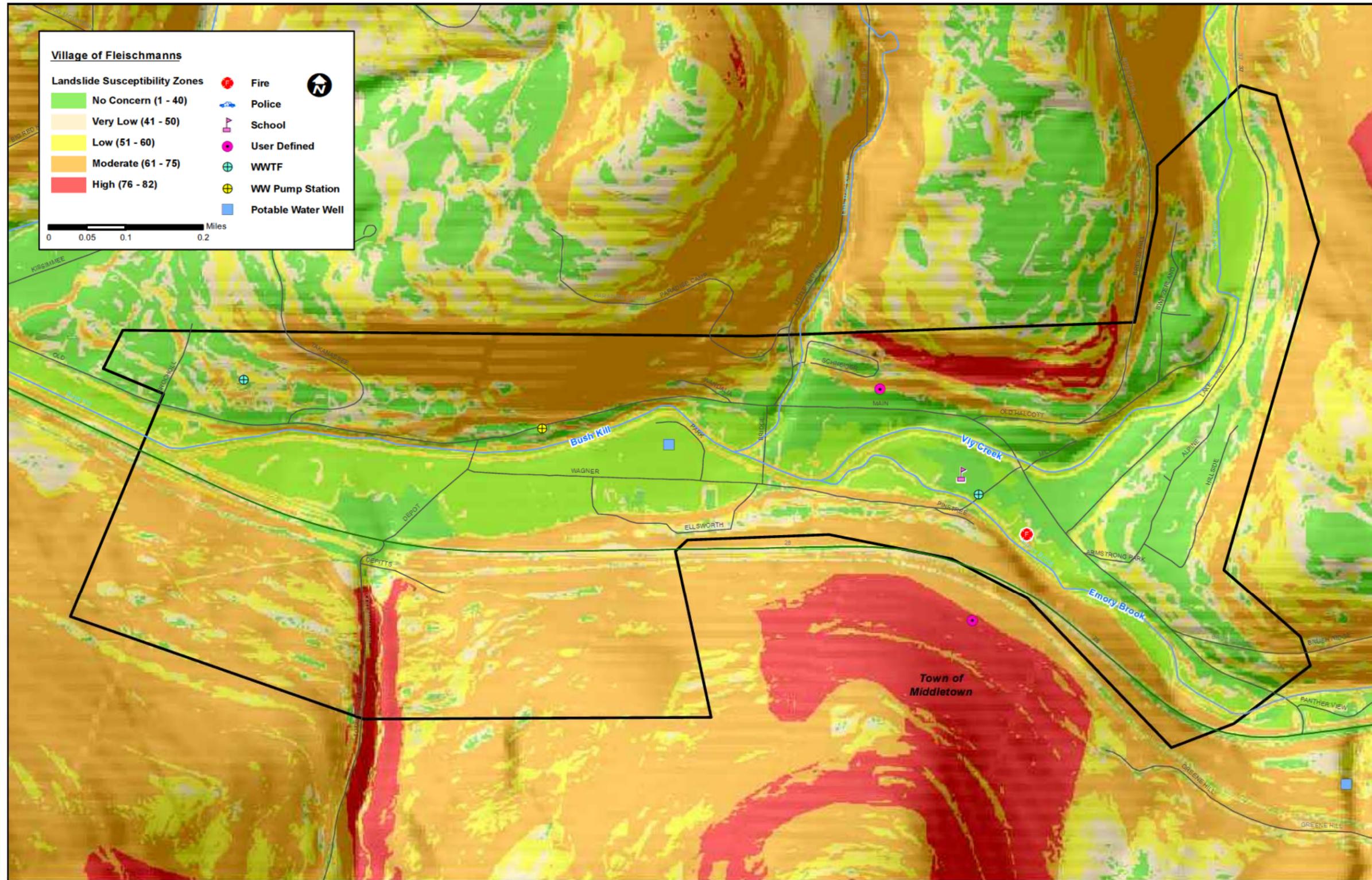


Figure 9.21-2. Village of Fleischmanns Landslide Hazard Areas



Sources: Tetra Tech, 2012; Delaware County, 2011



Delaware County Soil and Water Conservation District

44 West Street, Suite 1

Walton, New York 13856

Phone 607-865-7161

FAX 607-865-5535

TO: Dan Sanford, Delaware Co. DPW
FROM: Larry Day *lam*
DATE: January 16, 2014
RE: No federal wetlands above OHWM at Bridge 80

Memo

This memo summarizes steps I followed to determine that there are no federally protected wetlands adjacent to the Bush Kill and above the ordinary high water mark (OHWM) within the study area at the Bridge 80 site in Fleischmanns.

