

APPENDIX 1

AGENCY RESPONSES

New York National Heritage Program

Upstate Water Supply Resiliency

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish, Wildlife and Marine Resources
New York Natural Heritage Program
625 Broadway, 5th Floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • Fax: (518) 402-8925
Website: www.dec.ny.gov



October 15, 2015

Jennifer Farmwald
NYC Department of Environmental Protection
59-17 Junction Blvd.
Flushing, NY 11373

Re: Water for the Future Program - Upstate Water Supply Resiliency Project
Counties: Ulster, Delaware, Sullivan, Orange, Putnam, Westchester

Dear Jennifer Farmwald:

In response to your request of August 25, 2014, we have reviewed the New York Natural Heritage Program database with respect to the above project.

On September 25, 2015, our office sent to you the files comprising four GIS shapefiles. Three shapefiles contain the locations of rare or state-listed animals and plants, and significant natural communities that our database indicates occur, or may occur, at, or within .25 mile of, the features provided in the 12 shapefiles sent on August 25, 2015, which included the .25 mile buffer of the Catskill Aqueduct corridor, the Roseton Natural Resources Study Area, and eight Shutdown System Operations project areas. The fourth shapefile contains those portions of the twelve shapefiles provided by DEP that are within 2.5 miles of Indiana bat locations, within 1.5 miles of recent timber rattlesnake locations, within 1.0 mile of nesting bald eagle locations or recent bog turtle locations, or within 5 miles of Northern long-eared bat hibernacula locations.

Enclosed is a report on the species and significant natural communities included in the shapefiles described above.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our database. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other sources may be required to fully assess impacts on biological resources.

Our database is continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, as listed at www.dec.ny.gov/about/39381.html.

Sincerely,

A handwritten signature in cursive script that reads "Nick Conrad".

Nicholas Conrad
Information Resources Coordinator
New York Natural Heritage Program



Report on Rare Plants, Rare Animals, and Significant Natural Communities****

as documented in the Natural Heritage database from the vicinity of the

NYC DEP Water for the Future Program

October, 2015

	COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	NY STATE RANK***
++ Historical record only				
<u>Catskill Aqueduct</u>				
Mammals	Indiana Bat <i>hibernaculum</i>	<i>Myotis sodalis</i>	Endangered *	S1
	Indiana Bat <i>summer roosts</i>	<i>Myotis sodalis</i>	Endangered *	S1
	Northern Long-eared Bat <i>hibernaculum</i>	<i>Myotis septentrionalis</i>	Threatened **	S3S4
Birds	Bald Eagle <i>breeding</i>	<i>Haliaeetus leucocephalus</i>	Threatened	S2S3B
	Bald Eagle <i>wintering</i>	<i>Haliaeetus leucocephalus</i>	Threatened	S2N
	Golden Eagle <i>wintering</i>	<i>Aquila chrysaetos</i>	Endangered	S1N
	Peregrine Falcon <i>breeding</i>	<i>Falco peregrinus</i>	Endangered	S3
	Upland Sandpiper <i>breeding</i>	<i>Bartramia longicauda</i>	Threatened	S3
	Pied-billed Grebe <i>breeding</i>	<i>Podilymbus podiceps</i>	Threatened	S3B
	Least Bittern <i>breeding</i>	<i>Ixobrychus exilis</i>	Threatened	S3B
	Red-headed Woodpecker <i>breeding</i>	<i>Melanerpes erythrocephalus</i>	Special Concern	S2?
Reptiles	Bog Turtle	<i>Glyptemys muhlenbergii</i>	Endangered *	S2
	Timber Rattlesnake	<i>Crotalus horridus</i>	Threatened	S3
	Eastern Wormsnake	<i>Carphophis amoenus</i>	Special Concern	S2
	Fence Lizard	<i>Sceloporus undulatus</i>	Threatened	S1
Fish	Shortnose Sturgeon	<i>Acipenser brevirostrum</i>	Endangered *	S1
	Atlantic Sturgeon	<i>Acipenser oxyrinchus</i>	No Open Season *	S1
	Atlantic Silverside	<i>Menidia menidia</i>	Unlisted	S2S3
Animal Assemblages	Anadromous Fish Concentration Area			S3
	Waterfowl Winter Concentration Area			S3S4
Dragonflies and Damselflies	Comet Darner	<i>Anax longipes</i>	Unlisted	S2S3
	Tiger Spiketail	<i>Cordulegaster erronea</i>	Unlisted	S1
	Arrowhead Spiketail	<i>Cordulegaster obliqua</i>	Unlisted	S3

	COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	NY STATE RANK***
Butterflies	Tawny Emperor	<i>Asterocampa clyton</i>	Unlisted	S2S4
Vascular Plants	Woodland Agrimony	<i>Agrimonia rostellata</i>	Threatened	S2
	Short's Sedge	<i>Carex shortiana</i>	Endangered	S1
	Roseroot	<i>Rhodiola rosea</i>	Endangered	S1
	Alpine Cliff Fern	<i>Woodsia alpina</i>	Endangered	S1
	++ Scarlet Indian-paintbrush	<i>Castilleja coccinea</i>	Endangered	S1
	++ Rhodora	<i>Rhododendron canadense</i>	Threatened	S2
Mosses	Two-ranked moss	<i>Pseudotaxiphyllum distichaceum</i>	Unlisted	S2S3
Communities	Brackish Intertidal Mudflats			S1S2
	Brackish Tidal Marsh			S3S4
	Tidal River			S3
	Vernal Pool			S3S4
	Appalachian Oak-Hickory Forest			S4
	Chestnut Oak Forest			S4
	Hemlock-Northern Hardwood Forest			S4
	Oak-Tulip Tree Forest			S2S3
	Pitch Pine-Oak-Heath Rocky Summit			S3S4
	Red Cedar Rocky Summit			S3

WFF Shutdown System Operations (WSSO)

Mammals	Indiana Bat <i>hibernaculum</i>	<i>Myotis sodalis</i>	Endangered *	S1
	Indiana Bat <i>summer roosts</i>	<i>Myotis sodalis</i>	Endangered *	S1
	Northern Long-eared Bat <i>hibernaculum</i>	<i>Myotis septentrionalis</i>	Threatened **	S3S4
	Eastern Small-footed Myotis <i>hibernaculum</i>	<i>Myotis leibii</i>	Special Concern	S2
	New England Cottontail	<i>Sylvilagus transitionalis</i>	Special Concern ^	S1S2
Birds	Bald Eagle <i>breeding</i>	<i>Haliaeetus leucocephalus</i>	Threatened	S2S3B
	Bald Eagle <i>wintering</i>	<i>Haliaeetus leucocephalus</i>	Threatened	S2N
	Northern Harrier <i>wintering</i>	<i>Circus cyaneus</i>	Threatened	S3N
	Peregrine Falcon <i>breeding</i>	<i>Falco peregrinus</i>	Endangered	S3
	Barn Owl <i>breeding</i>	<i>Tyto alba</i>	Protected Bird	S1S2
	Short-eared Owl <i>wintering</i>	<i>Asio flammeus</i>	Endangered	S2
	Pied-billed Grebe <i>breeding</i>	<i>Podilymbus podiceps</i>	Threatened	S3B

	COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	NY STATE RANK***
	Least Bittern <i>breeding</i>	<i>Ixobrychus exilis</i>	Threatened	S3B
	Kentucky Warbler <i>breeding</i>	<i>Geothlypis formosa</i>	Protected Bird	S2
Reptiles	Bog Turtle	<i>Glyptemys muhlenbergii</i>	Endangered *	S2
	Timber Rattlesnake	<i>Crotalus horridus</i>	Threatened	S3
	Eastern Wormsnake	<i>Carphophis amoenus</i>	Special Concern	S2
Fish	Shortnose Sturgeon	<i>Acipenser brevirostrum</i>	Endangered *	S1
	Atlantic Sturgeon	<i>Acipenser oxyrinchus</i>	No Open Season *	S1
	Swallowtail Shiner	<i>Notropis procne</i>	Unlisted	S2
Animal Assemblages	Anadromous Fish Concentration Area			S3
	Bat Colony			SNR
	Raptor Winter Concentration Area			SNR
	Waterfowl Winter Concentration Area			S3S4
Dragonflies and Damselflies	Arrowhead Spiketail	<i>Cordulegaster obliqua</i>	Unlisted	S3
	Delaware River Clubtail	<i>Gomphus septima delawarensis</i>	Special Concern	S1
	Cobra Clubtail	<i>Gomphus vastus</i>	Unlisted	S1
	Rapids Clubtail	<i>Gomphus quadricolor</i>	Unlisted	S3
	Spine-crowned Clubtail	<i>Gomphus abbreviatus</i>	Unlisted	S1
	Green-faced Clubtail	<i>Gomphus viridifrons</i>	Unlisted	S1
	Extra-striped Snaketail	<i>Ophiogomphus anomalus</i>	Special Concern	S2S3
	Brook Snaketail	<i>Ophiogomphus aspersus</i>	Unlisted	S3
	Spatdock Darner	<i>Rhionaeschna mutata</i>	Unlisted	S2
	Umber Shadowdragon	<i>Neurocordulia obsoleta</i>	Unlisted	S1
	Broad-tailed Shadowdragon	<i>Neurocordulia michaeli</i>	Unlisted	S1
	Mocha Emerald	<i>Somatochlora linearis</i>	Unlisted	S2S3
	Dusky Dancer	<i>Argia translata</i>	Unlisted	S1
Butterflies	Northern Oak Hairstreak	<i>Satyrrium favonius ontario</i>	Unlisted	S2S4
Beetles	Appalachian Tiger Beetle	<i>Cicindela ancocisconensis</i>	Unlisted	S2
Freshwater Mussels	Dwarf Wedgemussel	<i>Alasmidonta heterodon</i>	Endangered *	S1
	Brook Floater	<i>Alasmidonta varicosa</i>	Threatened	S1
	Alewife Floater	<i>Anodonta implicata</i>	Unlisted	S1S2
	Yellow Lampmussel	<i>Lampsilis cariosa</i>	Unlisted	S3
	Eastern Pearlshell	<i>Margaritifera margaritifera</i>	Unlisted	S2

	COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	NY STATE RANK***
Vascular Plants	Purple Milkweed	<i>Asclepias purpurascens</i>	Threatened	S2S3
	Delmarva Beggar-ticks	<i>Bidens bidentoides</i>	Rare	S3
	Smooth Bur-marigold	<i>Bidens laevis</i>	Threatened	S2
	Appalachian Sandwort	<i>Minuartia glabra</i>	Rare	S3
	Slender Pinweed	<i>Lechea tenuifolia</i>	Threatened	S2
	Roseroot	<i>Rhodiola rosea</i>	Endangered	S1
	Screw-stem	<i>Bartonia paniculata</i> ssp. <i>paniculata</i>	Endangered	S1
	Small Floating Bladderwort	<i>Utricularia radiata</i>	Threatened	S2
	Tooth-cup	<i>Rotala ramosior</i>	Threatened	S2
	Heartleaf Plantain	<i>Plantago cordata</i>	Rare	S3
	Riverweed	<i>Podostemum ceratophyllum</i>	Threatened	S2
	Featherfoil	<i>Hottonia inflata</i>	Threatened	S2
	Dwarf Sand-cherry	<i>Prunus pumila</i> var. <i>depressa</i>	Threatened	S2
	Shining Bedstraw	<i>Galium concinnum</i>	Endangered	S1
	Swamp Cottonwood	<i>Populus heterophylla</i>	Threatened	S2
	Spongy Arrowhead	<i>Sagittaria montevidensis</i> var. <i>spongiosa</i>	Threatened	S2
	Frank's Sedge	<i>Carex frankii</i>	Endangered	S1
	Cat-tail Sedge	<i>Carex typhina</i>	Endangered	S1
	Angled Spikerush	<i>Eleocharis quadrangulata</i>	Endangered	S1
	Long-beaked Beakrush	<i>Rhynchospora scirpoides</i>	Rare	S3
	Large Twayblade	<i>Liparis liliifolia</i>	Endangered	S1
	Spotted Pondweed	<i>Potamogeton pulcher</i>	Threatened	S2
	Alpine Cliff Fern	<i>Woodsia alpina</i>	Endangered	S1
	Riverbank Quillwort	<i>Isoetes riparia</i>	Endangered	S1
	++ Eastern Grasswort	<i>Lilaeopsis chinensis</i>	Threatened	S2
	++ Estuary Beggar-ticks	<i>Bidens hyperborea</i> var. <i>hyperborea</i>	Endangered	S1
	++ Water Pigmyweed	<i>Crassula aquatica</i>	Endangered	S1
	++ Button-bush Dodder	<i>Cuscuta cephalanthi</i>	Endangered	S1
	++ American Waterwort	<i>Elatine americana</i>	Endangered	S1
	++ Rhodora	<i>Rhododendron canadense</i>	Threatened	S2
	++ Rattlebox	<i>Crotalaria sagittalis</i>	Endangered	S1
	++ Spurred Gentian	<i>Halenia deflexa</i>	Endangered	S1

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	NY STATE RANK***
++ Water Milfoil	<i>Myriophyllum alterniflorum</i>	Threatened	S2
++ Hyssop-skullcap	<i>Scutellaria integrifolia</i>	Endangered	S1
++ Tiny Blue-curls	<i>Trichostema setaceum</i>	Endangered	S1
++ Swamp Smartweed	<i>Persicaria setacea</i>	Endangered	S1S2
++ Lowland Yellow Loosestrife	<i>Lysimachia hybrida</i>	Endangered	S1
++ Swamp Buttercup	<i>Ranunculus hispidus</i> var. <i>nitidus</i>	Endangered	S1
++ Woodland Agrimony	<i>Agrimonia rostellata</i>	Threatened	S2
++ Rough Avens	<i>Geum virginianum</i>	Threatened	S2
++ Scarlet Indian-paintbrush	<i>Castilleja coccinea</i>	Endangered	S1
++ Tidal Spikerush	<i>Eleocharis aestuum</i>	Endangered	S1
++ Michaux's Blue-eyed-grass	<i>Sisyrinchium mucronatum</i>	Endangered	S1
++ Ensiform Rush	<i>Juncus ensifolius</i>	Endangered	S1
++ Woodland Rush	<i>Juncus subcaudatus</i>	Endangered	S1
++ Hudson River Water-nymph	<i>Najas guadalupensis</i> ssp. <i>muenschleri</i>	Endangered	S1
++ Hooker's Orchid	<i>Platanthera hookeri</i>	Endangered	S1
++ Prairie Wedgegrass	<i>Sphenopholis obtusata</i>	Endangered	S1
++ Water-thread Pondweed	<i>Potamogeton diversifolius</i>	Endangered	S1
Communities			
Freshwater Tidal Swamp			S1
Freshwater Tidal Marsh			S2
Freshwater Intertidal Mudflats			S2
Freshwater Intertidal Shore			S2S3
Tidal River			S3
Floodplain Forest			S2S3
Red Maple-Hardwood Swamp			S4S5
Rich Shrub Fen			S1S2
Limestone Woodland			S2S3
Calcareous Talus Slope Woodland			S3
Chestnut Oak Forest			S4
Beech-Maple Mesic Forest			S4
Hemlock-Northern Hardwood Forest			S4
Shoreline Outcrop			S3S4
Cobble Shore			S4
Floodplain Grassland			S3

	COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	NY STATE RANK***
<u>Roseton Natural Resources Study Area</u>				
Mammals	Indiana Bat <i>summer roosts</i>	<i>Myotis sodalis</i>	Endangered *	S1
Birds	Bald Eagle <i>wintering</i>	<i>Haliaeetus leucocephalus</i>	Threatened	S2N
Fish	Shortnose Sturgeon	<i>Acipenser brevirostrum</i>	Endangered *	S1
	Atlantic Sturgeon	<i>Acipenser oxyrinchus</i>	No Open Season *	S1
Communities	Tidal River			S3

* Also federally listed as Endangered.

** Also federally listed as Threatened.

^ Also Candidate species for federal listing.

*** Conservation status in NYS as ranked by NY Natural Heritage Program on a 1 to 5 scale:

S1 = Critically imperiled

S2 = Imperiled

S3 = Rare or uncommon

S4 = Abundant and apparently secure

S5 = Demonstrably abundant and secure

SH = Historical records only; no recent observations known; may or may not still be present in New York.

B after one of the above ranks indicates the status rank is for breeding populations only.

N after one of the above ranks indicates the status rank is for nonbreeding wintering populations only.

**** Natural communities in this report are considered significant from a statewide perspective by the NY Natural Heritage Program. They are either occurrences of a community type that is rare in the state, or a high quality example of a more common community type. By meeting specific, documented criteria, the NY Natural Heritage Program considers these community occurrences to have high ecological and conservation value.

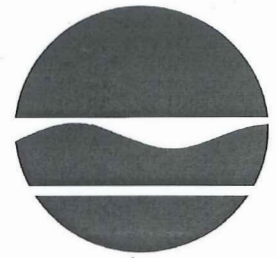
Information about many of the rare animals, rare plants, and natural communities in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org.

This report only includes records from the NY Natural Heritage databases. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. This information should not be substituted for on-site surveys that may be required for environmental impact assessment.



Proposed Catskill Aqueduct Repair and Rehabilitation

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, 5th Floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • **Fax:** (518) 402-8925
Website: www.dec.ny.gov



Joe Martens
Commissioner

March 7, 2013

Jennifer Farnwald
NYC Environmental Protection
59-17 Junction Blvd
Flushing, NY 11373



Dear Ms. Farnwald:

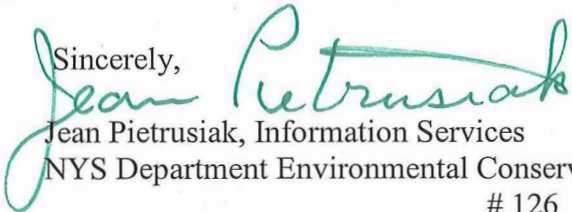
In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to an Environmental Assessment for Proposed Upper Catskill Aquaduct Optimization and Leak Stabilization Project, as indicated on the map you enclosed, located within several Counties.

Enclosed is a report of rare or state-listed animals and plants, and significant natural communities, which our database indicates occur, or may occur, on your site or in the immediate vicinity of your site. For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our databases. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. This information should not be substituted for on-site surveys that may be required for environmental impact assessment.

The enclosed report may be included in documents that will be available to the public. However, any maps displaying locations of rare species are considered sensitive information, and should not be included in any document that will be made available to the public, without permission from the New York Natural Heritage Program.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, as listed at www.dec.ny.gov/about/39381.html.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

Sincerely,

Jean Pietrusiak, Information Services
NYS Department Environmental Conservation
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Enc.
cc: Reg. 3, Wildlife Mgr.



