The most comprehensive national policy on historic preservation was established by Congress with the passage of the National Historic Preservation Act (NHPA) of 1966. In this act, historic preservation is defined to include "the protection, rehabilitation, restoration, and reconstruction of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, or culture." The act led to the creation of the National Register of Historic Places (NRHP), a listing of cultural resources of national, regional, state, and local significance.

The major provisions of the NHPA that affect FEMA are Sections 106 and 110. Both sections aim to ensure that historic properties are appropriately considered in planning federal initiatives and actions. Section 106 is a specific mandate to which federal agencies must adhere when carrying out their programs and activities. Section 110, in contrast, sets out broad federal agency responsibilities with respect to historic properties and emphasizes ongoing management of historic properties.

Section 106 requires that any federal agency having direct or indirect jurisdiction over a proposed federal or federally assisted undertaking in any state "take into account" the effect of the undertaking on historic and archaeological properties. Historic properties may include any district, building, structure, site, or object, typically 50 years in age or older. These properties may be eligible for listing in the NRHP if they possess significance at the national, tribal, state, or local level in American history, architecture, archeology, engineering, or culture. Section 106 also mandates consultation during such federal actions. Consultation agencies could include among others; a State Historic Preservation Office (SHPO), an appropriate Tribal Historic Preservation Office (THPO), local and national preservation organizations, and the general public.

A.-1 Determining if your project will affect or is in close proximity to buildings or structures greater than 50 years old

The best and most reliable way to determine if a building or structure is greater than 50 years in age (constructed after 1955), is to check the tax records for the property. However, you can also estimate the age of a structure by interviewing the current resident of the structure, a local historian or others who are familiar with the structure. Often the date of construction is posted somewhere on or in the property, especially for public buildings or structures. If you believe the project will affect a building or structure constructed during the 1950s, verify the actual date of construction using tax records.

To determine if your project will affect a building or structure 50 years or older in age, you need to consider the direct and indirect impacts that your project may have. Direct impacts refer to work on or in a building or structure 50 years old or older that could result in an alteration to the character, or diminish the integrity of the property. Examples of this include: retrofitting or replacing historic bridges; elevating, relocating, or retrofitting historic buildings; and acquiring and demolishing historic buildings. If your project application proposes any work that will directly modify a building or structure older than 50 years in age, including demolition, you must provide additional

documentation in the comments area of Section A of the PDM Environmental and Historic Preservation Questions.

Indirect impacts are project impacts that affect nearby historic properties, and are typically limited to the introduction or removal of elements into the existing visual landscape. The term "close proximity" can vary in distance depending on the project type and location (click here to see examples), and refers to a geographical area around your project site. For the purposes of your PDM application, a structure is in "close proximity" to your project if it is visible from your project site. If there are any buildings or structures 50 years old or older visible from your project site, you should document the date and location of these structures in your PDM application. If several buildings or structures 50 years old or older are visible from your project site, you should make an extra effort to determine if they are part of a larger historic district that may not be visible from your project site.

To illustrate what is meant by "close proximity," consider these examples:

- a project involves replacing dual 24-inch diameter concrete reinforced pipe culverts with a single 60-inch diameter corrugated metal culvert. To do this, the roadway approach on either side of the culvert will have to be elevated 4 feet, causing a slight elevation in the roadway. This project will change the nature of the surrounding landscape – there will be a hump in the road now and some additional signage warning motorists of the hump. The area of close proximity for this project includes both the area from which the project is visible, and all areas visible from the project site. In this example, the area of close proximity may only be 200 to 400 feet from the proposed culvert.
- a project involves replacing 20 wooden power poles with 16 concrete power poles along a one-mile section of road. The existing wooden poles rise 45 feet from the ground, whereas the proposed poles would rise 70 feet from the ground. This project has changed the surrounding landscape by introducing 16 new elements into the skyline. The area of close proximity for this project includes both the area from which the project is visible, and all areas visible from the project site. In this example, close proximity may be all areas within 2,000 feet of any single tower.
- a project involves installing hurricane shutters on four stories of a modern building. The area of close proximity for this project includes the surrounding buildings from which the project is visible, including any adjacent buildings built before 1955.

A.-2 How to Gather Other Important Information

If it has been determined that there are any buildings or structures over 50 years of age in close proximity to your project, FEMA will need to determine if any of these properties are listed or eligible for listing in the National Register of Historic Places (NRHP). To facilitate this, you should collect additional information on those buildings and structures and include it with your application. The first information source you should utilize is the

database of NRHP listed structures on the website maintained by the National Park Service (http://www.nr.nps.gov/). From this site you can identify if there are any NRHP listed structures in your county or your project area.

If you are unsure as to whether the buildings or structures are NRHP listed or eligible, you can initiate contact with the State Historic Preservation Office (SHPO) (http://www.cr.nps.gov/nr/shpolist.htm), the local planning office of the city or town where the project is located, a local historic preservation organization, or a local historical society. If the applicant is a Tribal government, if the project will be on Tribal land, or if the project may be near properties of religious or cultural significance to a tribal group, contact the relevant Tribal Historic Preservation Officer (THPO), or other appropriate cultural resource contact in the tribe. These offices can be found on the web (http://www.cr.nps.gov/hps/tribal/thpo.htm).

In your communication with the SHPO, THPO, or local agency/organization, you should:

- Indicate you are applying for federal aid, and you are requesting information about the presence of historic properties in your project area [click here to see an example letter]
- Include the name of the nearest city and the names of the county where the project will occur
- Include a detailed description of the proposed project
- Include a 1:24,000 USGS map [click here to see an example map] showing the project area and the location of all buildings and structures over 50 years in age that are visible from the project site.
- Include photographs showing each of the buildings and structures that are over 50 years in age, and context photographs of the project site [click here to see example photos]

You should also make clear in your communication with the SHPO, THPO, or local agency/organization that you are **NOT** initiating consultation with their agency; the formal consultation process must be initiated by FEMA. Instead, indicate that you are only collecting information about the project site, and that formal consultation will be initiated by FEMA if the project is selected for award

SHPOs and THPOs typically take at least 30 days to respond, so it is important to initiate this correspondence early. If you have not received an agency response as you are finalizing your application, it is a good idea to follow up with them to find out when you might expect a response. Indicate the status of this correspondence with the SHPO or THPO in your project application, and scan and attach any letters, faxes, or emails you receive in response to your contact.

Read the responses from the SHPO, THPO, or local agency/organization carefully. Many times these responses can contain: important requests for information or clarification of project location or scope of work; information about nearby structures that may be affected by the project; or suggestions about how to modify your project to reduce impacts to nearby structures or a district. If the SHPO, THPO, or local historical society

have comments, or expresses an interest or concern about the structure that you are working on or a nearby structure, check “yes” to Section A, Question 1. You should only check “no” to Section A, Question 1 if the SHPO, THPO, or other interest groups indicate they have no comments about the proposed project. If no information has been gathered about historic structures in your project area, check the “Not known” box in Section A, Question 1.

In addition to requesting information from the SHPO, THPO, or local agency/organization, you should also consider involving nearby residents and business if your project may affect a historic structure. Historic structures and districts are sometimes important community resources that the general public appreciates and identifies with. If any work is going to occur on or near an historic structure of local importance, it may be a good idea to get the general reaction from the community during the planning stages of the project design.

If your project involves the demolition of any historic structure, alternatives to its demolition must be considered and included in your application. At a minimum, your application should contain a feasibility analysis for retrofitting, elevating, or relocating the structure away from the hazard, and other treatment measures that could reduce the impact of the hazard. In the analysis, give a description of the alternatives considered and make a statement about why the proposed demolition of the structure is more feasible than other alternatives.

A.-3 How to Address Adverse Effects

Adverse effects impact the integrity or intactness of a historic structure or its surroundings. If you anticipate that your project will have an adverse effect to an historic structure, then you should consider ways to avoid those effects, minimize the effects, and if necessary, compensate for the effects. When possible, all projects should be designed to avoid adverse effects to historic structures. If adverse effects cannot be avoided, develop appropriate treatment measures into the scope of work so adverse effects are reduced and minimized. Lastly, if adverse effects cannot be avoided, compensate for the adverse effects through documentation or development of other treatment measures in consultation with FEMA, the SHPO or THPO, and other interested parties. Listed below are some of the possible adverse effects that your project may have, together with possible treatment measures that you may include in your project to avoid, reduce or minimize, or compensate for adverse effects. The list is illustrative, and does not include all adverse effects that a project may have or all of the ways to potentially treat those effects.

Adverse Effect	Treatment measures
• Demolition of historic structure/building	• Consider alternatives: eliminate or reduce the hazard to the structure by some other means. • Minimize adverse effects by retrofitting, elevating, or relocating the structure instead of demolition • Compensate for adverse effects by salvaging architectural features before demolition • Compensate effects by documenting the structure and surrounding views by photo-recordation and/or measured drawings • Compensate effects by documenting the structure in a historical narrative or through oral histories • Compensate effects by erecting interpretive signage at the site documenting the structure
• Renovation or retrofit of historic structures that is incompatible with existing historic features	• Avoid or minimize adverse effects by renovating or retrofitting with in-kind materials, or materials that are compatible with the historic context of the structure • Compensate for adverse effects by documenting the structure and surrounding views by photo-recordation and/or measured drawings • Compensate for adverse effects by erecting interpretive signage at the site documenting the structure
• Intrusion of project into an historical viewshed, or construction that is incompatible with an existing historic context	• Avoid adverse effects by moving the project to another location • Avoid or minimize adverse effects by designing the project with in-kind elements of the existing historic context • Follow design guidelines set by municipal zoning laws or the SHPO • Avoid or minimize adverse effects by documenting the structure and surrounding views by photo-recordation

	and/or measured drawings

A.-4 How to provide relevant and helpful support Documentation

If you answered "yes" to Section A, Question 1, there are several things items you should attach to your application as support documentation.

First, include the address and original date of construction for each building or structure fifty years or older that is part of your project or in close proximity to your project and indicate how you determined the date of construction. If this information is provided somewhere else in your application or as an attachment, please comment to that effect in the comments area of Section A of the PDM Environmental and Historic Preservation Questions.

Second, attach a minimum of two color photographs showing at least three sides of each building or structure fifty years or older that will be affected or is in close proximity to your project to your application [click here to see an example photos]. The resolution of most digital cameras is sufficient to document the nature of the structure. It is important to clearly label your photographs and indicate the compass direction in which the photograph is being taken.

Third, attach a tax map (available from most municipality or county governments), a 1:24,000 scale USGS topographic map [click here to see an example map], or other scaled diagram showing the location of the identified buildings or structures relative to the project area. All of the structures and the project area must be marked clearly on the map.

Fourth, attach a narrative, describing the results of the information gathered, including:

- a list significant events in the history of the structure
- the names and brief histories of any notable persons associated with the structure
- comments about the integrity of the structure
- comments about the setting of the structure
- a description of the materials used in the construction of the structure and any notable workmanship
- a description of any elements of the structure that have architectural significance

Finally, attach documentation of your contact with the SHPO, THPO, or local agency/organization, including:

- scanned and attached copies of response letters, faxes, or emails
- summaries of relevant telephone conversations
- the status of any outstanding correspondence

Date

Name, Director
State Historic Preservation Office
Addresss
City State Zip

Subject: Request for information about proposed FEMA project; Pre-Disaster Mitigation Competitive (PDM-C) Program, in the Town of Blackrock, Seneca County, State

Dear Director:

The City of Blackrock has applied to the Federal Emergency Management Agency (FEMA) for a grant under FEMA's Pre-Disaster Mitigation-Competitive (PDM-C) program. PDM-C grants provide funding for measures designed to reduce or eliminate future disaster damage and disaster relief expenditures. The Town of Blackrock proposes to make stream improvements including channel straightening and stream bank armoring along Seneca Creek to alleviate flooding damage to Blackrock Road and the bridge over Seneca Creek. The project area is located next to Blackrock Road where it crosses Seneca Creek (see attached map).

One of the requirements for the FEMA PDM-C application is to identify the presence of any regulated resources in the project area. At this time, the city of Blackrock would like to inquire about the potential for nearby historic structures or archeological sites. Attached to this correspondence is a USGS map indicating the project area, pictures showing the project site and the nearby structures, and a narrative describing the proposed scope of work.

The proposed project involves straightening about 800 linear feet (lf) of the channel of Seneca Creek west of the bridge over Seneca Creek. This would require excavating the existing bank between 0 and 30 feet to the south to allow the stream to follow a straighter path. The excavated bank would be lined with rip-rap to protect it from future erosion. The second element of the project is upstream of the bridge over Seneca Creek, and involves the placement of rip-rap armor on about 400 lf of the north side of the stream (see photos).

Adjacent to the project site is Blackrock Mill. It is said that this structure was built in the 1820s, but it has been abandoned and out of use since the early 1900s. Since then it has fallen into serious disrepair; it no longer has any windows or doors, and it has been without a roof for over 50 years. The current landowner is repairing the mill for his personal use. The owner of the Mill lives about 200 feet up the hill in a house constructed in the 1850s. According to the owner, the 2-story house used to have clapboard siding, but has since been upgraded to vinyl siding. There are also new windows and additions on the building. The current owner constructed a new garage next to the house in 1995.

Your assistance in this matter is greatly appreciated. If you have any questions regarding this project, please contact me by phone (xxx) xxx-xxxx, fax (xxx) xxx-xxxx, by email (Blackrock.us.town.state), or by letter at the letterhead address.

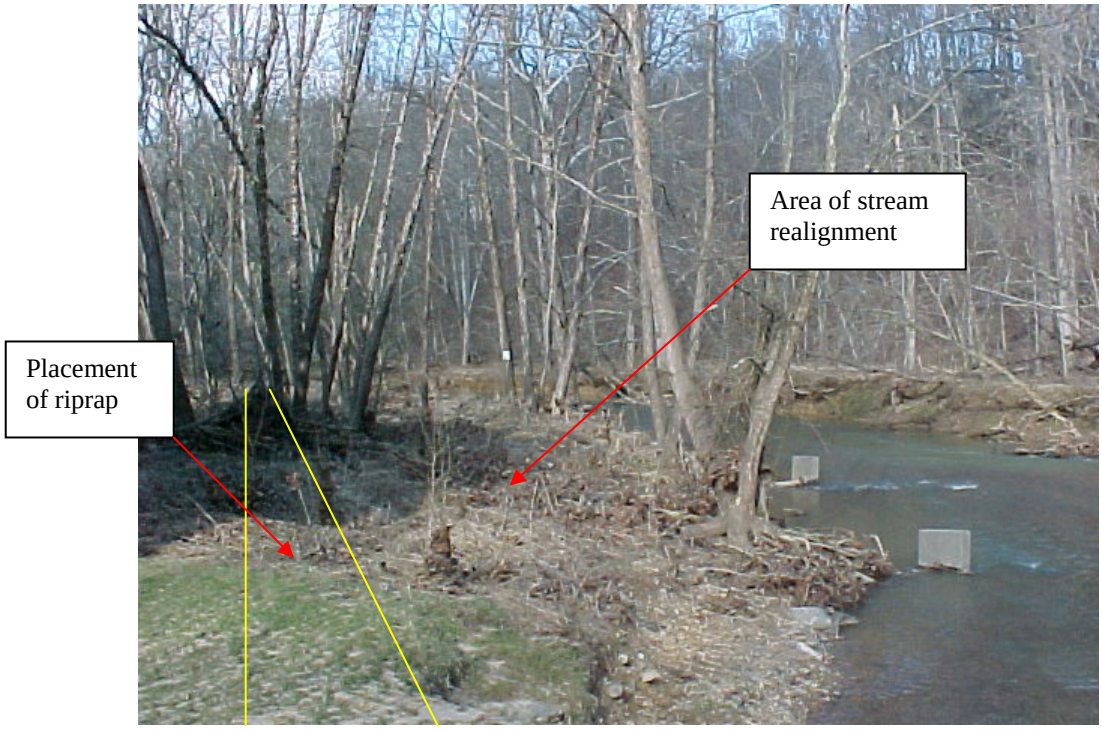
Sincerely,

View showing Blackrock Mill looking northeast.

