

Au Sable Forks Flood Wall Project
Floodplain Management & Wetlands Protection Determination

August 11, 2020

Introduction & Overview

The purpose of Executive Order (EO) 11988, Floodplain Management, is “to avoid to the extent possible the long- and short-term adverse impacts associated with occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative.” The purpose of EO 11990 Protection of Wetlands is “to avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative.” This report contains the analysis prescribed by 24 CFR Part 55.

This project involves U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant Program – Disaster Recovery (CDBG-DR) funding for the Au Sable Forks Flood Wall Project (Project). The analysis that follows focuses on the wetland and floodplain impacts associated with this project. Based on the type of land use, facility, and other case characteristics described herein, it is concluded that there is a reasonable basis to proceed with funding for this project/activity within floodplain and wetland.

Description of Proposed Action & Land Use

The Au Sable Forks Flood Wall Project involves the installation of approximately 185 linear feet of reinforced concrete flood wall ranging in height above grade from a minimum of 3 feet to a maximum of 5.9 feet, approximately 210 linear feet of a levee/berm ranging in height from 0 feet to 3 feet, stormwater improvements with a backflow prevention outfall, and a sump pump adequate to handle stormwater flows that may get trapped behind the wall during a river flood event. The Project is located on the south bank of the West Branch Ausable River immediately west of the bridge above the West Branch Ausable River on NY-9N, Hamlet of Au Sable Forks, Town of Jay, Essex County, New York. The concrete flood wall would connect downstream to the bridge abutment of the replacement Main Street Bridge and continue west upstream until the height above grade reaches approximately 3 feet.

The proposed flood wall and berm were aligned to be located within the ineffective flow area created by the bridge opening and buildings to limit impacts to water surface elevation and velocity. A Hydraulic Engineering Center River Analysis System (HEC-RAS) model was developed for the Project utilizing adjusted USGS Stream Stats estimated flows. The USGS Stream Stats flow estimates for the West Branch were increased by approximately 20% based on a more detailed study of the flow record for the East Branch. In summary, the USGS Gauge near Au Sable Forks (#4275500) was statistically analyzed to determine the various design flow events and compared to the Stream Stats estimate at the same location as the USGS Gauge.

The adjusted Q10 (streamflow at this station has been as high as this only 10% of the time) and Q25 (streamflow at this station has been as high as this only 25% of the time) flows for the West Branch utilized in the HEC-RAS model were estimated at 8,800 cubic feet per second (CFS) and 10,800 CFS, respectively. The Q25 HEC-RAS model results were utilized to determine the elevations for the top of the floodwall and berm. The Q10 and Q25 HEC-RAS modeling results showed negligible water surface and velocity increases due to the proposed Project. The Q10 estimated water surface elevation increased by 0.00 feet to 0.04 feet, and the cross-sectional velocity only increased by 0.05 feet per second just at the bridge opening. The Q25 estimated water surface elevation increased by 0.02 feet to 0.03 feet within the Project area, and the cross-sectional velocity only increased by 0.02 feet per second approaching the bridge.

The HEC-RAS model shows that there will be minimal impacts to the water surface elevation and velocity as a result of the barrier while reducing the impacts of flooding at this location and locations downstream by maintaining the flows within the existing river channel, thereby eliminating that source of erosion and sedimentation. The proposed flood barrier will not modify the existing flow patterns and will not create adverse impacts to the river flows or aesthetics.

During Hurricane Irene and Tropical Storm Lee, the Ausable River was profoundly impacted by rising stormwater: banks collapsed and widened, channels morphed, and debris and sediment were deposited throughout the system. Over-widening of the Ausable River has also slowed water velocities and increased sediment deposition. These factors led to severe flooding of residences and businesses within the Town of Jay.

During Hurricane Irene and Tropical Storm Lee, and in many previous and subsequent events, the hamlet of Au Sable Forks suffered flood damage arising from poor stormwater drainage as well as riverine flooding. The hamlet is located at the confluence of the East and West Branches of the Ausable River, so flood impacts are exacerbated due to the hamlet's geographic setting.