**The following state-listed animals have been documented
at your project site, or in its vicinity.**

The following list includes animals that are listed by NYS as Endangered, Threatened, or Special Concern; and/or that are federally listed or are candidates for federal listing. The list may also include significant natural communities that can serve as habitat for Endangered or Threatened animals, and/or other rare animals and rare plants found at these habitats.

For information about potential impacts of your project on these populations, how to avoid, minimize, or mitigate any impacts, and any permit considerations, contact the Wildlife Manager or the Fisheries Manager at the NYSDEC Regional Office for the region where the project is located. A listing of Regional Offices is at <http://www.dec.ny.gov/about/558.html>.

The following species have been documented within 1 mi. Individual animals may travel 1 mi from documented locations.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	FEDERAL LISTING
Birds			
Bald Eagle Nonbreeding	<i>Haliaeetus leucocephalus</i>	Threatened	5782
	Less than 1.0 mi from leaks CA-E0H-9, CA-E0H-8A		
Bald Eagle Nonbreeding	<i>Haliaeetus leucocephalus</i>	Threatened	5644
	Less than 1.0 mi from leak CA-E0H-7		
Bald Eagle Breeding	<i>Haliaeetus leucocephalus</i>	Threatened	12962
	Less than 1.0 mi from leaks CA-E0H-9, CA-E0H-8A		

The following species have been documented within 2.5 mi. Individual animals may travel 2.5 mi from documented locations.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	FEDERAL LISTING
Mammals			
Indiana Bat Maternity colony	<i>Myotis sodalis</i>	Endangered	Endangered 11652
	Less than 2.5 mi from leaks CA-W0H-W1, CA-W0H-W2		
Indiana Bat Maternity colony	<i>Myotis sodalis</i>	Endangered	Endangered 11288
	Less than 2.5 mi from leak CA-W0H-W7		

This report only includes records from the NY Natural Heritage databases. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. This information should not be substituted for on-site surveys that may be required for environmental impact assessment.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the listed animals in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, and from NYSDEC at <http://www.dec.ny.gov/animals/7494>.

Information about many of the rare plants and animals, and natural community types, in New York are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, and from NatureServe Explorer at <http://www.natureserve.org/explorer>.



The following rare plants, rare animals, and significant natural communities have been documented at your project site, or in its vicinity.

We recommend that potential onsite and offsite impacts of the proposed project on these species or communities be addressed as part of any environmental assessment or review conducted as part of the planning, permitting and approval process, such as reviews conducted under SEQR. Field surveys of the project site may be necessary to determine the status of a species at the site, particularly for sites that are currently undeveloped and may still contain suitable habitat. Final requirements of the project to avoid, minimize, or mitigate potential impacts are determined by the lead permitting agency or the government body approving the project.

The plants listed below are < 0.5 mi of leaks CA-WOH-W1 and CA-WOH-W2.

The following plants are listed as Endangered or Threatened by New York State, and/or are considered rare by the New York Natural Heritage Program, and so are a vulnerable natural resource of conservation concern.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	HERITAGE CONSERVATION STATUS
Vascular Plants			
Alpine Cliff Fern	<i>Woodsia alpina</i>	Endangered	Critically Imperiled in NYS
For more information, contact the New York Natural Heritage Program. 2984			
Roseroot	<i>Rhodiola rosea</i>	Endangered	Critically Imperiled in NYS
Atwood Cliff: An acidic cliff community (sandstone). Hemlock-northern hardwood forest. The slope faces WNW to east. 2111			

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If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the rare animals and plants in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, from NatureServe Explorer at <http://www.natureserve.org/explorer>, and from USDA's Plants Database at <http://plants.usda.gov/index.html> (for plants).

Information about many of the natural community types in New York, including identification, dominant and characteristic vegetation, distribution, conservation, and management, is available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org. For descriptions of all community types, go to <http://www.dec.ny.gov/animals/29384.html> and click on Draft Ecological Communities of New York State.



**The following rare plants and rare animals have
historical records
at your project site, or in its vicinity.**

The following rare plants and animals were documented in the vicinity of the project site at one time, but have not been documented there since 1979 or earlier, and/or there is uncertainty regarding their continued presence. There is no recent information on these plants and animals in the vicinity of the project site and their current status there is unknown. In most cases the precise location of the plant or animal in this vicinity at the time it was last documented is also unknown.

If suitable habitat for these plants or animals is present in the vicinity of the project site, it is possible that they may still occur there. We recommend that any field surveys to the site should include a search for these species, particularly for sites that are currently undeveloped and may still contain suitable habitat.

COMMON NAME	SCIENTIFIC NAME	NYS LISTING	HERITAGE CONSERVATION STATUS	
Vascular Plants				
Scarlet Indian-paintbrush	<i>Castilleja coccinea</i>	Endangered	Critically Imperiled in NYS	
1899-05-16: Meadow.				8047
<i>The above plant is < 0.5 mi from leak CA-WOH-W6.</i>				
Rhodora	<i>Rhododendron canadense</i>	Threatened	Imperiled in NYS	
1954-05-19: Lomontville. Swale abandoned from farming.				8169
<i>The above plant is < 0.5 mi from leaks CA-WOH-W1 and CA-WOH-W2.</i>				

This report only includes records from the NY Natural Heritage databases. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. This information should not be substituted for on-site surveys that may be required for environmental impact assessment.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the rare animals and plants in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, from NatureServe Explorer at <http://www.natureserve.org/explorer>, and from USDA's Plants Database at <http://plants.usda.gov/index.html> (for plants).

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, 5th Floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • **Fax:** (518) 402-8925
Website: www.dec.ny.gov



Joe Martens
Commissioner

June 16, 2015

Jennifer Farmwald
NYCDEP
59-17 Junction Blvd.
Flushing, NY 11373

Dear Ms. Farmwald:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the Catskill Aqueduct Repair and Rehabilitation (CAT-RR) Leak 6 Project in the Town of Gardiner, Ulster County.

We have no recent records of rare or state-listed animals or plants (including Bog Turtle), or of significant natural communities, at this site or within 1 mile.

Our database does have a historical record of a rare plant in the area of the project site: in 1899, **Scarlet Indian-paintbrush** (*Castilleja coccinea*, listed by NYS as Endangered) was collected from a meadow near Libertyville. We do not know the precise location where this plant was collected, we have no recent information on this population, and there is uncertainty regarding its continued presence. We provide this information for your general reference. While its current status is not known, if suitable habitat for this plant is present at the project site, it is possible that it may still be found there. We recommend that any field surveys to the site include a search for this species, particularly in areas that are currently undeveloped and may still contain suitable habitat. If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about Scarlet Indian-paintbrush in New York, including habitat, biology, identification, conservation, and management, is available online in Natural Heritage's Conservation Guide at <http://www.guides.nynhp.org/guide.php?id=9360>.

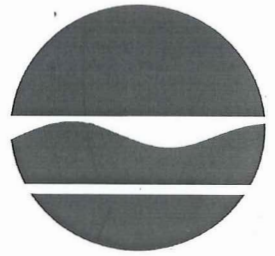
For most sites, comprehensive field surveys have not been conducted; the above information only includes records from our database. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities.

Sincerely,

Nicholas Conrad
Information Resource Coordinator

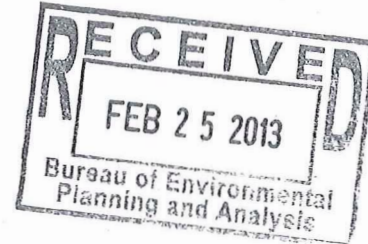
Proposed Rondout-West Branch Tunnel Inspection and Repair

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Fish, Wildlife & Marine Resources
New York Natural Heritage Program
625 Broadway, 5th Floor, Albany, New York 12233-4757
Phone: (518) 402-8935 • **Fax:** (518) 402-8925
Website: www.dec.ny.gov



Joe Martens
Commissioner

February 19, 2013



Jennifer Farmwald
NYC Environmental Protection
59-17 Junction Blvd
Flushing, NY 11373

Dear Ms. Farmwald:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to an Environmental Assessment for Roundout – WEST Branch Tunnell Repair – Delaware Aqueduct - area as indicated on the map you enclosed, located in Orange County.

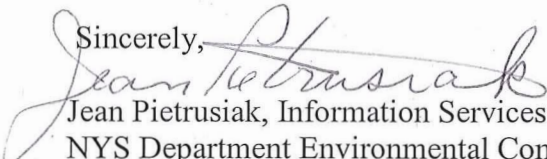
Enclosed is a report of rare or state-listed animals and plants, and significant natural communities, which our database indicates occur, or may occur, on your site or in the immediate vicinity of your site. For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our databases. We cannot provide a definitive statement as to the presence or absence of all rare or state-listed species or significant natural communities. This information should not be substituted for on-site surveys that may be required for environmental impact assessment.

The enclosed report may be included in documents that will be available to the public. However, any maps displaying locations of rare species are considered sensitive information, and should not be included in any document that will be made available to the public, without permission from the New York Natural Heritage Program.

The presence of the plants and animals identified in the enclosed report may result in this project requiring additional review or permit conditions. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, as listed at www.dec.ny.gov/about/39381.html.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

Sincerely,


Jean Pietrusiak, Information Services
NYS Department Environmental Conservation

125

Enc.
cc: Reg. 3, Wildlife Mgr.



The following state-listed animals have been documented at your project site, or in its vicinity.

The following list includes animals that are listed by NYS as Endangered, Threatened, or Special Concern; and/or that are federally listed or are candidates for federal listing. The list may also include significant natural communities that can serve as habitat for Endangered or Threatened animals, and/or other rare animals and rare plants found at these habitats.