On June 26, 2013 I tentatively delineated three narrow wetlands adjacent to the Bush Kill in the study area you had defined previously. At this time I noted severe flood damage and placement of emergency revetment from the 2011 hurricane Irene such that establishing an OHWM according to physical features would be unusually difficult and perhaps unreliable. Your staff surveyed my wetland delineation points soon afterward, and I awaited determination of OHWM by either your staff or the contracted bridge engineer.

Email correspondence by Mojeskey and Masters on 1/3/2014 you forwarded to me estimated the OHWM at ± 1490.0 feet using elevations they established. Their working drawings depicted this and higher 1-ft elevation contours, edge of water and a portion of my wetland flags located farthest from the stream. From these drawings I noted that only minor portions of the initial 0.02 wetland acres remained above the 1490.0 ft OHWM elevation.

Site photos taken on 1/8/2014 that you forwarded to me (enlarged portions attached) show these wetlands completely inundated by the Bush Kill at elevations that appear close to or slightly above the estimated OHWM shown in the drawings. For further verification I obtained flow data of ± 200 cfs for this date from the nearest stream gauging station on the Bush Kill near Arkville (DEP/USGS gauge 1413398). I then received assistance from our SWCD's Stream Corridor Management Program to determine "bank full" flow statistics using StreamStats (water.usgs.gov/osw/streamstats) for this site.¹ The generated value was 1320 cfs $\pm 16\%$ at the gauge, and because no major tributaries enter the Bush Kill between the gauge and the bridge site, they felt that bank full events at the gauge should also represent bank full events at the bridge. Thus it appeared that the flow event photographed on January 8th was considerably less than bank full flow and likely less than the OHWM, the distinctions between ACOE and USGS methods notwithstanding.

Since it appeared evident that my initial wetland delineations would be inundated during flows at or above the OHWM, I concluded that all are located below the OHWM. Thus I found no federally-regulated wetlands within the study area.

Attn.

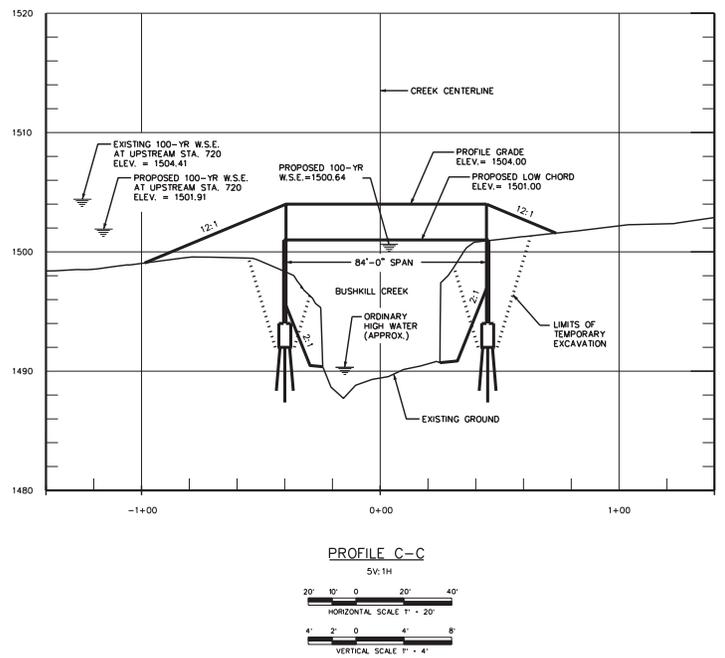
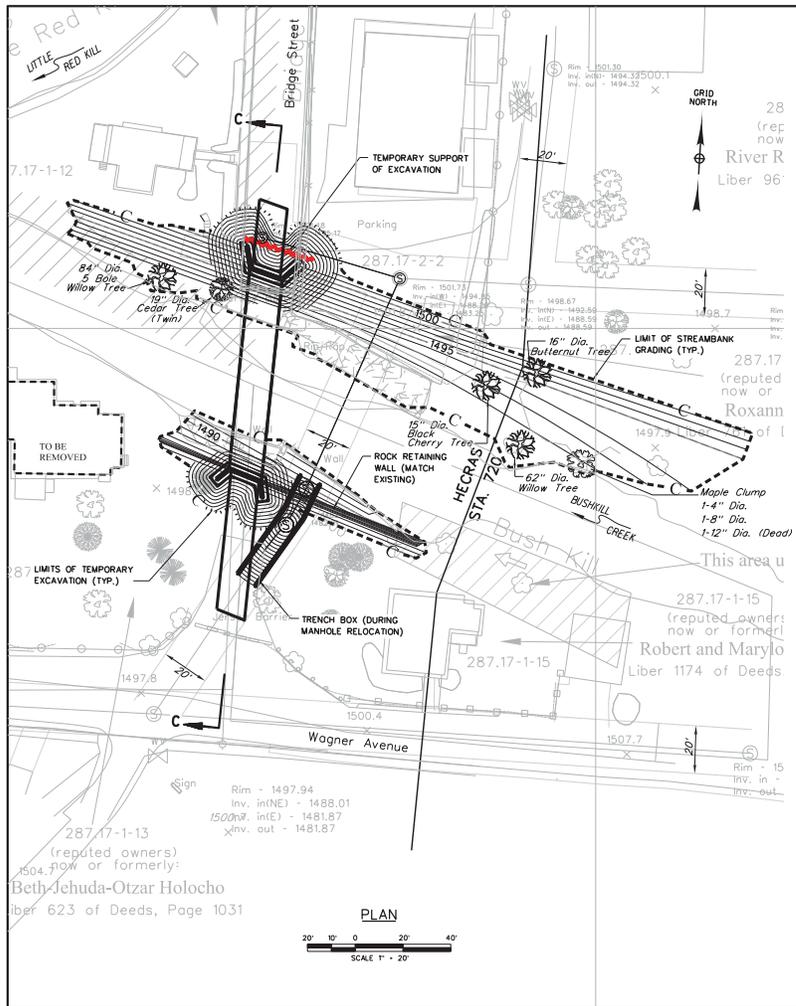
¹ While it is understood that determination of OHWM following ACOE regulatory guidance (letter No. 05-05 of 12/7/05) and determination of bank full elevation following the hydrogeomorphic approach are not equivalent, the large difference between 200 and 1320 cfs strongly imply that the delineated wetland areas would be even further inundated at bank full conditions (considered roughly a 1.5-yr return interval event) and well above the 1490 ft OHWM.