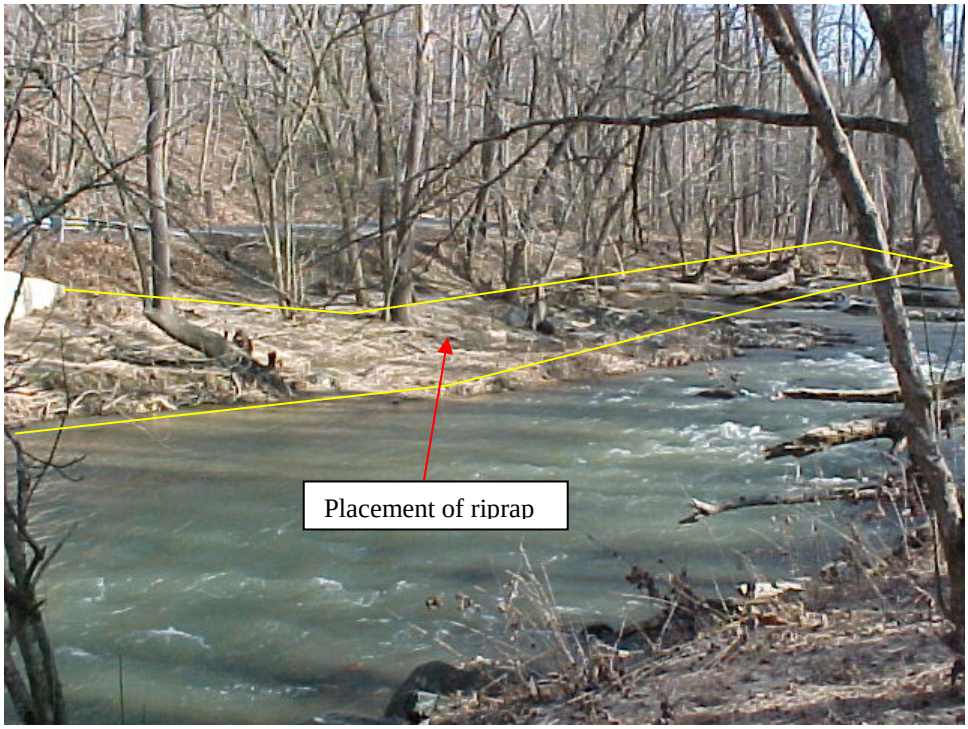
View showing Blackrock Mill looking west.

View showing 111 Blackrock Road looking south.

View showing 111 Blackrock Road looking east.

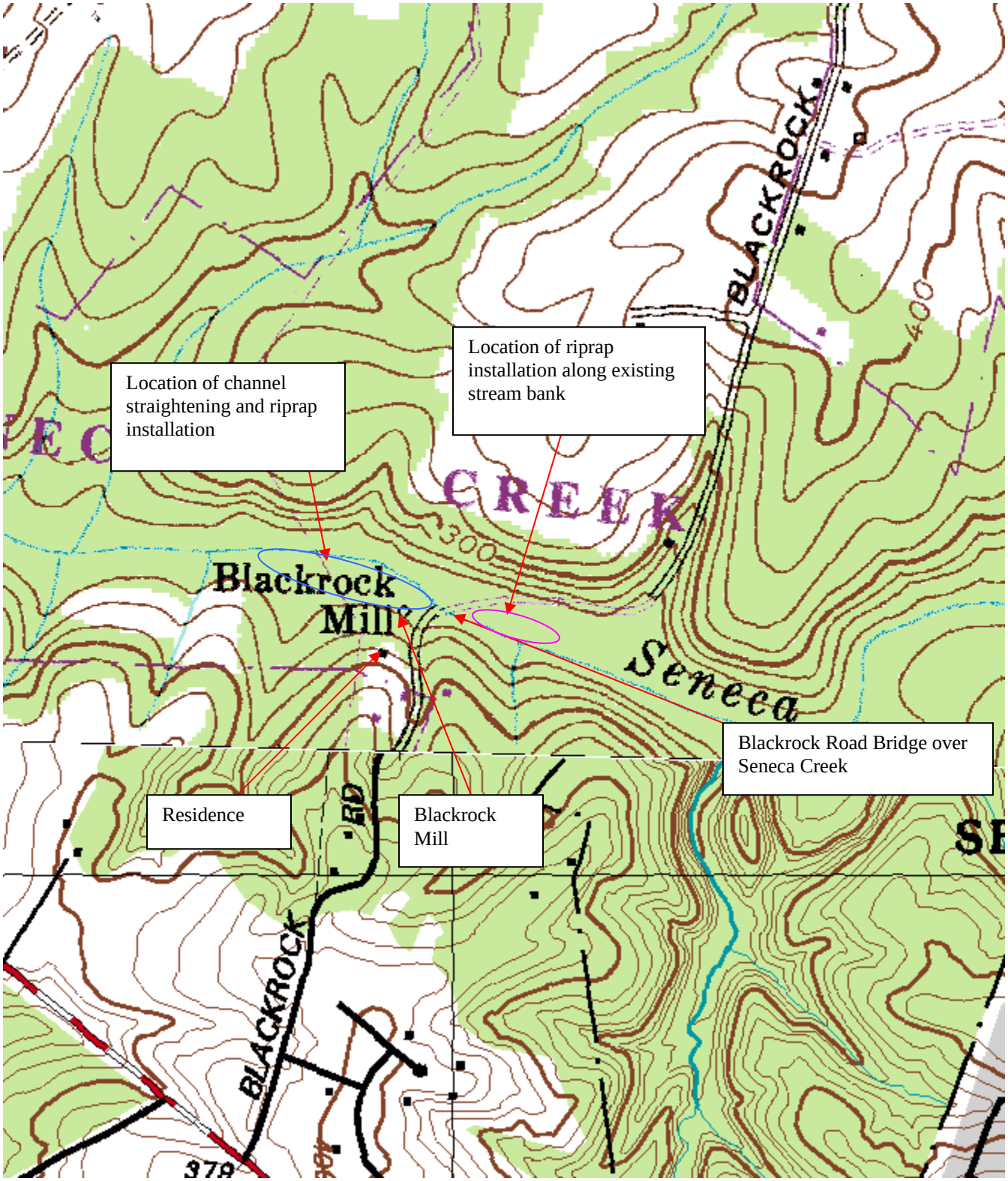


View showing approximate area of stream realignment and placement of riprap west of the bridge over Seneca Creek.



View showing approximate area of placement of riprap east of the bridge over Seneca Creek.

Topographic maps can be ordered from the USGS directly (http://topomaps.usgs.gov/), or can be obtained free of charge online from the United States Department of Agriculture (http://datagateway.nrcs.usda.gov/).



The most comprehensive national policy on historic preservation was established by Congress with the passage of the National Historic Preservation Act (NHPA) of 1966. In this act, historic preservation is defined to include "the protection, rehabilitation, restoration, and reconstruction of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, or culture." The act led to the creation of the National Register of Historic Places (NRHP), a listing of cultural resources of national, regional, state, and local significance.

The major provisions of the NHPA that affect FEMA are Sections 106 and 110. Both sections aim to ensure that historic properties are appropriately considered in planning federal initiatives and actions. Section 106 is a specific mandate to which federal agencies must adhere when carrying out their programs and activities. Section 110, in contrast, sets out broad federal agency responsibilities with respect to historic properties and emphasizes ongoing management of historic properties.

Section 106 requires that any federal agency having direct or indirect jurisdiction over a proposed federal or federally assisted undertaking in any state "take into account" the effect of the undertaking on historic and archaeological properties. Historic properties may include any district, building, structure, site, or object, typically 50 years in age or older. These properties may be eligible for listing in the NRHP if they possess significance at the national, tribal, state, or local level in American history, architecture, archeology, engineering, or culture. Section 106 also mandates consultation during such federal actions. Consultation agencies could include among others; a State Historic Preservation Office (SHPO), an appropriate Tribal Historic Preservation Office (THPO), local and national preservation organizations, and the general public.

B.-1 Determining if your project disturbs ground

Ground disturbance is defined as any activity that compacts or disturbs the ground within a project area. The project area is defined as all areas where project activities will occur, including: the actual construction activities, permanent easements, temporary construction easements, staging areas for supplies and equipment, and borrow pits. Ground disturbance can also be caused by the use of hand tools (shovels, pick axe, posthole digger, etc.), heavy equipment (excavators, backhoes, bulldozers, trenching and earthmoving equipment, etc.), and heavy trucks (large four wheel drive trucks, dump trucks and tractor trailers, etc.).

Trenching, bulldozing, excavating, scraping, and plowing are typical examples of ground disturbance activities.

Project types that usually involve ground disturbance include acquisition/demolition/relocation of structures; vegetation management; landslide stabilization; and infrastructure projects such as utilities, storm water management, and flood control. However, any projects that include the installation of utilities, culverts, temporary roads or structures, permanent roads, foundations and footers all typically involve ground disturbance activities.

B.-2 How to Gather Additional Information

If your project involves any ground disturbance, you should request guidance from the State Historic Preservation Office (SHPO) on the potential for the project to affect historic properties, including archeological sites. If the Applicant is a Tribal government, if the project will occur on Tribal land, or if the project may be near properties of religious or cultural significance to a tribal group, contact the relevant Tribal Historic Preservation Officer (THPO), or other appropriate cultural resource contact in the tribe. These offices can be found on the web (http://www2.cr.nps.gov/tribal/thpo.htm). This information should be collected at the same time as information about historic buildings and structures from Section A of the PDM Environmental and Historic Preservation Questions.

In your communication with the SHPO, THPO or local agency/organization, you should:

- indicate that you are applying for federal aid, and you are requesting information about the presence or potential for the presence of historic properties, including archeological sites, near your project area [click here to see an example letter]
- include in your communication, include the name of the nearest city and the names of the county and state where the project will occur
- include a detailed description of the proposed project and extent of ground disturbance, and past land uses
- include a 1:24, 000 scale USGS map [click here to see an example map] showing the project boundaries and the limits of ground disturbance for the project area, and photos of the project area, if available
- Include photographs of the project site

You should also make clear in your communication with the SHPO, THPO, or local agency/organization that you are **NOT** initiating consultation with their agency; the formal consultation process must be initiated by FEMA. Instead, indicate that you are only collecting information about the project site, and that formal consultation will be initiated by FEMA if the project is selected for award

SHPOs and THPOs typically take at least 30 days to respond, so it is important to initiate this correspondence early, especially if your project involves the disturbance of previously undisturbed ground. If you have not received an agency response as you are finalizing your application, it is a good idea to follow up with them to find out when you might expect a response. Indicate the status of this correspondence with the SHPO or THPO in your project application, and scan and attach any letters or emails you receive in response to your contact.

If there are recognized Indian tribes present in your state, or if the SHPO, THPO or other sources indicate that there may be historic properties of significance to Indian Tribes present in your project area, please note this in the project application. If your project is selected for funding, FEMA will initiate contact with the appropriate Indian tribes to

determine if there are historic properties of religious or cultural significance to the tribe in your project area.

Determining past land uses of properties in your project area is important for evaluating the potential presence of, or impacts to, archeological resources on your site. There are many ways for obtaining such historical information, such as:

- Tax records and maps at your local tax assessor's office;
- Sanborn Fire Insurance Maps available at the local public library (many have been scanned and are available online);
- Historical city cross-reference directories from the local public library;
- Genealogical information;
- Local historical society;
- Local title records at the Recorder of Deeds;
- Historical topographical maps from the U.S. Geological Survey;
- County soil survey maps from the local NRCS office;
- Historical aerial photographs from the USDA County Extension Service; and
- Books or other records from the local public library, or the city or county planning office

Sometimes interviewing local people familiar with the history of the project site (i.e., local government personnel, project site neighbors) may provide insight that might not otherwise be available.

B.-3 How to Address Adverse Effects

Adverse effects to archeological resources include the loss of integrity or intactness of archeological sites, as well as the damage, degradation, or loss of any archeological resource. If you anticipate that your project will have an adverse effect to an archeological resource or site, then you should consider ways to avoid those effects, minimize the effects, and if necessary, compensate for the effects. When possible, all projects should be designed to avoid adverse effects to archeological resources and sites. If adverse effects cannot be avoided, develop appropriate treatment measures into the scope of work so adverse effects are reduced and minimized. Lastly, if adverse effects cannot be avoided, compensate for the adverse effects through documentation or development of other treatment measures. Listed below are some of the possible adverse effects that your project may have, together with possible treatment measures that you may include in your project to avoid, reduce or minimize, or compensate for adverse effects. The list is illustrative, and does not include all adverse effects that a project may have or all of the ways to potentially treat those effects.

Adverse Effects	Treatment Measures
• Degradation of archeological material or its' context • Ground compaction	• Consider alternatives: relocate or realign the project to avoid archeological sites. • Minimize or eliminate adverse effects by

• Soil erosion • Contamination of ground with hazardous materials	constructing fencing around the site to prevent unintentional ground disturbance. • Minimize adverse effects by conducting work when ground is frozen to minimize or prevent ground disturbance. • Compensate for adverse effect by conducting a Phase III archeological survey, including: photographic recordation, excavation, artifact analysis and curation, and archive research.
• Excavation of archeological material	• Minimize or avoid adverse effects by training equipment crews to recognize archeological resources • Compensate for adverse effect by conducting a Phase III archeological survey, including: photographic recordation, excavation, artifact analysis and curation, and archive research.
• Theft or removal of archeological resources from a site	• Minimize or avoid adverse effects by installing security fencing during archeological survey and/or project activities.

B.-4 Providing Relevant and Helpful Support Documentation

If you answered "yes" to Section B, Question 1 of the PDM Environmental and Historic Preservation Questions, there are several important things items to attach to your application as support documentation.

First, include a detailed narrative describing the extent of ground disturbance both in the scope of work, and in the comments box in Section B of the Environmental and Historic Preservation questions. The narrative should include where the project is located, the boundaries of the project area, what kinds of activities will take place in the project area, and how much ground is going to be disturbed. For example:

> The piping will be installed next to Johnson Road from Main Avenue north to 12th Street. All work and excavation will be performed from the hardtop surface of

Johnson Road, or within its 15 foot right-of-way. Excavated soils will be temporarily stored adjacent to the trench until the piping is installed. Excess excavated material will be taken to the county sand pit. The roadside will be excavated using a Cat 416 backhoe. The trench will be approximately 6-feet wide and 5-feet deep. The piping will be installed at the bottom of the trench, backfilled, and then roller compacted using an Ingersoll-Rand R-194 compactor.

Second, include a narrative of current land use and all know historical uses of the project area in the comments box in Section B of the PDM Environmental and Historic Preservation Questions. For example:

> The road has been at this location for approximately 60 years, and before that it was a dirt road primarily used by farmers in the area. Land use in the project area consists of residential housing that was built after WWII. In the project area, the right-of-way of the road also contains buried gas and electric line utilities.

Third, provide a narrative describing the extent of previously disturbed ground. Previously disturbed ground means that some type of ground disturbing activity has taken place in an area, and that this activity may have affected the integrity—or intactness—of archeological resources present at a site. For example, if a road has been graded and paved through a site, the right-of-way for the road is considered to have been previously disturbed. Previous disturbances, however, do not necessarily destroy the integrity of a site; the degree of disturbance depends on the context of the activity. For instance, a farm field that has been plowed for 50 years may have lost integrity in the top 2 or 3 feet of soil, but retains integrity below that depth.

Fourth, in addition to the comments you provide in the scope of work and Section B of the Environmental and Historic Preservation questions, attach a copy of a 1:24,000 USGS topographic map [click here to see an example map] to your application indicating:

- the project site
- the location of any ground disturbing activities, including excavation, the operation of equipment or staging or borrowing areas
- the location of any known archeological sites

Fifth, documentation of your contact with the relevant SHPO/THPO, including:

- scanned and attached copies of response letters, faxes, or emails
- summaries of relevant telephone conversations
- the status of any outstanding correspondence

Lastly, if it has been determined that that the project site contains archeological sites, or has a high potential for archeological resources, include with your application a discussion how adverse effects to these resources will be avoided, minimized or reduced, or compensated for.