For information about potential impacts of your project on these populations, how to avoid, minimize, or mitigate any impacts, and any permit considerations, contact the Wildlife Manager or the Fisheries Manager at the NYSDEC Regional Office for the region where the project is located. A listing of Regional Offices is at <http://www.dec.ny.gov/about/558.html>.

The following species and habitats have been documented at or near the project site, generally within 0.5 mile. Potential onsite and offsite impacts from the project may need to be addressed.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	FEDERAL LISTING	
Fish				
Shortnose Sturgeon	<i>Acipenser brevirostrum</i>	Endangered	Endangered	1091

The following species have been documented within 1 mi. Individual animals may travel 1 mi from documented locations.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	FEDERAL LISTING	
Birds				
Bald Eagle Nonbreeding	<i>Haliaeetus leucocephalus</i>	Threatened		4129
Bald Eagle Breeding	<i>Haliaeetus leucocephalus</i>	Threatened		5546

The following species have been documented within 2.5 mi. Individual animals may travel 2.5 mi from documented locations.

COMMON NAME	SCIENTIFIC NAME	NY STATE LISTING	FEDERAL LISTING	
Mammals				
Indiana Bat Maternity colony	<i>Myotis sodalis</i>	Endangered	Endangered	11287

This report only includes records from the NY Natural Heritage databases. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. This information should not be substituted for on-site surveys that may be required for environmental impact assessment.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the listed animals in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, and from NYSDEC at

<http://www.dec.ny.gov/animals/7494>.

Information about many of the rare plants and animals, and natural community types, in New York are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, and from NatureServe Explorer at <http://www.natureserve.org/explorer>.



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National Oceanic and Atmospheric Administration



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
NORTHEAST REGION
55 Great Republic Drive
Gloucester, MA 01930-2276

JAN 24 2011

Jennifer Farmwald
NYC Department of Environmental Protection
59-17 Junction Boulevard
Flushing, New York 11373

Re: Rondout-West Branch Bypass Tunnel Project

Dear Ms. Farmwald,

This is in response to your letter dated December 22, 2010 regarding the Rondout-West Branch Bypass Tunnel Project. The New York City Department of Environmental Protection (NYC DEP) proposes to construct an approximately 3-mile long bypass tunnel as part of a plan to repair leaks in the 85-mile long Delaware Aqueduct. The bypass tunnel would be built around a portion of the aqueduct that is leaking in Roseton in Orange County and would extend from a newly construction shaft (Shaft 5 CPR) in the Town of Newburgh, on the west side of the Hudson River, to the new shaft to be constructed on the existing Shaft 6 site in the Town of Wappinger, on the east side of the Hudson River. Geotechnical borings would be conducted in the Hudson River in the vicinity of the baseline bypass alignment. The DEP is considering constructing a wharf on the east bank of the Hudson River at the Shaft 6 property. Please find below information on threatened and endangered species listed under the jurisdiction of NOAA's National Marine Fisheries Service (NMFS) that may occur in the project area as well as information on relevant consultation and coordination requirements.

NMFS Listed Species

A population of the federally endangered shortnose sturgeon (*Acipenser brevirostrum*) occurs in the Hudson River. Shortnose sturgeon have been documented in the Hudson River from New York Harbor (rkm -5.6) to the Troy Dam (rkm 243). Based on the best available information, shortnose sturgeon are likely to occur in the project area year round, with the highest numbers of fish present during the summer months.

As you may know, any discretionary federal action, such as the approval or funding of a project by a Federal agency, that may affect a listed species must undergo consultation pursuant to Section 7 of the Endangered Species Act (ESA) of 1973, as amended. If the proposed project has the potential to affect listed species and it is being approved, permitted or funded by a Federal agency, the lead Federal agency, or their designated non-Federal representative, is responsible for determining



whether the proposed action is likely to affect this species. The Federal agency would submit their determination along with justification for their determination and a request for concurrence, to the attention of the ESA Section 7 Coordinator, NMFS Northeast Regional Office, Protected Resources Division, 55 Great Republic Drive, Gloucester, MA 01930. After reviewing this information, NMFS would then be able to conduct a consultation under section 7 of the ESA.

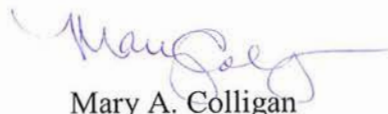
Proposed Species in the Project Area

On October 6, 2010, NMFS published two proposed rules to list five distinct population segments (DPS) of Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*). NMFS is proposing to list four DPSs as endangered (New York Bight, Chesapeake Bay, Carolina and South Atlantic) and one DPS of Atlantic sturgeon as threatened (Gulf of Maine DPS). The NYB DPS includes all Atlantic sturgeon whose range occurs in watersheds that drain into coastal waters, including Long Island Sound, the New York Bight, and Delaware Bay, from Chatham, MA to the Delaware-Maryland border on Fenwick Island, as well as wherever these fish occur in coastal bays, estuaries, and the marine environment from the Bay of Fundy, Canada, to the Saint Johns River, FL. Within this range, Atlantic sturgeon have been documented from the Hudson and Delaware rivers as well as at the mouth of the Connecticut and Taunton rivers, and throughout Long Island Sound. The proposed action by the applicant falls within the geographic range of the NYB DPS of Atlantic sturgeon and this species is known to occur in the action area.

Once a species is proposed for listing the conference provisions of the ESA apply (see 50 CFR 402.10). As stated at 50 CFR 402.10, "Federal agencies are required to confer with NMFS on any action which is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat. The conference is designed to assist the Federal agency and any applicant in identifying and resolving potential conflicts at an early stage in the planning process." Based on the information on the proposed project provided to NMFS to date, NMFS encourages NYC DEP to consider effects of the proposed action on Atlantic sturgeon and work with NMFS to determine if a conference is required. As the listing status for this species may change, NMFS recommends that the project proponent obtain updated status information from NMFS prior to the submittal of any applications or requests for consultation.

Should you have any questions regarding these comments, please contact Julie Crocker of my staff at (978)282-8480 or Julie.Crocker@Noaa.gov.

Sincerely,



Mary A. Colligan
Assistant Regional Administrator
for Protected Resources

CC: Rusanowsky, F/NER4

EC: Crocker, F/NER3

New York State Historic Preservation Office



New York State Office of Parks, Recreation and Historic Preservation

Division for Historic Preservation
Peebles Island, PO Box 189, Waterford, New York 12188-0189
518-237-8643
www.nysparks.com

Andrew M. Cuomo
Governor

Rose Harvey
Commissioner

November 14, 2014

Ms. Jennifer Farmwald
Senior Project Manager
NYC Department of Environmental Protection
59-17 Junction Boulevard
11th Floor
Flushing, NY 11373

Re: SEQRA
Water for the Future: Upstate Water Supply Resiliency
Components of Delaware, Catskill and Croton Systems
Ulster, Orange, Putnam and Westchester Counties, NY
14PR04424
CEQR No. 15DEP006U

Dear Ms. Farmwald:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the Draft Scope of Work for the DEIS (Scope) in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the Division for Historic Preservation and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

Our staff has reviewed the documentation that you provided and we have no concerns with the proposed Scope of Work. However, we would like to offer the following archaeological recommendations to facilitate your planning process.

Based on our understanding of the proposed construction impacts, we have no further archaeology concerns with the following activities and recommend that they be categorically excluded from further consideration.

- Cleaning and inspection of segments of the systems.
- Repairing leaks.
- Replacing valves.

In order to assist with determinations regarding the need for archaeological survey for the remaining activities, we offer the following questions.

- Does the “construction of a local dechlorination system” involve ground disturbance in locations not characterized by extensive prior ground disturbance? If yes, what will be the approximate horizontal and vertical extent the proposed ground disturbance?
- Does the installation of “air vents” involve ground disturbance in locations not characterized by extensive prior ground disturbance? If yes, what will be the approximate horizontal and vertical extent of the proposed ground disturbance?
- On Figures 1-1 through 1-4 and Figures 10-1 through 10-19, there are locations where the proposed work is labeled as “mechanical repairs.” Do any or all of the “mechanical repairs” involve ground disturbance in locations not characterized by extensive prior ground disturbance? If yes, what will be the approximate horizontal and vertical extent of the proposed ground disturbance?
- There are repeated references to “temporary staging areas” for equipment and materials. Will any or all of the staging area be in locations not characterized by asphalt paving, gravel paving, or extensive prior ground disturbance? If yes, what will be the approximate horizontal extent of the proposed staging areas?

Addressing these questions early in the evaluation process may help to categorically exclude certain activities from further consideration.

The OPRHP staff is available for consultation, at any stage of the process, regarding potential impacts to archaeological and/or historic resources. Please feel free to contact me at 518-237-8643 ext. 3262, or Timothy.Lloyd@parks.ny.gov. If you contact me, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

A handwritten signature in black ink, appearing to read "Tim Lloyd". The signature is fluid and cursive, with a large initial "T" and "L".

Tim Lloyd, Ph.D., RPA
Historic Preservation Specialist - Archaeology

Proposed Catskill Aqueduct Repair and Rehabilitation



Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

April 17, 2015

Ms. Jennifer Farmwald
Senior Project Manager
NYC Dept. of Environmental Protection
59-17 Junction Blvd., 11th Floor
Flushing, NY 11373

Re: USACE
Water for the Future - Catskill Aqueduct Repair and Rehabilitation
Catskill Aqueduct
15PR01262
CEQR 15DEP006U

Dear Ms. Farmwald:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the submitted materials in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York State Environmental Conservation Law Article 8).