1/8/2014, noon



**1/8/14,
noon**



HYDRAULIC DATA

DRAINAGE AREA: 29.4 SQUARE MILES
 100-YEAR FLOOD:
 MAGNITUDE: 9,365 C.F.S.
 WATER SUR. ELEV.: 1500.10 FT. EXISTING (NO BRIDGE)
 WATER SUR. ELEV.: 1500.64 FT. PROPOSED AT BRIDGE
 VELOCITY: 15.96 FT./SEC. EXISTING
 VELOCITY: 11.74 FT./SEC. PROPOSED

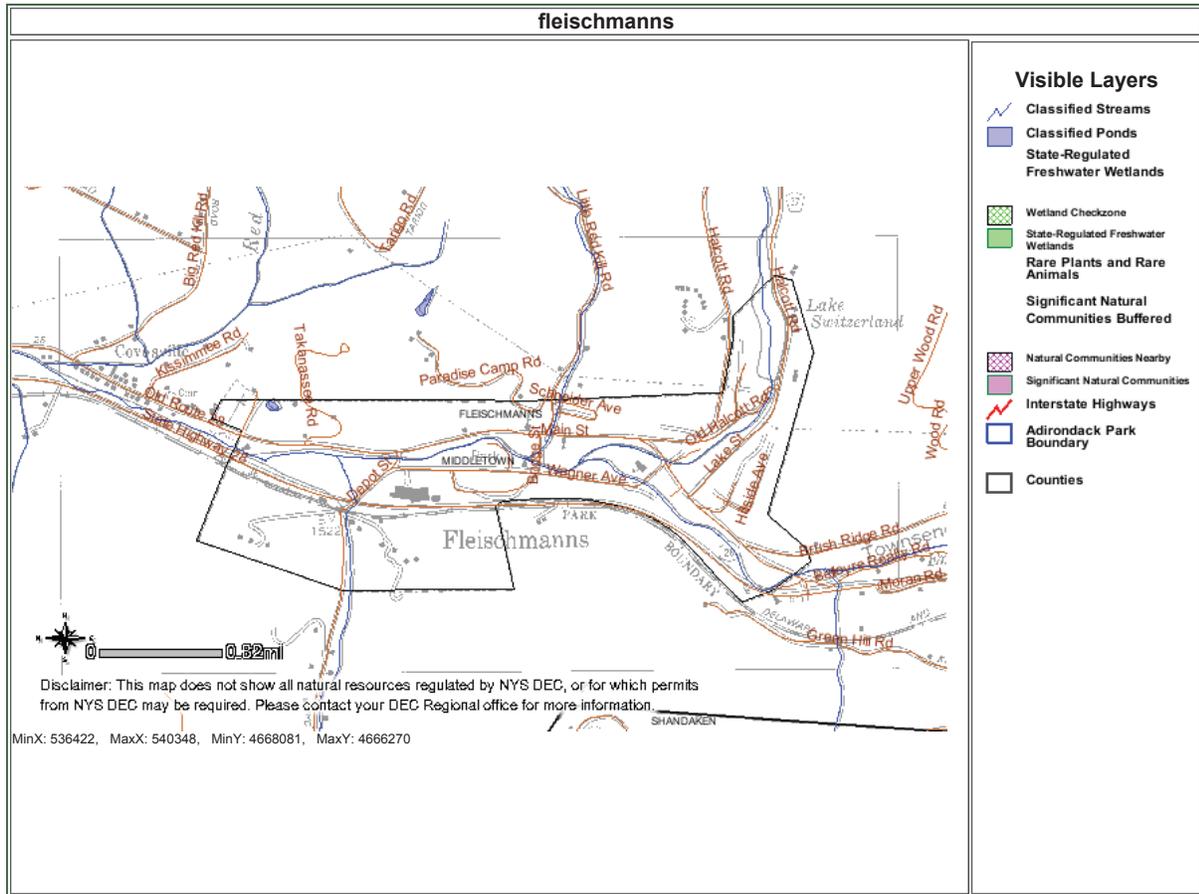


**PEDESTRIAN BRIDGE BR-80 FLEISCHMANN'S, NY
 BRIDGE STREET BRIDGE REPLACEMENT
 ALTERNATIVE C**

DGN	MDH	MAP	MILEPOST
CHK	TPC		
DWG	MDH	FILE	DATE
CHK	-		2/4/2014
SHEET NUMBER	3	DRAWING NUMBER	

[print page] [close window]

Please set your printer orientation to "Landscape".

