantee's contractor shall immediately stop construction activities in the vicinity of the discovery and take all reasonable measures to avoid and minimize harm. The person or persons encountering such properties or effects shall immediately notify the Sub-grantee and the Grantee at 609-963-6900 ext. 6208, who in turn will contact the SHPO at 609-984-6019, FEMA Region 2 Environmental Planning & Historic Preservation at 212-680-8677 or 917-561-3292.
  - The Sub-grantee will immediately contact the County Medical Examiner who will determine if the nature of the human remains is a recent forensic case or pre-contact/historic human remains. The Grantee must determine appropriate legal measures under New Jersey Cemetery law (N.J.S.A. 45:27-23.c). For the protection of the potential burials, information regarding the discovery shall not be disclosed to others except for individuals who have a need to know (e.g., site managers).
  - At all times human remains shall be treated with the utmost dignity and respect. Reversible actions such as careful obscuring and/or securing the burial(s) through backfilling of soils or other means shall be undertaken. The location shall be immediately secured and protected from damage and disturbance. In the case of pre-contact or historic human remains, it may be necessary to have a guard or police officer on site 24/7 until permission has been granted to remove the human remains to ensure they are adequately protected.
  - Under no circumstances should the human remains or any associated artifacts be disturbed or removed until appropriate consultation has taken place and a plan of action has been developed.
  - In the case of pre-contact human remains, to determine the appropriate course of action in accordance with Federal, tribal, state, and local laws. FEMA shall be responsible to notify the Delaware Nation, the Delaware Tribe of Indians, and the Shawnee Tribe of Oklahoma in these circumstances. Construction in the area of such sites or effects shall not resume until the requirements of 36 CFR §800.13(b) (3) have been met.
14. Somerset County is currently identified as a quarantine zone for the invasive insect Emerald Ash Borer (EAB). Since the proposed project is located in EAB quarantine county, it is required that any woody tree and shrub material to be removed for the proposed action be chipped on site to chips of less than one inch in two dimensions or not be transported whole outside the community in order to adhere with EO13112 Invasive Species and Federal regulations at 7 CFR Part 301.53-1 through 301.53-9. Invasive insects can devastate the forests of the northeast and it is recommended that communities in the northeast treat or handle

wood materials in place to minimize the spread of these non-native insects. For more information concerning this environmental stewardship requirement, visit USDA-APHIS, New Jersey State Department of Agriculture, and other websites concerning EAB:

- [www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/emerald\\_ash\\_b/](http://www.aphis.usda.gov/plant_health/plant_pest_info/emerald_ash_b/)
  - <http://www.nj.gov/agriculture/divisions/pi/prog/emeraldashborer.html>
  - <http://www.nj.gov/dep/njisc/>
15. Occupational Safety and Health Administration (OSHA) standards shall be followed during construction to avoid adverse impacts to worker health and safety.
16. It is recommended that the Subgrantee restore disturbed construction areas of the site with native seed and/or plant species to minimize soil erosion and sedimentation, as well as enhance environmental habitat quality of project area. It is recommended that disturbed soil areas be planted with native plant material, as soon as practicable after exposure, to avoid or minimize growth of undesired and potentially invasive plant species that can potentially take hold without competition of native plant materials. Local landscape plant nurseries and soil conservation offices can assist with identification of suitable native plants for site location type. The following websites may also be useful to identification of native plant material for the proposed project site:
- <http://plants.usda.gov/java/>
  - [www.nrcs.usda.gov/wps/portal/nrcs/main/national/plantsanimals/plants/](http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/plantsanimals/plants/)
  - [www.fs.fed.us/wildflowers/nativeplantmaterials/rightmaterials.shtml](http://www.fs.fed.us/wildflowers/nativeplantmaterials/rightmaterials.shtml)

## **7.0 Public Involvement**

In accordance with NEPA, this Environmental Assessment (EA) will be released for a 30-day public review and comment period. Availability of the document for comment will be advertised in the Hillsborough Beacon and Courier News newspapers. A hard copy of the EA will be available for review at the Millstone Borough Hall at 1353 Main Street Millstone Borough NJ, 08844. An electronic copy of the EA is available for download from the FEMA website at [www.fema.gov/resource-document-library](http://www.fema.gov/resource-document-library).

This EA reflects the evaluation and assessment of the Federal government, the decision-maker for the Federal action; however, FEMA will take into consideration any substantive comments received during the public review period to inform the final decision regarding grant approval and project implementation. The public is invited to submit written comments by mail to FEMA Region II, Environmental Planning & Historic Preservation, Attn: Millstone Project, 26 Federal Plaza, 13<sup>th</sup> Floor, New York, NY 10278 or E-mail to: [FEMAR2COMMENT@fema.dhs.gov](mailto:FEMAR2COMMENT@fema.dhs.gov).