We have reviewed the materials submitted regarding potential impacts to archaeological resources, including the 179-page letter dated December 8, 2014, and the subsequently submitted Excel file entitled "Water for the Future CATRR SHPO Summary Table." SHPO concurs with the general approach outlined in the submitted documents: when Project-related ground disturbance will take place within the footprint of prior ground disturbance associated with the construction and operation of the Aqueduct, archaeological survey in advance of the Project-related activity is unnecessary.

We have thoroughly reviewed all of the locations of proposed ground disturbance described in the submitted documents. SHPO concurs with all instances where you recommend no additional archaeological investigations due to prior soil disturbance. There are several instances of proposed ground disturbance where your recommendation is that additional archaeological investigation "may be warranted." These locations are as follows.

- Esopus Cut and Cover Tunnel, Leaks 1A and 1B, Stations 251+07 and 251+48, Town of Marletown, Ulster County.

Division for Historic Preservation

P.O. Box 189, Waterford, New York 12188-0189 • (518) 237-8643 • www.nysparks.com

Ms. Jennifer Farmwald
Page 2

- Rondout Downtake Chamber/Rondout Pressure Tunnel (Shaft 1), New Air Vent/Rondout Downtake Chamber, Stations 460+69 and 461+26, Town of Marbletown, Ulster County.
- Rondout Pressure Tunnel, Leaks 3A and 3B, Stations 578+40 and 579+35, Town of Marbletown, Ulster County.

We have reviewed each of these locations and it is SHPO's opinion that no additional archaeological investigations are necessary. If the proposed project activities at these locations results in soil disturbance outside of the area of prior soil disturbance, the footprint of this additional disturbance will be minimal. It is SHPO's opinion that archaeological investigation for the possibility of such minor subsurface impacts is not necessary.

If further correspondence is required regarding this project, please refer to the OPRHP Project Review (PR) number noted above. If you have any questions I can be reached at 518-268-2186.

Sincerely,



Tim Lloyd, Ph.D., RPA
Historic Preservation Specialist - Archaeology
timothy.lloyd@parks.ny.gov

via e-mail only



Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

July 06, 2015

Ms. Jennifer Farmwald
Senior Project Manager
NYC Dept. of Environmental Protection
59-17 Junction Blvd., 11th Floor
Flushing, NY 11373

Re: USACE
Water for the Future - Catskill Aqueduct Repair and Rehabilitation
Catskill Aqueduct
15PR01262
CEQR 15DEP006U

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We have reviewed the material submitted under the title of Addendum #1, with the cover letter dated Jun 10, 2015, regarding revised project-related activities. SHPO concurs with the assessments regarding the potential need for additional archaeological investigation listed in the Site Summary Tables (i.e., Sites and Access Roads) included as Appendix B in your submission.

SHPO has reviewed the materials submitted regarding the three new proposed work sites:

- 1) Tongore Steel Pipe Siphon (Atwood-Olivebridge Road), Stations 105+2 and 110+00, Town of Olive, Ulster County;
- 2) Poor Farm Arch Bridge (New Paltz-Minnewaska Road), Station 928+57, Town of New Paltz, Ulster County; and
- 3) Pine Bush Road, Station 489+00, Town of Marbletown, Ulster County.

SHPO has no concerns regarding potential impacts to archeological resources associated with the proposed project-related activities at these three locations, and it is SHPO's recommendation that no additional archaeological investigations are necessary.

Division for Historic Preservation

P.O. Box 189, Waterford, New York 12188-0189 • (518) 237-8643 • www.nysparks.com

Jennifer Farmwald

July 6, 2015

Page 2

It is SHPO's opinion that proposed work activities occurring within areas previously subjected to open trenching, such as cut-and-cover tunnels, steel pipe siphons, and special construction siphons, as well as areas subjected to prior surface disturbance associated with drill and blast techniques, can be categorically excluded from further SHPO consultation regarding potential impacts to archeological resources.

If further correspondence is required regarding this project, please refer to the OPRHP Project Review (PR) number noted above. If you have any questions I can be reached at 518-268-2186.

Sincerely,

A handwritten signature in black ink, appearing to read "Tim Lloyd".

Tim Lloyd, Ph.D., RPA
Historic Preservation Specialist - Archaeology
timothy.lloyd@parks.ny.gov

via e-mail only



Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

November 16, 2015

Ms. Jennifer Farmwald
Senior Project Manager
NYC Dept. of Environmental Protection
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15PR01262
CEQR 15DEP006U

Dear Ms. Farmwald:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the submitted materials in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York State Environmental Conservation Law Article 8).

I have reviewed the materials submitted under the title of Addendum #2, with cover letter dated October 30, 2015, regarding revised project-related activities. SHPO concurs with the assessments regarding the potential need for additional archaeological investigations listed in the Site Summary Table included as Appendix B in your submission.

I have reviewed the materials submitted regarding the following three work sites.

- 1) Access Road to Kensico Bypass Access Manhole, Station 4066+73, Town of Mt. Pleasant, Westchester County.
- 2) Foundry Brook Access Road, Station 2494+57, Town of Philipstown, Putnam County.
- 3) Lucas Turnpike Access Road, Station 585+97, Town of Marbletown, Ulster County.

SHPO has no concerns regarding potential impacts to archaeological resources associated with the proposed project-related activities at these three locations, and it is SHPO's recommendation that no archaeological investigations are necessary.

Division for Historic Preservation

P.O. Box 189, Waterford, New York 12188-0189 • (518) 237-8643 • www.nysparks.com

Jennifer Farmwald
November 16, 2015
Page 2

If further correspondence is required regarding this project, please refer to the SHPO Project Review (PR) number noted above. If you have any questions I can be reached at 518-268-2186.

Sincerely,

A handwritten signature in black ink, appearing to read "Tim Lloyd". The signature is written in a cursive style with a large initial "T" and a long horizontal stroke.

Tim Lloyd, Ph.D., RPA
Scientist - Archaeology
timothy.lloyd@parks.ny.gov

via e-mail only



Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

March 29, 2016

Ms. Sangamithra Iyer
Director
NYC Dept. of Environmental Protection
59-17 Junction Blvd., 11th Floor
Flushing, NY 11373

Re: USACE
Water for the Future - Catskill Aqueduct Repair and Rehabilitation
15PR01262
CEQR 15DEP006U

Dear Ms. Iyer:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the submitted materials in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York State Environmental Conservation Law Article 8).

I have reviewed the materials submitted under the title of Addendum #3, with cover letter dated March 21, 2016, regarding revisions to the scope of work. SHPO concurs with the assessments regarding the potential need for additional archaeological investigation listed in the Site Summary Table included as Appendix B in your submission. SHPO also concurs with your assessment that no archaeological work is necessary for the culvert drain repairs.

I have reviewed the materials submitted regarding the following two work sites.

- Rondout Pressure Tunnel Shaft 7 Leak, Station 677+15, Town of Marbletown, Ulster County.
- Lucas Turnpike Access Road, Station 585+97, Town of Marbletown, Ulster County.

SHPO has no concerns regarding potential impacts to archaeological resources associated with the proposed project-related activities at these two locations, and it is SHPO's recommendation that no archaeological investigations are necessary.

Division for Historic Preservation

P.O. Box 189, Waterford, New York 12188-0189 • (518) 237-8643 • www.nysparks.com

Ms. Sangamithra Iyer
March 29, 2016
Page 2

If further correspondence is required regarding this project, please refer to the OPRHP Project Review (PR) number noted above. If you have any questions I can be reached at 518-268-2186.

Sincerely,

A handwritten signature in black ink, appearing to read "Tim Lloyd". The signature is written in a cursive style with a large initial "T" and a long horizontal stroke.

Tim Lloyd, Ph.D., RPA
Scientist - Archaeology
timothy.lloyd@parks.ny.gov

via e-mail only



Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

August 01, 2016

Ms. Sangamithra Iyer
Director
NYC Dept. of Environmental Protection
59-17 Junction Blvd., 11th Floor
Flushing, NY 11373

Re: USACE
Water for the Future - Catskill Aqueduct Repair and Rehabilitation
15PR01262
CEQR 15DEP006U

Dear Ms. Iyer:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the submitted materials in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York State Environmental Conservation Law Article 8).

I have reviewed the material submitted under the title of Addendum #4, with cover letter dated July 19, 2016, regarding revisions to the scope of work. SHPO concurs with the assessments regarding the potential need for additional archaeological investigation listed in the Site Summary Table included as Appendix B in your submission. SHPO also concurs that there is no need for archaeological investigations for the revisions to the scope of work for the Leak 3A and 3B Access Road (Stations 578+40 and 579+35) (Marbletown, Ulster County).

If further correspondence is required regarding this project, please refer to the SHPO Project Review (PR) number noted above. If you have any questions I can be reached at 518-268-2186.

Sincerely,

Tim Lloyd, Ph.D., RPA
Scientist - Archaeology
timothy.lloyd@parks.ny.gov

via e-mail only

Division for Historic Preservation

P.O. Box 189, Waterford, New York 12188-0189 • (518) 237-8643 • www.nysparks.com

Proposed Water for the Future System Shutdown Operations



Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

September 14, 2015

Ms. Jennifer Farmwald
Senior Project Manager
NYC Dept. of Environmental Protection
59-17 Junction Blvd., 11th Floor
Flushing, NY 11373

Re: USACE
Water for the Future - Shutdown Systems Operation
Delaware Aqueduct
15PR01264
CEQR 15DEP006U

Dear Ms. Farmwald:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the submitted materials in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources.