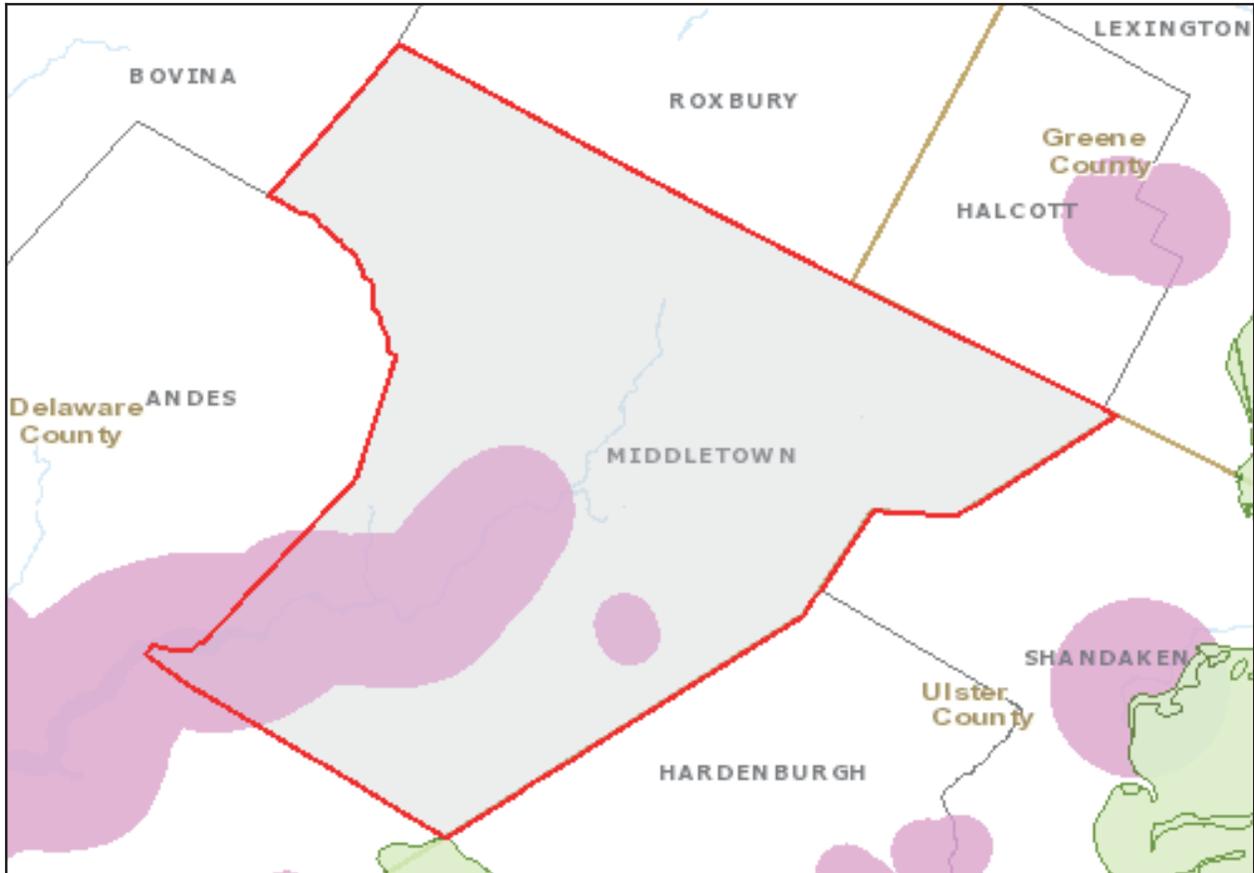


Disclaimer: This map was prepared by the New York State Department of Environmental Conservation using the most current data available. It is deemed accurate but is not guaranteed. NYS DEC is not responsible for any inaccuracies in the data and does not necessarily endorse any interpretations or products derived from the data.

New York Nature Explorer

Town Results Report

Criteria: Town: Middletown (Delaware County)



Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global

Town: Middletown (Delaware County)

Plant: Flowering Plants

Downy Lettuce <i>Lactuca hirsuta</i>	Asters, Goldenrods and Daisies	Historically Confirmed	1915	Endangered		S1	G5?
Jacob's-ladder <i>Polemonium vanbruntiae</i>	Other Flowering Plants	Possible but not Confirmed	1976	Rare		S3	G3G4
Musk Root <i>Adoxa moschatellina</i>	Other Flowering Plants	Recently Confirmed	2008	Endangered		S1	G5
Northern Monkshood <i>Aconitum noveboracense</i>	Other Flowering Plants	Recently Confirmed	2012	Endangered	Threatened	S1	G3

New York Nature Explorer

Common Name	Subgroup	Distribution Status	Year Last Documente	Protection Status		Conservation Rank	
				State	Federal	State	Global

Note: Restricted plants and animals may also have also been documented in one or more of these Towns or Cities, but are not listed in these results. This application does not provide information at the level of Town or City on state-listed animals and on other sensitive animals and plants. A list of the restricted animals and plants documented in the corresponding county (or counties) can be obtained via the County link(s) on the original Town Search Results page. Any individual plant or animal on this county's restricted list may or may not occur in this particular Town or City.