The EA evaluation resulted in the identification of no unmitigated significant impacts to the human environment. Obtaining and implementing permit requirements along with appropriate best management practices would avoid or minimize potential adverse effects associated with the alternatives considered in this EA to below the level of a significant impact. Substantive comments received will be evaluated and addressed as part of Final Environmental Assessment documentation prior to the anticipated issuance of a Finding of No Significant Impact (FONSI) by

FEMA. If no substantive comments are received during the public review and comment period, this EA will be adopted as Final with issuance of the FONSI.

The following will receive copies of the EA:

Borough of Millstone  
Millstone Borough Hall  
1353 Main Street  
Millstone, NJ 08844

New Jersey Office of Emergency Management  
NJ State Police Division Headquarters  
P.O. Box 7068  
West Trenton, NJ 08628

The following will receive notice of the EA's availability:

Mr. Daniel Saunders  
Administrator and Deputy State Historic Preservation Officer  
New Jersey Department of Environmental Protection  
Historic Preservation Office  
501 Station Plaza  
Building 5 — 4th floor  
Trenton, New Jersey 08625-0404

Mr. David Gentile  
U.S. Army Corps of Engineers  
New York District  
26 Federal Plaza  
New York, NY 10278

Mr. Peter Weppler  
Chief, Environmental Analysis Branch  
U.S. Army Corps of Engineers - Planning  
26 Federal Plaza - Room 2151  
New York, NY 10278-0090  
Ms. Nekole Alligood  
Cultural Preservation Director  
Delaware Nation  
P.O. Box 825  
Anadarko, OK 73005

Dr. Brice Obermeyer  
Tribal

Historic Preservation Office  
Roosevelt Hall, Room 212  
1200 Commercial  
Emporia, KS 66801

Ms. Kim Jumper  
Tribal Historic Preservation Officer  
Shawnee Tribe of Oklahoma  
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Mr. Thomas J. Boccino, PP, LLA  
Principal Planner, Land Acquisition  
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Engineering Division  
County Administrative Building  
PO Box 3000  
20 Grove Street  
Somerville, NJ 08876

Mr. Carl Andreassen  
Somerset County  
Engineering Department  
20 Grove Street  
Somerville, NJ 08876

Mr. Gregory Westfall  
USDA-NRCS  
220 Davidson Avenue 4th Floor  
Somerset NJ 08873

Mr. John Moyle, P.E., Manager, NFIP State Coordinator  
New Jersey Department of Environmental Protection  
Bureau of Dam Safety & Flood Control  
Mail Code 501-01A  
501 East State Street  
PO Box 420  
Trenton, NJ 08625-0420

State of New Jersey  
Department of Environmental Protection  
Green Acres Program

Mail Code 501-01  
P.O. Box 420  
Trenton, NJ 08625-0420

Stony Brook-Millstone Watershed Association  
31 Titus Mill Road  
Pennington NJ 08534

Delaware & Raritan Canal Commission  
P.O. Box 539  
Stockton, NJ 08559  
Borough of Millstone Historical Commission  
Millstone Borough Hall  
1353 Main Street  
Millstone, NJ 08844

Ernest R. Bower  
Consulting Historian  
P.O. Box 164  
Raritan, NJ 08869-0164

## **8.0 Conclusion**

FEMA, through the NEPA process, has found that the Proposed Action to elevate four residential structures and relocate two residential structures within Millstone Borough, is a practicable alternative that would not significantly adversely impact the human environment.

Adverse effects anticipated for historic properties have been resolved in cooperation with stakeholders as identified in Section 5.9 and the enclosed Memorandum of Agreement in Appendix D. During the construction period, short-term impacts to soils, surface water, transportation, air quality, and noise would be anticipated. Short-term impacts would be mitigated utilizing best management practices, such as silt fences, proper equipment maintenance, and appropriate signage. Environmental impacts of construction would also be minimized per adherence to invasive insect quarantine protocols, and compliance with building and floodplain development permit requirements. The long-term environmental impacts to soils, topography, vegetation and upland wildlife habitat as a result of the elevations and relocations would be outweighed by the positive benefits that these mitigation measures would provide the residents. The project would achieve flood damage risk reduction for two residential structures through relocation outside the 500-year floodplain and for four residential structures through elevation of the structures above the 100-year floodplain base flood elevation.

## **9.0 List of Preparers**

FEMA Region II, 26 Federal Plaza, 13<sup>th</sup> Floor, New York, New York 10278

## 10.0 References

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