I have reviewed your letter dated September 11, 2015, summarizing the findings of the geomorphological analysis of the effects of the Shutdown System Operation on the flow of the Rondout Creek. Given that the analysis indicates that significant stream bank erosion is not anticipated, it is SHPO's opinion that Shutdown System Operation will have No Effect upon cultural resources in or eligible for inclusion in the National Registers of Historic Places.

If further correspondence is required regarding this project, please refer to the OPRHP Project Review (PR) number noted above. If you have any questions I can be reached at 518-268-2186.

Sincerely,

Tim Lloyd, Ph.D., RPA
Scientist - Archaeology
timothy.lloyd@parks.ny.gov

via e-mail only

Division for Historic Preservation

P.O. Box 189, Waterford, New York 12188-0189 • (518) 237-8643 • www.nysparks.com

Proposed Rondout-West Branch Tunnel Inspection and Repair



**Parks, Recreation
and Historic Preservation**

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

March 26, 2015

Ms. Jennifer Farmwald
Senior Project Manager
NYC Dept. of Environmental Protection
59-17 Junction Blvd., 11th Floor
Flushing, NY 11373

Re: USACE
Water for the Future - Catskill Aqueduct Repair and Rehabilitation
Catskill Aqueduct
15PR01262
CEQR 15DEP006U

Dear Ms. Farmwald:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the submitted materials in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York State Environmental Conservation Law Article 8).

We have reviewed the materials submitted regarding leak repairs in in the Wawarsing Study Area (letter from NYC DEP dated January 13, 2015). We have no concerns regarding the Wawarsing Study Area leak repairs' effects on archaeological and/or historic resources in or eligible for inclusion in the National Registers of Historic Places.

If further correspondence is required regarding this project, please refer to the OPRHP Project Review (PR) number noted above. If you have any questions I can be reached at 518-268-2186.

Sincerely,

Tim Lloyd, Ph.D., RPA
Historic Preservation Specialist - Archaeology
timothy.lloyd@parks.ny.gov

via e-mail only

Division for Historic Preservation

P.O. Box 189, Waterford, New York 12188-0189 • (518) 237-8643 • www.nysparks.com



Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

July 09, 2015

Ms. Jennifer Farmwald
Senior Project Manager
NYC Dept. of Environmental Protection
59-17 Junction Blvd., 11th Floor
Flushing, NY 11373

Re: USACE
Water for the Future - Rondout-West Branch Tunnel Inspection and Repair
Rondout-West Branch Tunnel
15PR01263
CEQR 15DEP006U

Dear Ms. Farmwald:

Thank you for continuing to consult with the New York State Historic Preservation Office (SHPO). We have reviewed the provided documentation in accordance with Section 106 of the National Historic Preservation Act of 1966.

We have reviewed the submitted DEP ACES Architectural Survey, Newburgh, the Vicinity of River Road and Old Post Road dated June 2015. Based upon this review, please see the attachment with the list of property determinations. We look forward to continued consultation regarding potential impacts to historic resources.

If you have any questions, I can be reached at (518) 268-2181.

Sincerely,

Beth A. Cumming
Senior Historic Site Restoration Coordinator
e-mail: beth.cumming@parks.ny.gov

via e-mail only

Determinations from Architectural Reconnaissance Survey in the Vicinity of River Road
and Old Post Road in the Town of Newburgh, 15SD00358

USN number	Property name	Property address	Status
07114.000227	Cedar Hill Cemetery, Mausoleum	5470 Route 9W, Newburgh NY 12250	Not Eligible
07114.000228	Cedar Hill Cemetery, crematorium	5470 Route 9W, Newburgh NY 12250	Not Eligible
07114.000229	Cedar Hill Cemetery, office building	5470 Route 9W, Newburgh NY 12250	Not Eligible
07114.000230	Big Boyz Toys	5512 Route 9W, Newburgh NY 12250	Not Eligible
07114.000233	Cedar Hill Cemetery, maintenance buildings	5470 Route 9W, Newburgh NY 12250	Not Eligible
07114.000210	Our Lady of Mercy RC Church	977 River Road, Newburgh NY 12250	Eligible
07114.000054	RESIDENCE	913 River Road, Newburgh NY 12250	Not Eligible
07114.000055	RESIDENCE	915 River Road, Newburgh NY 12250	Not Eligible
07114.000208	Residence (Bungalow) and barn	51 Old Post Road, Newburgh NY 12250	Eligible
07114.000234	Residence	43 Old Post Road, Newburgh NY 12250	Not Eligible
07114.000235	Residence	53 Old Post Road, Newburgh NY 12250	Not Eligible
07114.000236	Residence	117 Old Post Road, Newburgh NY 12250	Not Eligible
07114.000237	Residence	141 Old Post Road, Newburgh NY 12250	Not Eligible
07114.000238	Residence, barn, privy	125 Old Post Road, Newburgh NY 12250	Eligible
07114.000239	Ruins	90 Old Post Road, Newburgh NY 12250	Not Eligible
07114.000240	Residence	60 Old Post Road, Newburgh NY 12250	Not Eligible
07114.000241	Residence	58 Old Post Road, Newburgh NY 12250	Not Eligible
07114.000242	Residence	1100 River Road, Newburgh NY 12250	Not Eligible
07114.000243	1092 River Road	1092 River Road, Newburgh NY 12250	Not Eligible
07114.000245	Danskammer Power Generating Station	River Road, Newburgh NY 12250	Not Eligible
07114.000247	Residence	104 Old Post Road, Newburgh NY 12250	Not Eligible
07114.000248	Residence	106 Old Post Road, Newburgh NY 12250	Not Eligible

U. S. Army Corps of Engineers



DEPARTMENT OF THE ARMY
NEW YORK DISTRICT, CORPS OF ENGINEERS
JACOB K. JAVITS FEDERAL BUILDING
26 FEDERAL PLAZA
NEW YORK, NEW YORK 10278-0090

JAN 21 2015

Regulatory Branch

SUBJECT: Permit Application Number NAN-2014-01045-WOR
by New York City Department of Environmental Protection

Philip W. Simmons
Permit Resource Division
New York City Department of
Environmental Protection
96-05 Horace Harding Expressway
Corona, New York 11368

Dear Mr. Simmons:

On August 27, 2014, the New York District of the U.S. Army Corps of Engineers received a request for a Department of the Army jurisdictional determination for three separate leak sites along the Catskill Aqueduct. The three project sites (Study Area 1, Study Area 2 and Study Area 7) consist of a total of approximately 5.2 acres, located in the Town of Marbletown, Ulster County and Town of Yorktown, Westchester County, New York. The proposed project would involve repair work at the three leak sites.

In the letter received on August 27, 2014, your office submitted a proposed delineation of the extent of waters of the United States within the three project boundaries. A site inspection was conducted by a representative of this office on October 30, 2014, in which it was agreed that changes would be made to the delineation and that the modified delineation would be submitted to this office. On November 24, 2014, this office received the modified delineation.

Based on the material submitted and the observations of the representative of this office during the site visit, this site has been determined to contain jurisdictional waters of the United States based on: the presence of wetlands determined by the occurrence of hydrophytic vegetation, hydric soils and wetland hydrology according to criteria established in the 1987 "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1 that are either adjacent to or part of a tributary system; the presence of a defined water body (e.g. stream channel, lake, pond, river, etc.) which is part of a tributary system; and the fact that the location includes property below the ordinary high water mark, high tide line or mean high water mark of a water body as determined by known gage data or by the presence of physical markings including, but not limited to, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter or debris or other characteristics of the surrounding area.

These jurisdictional waters of the United States are shown on the enclosed drawings entitled "Catskill Aqueduct Repair and Rehabilitation Delineation Results for Study Area 1" and "Catskill Aqueduct Repair and Rehabilitation Delineation Results for Study Area 7", prepared by the New York City Department of Environmental Protection, undated. These drawings indicate that there is one (1) principal wetland area and one (1) stream channel within the project boundaries which are part of a tributary system, and are considered to be waters of the United States. The wetland (7-WL) is located on the western-most portion of Study Area 7 and is approximately 0.07 acres within Study Area 7. The stream (Unnamed Tributary to Esopus Creek) is located on the eastern portion of Study Area 1 and is approximately 0.035 acres within Study Area 1.

It should be noted that Study Area 2, as shown on the enclosed drawing entitled "Catskill Aqueduct Repair and Rehabilitation Delineation Results for Study Area 2", has been determined to contain no jurisdictional waters of the United States. The areas mapped as Non-jurisdictional Waters 1A-FP (Study Area 1), 1B-FP (Study Area 1), 2-FP (Study Area 2) and 7-FP (Study Area 7) are not considered to be jurisdictional under Section 404 of the Clean Water Act, as they were created within uplands by leaking portions of the Catskill Aqueduct.

This determination regarding the delineation shall be considered valid for a period of five years from the date of this letter unless new information warrants revision of the determination before the expiration date.