This list only includes records of rare species and significant natural communities from the databases of the NY Natural Heritage Program. This list is not a definitive statement about the presence or absence of all plants and animals, including rare or state-listed species, or of all significant natural communities. For most areas, comprehensive field surveys have not been conducted, and this list should not be considered a substitute for on-site surveys.

PW07990

IPaC Trust Resource Report

Generated October 07, 2015 05:46 AM MDT

This report is for informational purposes only and should not be used for planning or analyzing project-level impacts. For projects that require FWS review, please return to this project on the IPaC website and request an official species list from the Regulatory Documents page.



US Fish & Wildlife Service

IPaC Trust Resource Report



Project Description

NAME

PW07990

PROJECT CODE

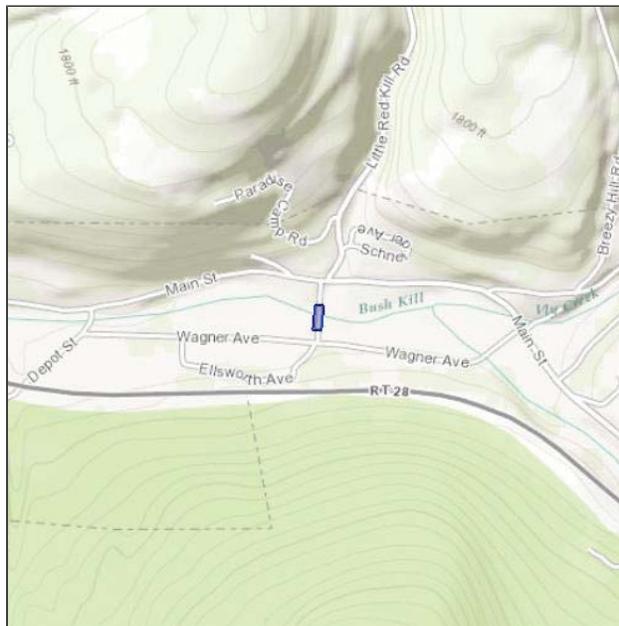
WKUNF-EXU2B-EF7DB-33OUA-A6A2ZA

LOCATION

Delaware County, New York

DESCRIPTION

Bridge 80 Replacement



U.S. Fish & Wildlife Contact Information

Species in this report are managed by:

New York Ecological Services Field Office

3817 Luker Road

Cortland, NY 13045-9349

(607) 753-9334

Endangered Species

Proposed, candidate, threatened, and endangered species that are managed by the [Endangered Species Program](#) and should be considered as part of an effect analysis for this project.