Date

Name, Director
State Historic Preservation Office
Addresss
City State Zip

Subject: Request for information about proposed FEMA project; Pre-Disaster Mitigation Competitive (PDM-C) Program, in the Town of Blackrock, Seneca County, State

Dear Director:

The City of Blackrock has applied to the Federal Emergency Management Agency (FEMA) for a grant under FEMA's Pre-Disaster Mitigation-Competitive (PDM-C) program. PDM-C grants provide funding for measures designed to reduce or eliminate future disaster damage and disaster relief expenditures. The Town of Blackrock proposes to make stream improvements including channel straightening and stream bank armoring along Seneca Creek to alleviate flooding damage to Blackrock Road and the bridge over Seneca Creek. The project area is located next to Blackrock Road where it crosses Seneca Creek (see attached map).

One of the requirements for the FEMA PDM-C application is to identify the presence of any regulated resources in the project area. At this time, the city of Blackrock would like to inquire about the potential for nearby historic structures or archeological sites. Attached to this correspondence is a USGS map indicating the project area, pictures showing the project site and the nearby structures, and a narrative describing the proposed scope of work.

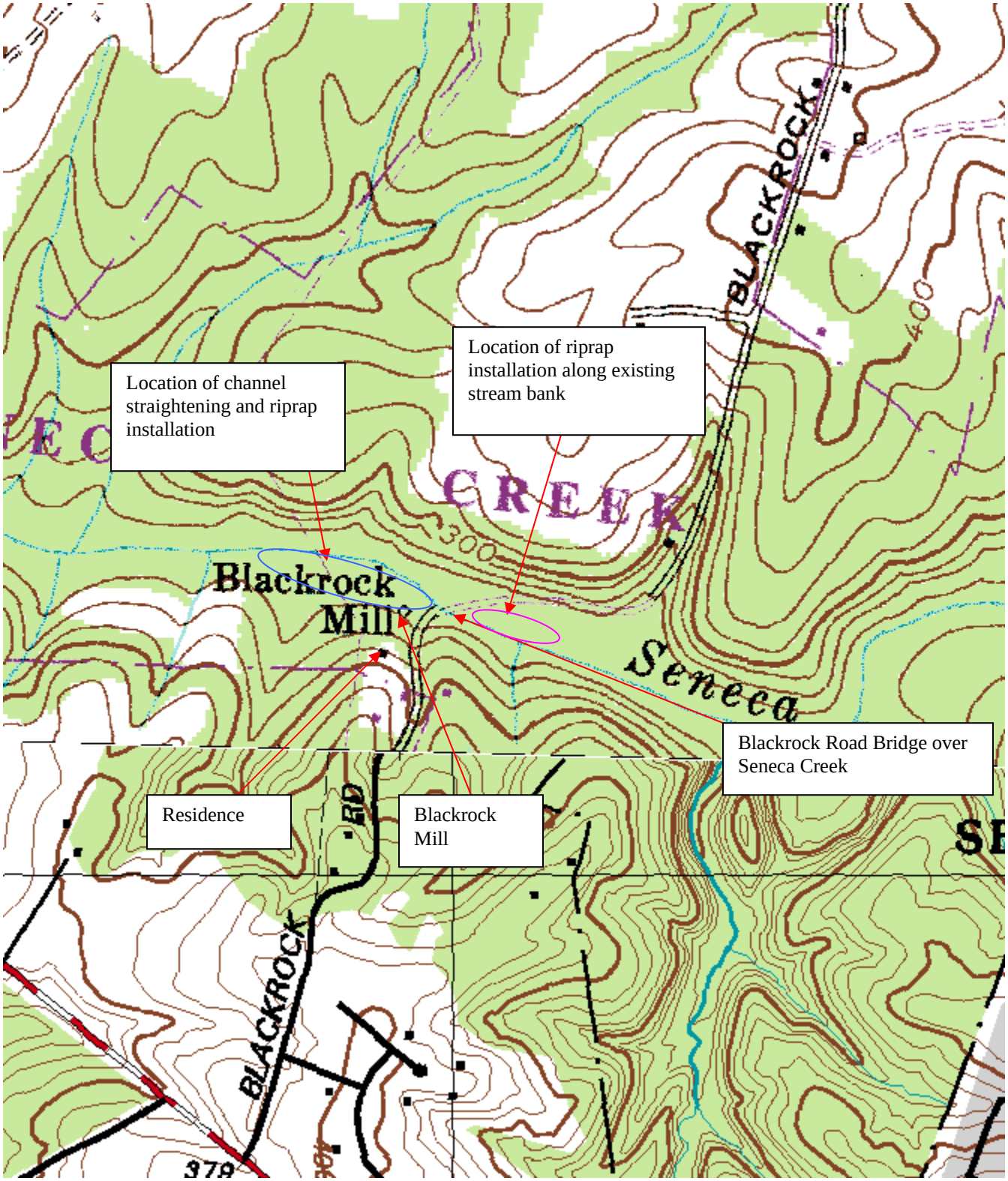
The proposed project involves straightening about 800 linear feet (lf) of the channel of Seneca Creek west of the bridge over Seneca Creek. This would require excavating the existing bank between 0 and 30 feet to the south to allow the stream to follow a straighter path. The excavated bank would be lined with rip-rap to protect it from future erosion. The second element of the project is upstream of the bridge over Seneca Creek, and involves the placement of rip-rap armor on about 400 lf of the north side of the stream (see photos).

Adjacent to the project site is Blackrock Mill. It is said that this structure was built in the 1820s, but it has been abandoned and out of use since the early 1900s. Since then it has fallen into serious disrepair; it no longer has any windows or doors, and it has been without a roof for over 50 years. The current landowner is repairing the mill for his personal use. The owner of the Mill lives about 200 feet up the hill in a house constructed in the 1850s. According to the owner, the 2-story house used to have clapboard siding, but has since been upgraded to vinyl siding. There are also new windows and additions on the building. The current owner constructed a new garage next to the house in 1995.

Your assistance in this matter is greatly appreciated. If you have any questions regarding this project, please contact me by phone (xxx) xxx-xxxx, fax (xxx) xxx-xxxx, by email (Blackrock.us.town.state), or by letter at the letterhead address.

Sincerely,

Topographic maps can be ordered from the USGS directly (http://topomaps.usgs.gov/), or can be obtained free of charge online from the United States Department of Agriculture (http://datagateway.nrcs.usda.gov/).



Several Federal environmental laws were enacted to protect or preserve the nation's natural biological resources. One of these laws, the Fish and Wildlife Coordination Act (FWCA), addresses any Federal action that could result in the modification of a stream or body of water that might have effects on the fish and wildlife resources that depend on that that body of water or its associated habitats. If adverse impacts to these resources are identified, then steps must be considered that would minimize or prevent those impacts. The FWCA also requires, when possible, to look for opportunities to improve the resources. If your project is in or near water, FEMA may need to conduct additional consultation with the US Fish and Wildlife Service (USFWS) and state natural heritage program once your project is selected for funding.

In 1973, the Endangered Species Act (ESA) was enacted to specifically address the needs of those species determined to be threatened or in danger of becoming extinct. The ESA prohibits killing, harming or harassing – "taking" of a species that has been designated "threatened or endangered " by the USFWS or the National Marine Fisheries Service (NMFS). This is one of the few environmental laws where there are criminal penalties associated with a violation, particularly the taking of a threatened or endangered species. Special procedures have been defined in Section 7 of the ESA that are required when a Federal action or funding is involved. It is these procedures along with the responsibilities under the FWCA that require a federal agency to evaluate proposed actions for potential impacts. The questions and guidance in this section are designed to provide information useful in determining if your proposed project is likely to trigger the FWCA or ESA, and if so, steps and costs that might be involved in reducing the potential impacts.

C.-1 Determining if there are protected species or designated critical habitat in the area affected by the project.

To determine if there are protected species or their designated critical habitats in your project area, it is important to contact groups or agencies that are familiar with the species in your project area. This could include the United States Fish and Wildlife Service (USFWS) (http://offices.fws.gov/statelinks.html), the National Marine Fisheries Service (NMFS) for ocean-going fish species (http://www.nmfs.noaa.gov/prot_res/overview/regional_map.html), or your state natural heritage program (which can be identified through the following USFWS site (http://endangered.fws.gov/contacts.html)). Other sources of information include local parks and recreation officials, or even a Natural Resources Department at a local college or university.

Applicants should, at a minimum, request information from the USFWS, state natural heritage program and NMFS (if proposed project is near waters that could contain ocean-going species, such as salmon) about the presence of protected species or designated critical habitat. Documented communication from these agencies is the best assurance of the presence or absence of protected species or critical habitat, and should be attached to the project application. In your communications you should:

- Indicate that you are applying for federal aid, and you are requesting information about the presence of protected species and habitat near your project area [click here to see an example letter].
- Include in your request the name of the nearest city and the names of the county and state where the project will occur.
- include a detailed description of the proposed project
- include a 1:24,000 scale USGS map showing the project boundaries, and photos of the project, if available [click here to see an example map]

These agencies typically take at least 30 days to respond, so it is important to initiate contact early. If you have not received an agency response as you are finalizing your application, it is a good idea to follow up with them to find out when you can expect it.

Read the responses from the USFWS, NMFS, and/or your state natural heritage program carefully. If these agencies indicate that there may be threatened or endangered species or their critical habitat in your project area, check "yes" to Section C, Question 1 of the Environmental/Historic Preservation Questions. You should only check "no" to Section C, Question 1 if the USFWS and/or NMFS have definitively confirmed that there are no protected species or critical habitat in the project area and they will not be affected by the proposed project. In all other cases, check "Not known."

C.-2 Determining if your project removes vegetation.

Except for projects that are completely within existing buildings or the limits of existing pavement, almost all construction activities involve the removal of vegetation. "Vegetation" refers to any kind of plant in the natural environment or in an area that is landscaped, roadside grasses, and trees or shrubs. If vegetation is part of the scope of work for your project, you must provide documentation in your project application. This is especially important if the vegetation is in a designated critical habitat of a protected species or along a body of water.

If vegetation is being removed during project implementation, indicate the size of the area being cleared and a general description of the type of vegetation being removed in the project application's scope of work section, and check "yes" to Section C, Question 2 of the Environmental/Historic Preservation questions.

C.-3 Determining if your project is near water or in a natural stream or body of water.

You can determine if your project is in or near, any type of waterway or body of water by walking the entire project area, and all areas within 200 feet of the project site, and by referencing a USGS topographic map. Be sure to use a 1:24,000 scale map [click here to see an example map]; any scale greater than this may not show all of the water body features. Water bodies are represented on USGS topographic maps in blue. Take the map to the field with you. Mark the project area directly on the map, and indicate if there are other water bodies present that are not shown on the map. If your scope of work involves any work in the water, or there are any bodies of water present in the project area, then

check “yes” to Section C, Question 3 of the Environmental/Historic Preservation Questions and provide further documentation as described in Section D-5.

If there are any bodies of water in the project area, you will want to find out if the USFWS or NMFS has any concerns about your project as it relates to the FWCA. The best way to do this is contact the Field Office of the USFWS or NMFS that has jurisdiction in the project area (note that it will be a different division from the ESA Section 7 compliance office that you need to contact for ESA as mentioned above in C-1), as well as the local and state fish and wildlife agencies. Include the same type of information as described in C-1 as well as information about the affected bodies of water.

C.-4 How to Address Adverse Effects.

Adverse effects to protected species, their habitat, or habitat located in proximity to water involve the “taking” (killing) or harassment of any federally listed threatened or endangered species, or the removal or degradation of their habitat and habitat in close proximity to water. When considering adverse effects, be aware of ways your project could affect a nearby body of water. These could include: sedimentation or pollution runoff; changes in water flow into a body of water; changes to stream alignment or contouring riparian habitat; and any changes that may affect the normal flow or flood flow of a stream.

When possible, all projects should be designed to avoid adverse effects to protected species, their habitat, and habitat in close proximity to water. If adverse effects cannot be avoided, develop appropriate treatment measures into the scope of work so adverse effects are reduced and minimized. Listed below are some of the possible adverse effects that your project may have, together with possible treatment measures that you may include in your project to avoid, reduce, or minimize adverse effects. The list is illustrative, and does not include all adverse effects that a project may have or all of the ways to potentially treat those effects.

Adverse effects	**Treatment Measure**
• Intentional or accidental take of threatened or endangered animals, ocean going fishes, or marine mammals	• Avoid adverse effects by realigning the project area to avoid protected species. • Avoid adverse impacts by constructing barriers to prevent protected species from entering the project area. • Avoid adverse effects by restricting construction activities to times of the year that protected species are not present in the project area. • Reduce or minimize adverse effects by removing and relocating protected species from the project area before construction activities begin.

• Intentional or accidental take of threatened or endangered plants	• Avoid adverse effects by surveying the project area for protected plant species and fence those areas off from construction activities. • Reduce and minimize adverse effects by removing and relocating protected species from the project area before construction activities begin. • Reduce and minimize adverse effects by fencing the project area to prevent construction equipment from inadvertently straying off site near protected plant species.
• Reduction in the quantity of quality of riparian habitat, critical habitat, essential fish habitat, or migratory bird flyways	• Avoid adverse effects by realigning the project area to avoid protected habitat. • Avoid, reduce or minimize adverse effects by building culverts that maintain the continuity of streams. • Avoid, reduce or minimize adverse effects by restricting construction activities to times of the year that would minimize impacts to habitat (e.g., when the ground is frozen or times of low flow in streams). • Avoid, reduce or minimize adverse effects by restricting equipment from operating in or near waterways. • Reduce and minimize adverse effects by utilizing BMPs to reduce erosion and sedimentation; using in-stream erosion prevention measures • Reduce and minimize adverse effects by surveying the project area for protected habitat and fencing those areas off from construction activities. • Utilize equipment that would minimize effects to protected habitat. • Compensate for adverse effects by planting trees and shrubs to promote habitat regeneration after construction activities are completed.

C.-5 How to provide relevant and helpful support documentation.

There are five important things to attach to your application as support documentation.

First, documentation of your contact with USFWS, NMFS, the state natural heritage program or wildlife agency, including:

- scanned and attached copies of response letters, faxes, or emails;
- summaries of relevant telephone conversations; and
- the status of any outstanding correspondence.

Second, provide narrative descriptions of the kinds of vegetation present and the character of nearby bodies of water in the comments section of Question C in the Environmental/Historic Preservation Questions. In the narrative, be sure to describe:

- the amount of vegetation that you will remove - For grasses and mowed areas, provide a unit measure of the area (e.g., 200 square feet). For trees and shrubs you should record how many individual plants you will remove.
- the kind of vegetation that is present in the area and the kind you will remove - If known, give both common and scientific names for the species.
- the setting in which the vegetation is located, for example:

  > Installing the piping will require the removal of about 40,000 square feet of roadside grasses, about 45 White pine trees (*Pinus strobus*) that are 25-feet tall and located in a small wooded area, and about 15 trees and shrubs (rhododendron and vaccinium) on the lawn of the sewage plant. One of the trees on the lawn is a White oak (*Quercus alba*) about 30 inches in diameter. The rest of the trees and shrubs on the lawn were planted by the city 15 years ago, and are ornamental varieties. About 30,000 square feet of cultivated grasses will also be removed from the lawn of the sewage plant.

- the name of the body of water (if any), the type of water body (e.g., wetland, intermittent stream, stream, river, pond, lake), its dimensions, function, and setting, for example:

  > In the area of the project, Jones Creek is about 10 feet across and 2 feet deep. Upstream of the culvert, the creek runs through the city park, and the banks are generally covered in mowed grasses. Due to excessive floodwaters during heavy rains, the banks of the creek directly upstream of the culvert have been severely eroded and contain no vegetation. Downstream of the culvert the creek gets much wider where the east fork of the creek joins in. On one side of the creek is the walking trail, the other side of the creek is woods. The bottom of the creek contains some gravel and stones, but is mostly full of sediment. As a result of this project, the severely eroded creek banks will have a chance to stabilize, thus reducing

the amount of sediment build-up that has been such a problem. The culvert upgrade would improve the conveyance of the creek and eliminate the bank erosion that is occurring.