This determination was documented using the Approved Jurisdictional Determination Form, promulgated by the Corps of Engineers in June 2007. A copy of that document is enclosed with this letter, and will be posted on the New York District website at:
<http://www.nan.usace.army.mil/Missions/Regulatory/JurisdictionalDeterminations/RecentJurisdictionalDeterminations.aspx>

This delineation/determination has been conducted to identify the limits of the Corps Clean Water Act jurisdiction for the particular site identified in this request. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed is a combined Notification of Appeal Process (NAP) and Request For Appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the North Atlantic Division Office at the following address:

James W. Haggerty, Regulatory Program Manager, CENAD-PD-OR
North Atlantic Division, U.S. Army Engineer Division
Fort Hamilton Military Community
General Lee Avenue, Building 301
Brooklyn, New York 11252-6700

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by MAR 23 2015. It is not necessary to submit an RFA form to the Division Office if you do not object to the determination in this letter.

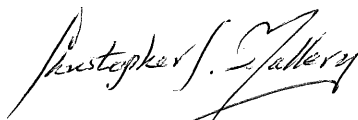
This delineation/determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

It is strongly recommended that the development of the site be carried out in such a manner as to avoid as much as possible the discharge of dredged or fill material into the delineated waters of the United States. If the activities proposed for the site involve such discharges, authorization from this office may be necessary prior to the initiation of the proposed work. The extent of such discharge of fill will determine the level of authorization that would be required.

In order for us to better serve you, please complete our Customer Service Survey located at <http://www.nan.usace.army.mil/Missions/Regulatory/CustomerSurvey.aspx>.

If any questions should arise concerning this matter, please contact Brian A. Orzel, of my staff, at (917) 790-8413.

Sincerely,



Christopher S. Mallery, Ph.D.
Chief, Western Section

Enclosures

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: New York City Department of Environmental Protection	File Number: NAN-2014-01045-WOR	Date: JAN 21 2015
Attached is:		See Section Below
<input type="checkbox"/>	INITIAL PROFFERED PERMIT (Standard Permit or Letter of Permission)	A
<input type="checkbox"/>	PROFFERED PERMIT (Standard Permit or Letter of Permission)	B
<input type="checkbox"/>	PERMIT DENIAL	C
<input checked="" type="checkbox"/>	APPROVED JURISDICTIONAL DETERMINATION	D
<input type="checkbox"/>	PRELIMINARY JURISDICTIONAL DETERMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/CECW/Pages/reg_permit.aspx or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the New York District Engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations (JD) associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the New York District Engineer. Your objections must be received by the New York District Engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the New York District Engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns; (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the New York District Engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the New York District Engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the North Atlantic Division Engineer, ATTN: CENAD-PD-PSD-O, Fort Hamilton Military Community, Building 301, General Lee Avenue, Brooklyn, NY 11252-6700. This form must be received by the Division Engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the North Atlantic Division Engineer, ATTN: CENAD-PD-PSD-O, Fort Hamilton Military Community, Building 301, General Lee Avenue, Brooklyn, NY 11252-6700. This form must be received by the Division Engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the North Atlantic Division Engineer within 60 days of the date of this notice with a copy furnished to the New York District Engineer.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps

district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:

Jodi M. McDonald
U.S. Army Corps of Engineers, New York District
Jacob K. Javits Federal Building
New York, NY 10278-0090
(917) 790-8720

If you only have questions regarding the appeal process you may also contact:

James W. Haggerty, Regulatory Program Manager, CENAD-PD-OR
North Atlantic Division, U.S. Army Engineer Division
Fort Hamilton Military Community
General Lee Avenue, Building 301
Brooklyn, NY 11252-6700
(347) 370-4650
E-mail: James.W.Haggerty@usace.army.mil

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.

Date:

Telephone number:

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): January 21, 2015

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: New York District, New York City Department of Environmental Protection, NAN-2014-01045-WOR-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION: ,

State: New York County/parish/borough: Westchester City: Yorktown
Center coordinates of site (lat/long in degree decimal format): Lat. 41.2321° **N**, Long. 73.8090° **W**.
Universal Transverse Mercator:

Name of nearest waterbody: Unnamed Tributary to New Croton Reservoir
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Hudson River
Name of watershed or Hydrologic Unit Code (HUC): 02020008

- Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
 Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

- Office (Desk) Determination. Date:
 Field Determination. Date(s): October 30, 2014

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

- Waters subject to the ebb and flow of the tide.
 Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- TNWs, including territorial seas
 Wetlands adjacent to TNWs
 Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
 Non-RPWs that flow directly or indirectly into TNWs
 Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
 Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
 Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
 Impoundments of jurisdictional waters
 Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: linear feet: width (ft) and/or acres.
Wetlands: 0.07 acres.

c. Limits (boundaries) of jurisdiction based on: **Pick List**

Elevation of established OHWM (if known): .

2. Non-regulated waters/wetlands (check if applicable):³

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: .

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is “adjacent”:

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are “relatively permanent waters” (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: **Pick List**

Drainage area: 17.2 **acres**

Average annual rainfall: 45.7 inches

Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through **2** tributaries before entering TNW.

Project waters are **5-10** river miles from TNW.

Project waters are **1 (or less)** river miles from RPW.

Project waters are **2-5** aerial (straight) miles from TNW.

Project waters are **1 (or less)** aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW⁵: Wetland 7-WL flows directly into a seasonal unnamed tributary to the Croton River, into the Croton River, then directly into the Hudson River, which is a TNW.

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):

Tributary is: Natural
 Artificial (man-made). Explain: .
 Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):

Average width: 5 feet
Average depth: 1 feet
Average side slopes: **2:1**.

Primary tributary substrate composition (check all that apply):

Silts Sands Concrete
 Cobbles Gravel Muck
 Bedrock Vegetation. Type/% cover:
 Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: relatively stable.

Presence of run/riffle/pool complexes. Explain: .

Tributary geometry: **Relatively straight**

Tributary gradient (approximate average slope): 5 %

(c) Flow:

Tributary provides for: **Seasonal flow**

Estimate average number of flow events in review area/year: **20 (or greater)**

Describe flow regime: .

Other information on duration and volume: .

Surface flow is: **Discrete and confined**. Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

Dye (or other) test performed: .

Tributary has (check all that apply):

Bed and banks
 OHWM⁶ (check all indicators that apply):
 clear, natural line impressed on the bank the presence of litter and debris
 changes in the character of soil destruction of terrestrial vegetation
 shelving the presence of wrack line
 vegetation matted down, bent, or absent sediment sorting
 leaf litter disturbed or washed away scour
 sediment deposition multiple observed or predicted flow events
 water staining abrupt change in plant community
 other (list):
 Discontinuous OHWM.⁷ Explain:!!!!.

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

High Tide Line indicated by: Mean High Water Mark indicated by:
 oil or scum line along shore objects survey to available datum;
 fine shell or debris deposits (foreshore) physical markings;
 physical markings/characteristics vegetation lines/changes in vegetation types.
 tidal gauges
 other (list):

(iii) **Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: .

Identify specific pollutants, if known: .

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- Riparian corridor. Characteristics (type, average width):
- Wetland fringe. Characteristics:
- Habitat for:
 - Federally Listed species. Explain findings:
 - Fish/spawn areas. Explain findings:
 - Other environmentally-sensitive species. Explain findings:
 - Aquatic/wildlife diversity. Explain findings:

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: 0.07 acres

Wetland type. Explain: forested.

Wetland quality. Explain: good.

Project wetlands cross or serve as state boundaries. Explain: No.

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain:

Surface flow is: **Discrete and confined**

Characteristics:

Subsurface flow: **Pick List**. Explain findings:

- Dye (or other) test performed:

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain:

Ecological connection. Explain:

Separated by berm/barrier. Explain:

(d) Proximity (Relationship) to TNW

Project wetlands are **5-10** river miles from TNW.

Project waters are **2-5** aerial (straight) miles from TNW.

Flow is from: **Wetland to navigable waters**.

Estimate approximate location of wetland as within the **100 - 500-year** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain:

Identify specific pollutants, if known:

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

- Riparian buffer. Characteristics (type, average width):
- Vegetation type/percent cover. Explain: forested/75%.
- Habitat for:
 - Federally Listed species. Explain findings: possible habitat for Indiana bats.
 - Fish/spawn areas. Explain findings:
 - Other environmentally-sensitive species. Explain findings:
 - Aquatic/wildlife diversity. Explain findings:

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **1**

Approximately (0.07) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
7-WL	Y		0.07

Summarize overall biological, chemical and physical functions being performed: Wetland 7-WL and the seasonal stream that it directly abuts, can retain, convert, and cycle the pollutants from nearby roads and the hillside that would otherwise directly enter the TNW. Furthermore, during large storm events, the wetlands can serve as a flood storage areas.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
 TNWs: linear feet width (ft), Or, acres.
 Wetlands adjacent to TNWs: acres.
2. **RPWs that flow directly or indirectly into TNWs.**
 Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
 Tributaries of TNW where tributaries have continuous flow “seasonally” (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: Water within Wetland 7-WL flows off the project boundary, then directly into a seasonal, unnamed tributary to the

Croton River. Aerial photography, the Ossining, NY USGS quadrangle map, field observations clearly showing the off-site stream, and annual rainfall of 45.7 inches indicate that the off-site stream flows at least three consecutive months.

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: 100 linear feet 5 width (ft).
- Other non-wetland waters: acres.
- Identify type(s) of waters: .

3. Non-RPWs⁸ that flow directly or indirectly into TNWs.

- Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- Tributary waters: linear feet width (ft).
- Other non-wetland waters: acres.
- Identify type(s) of waters: .

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
 - Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
 - Wetlands directly abutting an RPW where tributaries typically flow “seasonally.” Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: The seasonal RPW flows through the western, off-site portion of Wetland 7-WL.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

- Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

- Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.⁹

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- Demonstrate that impoundment was created from “waters of the U.S.,” or
- Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
- Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
- from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.