As a result of Hurricane Irene and previous storms, such as occurred in 1996, the hamlet has had many buyouts, home elevations, and other changes to reduce flood risk. However, Hurricane Irene demonstrated that even properties located outside the 500-year floodplain (as defined by FEMA) can be subject to inundation. Debris jams on bridges caused flooding down Main Street, and other structure suffered damage to due surface runoff (poor storm drainage). Flooding is a recurring problem in parts of the hamlet, disrupting business and damaging property. The proposed Project will help protect life and safety throughout the hamlet of Au Sable Forks by protecting residents from flood impacts.

The Project will provide flood protection for the buildings located on the southern bank of the West Branch on the upstream side of the Main Street Bridge in the Hamlet of Au Sable Forks. More specifically, the Project will provide protection for approximately 6 to 7 buildings bound to the north by the West Branch of the Ausable River, to the east by Main Street, to the south by Forge Street, and to the west by residential properties that adjoin the West Branch. Businesses contained within these buildings include a law office, two hair salons, a bar, a clothing store, a liquor store, and a post office. In addition to the erosion and sedimentation improvements the proposed flood barrier will provide, this barrier will also provide protection for the Town's sanitary sewer pump station that floods also, spilling sanitary waste into the Au Sable River thereby reducing river pollution. Implementation of the Project will lead to decreased risk of future flooding, protection of critical infrastructure, and will help protect public and private assets from future flood and debris damage.

Applicable Regulatory Procedure Per EO 11988

The proposed action corresponds with a noncritical action not excluded under 24 CFR §55.12(b) or (c). Funding is permissible for the use in the floodplain and wetlands if the proposed action is processed under §55.20 and the findings of the determination are affirmative to suggest that the Project may proceed.

The Project occurs in a community that is in the regular program of the National Flood Insurance Program (NFIP) and the community is currently in good standing. Substantial Improvement/ Substantial Damage calculations do not apply to this Project. In accordance with definitions set forth in §55.2, the Project involves modification of the 100-year floodplain; therefore, the decision making steps in §55.20 (b), (c), and (g) apply to the Project. As such, the full eight-step floodplain determination process in §55.20 is required and the following analysis examines each step in the floodplain management and wetlands protection determination process.

Step 1. Determine Whether the Proposed Action is Located in the 100-year Floodplain (500-year for Critical Actions) or results in New Construction in Wetlands.

According to the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (**Appendix I**), the Project is located in the 100-year floodplain. According to the U.S. Fish & Wildlife Service (USFWS) National Wetlands Inventory Map, New York Department of Environmental Conservation (NYSDEC) Wetlands and Waterways Map, and Adirondack Park Agency (APA) wetlands maps (**Appendix II**), the Project is located immediately adjacent to wetlands. A wetland delineation completed for the Proposed Action did not identify any wetland in the project area. The Proposed Action is intended to stabilize and protect the hamlet of Au Sable Forks from flooding. All applicable permits from the NYSDEC, USACE, and APA will be obtained prior to the commencement of Project activities, and all permit conditions will be followed.

The Proposed Action will result in approximately 0.2 acres of permanent impacts in the 100-year floodplain. The disturbance in the floodplain is associated with the installation of concrete flood wall and earthen berm structures. Project implementation would be conditioned upon issuance of applicable federal, state, and municipal permits. The Proposed Action would be constructed in accordance with federal, state, and municipal permit requirements and their conditions.

During the course of construction, the work will be conducted in a manner as to prevent or reduce to a minimum any damage to the stream from pollution by debris, sediment, or other foreign material, or from manipulation of equipment and/or materials in or near the stream. Water that is used for wash purposes or other similar operations, which could cause the water to become polluted with sand, silt, cement, oil, or other impurities, will not be returned directly to the stream. The Project will involve the use of silt fence and/or silt sock prior to the commencement of disturbance of the existing ground surface to prevent stormwater runoff from leaving the Project area and entering the West Branch Ausable River. Erosion control structures will remain in place until a stable growth of vegetation is present in all disturbed areas.

Step 2. Initiate Public Notice for Early Review of Proposal.