- describe how close the project activities will be to the water body, and if the project could result in any changes to the water body, for example:

  The culvert will be installed in Jones Creek where it runs under Main Street. The existing culvert will be removed with a Cat 416 backhoe, which will be operated from the road. In some cases, the backhoe may need to be operated adjacent to the road on the shoulder. The new culvert will be installed on the same day using the backhoe. Fill material will be brought in by dump truck that will not be operated in the creek. No equipment will be staged at the project site; if construction activities continue for more than 1 day, all equipment will be taken from the site and staged at the Road Commission equipment barn.

Third, attach to the application a 1:24,000 USGS topographic map indicating:

- the project site
- the location of construction activities
- the location of bodies of water

Fourth, include digital or scanned photographs of:

- the project site and project area
- any affected vegetation that will be removed. These photographs should be taken to clearly show what kind of vegetation will be removed, and where the vegetation is located in the context of its surroundings. For examples, click here [click here to see an example photos].
- the areas directly upstream and downstream of the project site
- the project area in the context of its surroundings.

Finally, indicate in your scope of work and as a line item in your cost estimate any actions you are taking to avoid, minimize, or reduce adverse impact to listed threatened or endangered species or their critical habitat that may be in your project area. You should also include this information in the comments box of Section C in the Environmental/Historic Preservation Questions.

Date

Name
United States Fish and Wildlife Service
Address
City State Zip

Subject: Request for information about proposed FEMA project; Pre-Disaster Mitigation Competitive (PDM-C) Program, in the Town of Blackrock, Seneca County, State

Dear Name:

The City of Blackrock has applied to the Federal Emergency Management Agency (FEMA) for a grant under FEMA's Pre-Disaster Mitigation-Competitive (PDM-C) program. PDM-C grants provide funding for measures designed to reduce or eliminate future disaster damage and disaster relief expenditures. The Town of Blackrock proposes to make stream improvements including channel straightening and stream bank armoring along Seneca Creek to alleviate flooding damage to Blackrock Road and the bridge over Seneca Creek. The project area is located next to Blackrock Road where it crosses Seneca Creek (see attached map).

One of the requirements for the FEMA PDM-C application is to identify the presence of any regulated resources in the project area. At this time, the city of Blackrock would like to inquire about resources regulated under the Endangered Species Act and the Fish and Wildlife Coordination Act in the proposed project area. Attached to this correspondence is a USGS map indicating the project area, pictures showing the project site and the nearby environment, a narrative describing the proposed scope of work, and site drawings showing the extent of the project activities.

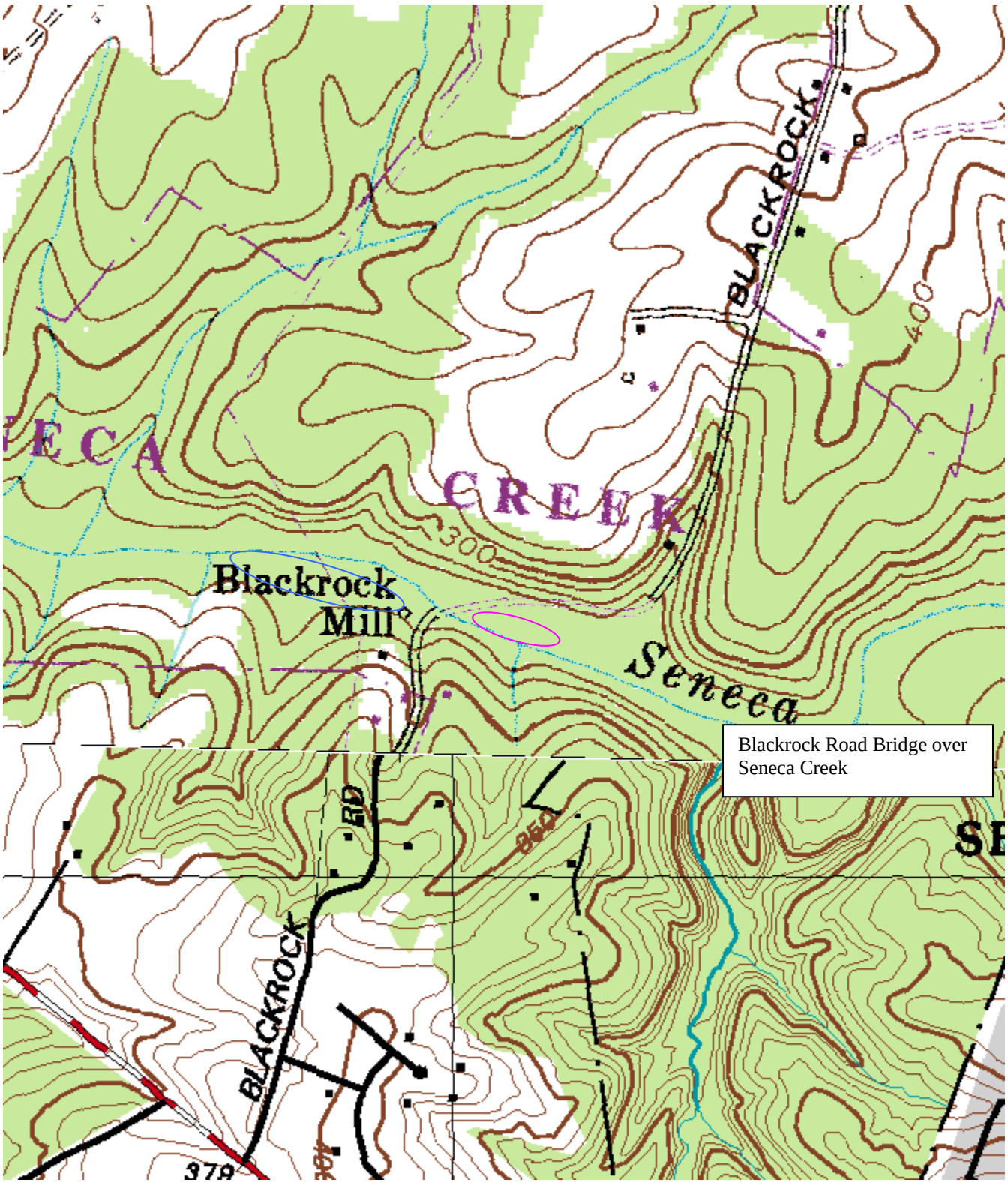
The proposed project involves straightening about 800 linear feet (lf) of the channel of Seneca Creek west of the bridge over Seneca Creek. This would require excavating the existing bank between 0 and 30 feet to the south to allow the stream to follow a straighter path. The excavated bank would be lined with rip-rap to protect it from future erosion. The second element of the project is upstream of the bridge over Seneca Creek, and involves the placement of rip-rap armor on about 400 lf of the north side of the stream (see photos).

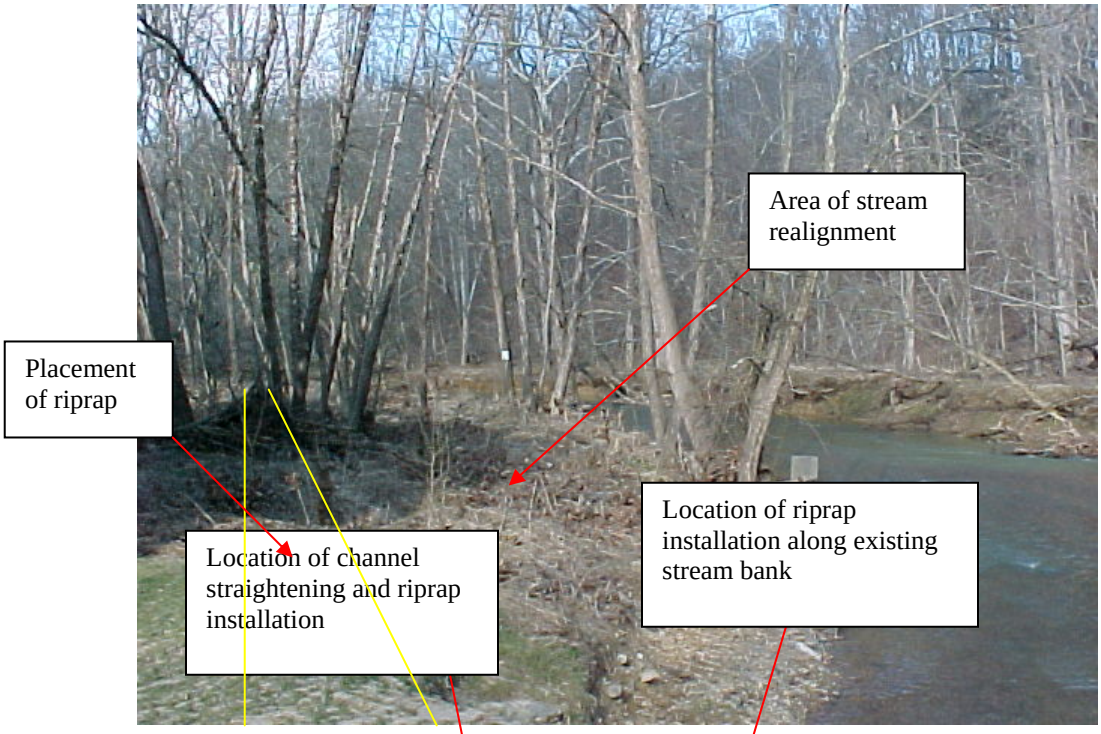
The project area is mostly forested streamside. To realign the stream and armor the banks, about 30 sycamore and poplar trees would be removed (see site drawings).

Your assistance in this matter is greatly appreciated. If you have any questions regarding this project, please contact me by phone (xxx) xxx-xxxx, fax (xxx) xxx-xxxx, by email (Blackrock.us.town.state), or by letter at the letterhead address.

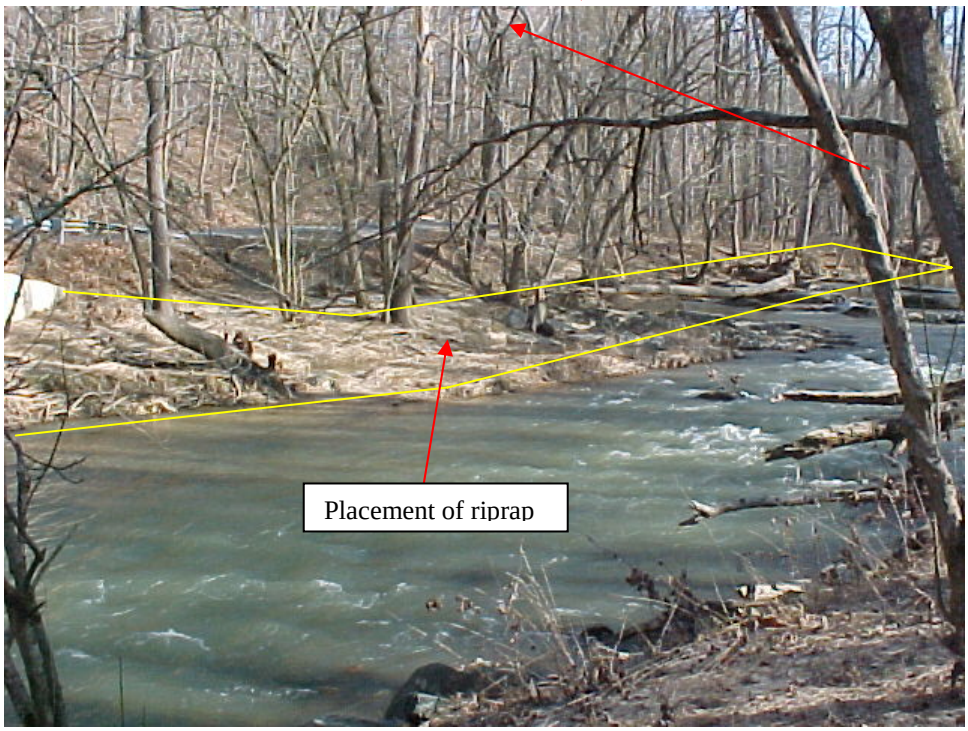
Sincerely,

Topographic maps can be ordered from the USGS directly (http://topomaps.usgs.gov/), or can be obtained free of charge online from the United States Department of Agriculture (http://datagateway.nrcs.usda.gov/).





View showing approximate area of stream realignment and placement of riprap west of the bridge over Seneca Creek.



View showing approximate area of placement of riprap east of the bridge over Seneca Creek.

There are a range of laws and executive orders that are designed to protect the nation's water resources. Over a century ago, the Rivers and Harbors Act was enacted to address the need to maintain the navigability of the nation's waterways. Under the Act, regulations and procedures were implemented to control proposed development on or around navigable channels. More recently, the Federal Water Pollution Control Act, later to be called the Clear Water Act, tackled issues associated with cleaning up and maintaining the water quality of the nation's waters by setting up a permit system under the direction of the US Army Corps of Engineers (USACE). Any entity, Federal or non-Federal, who is developing in or around "waters of the US" (which includes wetlands), is required to contact the USACE about the need for a permit. If a permit is required, it must be obtained and the permit conditions complied with.

In addition to the Clean Water Act and the Rivers and Harbors Act, many states have permitting requirements associated with work in wetlands or streams, along stream banks, or in floodplains. You should check with your state and local authorities regarding these requirements before undertaking any work in these areas.

In addition to the laws enacted by the Congress there are executive orders (EO) issued by the President that relate to actions and funding undertaken by the administrative branch of the Federal government. In particular, EO 11990, Protection of Wetlands, requires that all Federal agencies consider alternatives for proposed actions or funding of actions that would be in or otherwise adversely affect the natural or beneficial functions of wetlands. Where reasonable alternatives are not available, then minimization of impacts must be considered.

The questions and guidance in this section are designed to provide information useful in determining if your proposed project is likely to trigger any of these laws or executive orders and if so, steps and costs that might be involved in reducing the potential impacts.

D.-1 Determining if your project will affect "waters of the U.S."

"Navigable Waters of the U.S." includes all surface water bodies such as drainage ditches, intermittent streams, streams, lakes, and ponds, as well as vegetated wetlands adjacent to water bodies. Most areas where water flows or gathers (even intermittently) would be considered navigable waters of the U.S. for the purpose of this section. Any project that involves construction in or adjacent to waters of the U.S. can potentially impact the quality or function of the waters. Water quality can be impacted by physical disturbance and by the discharge of sediment, construction debris, pollutants, or other materials such as oil or other vehicle fluids. The functions of navigable waters and wetlands can be impacted by activities such as the disposal of soil and construction materials; excavation; the placement of structures such as culverts, storm drain outfalls, bridges, and buildings; and modifying the amount or quality of water flow to the existing bodies of waters due to adjacent landscape modifications. In general, FEMA is concerned with any construction activities within 200 feet of waters of the U.S., and requests additional documentation in Section D of the Environmental /Historic Preservation Questions for those projects.

If your project is in or near navigable waters of the U.S., you have probably collected information about this resource already in Section C of the Environmental /Historic Preservation Questions. If not, be sure to read Section C, and provide the information requested on that page.

Referencing a USGS topographic map [click here to see an example map] is an easy way to check for nearby waters of the U.S. Be sure to use a 1:24,000 scale topographic map; any scale greater than this may not show all water body features. Water bodies are represented on USGS topographic maps in blue (on maps showing water body types). One way to find out if there are wetlands nearby is to reference the wetland maps on the National Wetlands Inventory website (http://wetlandsfws.er.usgs.gov/). Care should be taken when referencing these maps; not all wetlands are included on the maps they maintain.