This unofficial species list is for informational purposes only and does not fulfill the requirements under [Section 7](#) of the Endangered Species Act, which states that Federal agencies are required to "request of the Secretary of Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action." This requirement applies to projects which are conducted, permitted or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can be obtained by returning to this project on the IPaC website and requesting an official species list on the Regulatory Documents page.

Clams

Dwarf Wedgemussel *Alasmidonta heterodon*

Endangered

CRITICAL HABITAT

No critical habitat has been designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=F029>

Mammals

Northern Long-eared Bat *Myotis septentrionalis*

Threatened

CRITICAL HABITAT

No critical habitat has been designated for this species.

<https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A0JE>

Critical Habitats

Potential effects to critical habitat(s) within the project area must be analyzed along with the endangered species themselves.

There is no critical habitat within this project area

Migratory Birds

Birds are protected by the [Migratory Bird Treaty Act](#) and the Bald and Golden Eagle Protection Act.

Any activity which results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service (1). There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

You are responsible for complying with the appropriate regulations for the protection of birds as part of this project. This involves analyzing potential impacts and implementing appropriate conservation measures for all project activities.

<p>American Bittern <i>Botaurus lentiginosus</i> Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0F3</p>	Bird of conservation concern
<p>Bald Eagle <i>Haliaeetus leucocephalus</i> Year-round https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B008</p>	Bird of conservation concern
<p>Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HI</p>	Bird of conservation concern
<p>Blue-winged Warbler <i>Vermivora pinus</i> Season: Breeding</p>	Bird of conservation concern
<p>Canada Warbler <i>Wilsonia canadensis</i> Season: Breeding</p>	Bird of conservation concern
<p>Golden-winged Warbler <i>Vermivora chrysoptera</i> Season: Breeding https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0G4</p>	Bird of conservation concern
<p>Least Bittern <i>Ixobrychus exilis</i> Season: Breeding</p>	Bird of conservation concern
<p>Louisiana Waterthrush <i>Parkesia motacilla</i> Season: Breeding</p>	Bird of conservation concern
<p>Pied-billed Grebe <i>Podilymbus podiceps</i> Season: Breeding</p>	Bird of conservation concern
<p>Prairie Warbler <i>Dendroica discolor</i> Season: Breeding</p>	Bird of conservation concern
<p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> Season: Breeding</p>	Bird of conservation concern
<p>Short-eared Owl <i>Asio flammeus</i> Season: Wintering https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HD</p>	Bird of conservation concern
<p>Wood Thrush <i>Hylocichla mustelina</i> Season: Breeding</p>	Bird of conservation concern
<p>Worm Eating Warbler <i>Helmitheros vermivorum</i> Season: Breeding</p>	Bird of conservation concern

Refuges

Any activity proposed on [National Wildlife Refuge](#) lands must undergo a 'Compatibility Determination' conducted by the Refuge. If your project overlaps or otherwise impacts a Refuge, please contact that Refuge to discuss the authorization process.

There are no refuges within this project area

Wetlands

Impacts to [NWI wetlands](#) and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes.

Project proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate [U.S. Army Corps of Engineers District](#).

DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

There are no wetlands identified in this project area



United States Department of the Interior



FISH AND WILDLIFE SERVICE
New York Ecological Services Field Office
3817 LUKER ROAD
CORTLAND, NY 13045
PHONE: (607)753-9334 FAX: (607)753-9699
URL: www.fws.gov/northeast/nyfo/es/section7.htm

Consultation Code: 05E1NY00-2016-SLI-0032

October 07, 2015

Event Code: 05E1NY00-2016-E-00070

Project Name: DR-4020-NY, PW07990 - Bridge 80 Replacement Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 *et seq.*). This list can also be used to determine whether listed species may be present for projects without federal agency involvement. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC site at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list. If listed, proposed, or candidate species were identified as potentially occurring in the project area, coordination with our office is encouraged. Information on the steps involved with assessing potential impacts from projects can be found at: <http://www.fws.gov/northeast/nyfo/es/section7.htm>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (

http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the Services wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the ESA. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: DR-4020-NY, PW07990 - Bridge 80 Replacement Project