Because the Proposed Action is located in the floodplain, the Governor's Office of Storm Recovery (GOSR) published an early notice that allowed for public and public agency input on the decision to provide funding for reconstruction and development activities. The early public notice and 15-day comment period is complete. No public comments were received.

An "Early Notice of a Proposed Project in a 100-Year Floodplain and Wetlands" for the Project was published on March 14, 2020 in the Sun Community News newspaper. The 15-day comment period expired at 5 pm on March 30, 2020. The notice targeted local residents, including those in the floodplain. The notice was also sent to the relevant state and federal agencies: Federal Emergency Management Agency (FEMA); U.S. Department of Housing and Urban Development; NYSDEC; NYS Historic Preservation Office (SHPO); USFWS; U.S. Army Corps of Engineers (USACOE); U.S. Environmental Protection Agency (USEPA); APA; and New York State Office of Emergency Management. The notice was also sent to the Town of Jay and Essex County. See **Appendixes III** and **IV** of this Wetlands Protection and Floodplain Management Determination for the notice distributed to these agencies and the associated newspaper notice affidavit.

The early notice stated that the project area fell within wetlands and floodway. Since the date of the early notice publication a wetland delineation was completed; no wetlands are located within the project area. The rip-rap originally located in the floodway has been moved outside the floodway. The project area is not within the floodway.

Step 3. Identify and Evaluate Practicable Alternatives to Locating the Proposed Action in a 100-year Floodplain (or 500-year Floodplain if a Critical Action) or Wetland.

The New York State Rising Community Reconstruction Program is structured to provide eligible communities resources and expertise to build communities resilient to future flooding events. This community was impacted by Hurricane Irene and Tropical Storm Lee. Roads, bridges, and culverts washed out, isolating residents, challenging emergency response, and severely disrupting the flow of tourists, local, and commercial traffic to the hamlets within the Towns of Jay and Keene. Au Sable Forks suffered damage from flooding along the East and West Branch. Dozens of houses were severely damaged. Debris built up, causing flood waters to flow down Main Street and impact residences and businesses outside the 500-year FEMA floodplain.

Under the “no action” alternative, a subsequent storm event could result in catastrophic flooding of the community of Au Sable Forks, potentially resulting in the loss of life. Federal financial assistance will support activities representing a long-term public investment in infrastructure that is necessary to protect the community of Au Sable Forks and the well-being of its residents and local economy. The “no action” alternative would provide no protection to the Project area or adjacent community from future flood events, as mitigation would be compromised due to lack of financial support. Thus, the “no action” alternative is not feasible in relation to the desired objective of creating area resiliency to future flooding events.

Step 4. Identify & Evaluate Potential Direct & Indirect Impacts Associated with Occupancy or Modification of 100-year Floodplain and Potential Direct & Indirect Support of Floodplain and Wetland Development that Could Result from Proposed Action.

The focus of floodplain evaluation should be on adverse impacts to lives and property, and on natural and beneficial floodplain values. Natural and beneficial values include consideration of potential for adverse impacts on water resources such as natural moderation of floods, water quality maintenance, and groundwater recharge.

According to the FEMA Report - A Unified National Program for Floodplain Management, two definitions commonly used in evaluating actions in a floodplain are “structural” and “non-structural” activities. Per the report, structural activity is usually intended to mean adjustments that modify the behavior of floodwaters through the use of measures such as public works dams, levees and channel work. Non-structural is usually intended to include all other adjustments (e.g., regulations, insurance, etc.) in the way society acts when occupying or modifying a floodplain. These definitions are used in describing impacts that may arise in association with potential advancement of this case.

Natural moderation of floods

The Project is intended to provide additional flood protection and to improve existing stormwater drainage infrastructure. If no action is taken, a subsequent storm event could result in catastrophic flooding of the community of Au Sable Forks, potentially resulting in the loss of life. Federal financial assistance will support activities representing a long-term public investment in infrastructure that is necessary to protect the community of Au Sable Forks and the well-being of its residents and local economy. The intent of the Project is not to develop the floodplain and shoreline to serve a new purpose, but rather to protect the community of Au Sable Forks from future flood impacts and enhance resilience.