The most reliable way to determine if there are wetlands or navigable waters of the U.S. in your project area is to contact the United States Army Corps of Engineers (USACE) (http://www.mvk.usace.army.mil/Offices/od/odf/reg-waters.asp), an appropriate state regulatory agency such as the department of environmental protection, or a local agency such as a stormwater management district.

In your communication with the USACE or other agency, you should:

- Indicate you are applying for federal aid, and you are requesting information about the presence of jurisdictional waters or wetlands in your project area
- Include the name of the nearest city and the names of the county and state where the project will occur
- Include a description of the proposed project
- Include a 1:24,000 USGS topographic map marked with the project location

If you have determined that there are waters of the U.S. in your project area, the next step is to determine the potential impact to the body of water. The USACE (or the USFWS from your work in Section C) may indicate a potential to impact a water of the US in the agency's response to your request for information. You can also determine potential impacts by carefully reviewing your project scope of work. If your project indicates that it involves work in the water, excavation of material from the water or placement of material in the water, then you should answer "yes" to Section D, Question 1 of the PDM Environmental and Historic Preservation Questions.

Projects that typically result in a "Yes" answer to Section D, Question 1 include:

- Culvert replacement or realignment
- Drainage improvements, to include straightening, widening and deepening on channels, ditches, or other water bodies
- Construction of retention or detention ponds,
- Work on bridges
- Stream bank stabilization

- Any construction within 200 feet of a waterway that could contribute to erosion or sedimentation.

D.-2 Agency Coordination, Permitting, and Evaluation of Alternatives

If you answered "yes" to Section D, Question 1 of the PDM Environmental and Historic Preservation Questions, coordination with the appropriate regulatory agency coordination is extremely important. You should identify permitting requirements with the USACE, with an appropriate state regulatory agency such as the department of environmental protection, and with the local agency with permitting authority, such as a stormwater management district, if one exists. You should contact each of the agencies requesting that they identify permitting requirements for your project.

In your communication with the USACE or state regulatory agency, you should:

- Indicate you are applying for federal aid, and you are requesting information about permitting requirements for your project [click here to see an example letter]
- Include the name of the nearest city and the names of the county and state where the project will occur
- Include a detailed description of the proposed project
- Include a 1:24,000 USGS topographic map and NWI inventory maps marked with the project location
- Include engineering drawings and specifications
- Include photos of the project area

These agencies typically take at least 30 days to respond, so it is important to initiate contact early. If you have not received an agency response as you are finalizing your application, it is a good idea to follow up with them to find out when you can expect it. Indicate the status of this correspondence in your project application, and scan and attach any letters you receive in response to your contact.

Once you receive a response from a regulatory agency, read it carefully to determine if any permits will be required, or if the agency needs additional information. Responses from regulatory agencies can contain valuable information pertinent to your project, such as: conditions for permitting, environmental mitigation measures that may be required or even suggestions for changes to the scope of work.

D.-3 How to Address Adverse Effects

Adverse effects to waters of the U.S. include dredging or filling of waters, and impacts to water quantity or quality such as sediment or pollutant releases. If you anticipate that your project will have an adverse effect to wetlands or other waters of the U.S., then you should consider ways to avoid those effects, minimize the effects, and if necessary, compensate for the effects. When possible, all projects should be designed to avoid adverse effects to waters of the U.S. If adverse effects cannot be avoided, develop appropriate treatment measures into the scope of work so adverse effects are reduced and

minimized. Listed below are some of the possible adverse effects that your project may have, together with possible treatment measures that you may include in your project to avoid, reduce or minimize, or compensate for adverse effects. The list is illustrative, and does not include all adverse effects that a project may have or all of the ways to potentially treat those effects.

Adverse Effects	**Treatment Measure**
• Operate equipment in or dredge a waterway or wetland	• Acquire a U.S. Army Corp of Engineers Nationwide or Individual Permit. • If applicable, acquire a State or local permit for operating equipment in or dredging a waterway or wetland. • Utilize silt barriers, screen fences, and sediment traps. • Construct sediment basins to treat runoff before discharging to waterways or wetlands • Use equipment that would minimize the need to enter a waterway or wetland • Use Best Management Practices to minimize effects to the waterway or wetland
• Increase sediment flow into a waterway or wetland	• If applicable, acquire a State or local regulatory agency permit (i.e., Department of Environmental Protection) • If applicable, obtain a National Pollutant Discharge and Elimination System Permit • basis to minimize potential deposition and runoff contamination. • Utilize silt barriers, screen fences, and sediment traps. • Construct sediment basins to treat runoff before discharging to waterways or wetlands • Cover excavated material to prevent erosion and runoff. • Seed bare ground with grasses
• Removal of vegetation in or near a body of water	• Acquire a U.S. Army Corp of Engineers Nationwide or Individual Permit.

	• If applicable, acquire a State or local regulatory agency permit (i.e., Department of Environmental Protection) • Seed bare ground with grasses • Replace trees and shrubs with live plantings
• Placement of fill in a waterway or a wetland	• Acquire a U.S. Army Corp of Engineers Nationwide or Individual Permit. • If applicable, acquire a State or local regulatory agency permit (i.e., Department of Environmental Protection) • Utilize silt barriers, screen fences, sediment traps, and in-water sediment control devices. • Time project to coincide with seasonal low waters.
• Diminishing the quantity, quality, or function of a wetland	• Acquire a U.S. Army Corp of Engineers Nationwide or Individual Permit. • If applicable, acquire a State or local regulatory agency permit (i.e., Department of Environmental Protection) • Create wetlands elsewhere via "wetland banking". Typically, mitigation involves the creation of 1 acre of wetland for every 1 acre of wetland destroyed. • Fence the perimeter of wetlands to prevent heavy equipment from inadvertently entering them

D.-4 How to Provide Relevant and Helpful Support Documentation

If you answered "yes" to Section D, Question 1 of the PDM Environmental and Historic Preservation Questions, there are four important things to attach to your application as support documentation. Many of these items may already be included as part of your documentation in Section C of the PDM Environmental and Historic Preservation

Questions. It is not necessary to provide the information again, but please reference it in the comment area of Section D.

First, attach to the application a 1:24,000 USGS topographic map and NWI inventory map indicating:

- the project site
- the location of construction activities
- the location of jurisdictional waters or wetlands

Second, documentation of your contact with relevant agencies, including:

- scanned and attached copies of response letters and emails;
- summaries of relevant telephone conversations; and
- the status of any outstanding correspondence.

Third, provide a narrative description of the water body and the activities that will be performed in or near the water body.

Fourth, incorporate the comments from the USACE or other permitting agencies directly into the comment area of Section D of the PDM Environmental and Historic Preservation Questions. If the USACE requires general conditions for permitting, include them in your scope of work and as a line item in your cost estimate. If wetland mitigation is required, include that information in your scope of work and as a line item in your cost estimate. Be sure to include in your scope of work and cost estimate for any post-construction treatments needed to restore the site, such as seeding, mulching, or planting. Additional project costs that are necessary for permitting conditions, mitigation, and site restoration are eligible expenses under PDM if they are identified in the scope of work and in the cost estimate.

Additionally, if your project has the potential to adversely affect a wetland, you should also identify, evaluate, and document alternatives to the proposed project in the comment area of Section D of the PDM Environmental and Historic Preservation Questions, or include as an attachment. To document alternatives, write a summary of each alternative considered. Also include a statement why that alternative was dismissed. A project may not be located in a wetland if there are reasonable alternatives outside the wetland.

Date

Name
United States Army Corps of Engineers
Address
City State Zip

Subject: Request for information about proposed FEMA project; Pre-Disaster Mitigation Competitive (PDM-C) Program, in the Town of Blackrock, Seneca County, State

Dear Name:

The City of Blackrock has applied to the Federal Emergency Management Agency (FEMA) for a grant under FEMA's Pre-Disaster Mitigation-Competitive (PDM-C) program. PDM-C grants provide funding for measures designed to reduce or eliminate future disaster damage and disaster relief expenditures. The Town of Blackrock proposes to make stream improvements including channel straightening and stream bank armoring along Seneca Creek to alleviate flooding damage to Blackrock Road and the bridge over Seneca Creek. The project area is located next to Blackrock Road where it crosses Seneca Creek (see attached map).

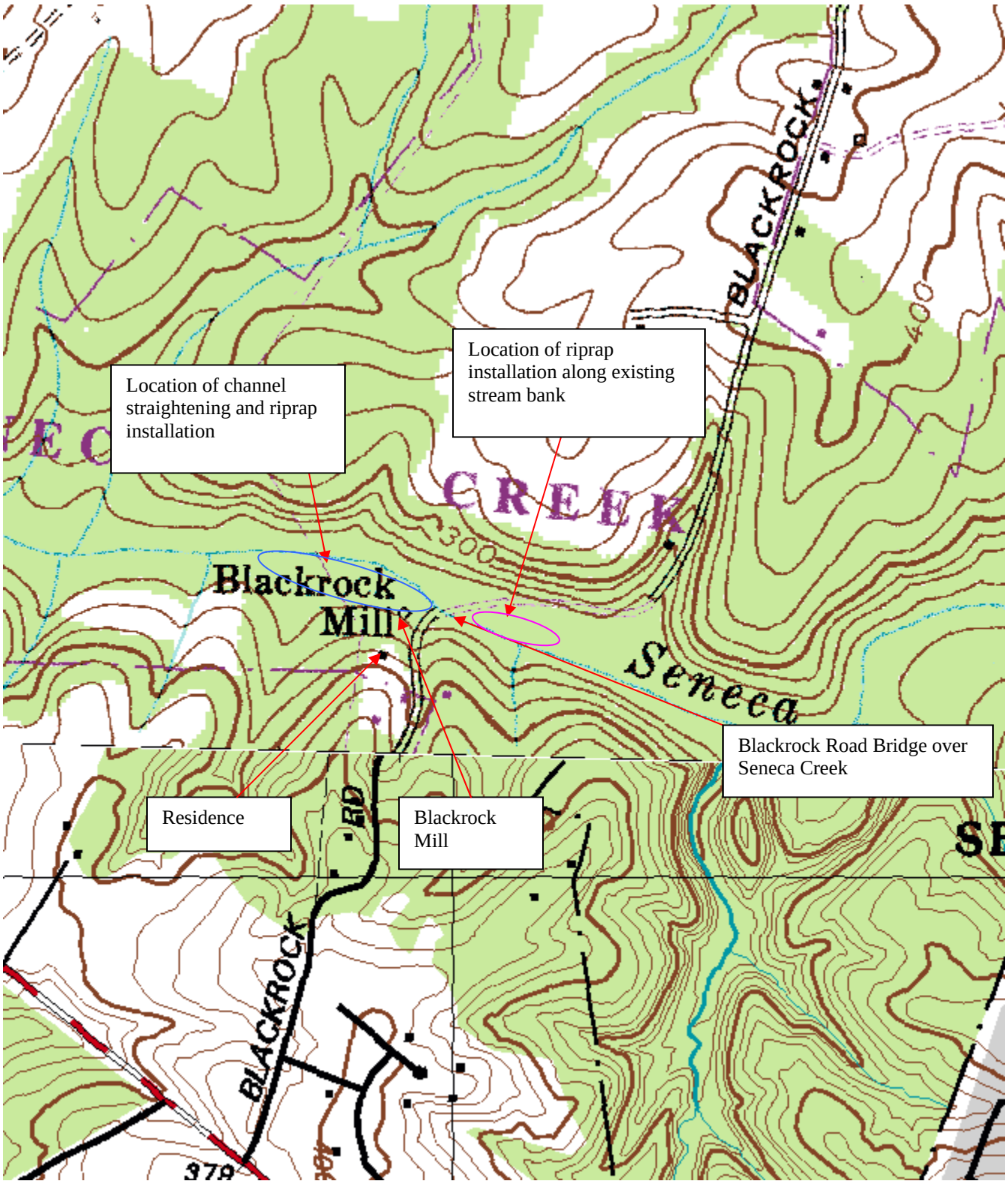
One of the requirements for the FEMA PDM-C application is to identify the presence of any regulated resources in the project area, or any permitting requirements that may be involved. At this time, the city of Blackrock would like to inquire about resources regulated under the Clean Water Act, the Rivers and Harbors Act, Executive Order 11990, Protection of Wetlands, and Executive Order 11988, Floodplain Management. Attached to this correspondence is a USGS map indicating the project area, pictures showing the project site and the nearby environment, a narrative describing the proposed scope of work, a Hydrology and Hydraulics study of the proposed action, and site drawings showing the extent of the project activities.

The proposed project involves straightening about 800 linear feet (lf) of the channel of Seneca Creek west of the bridge over Seneca Creek. This would require excavating the existing bank between 0 and 30 feet to the south to allow the stream to follow a straighter path. The excavated bank would be lined with rip-rap to protect it from future erosion. The second element of the project is upstream of the bridge over Seneca Creek, and involves the placement of rip-rap armor on about 400 lf of the north side of the stream (see photos).

Your assistance in this matter is greatly appreciated. If you have any questions regarding this project, please contact me by phone (xxx) xxx-xxxx, fax (xxx) xxx-xxxx, by email (Blackrock.us.town.state), or by letter at the letterhead address.

Sincerely,

Topographic maps can be ordered from the USGS directly (http://topomaps.usgs.gov/), or can be obtained free of charge online from the United States Department of Agriculture (http://datagateway.nrcs.usda.gov/).



Executive Order 11988, Floodplain Management, addresses concerns over about the potential loss of the natural and beneficial functions of the nation's floodplains as well as the increased cost to Federal, state and local governments of from flooding disasters caused that are worsened by unwise development of the floodplain. When funding actions, Federal agencies are required to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. FEMA's procedures for implementing this EO are found at Title 44 Part 9 of the Code of Federal Regulations (44 CFR 9). Section 9.6 of these procedures includes an eight-step process that decision-makers must use when considering projects that have potential impacts to or within a floodplain. The questions in this section will identify if the proposed project is in the floodplain and, if so, will provide the opportunity to justify why locating the project in the floodplain is necessary it needs to be their and identify any means to minimize the impacts.

E.-1 Determining if your project is in the floodplain

Federally funded activities in or affecting the floodplain are regulated under Executive Order (EO) 11988 and it is the responsibility of the sponsoring Federal Agency to assure compliance. This EO encompasses ALL permanent construction and other activities, including debris, roads, bridges, culverts, etc. The regulatory floodplain is defined by areas inundated by a 100-year or 500-year rain event. For most projects, any activities occurring in the 100-year floodplain will require analysis under EO 11988. For any activities associated with a critical facility, such as a hospital or fire department, the 500-year floodplain triggers this executive order. Floodplains are typically regulated by state or local agencies, and have been mapped on documents known as flood insurance rate maps (FIRMs), and Flood Hazard Boundary Maps (FHBM). To obtain a copy of a FIRM or FHBM for your project area, you can contact your state or local floodplain administrator, go on-line to the FEMA map store (http://store.msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1), or contact a local bank which typically maintains copies for home loan purposes. If you are unsure who your floodplain administrator is, contact the FEMA Map Assistance Center at 1-877-336-2627.

The 100-year floodplain is designated as Zone A or AE; the 500-year floodplain is designated as Zone B, C, or shaded zone X on older maps; and areas outside the floodplain are designated as unshaded Zone X. Floodways, areas usually in the center of the floodplain where flood water is likely to be deepest and fastest, are also marked on the FIRM with hash marks. To see an example of a FIRM, click here. Map keys vary, so check the legend of your map to identify the areas.

If the FIRM indicates that the project is in the 100-year floodplain or the project is a critical facility in the 500-year floodplain, answer "yes" to Section E, Question 1.

It is important to include the FIRM effective date and panel number in the comments area of Section E of the PDM Environmental and Historic Preservation Questions, whether or not the project is in the floodplain. It is also important to include a copy of the FIRM with your project area marked on it.