Official Species List

Provided by:

New York Ecological Services Field Office

3817 LUKER ROAD

CORTLAND, NY 13045

(607) 753-9334

<http://www.fws.gov/northeast/nyfo/es/section7.htm>

Consultation Code: 05E1NY00-2016-SLI-0032

Event Code: 05E1NY00-2016-E-00070

Project Type: Federal Grant / Loan Related

Project Name: DR-4020-NY, PW07990 - Bridge 80 Replacement Project

Project Description: Village of Fleischmanns, Delaware County, NY - Bridge 80 Replacement over Bush Kill. Original vehicular bridge damaged in hurricane Irene and removed. Proposal is to replace with a pedestrian bridge.

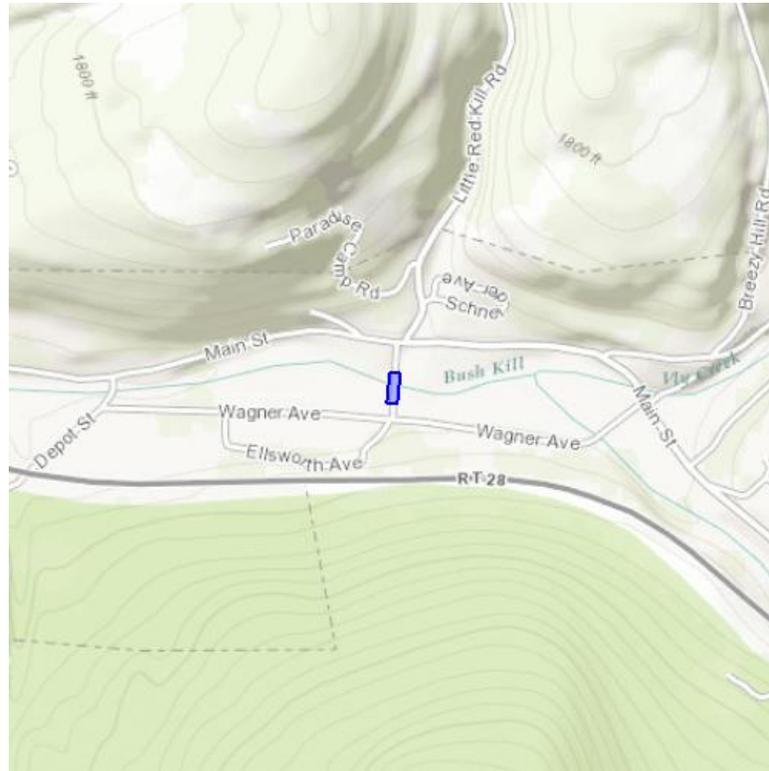
Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior
Fish and Wildlife Service

Project name: DR-4020-NY, PW07990 - Bridge 80 Replacement Project

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-74.53242051607958 42.15607709021044, -74.53215014960733 42.15605482040059, -74.53221881409263 42.15547898470152, -74.53249776383018 42.155488528958834, -74.53242051607958 42.15607709021044)))

Project Counties: Delaware, NY



United States Department of Interior
Fish and Wildlife Service

Project name: DR-4020-NY, PW07990 - Bridge 80 Replacement Project

Endangered Species Act Species List

There are a total of 2 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Clams	Status	Has Critical Habitat	Condition(s)
Dwarf wedgemussel (<i>Alasmidonta heterodon</i>) Population: Entire	Endangered		
Mammals			
Northern long-eared Bat (<i>Myotis septentrionalis</i>)	Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: DR-4020-NY, PW07990 - Bridge 80 Replacement Project

Critical habitats that lie within your project area

There are no critical habitats within your project area.



To: U.S. Fish and Wildlife Service, New York Field Office

FAX: (607) 753-9699 Email: sandra_doran@fws.gov MaryEllen_VanDonsel@fws.gov and Megan_Patch@fws.gov

Request for review pursuant to Section 7(a)(2) of the Endangered Species Act of 1973

Declaration #: FEMA 4020 -DR-NY

Date: 10/07/2015 Program _____ Project/PW # 07990

Project name: Bridge 80 Replacement Project

Applicant: Delaware County Department of Public Works

Location: Bridge Street over Bush Kill, Village of Fleischmans, NY

County: Delaware Latitude: 42.15522 Longitude: -74.53234

FEMA Representative: Gregory Pollack

Email: Gregory.Pollack@fema.dhs.gov Desk phone: 732-866-2823 Cell: 609-508-2994

Project description:

See attachment for additional information

Threatened (T), Endangered (E), Proposed (P), or Candidate (C) species under USFWS jurisdiction with potential to occur in proposed project area:

- | | | |
|-----------------------------------------------------------|------------------------------------------------------|-----------------------------------------------------------------|
| <input type="checkbox"/> Bog turtle - T | <input type="checkbox"/> Northern wild monkshood - T | <input type="checkbox"/> New England cottontail - C |
| <input checked="" type="checkbox"/> Dwarf wedgemussel - E | <input type="checkbox"/> Piping plover - T | <input type="checkbox"/> Small whorled pogonia - E |
| <input type="checkbox"/> Indiana bat - E | <input type="checkbox"/> Sandplain gerardia - E | <input checked="" type="checkbox"/> Northern long-eared bat - T |
| <input type="checkbox"/> Karner blue butterfly - E | <input type="checkbox"/> Seabeach amaranth - T | <input type="checkbox"/> Red knot - P |
| <input type="checkbox"/> Other _____ | <input type="checkbox"/> Other _____ | <input type="checkbox"/> Other _____ |

FEMA has determined the proposed project:

- no effect _____
- may affect, but is not likely to adversely affect Dwarf Wedgemussel or Northern long-eared SD
- is likely to adversely affect _____
- See attachment for the rationale for the above-listed determination(s).

The proposed substructure will consist of concrete cantilever abutments supported on steel H-piles. The approach ramps will be constructed to match the deck elevation of the proposed bridge, and will consist of embankment fill with a 10 ft. wide asphalt paved trail having a maximum slope of 5% to comply with ADA standards. The approach ramps will be approximately 30 ft. long on the north side and 60 ft. long on the south side. Miscellaneous approach work will be performed to restrict access along Bridge Street to pedestrian use only.

In order to lessen the affect of tree removal on the Northern long-eared bat, trees may only be removed between November 1 and March 31. This is necessary to avoid the roosting period of the Northern long-eared bat. In addition, the removal of standing trees (live or dead) greater than or equal to 4 inches diameter at breast height (DBH) with loose bark should be avoided as much as possible and bright colored flagging or fencing should designate the trees to be removed prior to construction activities to differentiate them from protected trees. These conservation measures will be reflected in the final grant condition documentation.

FEMA requests:

- USFWS review and/or concurrence with our Section 7 consultation determination *Based on email dated 10/27/15*
- Additional assistance to make our Section 7 consultation determination

The U.S. Fish and Wildlife Service:

- concurs with your NLTAA determination(s), no further ESA consultation/coordination required requests additional information

USFWS Contact: Sandra L. Doran

Date: October 27, 2015

Supervisor Approval: Patricia Cole

Date: 10/28/15

DELAWARE COUNTY
DEPARTMENT OF PUBLIC WORKS

P.O. BOX 311

DELHI, N.Y. 13753

WAYNE D. REYNOLDS, P.E.
COMMISSIONER

Main Office and Yard
Page Avenue
Delhi, N. Y. 13753

MEMO

To Record
From: Wayne D. Reynolds
Date: November 9, 2015

Re: County Bridge 80
Town of Middletown
Village of Fleischmanns

In accordance with a telephone conference call with FEMA EHP held on Friday, November 6, 2015, this memo will document other Village Sponsored projects in the vicinity of the above referenced bridge.

Post the September 2011 flooding events, the Village of Fleischmann's sponsored a number of National Resource Conservation Service (NRCS) Emergency Watershed Protection (EWP) projects. They started with 7 different sites within the Village but after eligibility reviews and preliminary design efforts, the number of sites was reduced to 5. All of these sites were chosen because the flood had destabilized stream banks within the Village and there were associated threats to both public and private infrastructure. On all of the projects, the designers strove to stabilize the stream banks with heavy rock but they also attempted to provide floodplains for the streams in locations where they could. All of these projects were designed with flood protection and mitigation in mind. Site 7 ended just upstream of the start of the proposed Bridge 80 replacement project. The proposed bridge 80 replacement projects will be compatible with the site 7 project. The Record Plans for the site 7 project is attached hereto for reference. These plans show the limits of the floodplain development and grading.

The Village continues to work with the New York City Department of Environmental Protection (DEP) and the Delaware County Soil and Water Conservation district and the East Branch Flood Commission to identify cost effective projects to mitigate flooding. There is no currently proposed project in the vicinity of the bridge, but there might be other future projects designed to mitigate flooding. Any future projects would build on completed projects and would have a consistent goal of reducing flooding impacts. The proposed Bridge 80 replacement project is consistent with the overall goals of the flood mitigation projects.