Living resources such as flora and fauna

Given the nature of the Project, the potential for an acute or chronic level of water quality impact from the proposed Project is very low. Best management practices (BMPs) will be implemented to protect flora and fauna adjacent to the Project area. During the course of construction, the work will be conducted in a manner as to prevent or reduce to a minimum any damage to the stream from pollution by debris, sediment, or other foreign material, or from manipulation of equipment and/or materials in or near the

stream. Water that is used for wash purposes or other similar operations, which could cause the water to become polluted with sand, silt, cement, oil, or other impurities, will not be returned directly to the stream. The Project will involve the use of silt fence and/or silt sock prior to the commencement of disturbance of the existing ground surface to prevent stormwater runoff from leaving the Project area and entering the West Branch Ausable River. Erosion control structures will remain in place until a stable growth of vegetation is present in all disturbed areas.

The USFWS lists the northern long-eared bat (NLEB) (threatened) and Indiana bat (IB) (endangered) as the only threatened, endangered, proposed, or candidate species that may occur within the boundaries of the proposed Project. The Project is anticipated to involve tree removal in order to install the flood wall. The trees proposed for removal are located on a small strip of forested habitat immediately adjacent to West Branch Ausable River in a developed residential and commercial area. The Project will involve the removal of approximately eight (8) trees, which includes the following: five (5) 7" maple trees, one (1) 26" maple tree, one (1) 8" maple tree, and one (1) clump of ash trees. Several trees that are greater than or equal to 3 inches in diameter may provide suitable roosting habitat for the northern NLEB and/or Indiana bat.

To minimize potential impacts to the IB and NLEB, tree clearing will take place from November 1 to March 31, which is outside of the active season of the IB and NLEB. Trees that are proposed to be removed are part of a small strip of forested habitat located immediately adjacent to residential and commercial development. Any bats living in the vicinity of the Project area would still be able to breed, feed, and find shelter. Similar habitat (forested creek corridor surrounded by residential and commercial development) is located immediately east and west of the Project area. Bats would not have to fly long distances to get to alternative foraging habitat, as tracts of forested habitat are located along the Ausable River east and west of the proposed Project, as well as immediately north of the Project area. The forested tracts of land are accessible via strips of forested habitat along the West Branch Ausable River.

Since 1) tree clearing will be conducted when bats are hibernating, 2) the Project will not impact a large area of suitable habitat relative to the surrounding landscape, and 3) the Project will not impact high-quality habitat, a "may affect, not likely to adversely affect" determination is warranted for the NLEB and IB.

The Project is located within 0.5 mile of a documented location of the Appalachian tiger beetle, which is rare in New York and of conservation concern. The NY Natural Heritage Program recommended that the project be conducted so as to avoid as much possible detrimental impacts, including run-off and erosion to the West Branch Ausable River and its shoreline. BMPs will be implemented to ensure there are no detrimental impacts to the West Branch Ausable River and its shoreline.

Impacts to Property & Lives

The highest priority of this review is to prevent the loss of life. The proposed Project is intended to protect the community of Au Sable Forks from flood impacts, improve existing stormwater drainage infrastructure, and enhance resilience. If no action is taken, a subsequent storm event could result in catastrophic flooding and destruction of the adjacent existing residences and businesses, potentially resulting in the loss of life. Federal financial assistance will support activities representing a long-term public investment in a critical piece of infrastructure that is necessary to protect the community of Au Sable Forks and the well-being of its residents and local economy.

Cultural resources such as archaeological, historic & recreational aspects

The New York State Historic Preservation Office confirmed on December 31, 2019 that there will be "no historic properties, including archaeological and /or historic resources, affected" by the Project, as

documented in **Attachment 10** of the Au Sable Forks Flood Wall Project Environmental Review Record Report.