E.-2 Documenting alternatives to locating a project in the floodplain

If you answered "yes" to Section E, Question 1 of the PDM Environmental and Historic Preservation Questions, it is important to identify the means or alternatives considered to eliminate or minimize impacts to a floodplain. Whenever a proposed project is located in or may affect a floodplain, FEMA follows an 8-step process to evaluate, eliminate or at least minimize adverse impacts to floodplain function and value to comply with EO 11988 (http://www.fema.gov/ehp/feo.shtm). The key to the process is the analysis of alternatives to locating a project in the floodplain. If a project is located in or may affect the floodplain, it is critical to identify, develop, and evaluate alternate projects that could eliminate or minimize impacts to the floodplain, including a No Action alternative (what happens if you do not do the work you are proposing).

Some proposed projects are location dependent in the floodplain, i.e. streambank stabilization or a bridge repair, and do not lend themselves to alternatives outside the floodplain. However, alternative methods of design, construction or materials should be considered if they have the potential of lessening the impacts on the floodplain or base flood elevations.

The alternatives you considered should be documented and summarized in the comment area of Section E of the PDM Environmental and Historic Preservation questions. To document alternatives, write a description of each alternative considered and include a statement why it was dismissed. Also include in this section any measures you have identified to minimize the impacts to the floodplain for the proposed action.

The following illustrates how project alternatives should be developed in your application:

> The project site is located along the north side of the Thompson Subdivision (map attached). A 24-inch corrugated metal pipe (CMP) culvert currently conveys Hayson Creek under Bayshore Drive. The capacity of the culvert is inadequate to carry stormwater and erosion has caused sediment to build up in the culvert while degrading the bank below the adjacent park. Due to the inadequacy of the current structure to convey floodwaters, high flow conditions during a 5-year or 10-year event and most definitely during a 50-year or 100-year event, would result in total structure failure and road collapse. Two nearby structures have also been flooded. The proposed mitigation project would place double 24-inch corrugated metal pipes in place of the existing singe culvert.
>
> Alternative A – No Action Alternative
> By leaving the existing culvert in place and taking no action, Bayshore Drive would be subjected to continual flooding and potential washout. This alternative was determined infeasible because the two structures would continue to be flooded and the road would flood trapping residents and blocking emergency personnel from the subdivision.

Alternative B – Construction of a 3-Acre Detention Pond
A five foot deep, 3-acre detention pond would be built along the main tributary on private land. The basin would accommodate flows from storms in excess of the 25-year storm event. This project was determined infeasible because of rising real estate prices the cost of purchasing the private land is prohibitive.

Alternative C – Increase Holding Capacity
Under Alternative C, the city would increase the holding capacity on the upstream side of Bayshore Drive. The park would be excavated to serve as a holding pond. This project was determined infeasible because the project would removed three-fourths of the park which is frequently used by residents.

Alternative D – Add wing walls to the culvert and elevate structures.
The two structures would be elevated three feet to bring them out of the floodplain. Four foot wing walls would be added to both sides of the culvert. Though erosion would be prevented from around the culvert this project was determined infeasible because culvert capacity is still inadequate and flooding would still wash over the road and trap residents in the subdivision.

Alternative E – Bridge
A two lane bridge would be built over Hayson Creek. The bridge would be approximately 40 feet long and 30 feet wide. The culvert would be removed and the bank widened to the stream width of 12 feet. The bridge would be out of the floodplain, but according to the H&H study the increased water flow downstream would affect other culverts along Hayson Creek. This alternative was dismissed because of the downstream affect and the cost induced to upgrade all the culverts.

E.-3 Determining if your project alters a waterway

In general, alteration to a waterway, water flow, or drainage way includes any action that would straighten, shorten, change, divert, or interfere with a drainage feature, including removal or addition of any material, or changing the course of a drainage feature. Some examples of waterway modification include: upgrading culverts, building swales, lining channels with rock or concrete, installing storm water drainage inlets, pumping water away from an area, or creation of a detention pond. Any project that involves improving drainage away from an area has the potential to affect a nearby waterway by increasing storm water runoff volume to that waterway. If your project involves any modification to existing drainage patterns, whether in or out of the floodplain, it has the potential to cause negative impacts to the floodplain downstream and possible cause greater damage than the proposed project will fix. The documentation needed for FEMA to make this determination is discussed in Section E.-4.

If you determine your project will alter a waterway, answer “yes” to Section E, Question 2 in the PDM Environmental/Historic Preservation Questions. It is also necessary to coordinate with relevant regulatory agencies to identify permitting requirements. These agencies include the United State Army Corps of Engineers (USACE), state water

resource agency or the local water management district that has jurisdiction over the floodplain in your area. Some of this coordination may have already occurred as part of your efforts in completing PDM Section C of the Environmental and Historic Preservation Questions.

You should initiate contact with each of these agencies, requesting that they identify any permitting requirements for this project. Your communication, should:

- Indicate you are applying for federal aid, and you are requesting information about permitting requirements for your project
- Include the name of the nearest city and the names of the county and state where the project will occur
- Include a detailed description of the proposed project and how the project will alter the waterway
- Include a 1:24,000 USGS topographic map marked with the project location
- Include a copy of a current H&H study.

These agencies typically take at least 30 days to respond, so it is important to initiate your correspondence early. If you have not received an agency response as you are finalizing your application, it is a good idea to follow up with them to find out when you can expect it or see if you can get relevant permitting requirements over the telephone. Indicate the status of this correspondence in the project application, and scan and attach any letters you receive in response to your contact.

Once you receive a response from the regulatory agency, read it carefully to determine if any permitting will be required, or if the agency needs additional information. Responses from regulatory agencies can contain valuable information pertinent to your project, such as: conditions for permitting required environmental mitigation measures, or even suggestions for changes to the scope of work. Incorporate comments from your local floodplain manager directly into the PDM application. If floodplain mitigation is required, include that in your scope of work and as a line item in your cost estimate. Be sure to include in your scope of work and cost estimate any post-construction treatments needed to restore the site such as seeding, mulching, or planting. Additional project costs that are necessary for permitting conditions, mitigation, and site restoration are eligible expenses under PDM if they are identified in the scope of work and in the cost estimate.

E.-4 How to Address Adverse Effects

Adverse effects to floodplains include increasing flood elevation or velocities upstream or downstream, modifying the function or value of the floodplain, and encouraging the occupancy of the floodplain. If you anticipate that your project will have an adverse effect to the floodplain, then you should consider ways to avoid those effects, minimize the effects, and if necessary, compensate for the effects. When possible, all projects should be designed to avoid adverse effects to floodplains. If adverse effects cannot be avoided, develop appropriate treatment measures into the scope of work so adverse

effects are reduced and minimized. Listed below are some of the possible adverse effects that your project may have, together with possible treatment measures that you may include in your project to avoid, reduce or minimize, or compensate for adverse effects. The list is illustrative, and does not include all adverse effects that a project may have or all of the ways to potentially treat those effects.

Adverse Effects	**Treatment**
• Increase floodplain elevations or velocities upstream or downstream	• Consult with the floodplain manager and obtain a permit • Acquire a "no-rise" certification • Construct retention ponds • Expand the floodplain through excavation
• Occupy the floodplain with a building or structure	• Consult with the floodplain manager and obtain a permit • Acquire a "no-rise" certification • Design the building or structure to accommodate flooding • Choose a location outside the floodplain for the building or structure •
• Project encourages occupancy of the floodplain	• Restrict occupancy of the floodplain through zoning

E.-5 How to provide helpful and relevant support documentation.

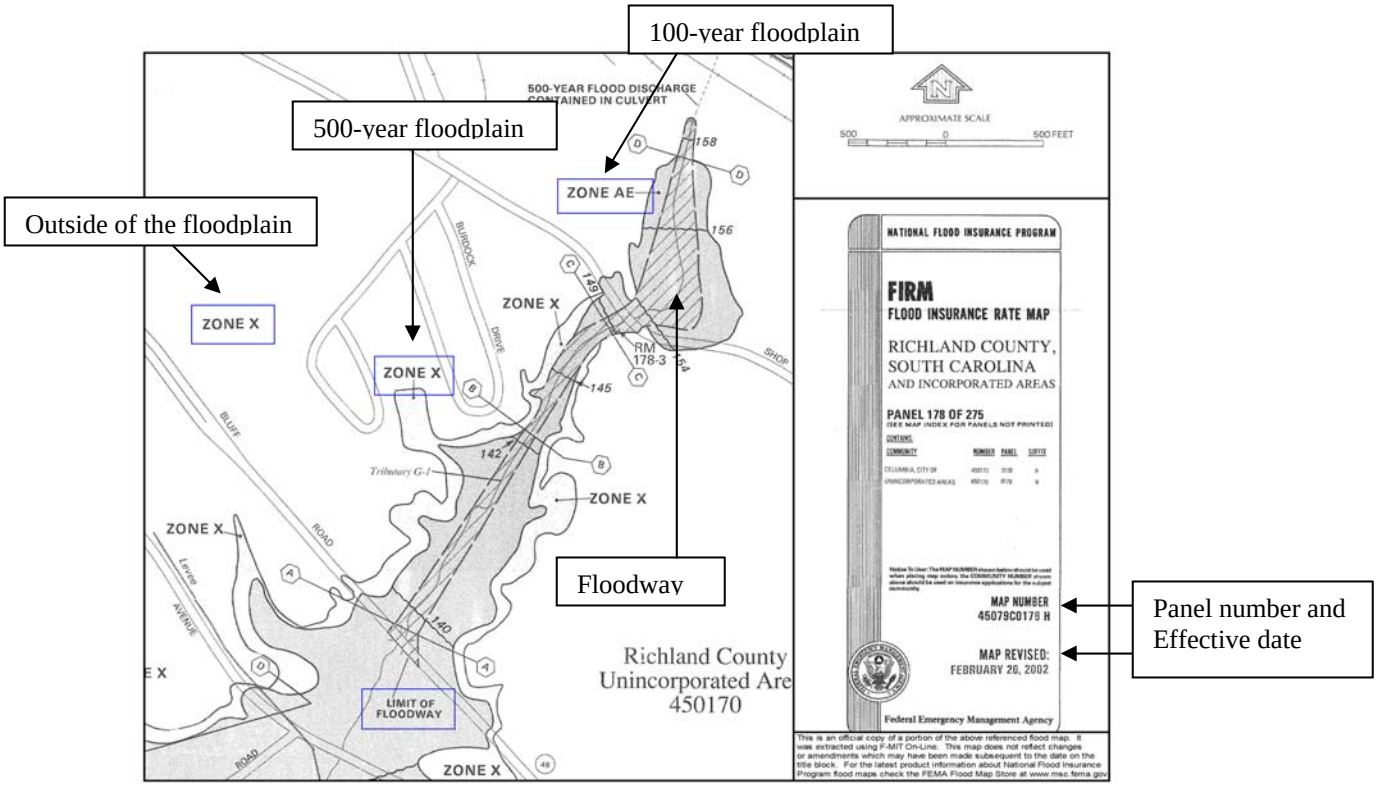
If you answered "yes" to Section E, Question 2 of the PDM Environmental and Historic Preservation Questions, there are two important things to attach to your application as support documentation, if possible. Many of these items may already be included as part of your documentation in Section C or D of the PDM Environmental and Historic Preservation Questions. It is not necessary to provide the information again, but please reference it in the comment area of Section E.

First, include a copy of the results of any engineering review and analysis that is performed to determine the potential impacts of the floodplain for any project that changes a waterway, water flow, or a drainage way (e.g. adding a culvert or increasing the size of an existing culvert). This analysis is called a Hydrology and Hydraulics study (H&H). An H&H study models the flow of water during different rainfall events and

predicts how a watershed and stream will react during those events. If your project involves changing the drainage volume or patterns of a waterway, an H&H analysis is required to determine if flood elevations or velocities are effected upstream and downstream of your project. It will also give you an idea of the true benefits of the project.

Second, include documentation of your contact with relevant regulatory agencies, including:

- scanned and attached copies of response letters and emails summaries of relevant telephone conversations
- the status of any outstanding correspondence


100-year floodplain
500-year floodplain
Outside of the floodplain
Floodway
Panel number and Effective date
500-YEAR FLOOD DISCHARGE CONTAINED IN CULVERT
ZONE AE
ZONE X
ZONE X
ZONE X
ZONE X
ZONE X
ZONE X
LIMIT OF FLOODWAY
RM 178-3
Tributary G-1
BLUFF ROAD
BURDOCK DRIVE
Levee AVENUE
158
156
154
145
142
140
Richland County Unincorporated Are
450170
APPROXIMATE SCALE
500 0 500 FEET
NATIONAL FLOOD INSURANCE PROGRAM
FIRM
FLOOD INSURANCE RATE MAP
RICHLAND COUNTY, SOUTH CAROLINA
AND INCORPORATED AREAS
PANEL 178 OF 275
(SEE MAP INDEX FOR PANELS NOT PRINTED)
CONTAINS:
COMMUNITY NUMBER PANEL SUFFIX
MAP NUMBER
45079C0178 H
MAP REVISED:
FEBRUARY 20, 2002
Federal Emergency Management Agency
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

The Coastal Zone Management Act (CZMA) defines the coastal zones wherein development must be managed to protect areas of natural resources unique to coastal regions. States are required to define the area that will comprise their coastal zone and develop management plans that will protect these unique resources through enforceable policies of state coastal zone management (CZM) programs. Federal as well as local actions must be determined to be consistent with the CZM plans and policies before they can proceed. As defined in the Act, the coastal zone includes coastal waters extending to the outer limit of state submerged land title and ownership, adjacent shorelines, and land extending inward to the extent necessary to control shorelines. While this is a Federal law, your state coastal zone commission or agency will be your only required contact.

F-1. Determining if your project is in a designated coastal zone

Generally, the coastal zone includes all territorial U.S. waters and adjacent land areas. The coastal zone includes beaches, islands, salt marshes, and wetlands, and some adjacent inlands. Each state designates the area of land and water resources that are included in their coastal zone and is regulated by a state coastal zone management program. If your project is in a state with a coastline (on the Atlantic Ocean, Pacific Ocean, Gulf of Mexico, or Great Lakes), you will need to consider the CZMA, and consult with your state coastal zone management program to determine if your project is in the coastal zone. If it is, you should contact your appropriate state agency (http://www.ocrm.nos.noaa.gov/ czm/czmsitelist.html) to determine if your project is in an area that is regulated. Information may also be available online, such as maps or descriptions of state coastal zone areas. If a map or description of your state's coastal zone area is available on-line, you can make a determination on your own whether you are in the designated coastal zone. It is important to note that some projects a considerable distance, even hundreds of miles, from the coastline may trigger this Act due to discharges or other factors.

If you need to initiate contact with your state coastal zone management program, your communication should:

- Indicate you are applying for federal aid, and you are requesting information about the coastal zone consistency of your project
- Include the name of the nearest city and the names of the county and state where the project will occur
- Include a detailed description of the proposed project
- Include a 1:24,000 USGS topographic map marked with the project location. Topographic maps can be ordered from the USGS directly (http://topomaps.usgs.gov/), or can be obtained free of charge online from the United States Department of Agriculture (http://datagateway.nrcs.usda.gov/).

Agencies typically take at least 30 days to respond, so it is important to initiate your correspondence early. If you have not received an agency response as you are finalizing your application, it is a good idea to follow up with them to find out when you can expect it or see if you can get a consistency determination over the telephone. Indicate the status

of this correspondence in the project application, and scan and attach any letters you receive in response to your contact.

Once you receive a response from the regulatory agency, read it carefully to determine if any additional coordination will be required, or if the agency needs additional information. Responses from regulatory agencies can contain valuable information pertinent to your project, such as: conditions for permitting, required environmental mitigation measures, or even suggestions for changes to the scope of work. Incorporate comments from the coastal zone regulatory agency directly into the PDM application. If any mitigation is required, include that in your scope of work and as a line item in your cost estimate. Be sure to include in your scope of work and cost estimate any post-construction treatments needed to restore the site such as seeding, mulching, or planting. Additional project costs that are necessary for permitting conditions, mitigation, and site restoration are eligible expenses under PDM if they are identified in the scope of work and in the cost estimate.

If you or the state coastal zone management agency determines your project is in the coastal zone, check "yes" to Section F, Question 1 of the PDM Environmental and Historic Preservation Questions.

If you live in a state that does not have a coastline, answer "no" to Section F, Question 1 of the PDM Environmental and Historic Preservation questions and note this in the comment area.

F-2. How to address adverse effects

Adverse effects to the coastal zone are those which are inconsistent with the coastal zone management plan in your state. If the coastal zone management agency in your state determines your project is inconsistent with the coastal zone management goals, you will need to develop alternatives to the project or modify the scope of work such that the coastal zone management agency determines your project is consistent with the coastal zone management goals.

F-3. How to provide relevant and helpful support documentation

If you answered "yes" to Section F, Question 1 of the PDM Environmental and Historic Preservation Questions, there are two important things to attach to your application as support documentation.

First, documentation of your contact with the state coastal zone management program, including:

- Scanned and attached copies of response letters, faxes, or emails
- Summaries of relevant telephone conversations
- The status of outstanding correspondence

Second, attach a 1:24,000 scale USGS topographic map indicating the project site, or a short narrative describing where your project site is relative to the designated coastal

zone. Topographic maps can be ordered from the USGS directly (http://topomaps.usgs.gov/), or can be obtained free of charge online from the United States Department of Agriculture (http://datagateway.nrcs.usda.gov/).

The Farmland Policy Protection Act (FPPA) is intended to minimize the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that—to the extent possible—Federal programs and funded activities are administered to be compatible with state, local government units, and private programs and policies to protect farmland.

For the purpose of the FPPA, farmland includes prime farmland (prime soil characteristics), unique farmland (high value specialty crops), and land of statewide or local importance. Farmland subject to FPPA requirements does not have to be currently used for cropland. It can be forest land, pastureland, cropland, or other land, but not water or urban built-up land.

If your project is located outside incorporated city limits on land that is currently farmed or on land that could be farmed, then you will need to determine if prime or unique farmland is present.

G.-1 Determining if there is prime or unique farmland in your project area

To determine if there is prime or unique farmland at the project site, reference a soil survey for your area published by the Natural Resource Conservation Service (NRCS) (http://oip.usda.gov/scripts/ndisapi.dll/oip_agency/statemap) or contact NRCS directly for assistance. Locate the project site on the soil survey maps and note which soil types are present, and, with the assistance of the local NRCS office, identify and obtain a list of the prime and unique farmlands in your county. NRCS will also have a list of those specialty crops that qualify for unique farmland. If the soil types at your project area are not on the list and if the project does not affect land containing specialty crops or crops that have a special state significance, then answer "no" to Section G, Question 1 of the PDM Environmental and Historic Preservation Questions.

G.-2 How to provide relevant and helpful support documentation

Whether you answered "yes" or "no" to the Section G, Question 1 in the PDM Environmental and Historic Preservation Questions, it is important to provide a short narrative summarizing your determination. If the project is located outside of incorporated city limits, indicate on a 1:24,000 scale USGS topographic map the footprint of the project area (or note the Section of the application where this information is located), and if the land at the site is currently used for agriculture or could be used for agriculture. If the project site is regulated under the FPPA, also indicate the soil type and whether or not prime or unique farmland is present.

Topographic maps can be ordered from the USGS directly (http://topomaps.usgs.gov/), or can be obtained free of charge online from the United States Department of Agriculture (http://datagateway.nrcs.usda.gov/).

Two of the main Federal laws that address hazardous and toxic materials issues are the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA). CERCLA, commonly known as Superfund, has the major objectives to identify hazardous and toxic material sites, determine liability, and oversee the cleanup. The financial liability aspects of these sites or sites in proximity should be of greater concern to Sub-applicants in buyout projects because they will hold title to acquired property and will therefore share in any liability. For this reason, FEMA will not fund the acquisition of contaminated property (with the exception of residential or commercial properties containing normal quantities of lead or asbestos, home septic systems, home heating oil tanks, and normally occurring quantities of household hazardous materials).

The RCRA of 1976 addresses the handling, disposal and recycling of debris and solid waste, including hazardous materials. The requirements of RCRA are implemented at the State and local levels and are often included as conditions or best management practices in permits required at those levels. Besides disposal and recycling of waste materials, RCRA is also concerned with the transportation, treatment, and storage of hazardous waste. In addition to health and safety issues, RCRA is closely tied to some of the objectives of the Clean Water Act and Clean Air Act, relating to potential effects on water and air quality.

H.-1 Determining if there are hazardous or toxic materials present in your project area

There are two general types of concerns relating to hazardous or toxic materials. The first are hazardous or toxic materials that already exist at or near the site either in or on the ground or in structures on the site. These must be identified to protect the future users of the site once the project is completed. Examples of this include asbestos and lead based paint in structures being modified or demolished and contamination of soil or groundwater from a leaking underground storage tank (UST). The second concern is hazardous and toxic materials that are brought to the site because of the project, most likely during the construction phase but also possibly because of the nature of the operation of the project, such as a water treatment plant. Examples of this include special paints, sealants, fuels, chemicals, or solvents.

When hazardous substances are involved there are usually increased costs associated with the investigation, characterization, removal, and disposal. Who pays for these costs usually depends on who is responsible for the presence of the materials and whether or not violations of environmental laws occurred. Therefore it is important to conduct a little research on the property to see if there a reason to suspect contaminates from a current or past use. FEMA cannot fund the buyout of a contaminated site unless it has been cleaned up to appropriate standards.

One of the best ways to determine if hazardous materials may be present in your project area is to visit the project site. Some of the visible indicators that hazardous materials could be present include stains on the ground and dead or dying vegetation; pipes

protruding from the ground; piles of waste materials including abandoned automobiles or farm equipment; electrical transformers or batteries; and discarded or partially buried metal drums or other containers.

If the site has had a spill, incident, or permitted activity associated with it, it is likely that there will be a record of it in a government database. The Environmental Protection Agency (EPA) maintains a searchable database that is available on its web page (http://epa.gov/environ/html/em). In addition, the EPA has delegated permitting and cleanup responsibilities to the states. EPA maintains a web page to help find state environmental agencies (http://www.epa.gov/epahome/state.htm).

Input from the agency responsible for hazardous waste management regarding the potential for nearby hazardous conditions could affect the design of your project. It may be possible to contact the agency directly to get a quick response.

If your project involves a building that was built before 1976, it is likely to have asbestos containing materials, lead based paint and other household hazardous materials. It is important that you document the potential for these materials to occur and to indicate how they will be managed or disposed of during the implementation of the project, as well as the cost of these measures. Most localities have standards on how to handle these materials. Be sure to get estimates on how much it will cost to dispose of these materials and include it as a line item on your cost estimate and scope of work.

H.-2 How to find out if there has been any studies, investigations, or enforcement actions related to your site

If the land use in your project area has ever been commercial or industrial, or if there are any indicators of the presence of hazardous materials as described in Section H.1, you should contact your county or state hazardous materials agency to find out if there are any studies, investigations, or enforcement actions related to your site.

In your communication with the state or local hazardous materials agency, you should:

- indicate that you are applying for federal aid, and you are requesting information about the presence or potential for the presence of hazardous materials, on or near your project area
- include in your communication the name of the nearest city and the names of the county and state where the project will occur
- include a detailed description of the proposed project and past land uses
- include a 1:24, 000 scale USGS map showing the project boundaries. Topographic maps can be ordered from the USGS directly (http://topomaps.usgs.gov/), or can be obtained free of charge online from the United States Department of Agriculture (http://datagateway.nrcs.usda.gov/).
- Include photographs of the project site

H.-3 How do I determine if my project will involve the use of any hazardous or toxic materials?

The types of hazardous materials typically associated with construction sites include items such as vehicle fuels, heavy equipment fluids, cement and concrete additives from concrete batch plants, cleaning fluids and solvents, adhesives, and materials that can pose physical hazards (such as explosives). Carefully review your scope of work, engineering estimates, work plans or other descriptions of the proposed work and identify any material such as those listed above that may be used in your project.

H.-4 Determining past land uses of properties in your project area

Determining past land uses of properties in your project area is important in evaluating the potential presence or impacts of hazardous materials at your project site. In general, if the property is currently commercial or industrial, or has a commercial or industrial history, you should find out more about the land use history of the site. Many avenues exist for obtaining such historical information. Some of these avenues are listed below:

- Tax records and maps at your local tax assessor's office;
- Sanborn Fire Insurance Maps available at the local public library;
- Historical city cross-reference directories from the local public library;
- Local title records at the Recorder of Deeds;
- Historical topographical maps from the U.S. Geological Survey;
- County soil survey maps from the local NRCS office;
- Historical aerial photographs from the USDA County Extension Service, the local public library, or the city or county planning office;
- Local building permits from the local building department;
- Fire department records available from the local fire prevention office; or
- Previously conducted environmental surveys or investigations.

This information can be combined with direct visual observations and local histories to evaluate the potential presence of hazardous materials. Additionally, sometimes interviewing local people familiar with the history of the project site (i.e., local government personnel, project site neighbors) may provide insight that might not otherwise be available.

H-5 How to Address Adverse Effects

Adverse effects are impacts to your project resulting from the presence or use of Hazardous and Toxic materials. If you anticipate that your project will have an adverse effects resulting from the presence or use of Hazardous and Toxic materials, then you should first consider ways to avoid or minimize those effects. If adverse effects cannot be avoided, develop appropriate treatment measures into the scope of work so adverse effects are reduced and minimized. Lastly, if adverse effects cannot be avoided,

compensate for the adverse effects through documentation or development of other treatment measures. Listed below are some of the possible adverse effects from Hazardous and Toxic materials that your project may have, together with possible treatment measures that you may include in your project to avoid, reduce or minimize, or compensate for adverse effects. The list is illustrative, and does not include all adverse effects that a project may have or all of the ways to potentially treat those effects.

Adverse Effects	**Treatment**
• Exposure of construction personnel to hazardous materials	• Develop a Health and Safety plan for field personnel • Train field crews in procedures for handling potentially hazardous materials • Use Personal Protection Equipment to limit exposure of personnel to hazardous materials
• Discharge of hazardous materials into the air o Lead o Asbestos	• Acquire permits for handling hazardous materials from State regulatory agencies • Construct temporary barriers to limit release of hazardous materials • Store materials in appropriate containers that confine the hazard. • Dispose of materials at a certified site
• Discharge of hazardous materials into the soil or water	• Acquire permits from State regulatory agencies; report any accidental discharge of hazardous material immediately to the regulatory agency • Develop and implement a spill response, containment, and cleanup plan • Designate locations for servicing, washing, and refueling of equipment away from temporary channels or swales that would quickly convey runoff to the drainage system and into receiving water. • Confine contaminated materials in temporary barriers and containers while on-site. • Keep equipment properly maintained. • Dispose of hazardous material at a certified site

• Acquisition of contaminated property	• Perform a Phase II Environmental Site Assessment to determine the extent of contamination • Perform a Phase III Environmental Site Assessment to remove hazardous materials from the property and remediate the site

H- 6 How to provide relevant and helpful support documentation

If there are no indicators of hazardous materials present at the project site, and if the reply from the state hazardous waste agency indicates no known hazardous materials present near your project area, attach the response from the state agency to your application in Section H of the PDM Environmental and Historic Preservation questions and write a short narrative in the comments box indicating no hazardous materials were observed during your site visit.

If there are any indicators of the presence of hazardous materials in your project area as a result of your field visit or research of past land use, attach a copy of the information obtained (e.g., the EPA web address showing your project area or a statement from the fire chief or mayor), a 1:24000 scale USGS topographic map showing your project site, and digital photographs of the project site and adjacent properties. Topographic maps can be ordered from the USGS directly (http://topomaps.usgs.gov/), or can be obtained free of charge online from the United States Department of Agriculture (http://datagateway.nrcs.usda.gov/).

Also include responses from any state or local hazardous materials permitting agency that you may have received. If any conditions or permits are required indicate that in the comments box in Section H, Question1 of the PDM Environmental and Historic Preservation questions.

Documentation of interviews conducted, copies of historical documentation regarding the site (i.e., previous land use information collected), photographs, diagrams or sketches indicating the location of present, past, or future hazardous materials use or storage at the site, and copies of previous environmental investigations or surveys conducted at the project site are all helpful and relevant supporting documentation.

If your project involves a building with asbestos containing materials, document how it will be managed or disposed of during the implementation of the project along with an estimate of the costs. Be sure to include a line item for this cost in your cost and Scope of Work sections of the PDM Application as well.

If your project involves the use of hazardous materials in the construction of your project, write a short narrative describing what kinds of materials will be present at the project site, how they will be stored, how they will used, how they will be disposed of, and any

preventative measures that will be taken to prevent accidental releases of those materials in the comments box in Section H, Question 3 of the PDM Environmental and Historic Preservation questions.

If you have obtained any information which documents the past land use of your proposed project site, be sure to document and cite the source of this information in the comments box in Section H, Question 4, of the PDM Environmental and Historic Preservation questions.

In 1994 it was determined that a disproportionate number of less desirable facilities such as waste treatment plants, power plants, hazardous or noxious chemical processing facilities, etc. were being located in or near minority or low income neighborhoods; neighborhoods with little or no capability to oppose such actions. Executive Order (EO) 12898 was developed to try to more equitably share the adverse impacts of such activities and facilities, at least as far as Federal or federally-funded actions are concerned. This EO directs Federal agencies to evaluate their actions to determine if there are any potential adverse human health or environmental effects, and if there are, to evaluate the affected population to determine if those adverse effects have a disproportionately high impact on minority populations or low-income populations. If such a disproportionate impact is found, the Federal agency should seek ways to minimize the impacts.

I. -1 Determine if there are low income or minority populations in your project area

For purposes of EO 12898, a low-income population is defined as a group of individuals living in geographic proximity to one another, or a geographically dispersed or transient (migrant) group of individuals that have household incomes at or below poverty level.

Individuals who are members of the following population groups are considered minorities: American Indian or Alaskan Native, Asian or Pacific Islander, Black (not of Hispanic origin), or Hispanic.

A low income or minority population can be identified where either:

- Low income or minority individuals constitute more than 50% of the population of the project area; or
- The percentage of low income or minority individuals in an affected area is twice that as the county or state as a whole (for example: 30% of the project area is low income but only 15% of the county is low income)

Several methods can be used to determine if there are low income or minority populations present in your project area. The most common and defensible method is to review data provided by the US Census Bureau. This data can be obtained from the *American Factfinder* portion of Census Bureau website (http://factfinder.census.gov/servlet/DTGeoSearchByListServlet?ds_name=DEC_2000_SF3_U&_lang=en&_ts=121258945450). The website maintains data for a variety of different areas, including: the entire country, a state, county, census tract, block group, and block. For most projects, data from the census tract or block group level are the most relevant.

The U.S. Census Bureau maintains a variety of data sets on populations, and makes available hundreds of queries describing different population attributes. From the perspective of environmental justice, 4 data sets are the most important:

- P1. – Total Population
- P6. – Race

- P53. – Median Household Income in 1999
- P87. – Poverty Status in 1999 by Age

To determine if there is a low income or minority population in your project area, compare the 4 data sets for the census tract for the project area to the data for the county and state where the project is located.

Another way to determine the presence of low income or minority populations is to conduct interviews with representatives from local schools, health and human services, places of worship, local businesses, and community representatives and leaders. To ensure a good representation, interviews should be conducted from a number of representatives who interact with the public and would have a good idea of the make-up of the population.

If you determine that there are low-income or minority populations in your project area, answer "yes" to Section I, Question 1 in the PDM Environmental/Historic Preservation Questions. If you determine that there are not low-income or minority populations present in your project area, answer "no" to Section I, Question 1.

I-2 Determining if your project has disproportionate adverse effects

For most FEMA hazard mitigation projects, adverse effects to nearby populations are generally temporary, limited to annoyances associated with construction activities. In addition, most hazard mitigation projects also reduce potential hazardous conditions, resulting in long-term beneficial effects to nearby populations. However, especially if there are low-income or minority populations nearby, you should consider the full range of potential adverse effects resulting from your project.