Agricultural, aquacultural, & forestry resources

The Project is located within the developed hamlet of Au Sable Forks and is surrounded by residential and commercial development. Therefore, impacts to agriculture, aquaculture, and forestry resources are not anticipated. It is possible during the short-term construction activities the disturbance could impact local water quality and this economic sector, although the impact attributable to this use could not be quantitatively derived. However, a qualitative analysis suggests that the impact would be very small and localized as BMPs will be utilized during construction to minimize off-site impacts. During the course of construction, the work will be conducted in a manner as to prevent or reduce to a minimum any damage to the stream from pollution by debris, sediment, or other foreign material, or from manipulation of equipment and/or materials in or near the stream. Water that is used for wash purposes or other similar operations, which could cause the water to become polluted with sand, silt, cement, oil, or other impurities, will not be returned directly to the stream. The Project will involve the use of silt fence and/or silt sock prior to the commencement of disturbance of the existing ground surface to prevent stormwater runoff from leaving the Project area and entering the West Branch Ausable River. Erosion control structures will remain in place until a stable growth of vegetation is present in all disturbed areas. Project activities will be completed in accordance with all applicable federal, state and local permit requirements and conditions.

Step 5. Where Practicable, Design or Modify the Proposed Action to Minimize the Potential Adverse Impacts To and From the 100-Year Floodplain and to Restore and Preserve its Natural and Beneficial Functions and Values.

The intent of the proposed Project is not to develop the floodplain and wetlands to serve a new purpose, but rather to stabilize and protect the hamlet of Au Sable Forks against flooding. The Project would mitigate future flood risk and minimize potential impacts to the surrounding community located within the 100-year floodplain and upslope of the 100-year floodplain. Applicable permits from the NYSDEC, USACE, APA, and Town of Jay will be obtained prior to the commencement of Project activities, and all permit conditions will be followed. BMPs will be employed to preserve natural values, lives, and living resources. Utilizing BMPs will confine impacts to the floodplain and wetlands to the proposed Project location. The Project has been designed to minimize potential adverse impacts to and from the 100-year floodplain and to preserve the natural and beneficial functions and values of the floodplain and wetlands.

Step 6. Reevaluate the Alternatives and Proposed Action.

The proposed Project is intended to protect the community of Au Sable Forks from flood impacts, improve existing stormwater drainage infrastructure, and enhance resilience. The potential alternatives are not practicable or feasible. The “no action” alternative for not funding the Project would not address the purpose and need of the proposed action. Without the proposed action, the impacted community would be left more susceptible to future flooding events in this area than it would after the implementation of the proposed action. Therefore, the “no action” alternative examined is not considered desirable and the proposed action is still practicable in light of exposure to flood hazards in floodplain, possible adverse impacts on floodplain and wetlands, the extent to which it may aggravate current hazards to other floodplains, and the potential to disrupt natural and beneficial functions and values of floodplains and wetlands. Additionally, implementation of the proposed action will abide by all applicable state and local codes for floodplain development.

Step 7. Issue Findings and Public Explanation.

A final notice, formally known as “Final Notice and Public Review of a Proposed Activity in a 100-Year Floodplain and Wetlands”, was published in accordance with 24 CFR 55. This public notice was combined with the “Notice of Finding of No Significant Impact and Notice of Intent to Request Release

of Funds (FONSI-NOIRROF)” on August 18, 2020 in the Sun Community News newspaper. The final notice requires a 7-day comment period after publication; however, the FONSI-NOIRROF requires a 15-day comment period. As such, a 15-day comment period was used for this Final Notice. The 15-day comment period expires at 5pm on September 2, 2020. The combined notice describes the reasons why the Project must be located in the floodplain, alternatives considered, and all mitigation measures to be taken to minimize adverse impacts and preserve natural and beneficial floodplain values. Project activities will be completed in accordance with all applicable federal, state and local regulations.

Step 8. The Proposed Action Can Be Implemented After the Above Steps Have Been Completed.

GOSR, operating under the auspices of the New York State Homes and Community Renewal’s (NYSHCR) Housing Trust Fund Corporation as the responsible entity, will ensure that the Proposed Action, as described above, is executed and necessary language will be included in all agreements with participating parties. Implementation of the proposed action may require additional local and state permits, which could place additional design modifications or mitigation requirements on the Project. It is acknowledged there is a continuing responsibility by the responsible entity to ensure, to the extent feasible and necessary, compliance with the steps herein.