To trigger Executive Order 12898, the effects of the project must be both adverse, and effect a low-income or minority population more so than it would the general public (disproportionate). Any adverse effects that appreciably put a minority or low-income population at an increased health risk, or appreciably affect their physical or economic well being, will trigger Executive Order 12898. For some examples of projects that could result in disproportionate adverse effects to minority, click the following link:

- Consider the construction of a retention pond on land that is the only recreational playing field and community gathering place in a Hispanic neighborhood. The project involves totally replacing this community area with the retention pond. In this instance, the project will result in both short-term adverse impacts to the Hispanic community (effects of nearby construction), and long-term adverse impacts (effects associated with loss of community area). In this case, project alternatives, increased public involvement, or mitigation may be necessary to minimize impacts to the social community.
- Consider the acquisition and demolition of 22 upscale houses in a small, isolated, low-income, rural town comprised of 100 residences. Due to surrounding land use and property ownership, most of the residents have

chosen to relocate to the next closest town 15 miles away. As a result, the tax-paying population is expected to decrease by 20 percent, placing a greater financial burden on the remaining residents to support municipal revenues. In this case, public involvement, mitigation, or the development of alternatives may be helpful in minimizing the extra burden to the remaining low-income population.

The applicant should not immediately discount a proposed project if there are potential adverse impacts to low income or minority populations, especially if they are short term. Often the long term benefits provided by the project outweigh any short term adverse impacts during construction. For example, a flood damage reduction project may have significant short term adverse impacts to the project area due to increased noise, dust, traffic delays, and general inconvenience. In the long-term however, the community could benefit as a result of the project by alleviating the financial and emotional burden of repetitive losses due to flooding. Some communities have elected to highlight the fact that the primary beneficiaries of a proposed project would be low income or minority residents.

I-3 How to address adverse effects

If the project will cause disproportionate adverse effects to a minority or low-income population, you should take efforts to reduce the impact to people in the project area, using creativity and common sense to determine acceptable measures. The measures should be tailored to the activities and interests of the impacted populations. For example, if the project is occurring in a residential neighborhood, construction activities should occur during the daytime hours to reduce the disruption to residents, who are often away during the day and sleeping at night. Other measures can include spaying water on excavated areas and dirt roads to reduce dust, timing material deliveries to avoid rush hour, informing residents when utilities will not be available, and creating a community areas on land that is reclaimed.

If you anticipate that your project will have disproportionate adverse effects to a low-income or minority population, then you should consider ways to avoid those effects, minimize the effects, and if necessary, compensate for the effects. When possible, all projects should be designed to avoid disproportionate adverse effects to minority and low-income populations. If adverse effects cannot be avoided, develop appropriate treatment measures into the scope of work so adverse effects are reduced and minimized. Listed below are some of the possible adverse effects that your project may have, together with possible treatment measures that you may include in your project to avoid, reduce or minimize, or compensate for adverse effects. The list is illustrative, and does not include all adverse effects that a project may have or all of the ways to potentially treat those effects.

Adverse Effects (Disproportional to minority or low-income)	**Treatment measures**

• Adverse health effects
  o Bodily impairment, infirmity, illness, or death
  o Air, noise, soil, or water pollution or contamination
	• Avoid or minimize adverse effects by considering project alternatives.
	• Install safety fencing and signage.
	• Maintain a clean construction site.
	• Involve the public.
	• Implement mitigation to minimize temporary effects such as noise or reduced air quality.
	• Remediate construction site of hazardous materials and conditions once project is finished.

• Adverse economic effects
  o Displacement or removal of persons, businesses, farms, or non-profit organizations
  o Adverse employment effects
  o Increased traffic congestion, isolation, or exclusion
	• Provide for relocation of businesses, non-profit organizations, and residents within the community.
	• Utilize local work force.
	• Develop a route for business access and use signage to increase the visibility of business and retail entrances.
	• Implement traffic control plans so roadways are maintained.
	• Include crosswalks and transit stops in the project design.
	• Consider alternate project location.

• Adverse social effects
  o Loss of recreation or community gathering areas
  o Destruction or disruption of man-made or natural resources
  o Destruction or diminution of aesthetic values
  o Destruction or disruption of community cohesion
	• Provide for temporary recreation or community gathering areas.
	• Rebuild recreation or community gathering areas in other accessible locations.
	• Acquire adjacent land and designate park land.
	• Landscape the project area once construction activities are concluded.
	• Incorporate comments from the public in to the design or implementation of the project.
	• Develop a route for business access and use signage to increase the visibility of business and retail entrances.

o Increased traffic congestion, isolation, or exclusion o Destruction or disruption of the availability of public and private facilities and services o Displacement of persons or businesses	• Include crosswalks and transit stops in the project design. • Provide for relocation of businesses, non-profit organizations, and residents within the community. • Consider project alternatives.

I-4 How to provide relevant and helpful support documentation

Whether or not you answered "yes" to Section I, Question 1, you should include a narrative about the presence or absence of low income or minority populations in the project area, including how you made the determination and the sources of your information (e.g., interviews, site survey, or US census data). If there are high concentrations of low income or minority populations in your project area, indicate the U.S. Census tract number for the project area in the comments box in Section I of the PDM Environmental and Historic Preservation questions.

If there are high concentrations of low-income or minority populations in your project area, include a narrative in the comments box in Section I of the PDM Environmental/Historic Preservation Questions identifying the range of potential adverse effects to those populations. Indicate which effects will be short-term and which will be long-term, and what measures have been taken to avoid, minimize, or reduce adverse effects. If any public involvement has occurred in the development of the project, indicate how they were involved and what the general opinion of the project was.

J. Occasionally, other environmental and historic preservation laws may apply to FEMA-funded activities. These include Federal, State and local laws.

Environmental

The Clean Air Act (CAA) – The CAA is the comprehensive Federal law that regulates air emissions from area, stationary, and mobile sources. This law authorizes the U.S. Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards (NAAQS) to protect public health and the environment. The goal of the Act was to set and achieve NAAQS in every state by 1975. The setting of maximum pollutant standards was coupled with directing the states to develop state implementation plans (SIP's) applicable to appropriate industrial sources in the state. The 1990 amendments to the Clean Air Act in large part were intended to meet unaddressed or insufficiently addressed problems such as acid rain, ground-level ozone, stratospheric ozone depletion, and air toxics.

Occupational Health and Safety Act (OSHA) - Congress passed the Occupational and Safety Health Act to ensure worker and workplace safety. Their Goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. OSHA is regulated by the U.S. Department of Labor that oversees the administration of the Act and enforces standards in all 50 states.

The Safe Water Drinking Act - The Safe Drinking Water Act was established to protect the quality of drinking water in the U.S. This law focuses on all waters actually or potentially designed for drinking use, whether from above ground or underground sources. The Act authorized EPA to establish safe standards of purity and required all owners or operators of public water systems to comply with primary (health-related) standards. State governments, which assume this power from EPA, also encourage attainment of secondary standards (nuisance-related).

The Wilderness Act Congress enacted the Wilderness Act (P.L. 88-577) in 1964 to establish a National Wilderness Preservation System of federal lands "where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain." The Wilderness Act generally prohibits commercial activities, motorized access, and infrastructure developments in congressionally designated areas.

Executive Order 12699: Seismic Safety of Federal and Federally Assisted or Regulated New Construction EO 12699 requires that all new federally owned, leased, assisted, and other regulated buildings be designed and constructed in accordance with the appropriate seismic standards. The Interagency Committee on Seismic Safety in Construction (ICSSC) has recommended the use of building codes which are substantially equivalent to the 1997 *National Earthquake hazards Reduction Program Provisions for the Development of Seismic Regulations for New Buildings* (NEHRP Provisions).

Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks Environmental health and safety risks disproportionately affect children. From pesticides in schools and playgrounds to nitrates in the water, children are at increased risk for a variety of adverse health effects such as developmental delays and asthma. The 1997 Presidential Executive Order on the Protection of Children to Environmental Health Risks and Safety Risks states that each Federal agency shall make it a high priority to identify and assess these risks.

Historic Preservation

American Indian Religious Freedom Act of 1978 - **express and exercise the traditional religions of the American Indian, Eskimo, Aleut, and Native Hawaiians, including but not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonials and traditional rites.** If a place of religious importance to American Indians may be affected by an undertaking, AIRFA promotes consultation with Indian religious practitioners, which may be coordinated with Section 106 consultation. Amendments to Section 101 of NHPA in 1992 strengthened the interface between AIRFA and NHPA by clarifying that

Archeological Resources Protection Act of 1979 – regulates

Executive Order 13007: Indian Sacred Sites

Executive Order 13061: American Heritage Rivers

Native American Graves Protection and Repatriation Act of 1990

PDM projects must also apply to state and local laws as well. These are laws, regulations, and ordinances that you would need to comply with if you were initiating the project yourself. To assist with identifying and complying with state laws and regulations, many states have environmental review clearinghouses which coordinate environmental reviews with the various state agencies. About half of the states have clearinghouses. To see if there is one in your state, go to http://www.whitehouse.gov/omb/grants/spoc.html.

J.-1 Determining if there are other Environmental or Historic Preservation requirements associated with your project

- There are several other federal environmental/historic preservation (EHP) laws that may apply to your project, in addition to state and local laws and regulations. [Link to list on Title Page]

Other federal laws and regulations that FEMA-funded projects are required to comply with, if applicable, can be found at http://www.fema.gov/ehp/compliance.shtm. If your project is near resources that could trigger any of these laws, documentation of the proper

agency coordination should be included in the comment area or attached to Section J of the PDM Environmental and Historic Preservation Questions. For example,

- if your project is located in a non-attainment area for air quality, contact the state air quality agency to see if a Clean Air Act conformity plan is required for emissions generated on site.
- if your project involves altering a waterway or installing a culvert, ensure you have designed proper fish passage
- If your project is near a large coastal body of water such as a bay, harbor, sound, or tidal river, contact NOAA-NMFS
- If your project is on Tribal lands, many other laws may apply
- if the project may May impact archeological sites or properties of religious or cultural significance, other laws and executive orders may apply

In addition to federal laws and regulations, FEMA funded projects must comply with all state and local laws and ordinances. These are statutory and regulatory requirements that your project would have to comply with, regardless of the funding source. You may have addressed some state and local environmental and historic preservation requirements in previous sections, but if there are other laws and regulations that you are aware of, document them in this section. If you are unsure if there are other state and local requirements, work closely with the organization(s) that typically implements the types of project you are proposing in your community to identify and address any other environmental or historic preservation requirements. Another good way to determine if there are any state and local environmental and historic preservation conditions or permits required for your proposed project is to involve municipal and state agencies during project planning and development. Typically these agencies can be found on the web by searching for terms such as: [state] Department of Environmental Protection, [state] Department of Environmental Quality, [state] Department of Natural Resources, or [state] Planning agency.

Local laws and ordinances generally focus on zoning and issues affecting the local community, such as noise, visual impacts, and landscaping, but will vary from area to area. Contact local authorities such as the mayor or town council to determine if there are any local laws that will apply to your project. Include their response letters or comments in your PDM application.

In many states there are environmental review clearinghouses which coordinate environmental reviews with state agencies. About half of the states have clearinghouses. To see if there is one in your state, go to http://www.whitehouse.gov/omb/grants/spoc.html. Call the clearinghouse before writing them a letter to find out to the point of contact.

Once you have identified the state or local agency that may have jurisdiction over resources associated with your project or a state clearing house, write a letter to the agency indicating that you are applying for federal funding through the PDM program and you are requesting a project review. In the letter, you should:

- Indicate that you are applying for federal aid, and you are requesting information about the presence of protected species and habitat near your project area [link to template].
- Include in your request the name of the nearest city and the names of the county and state where the project will occur.
- include a detailed description of the proposed project
- include a 1:24,000 scale USGS map showing the project boundaries, and photos of the project, if available [link to how to obtain map][link to example]

These agencies typically take at least 30 days to respond (Clearinghouses can take 45 to 60 days), so it is important to initiate contact early. If you have not received an agency response as you are finalizing your application, it is a good idea to follow up with them to find out when you can expect it.

Once you receive a response from the regulatory agency, read it carefully to determine if any additional coordination will be require, or if the agency needs additional information. Responses from regulatory agencies can contain valuable information pertinent to your project, such as: conditions for permitting, required environmental mitigation measures, or even suggestions for changes to the scope of work, Incorporate comments from the agency directly in the PDM application. If any mitigation or treatment measures are required, include them in your scope of work and as a line item in your cost estimate.

If local, municipal, or state permitting will be required, state this clearly in the comments area of Section J in the PDM Environmental and Historic Preservation Questions and indicate what measures will be necessary to obtain these permits. Remember, at this point in application development, the objective is not to obtain permits, but to understand what permits might be necessary and what, if any, effect their requirements might have on the design and cost of the proposed project.

J.-2 Determining if there are any controversial issues associated with your project

Your project could be controversial if anyone disagrees with the intention, appearance, effectiveness, timing, or location of the project. Projects that impact valued resources such as the quality of the environment, valued community areas, views of scenic areas or historic districts, may draw increased controversy. Projects that will financially burden or inconvenience nearby residents may also lead to controversy. The higher the anticipated public controversy, the more important it is to involve the public in the decision making process and document these efforts in your PDM application.

In general, controversy is greatest among the people who see or interact with the project site on a regular basis, such as the people who live or work nearby. Controversy can also be high with people who are directly affected by noise, travel delays, or reduced air quality. To find out if there may be controversy associated with your project, consult with local interest groups, housing associations, and local businesses early in your project

design. If there are no organized associations in the project area, engage the public directly through notices or mailings or other media. Use existing forums or hold public meetings to get input and record the comment and general sentiment of the meeting.

There is a difference between sounding out the public to determine if there is public controversy and public notice and involvement requirements for Federal actions. Public notice and involvement is usually required by law or regulation, if your project is in, near, or affects a floodplain (Section E), wetland (Section D), or historic property (Section A and B).

J.-3 How to provide relevant and helpful support documentation

If you have identified other Federal, state, or local laws and regulations that have compliance requirements for your project, you should check the box in Section J-1 "yes" and in the comments area, document each requirement, the compliance action that will need to be taken and the cost associated with the action. Also be sure to include the actions in the scope of work section and a line item for the associated costs in the cost estimate.

If you have identified that there are controversial issues associated with your project, check the box in Section J-2 "yes: and carefully document the nature of the issue in the comments section. Also document the actions you have taken to assess the level of controversy and any action that will be required to mitigate the controversy.

If you have had public involvement in association with your proposed project, whether it was a requirement for another environmental or historic preservation compliance activity, a means to assess public controversy, or as part of the planning process for your community, check the box for Section J-3 "yes." In the comments section, document the details of your public involvements efforts. Indicate when public meetings occurred, who was present, and what the general consensus of the meeting was. If available, include the agenda, attendees, and official meeting minutes in your application as an attachment. Include any official correspondence that municipal, county, or state representatives provided. Indicate if you initiated public involvement or notice to determine if there were controversial issues associated or in response to a regulatory requirement as discussed in Section J-2. Provide copies of the responses or, at a minimum, a synopsis of how many people responded and the general attitude of the responses.

K. Summary and Cost of Potential Impacts

The purpose of this section is to be sure that you have identified as many environmental and historic preservation project impacts and compliance requirements as possible that might be associated with your project in Sections A through J.

You should have identified these requirements through analysis of the type of project you are proposing and the location of your proposed project, as well as through discussions with the appropriate Federal, State, or local regulatory agency with jurisdiction over the potential resources at that location.

Once potential impacts have been identified, you should have considered alternatives that would avoid or minimize these impacts. If alternatives for avoidance were not available, you should have considered treatment measures that could satisfactorily address the adverse effect. The details of the treatment measures should be carefully documented in the scope of work section as well as in the appropriate environmental and historic preservation section. Finally, you should have documented the costs of each treatment measure with a separate line item for the measure in the cost section of the PDM application. There were discussions of typical adverse effects and potential treatment measures in Sections A, B, C, D, E and H to assist you in consideration of how they may apply to your proposed project.