⁸See Footnote # 3.

⁹To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

- which are or could be used for industrial purposes by industries in interstate commerce.
- Interstate isolated waters. Explain: .
- Other factors. Explain: .

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: linear feet width (ft).
- Other non-wetland waters: acres.
Identify type(s) of waters: .
- Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
 - Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
- Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps: .
- Corps navigable waters' study: .
- U.S. Geological Survey Hydrologic Atlas: .
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name:Ossining, NY.
- USDA Natural Resources Conservation Service Soil Survey. Citation:Westchester County, NY.
- National wetlands inventory map(s). Cite name:Ossining, NY.
- State/Local wetland inventory map(s):Ossining, NY.
- FEMA/FIRM maps: .
- 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): .
or Other (Name & Date): .
- Previous determination(s). File no. and date of response letter: .
- Applicable/supporting case law: .
- Applicable/supporting scientific literature: .
- Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD:

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): January 21, 2015

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: New York District, New York City Department of Environmental Protection, NAN-2014-01045-WOR-JD2

C. PROJECT LOCATION AND BACKGROUND INFORMATION: ,

State: New York County/parish/borough: Ulster City: Marbletown
Center coordinates of site (lat/long in degree decimal format): Lat. 41.8989° **N**, Long. 74.1676° **W**.
Universal Transverse Mercator:

Name of nearest waterbody: Unnamed Tributary to Esopus Creek
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Hudson River
Name of watershed or Hydrologic Unit Code (HUC): 02020008

- Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
 Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

- Office (Desk) Determination. Date:
 Field Determination. Date(s): October 30, 2014

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

- Waters subject to the ebb and flow of the tide.
 Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- TNWs, including territorial seas
 Wetlands adjacent to TNWs
 Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
 Non-RPWs that flow directly or indirectly into TNWs
 Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
 Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
 Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
 Impoundments of jurisdictional waters
 Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: 270 linear feet: 5 width (ft) and/or 0.035 acres.
Wetlands: . acres.

c. Limits (boundaries) of jurisdiction based on: **Pick List**

Elevation of established OHWM (if known): .

2. Non-regulated waters/wetlands (check if applicable):³

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: .

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is “adjacent”:

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are “relatively permanent waters” (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: **Pick List**

Drainage area: **Pick List**

Average annual rainfall: inches

Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.

Project waters are **Pick List** river miles from RPW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Project waters are **Pick List** aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW⁵: .

Tributary stream order, if known: .

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

- Tributary is:** Natural
 Artificial (man-made). Explain:
 Manipulated (man-altered). Explain:

Tributary properties with respect to top of bank (estimate):

- Average width: feet
Average depth: feet
Average side slopes: **Pick List**.

Primary tributary substrate composition (check all that apply):

- | | | |
|------------------------------------------|----------------------------------------------------|-----------------------------------|
| <input type="checkbox"/> Silts | <input type="checkbox"/> Sands | <input type="checkbox"/> Concrete |
| <input type="checkbox"/> Cobbles | <input type="checkbox"/> Gravel | <input type="checkbox"/> Muck |
| <input type="checkbox"/> Bedrock | <input type="checkbox"/> Vegetation. Type/% cover: | |
| <input type="checkbox"/> Other. Explain: | | |

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain:

Presence of run/riffle/pool complexes. Explain:

Tributary geometry: Pick List

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: Pick List

Estimate average number of flow events in review area/year: Pick List

Describe flow regime:

Other information on duration and volume:

Surface flow is: Pick List. Characteristics:

Subsurface flow: Pick List. Explain findings:

- Dye (or other) test performed:

Tributary has (check all that apply):

- | | |
|-------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <input type="checkbox"/> Bed and banks | |
| <input type="checkbox"/> OHWM ⁶ (check all indicators that apply): | |
| <input type="checkbox"/> clear, natural line impressed on the bank | <input type="checkbox"/> the presence of litter and debris |
| <input type="checkbox"/> changes in the character of soil | <input type="checkbox"/> destruction of terrestrial vegetation |
| <input type="checkbox"/> shelving | <input type="checkbox"/> the presence of wrack line |
| <input type="checkbox"/> vegetation matted down, bent, or absent | <input type="checkbox"/> sediment sorting |
| <input type="checkbox"/> leaf litter disturbed or washed away | <input type="checkbox"/> scour |
| <input type="checkbox"/> sediment deposition | <input type="checkbox"/> multiple observed or predicted flow events |
| <input type="checkbox"/> water staining | <input type="checkbox"/> abrupt change in plant community |
| <input type="checkbox"/> other (list): | |
| <input type="checkbox"/> Discontinuous OHWM. ⁷ Explain:!!!! | |

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

- | | |
|--------------------------------------------------------------------|------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> High Tide Line indicated by: | <input checked="" type="checkbox"/> Mean High Water Mark indicated by: |
| <input type="checkbox"/> oil or scum line along shore objects | <input type="checkbox"/> survey to available datum; |
| <input type="checkbox"/> fine shell or debris deposits (foreshore) | <input type="checkbox"/> physical markings; |
| <input type="checkbox"/> physical markings/characteristics | <input type="checkbox"/> vegetation lines/changes in vegetation types. |
| <input type="checkbox"/> tidal gauges | |
| <input type="checkbox"/> other (list): | |

(iii) **Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain:

Identify specific pollutants, if known:

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- Riparian corridor. Characteristics (type, average width): .
- Wetland fringe. Characteristics: .
- Habitat for:
 - Federally Listed species. Explain findings: .
 - Fish/spawn areas. Explain findings: .
 - Other environmentally-sensitive species. Explain findings: .
 - Aquatic/wildlife diversity. Explain findings: .

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is: **Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain: .

Ecological connection. Explain: .

Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

- Riparian buffer. Characteristics (type, average width): .
- Vegetation type/percent cover. Explain: .
- Habitat for:
 - Federally Listed species. Explain findings: possible habitat for Indiana bats.
 - Fish/spawn areas. Explain findings: .
 - Other environmentally-sensitive species. Explain findings: .
 - Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately () acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N) Size (in acres) Directly abuts? (Y/N) Size (in acres)

Summarize overall biological, chemical and physical functions being performed:

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
 TNWs: linear feet width (ft), Or, acres.
 Wetlands adjacent to TNWs: acres.
2. **RPWs that flow directly or indirectly into TNWs.**
 Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial:
 Tributaries of TNW where tributaries have continuous flow “seasonally” (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: Water within the Unnamed tributary to Esopus Creek flows off the project boundary, then into Esopus Creek, which flows to the Hudson River. Aerial photography, the Ashokan, NY USGS quadrangle map, field observations clearly showing the on-site stream, and annual rainfall of 47.3 inches indicate that the off-site stream flows at least three consecutive months.

Provide estimates for jurisdictional waters in the review area (check all that apply):

Tributary waters: **270** linear feet **5** width (ft).

Other non-wetland waters: acres.

Identify type(s) of waters: .

3. Non-RPWs⁸ that flow directly or indirectly into TNWs.

- Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

Tributary waters: linear feet width (ft).

Other non-wetland waters: acres.

Identify type(s) of waters: .

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
- Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
- Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

- Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

- Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.⁹

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- Demonstrate that impoundment was created from "waters of the U.S.," or
- Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
- Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
- from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- which are or could be used for industrial purposes by industries in interstate commerce.
- Interstate isolated waters. Explain: .

⁸See Footnote # 3.

⁹To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):

Tributary waters: linear feet width (ft).

Other non-wetland waters: acres.

Identify type(s) of waters: .

Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.

Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.

Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).

Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .

Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

Non-wetland waters (i.e., rivers, streams): linear feet width (ft).

Lakes/ponds: acres.

Other non-wetland waters: acres. List type of aquatic resource: .

Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).

Lakes/ponds: acres.

Other non-wetland waters: acres. List type of aquatic resource: .

Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .

Data sheets prepared/submitted by or on behalf of the applicant/consultant.

Office concurs with data sheets/delineation report.

Office does not concur with data sheets/delineation report.

Data sheets prepared by the Corps: .

Corps navigable waters' study: .

U.S. Geological Survey Hydrologic Atlas: .

USGS NHD data.

USGS 8 and 12 digit HUC maps.

U.S. Geological Survey map(s). Cite scale & quad name:Ossining, NY.

USDA Natural Resources Conservation Service Soil Survey. Citation:Westchester County, NY.

National wetlands inventory map(s). Cite name:Ossining, NY.

State/Local wetland inventory map(s):Ossining, NY.

FEMA/FIRM maps: .

100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)

Photographs: Aerial (Name & Date): .

or Other (Name & Date): .

Previous determination(s). File no. and date of response letter: .

Applicable/supporting case law: .

Applicable/supporting scientific literature: .

Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: .

U. S. Fish and Wildlife Service



United States Department of the Interior



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3817 LUKER ROAD
CORTLAND, NY 13045
PHONE: (607)753-9334 FAX: (607)753-9699
URL: www.fws.gov/northeast/nyfo/es/section7.htm

Consultation Tracking Number: 05E1NY00-2013-SLI-0394

March 27, 2013

Project Name: Catskill Aqueduct Optimization & Leak Repairs

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, and proposed species, designated critical habitat, and candidate species 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: Catskill Aqueduct Optimization & Leak Repairs

Official Species List

Provided by:

NEW YORK ECOLOGICAL SERVICES FIELD OFFICE
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(607) 753-9334
<http://www.fws.gov/northeast/nyfo/es/section7.htm>

Consultation Tracking Number: 05E1NY00-2013-SLI-0394

Project Type: Water Withdrawal / Depletion

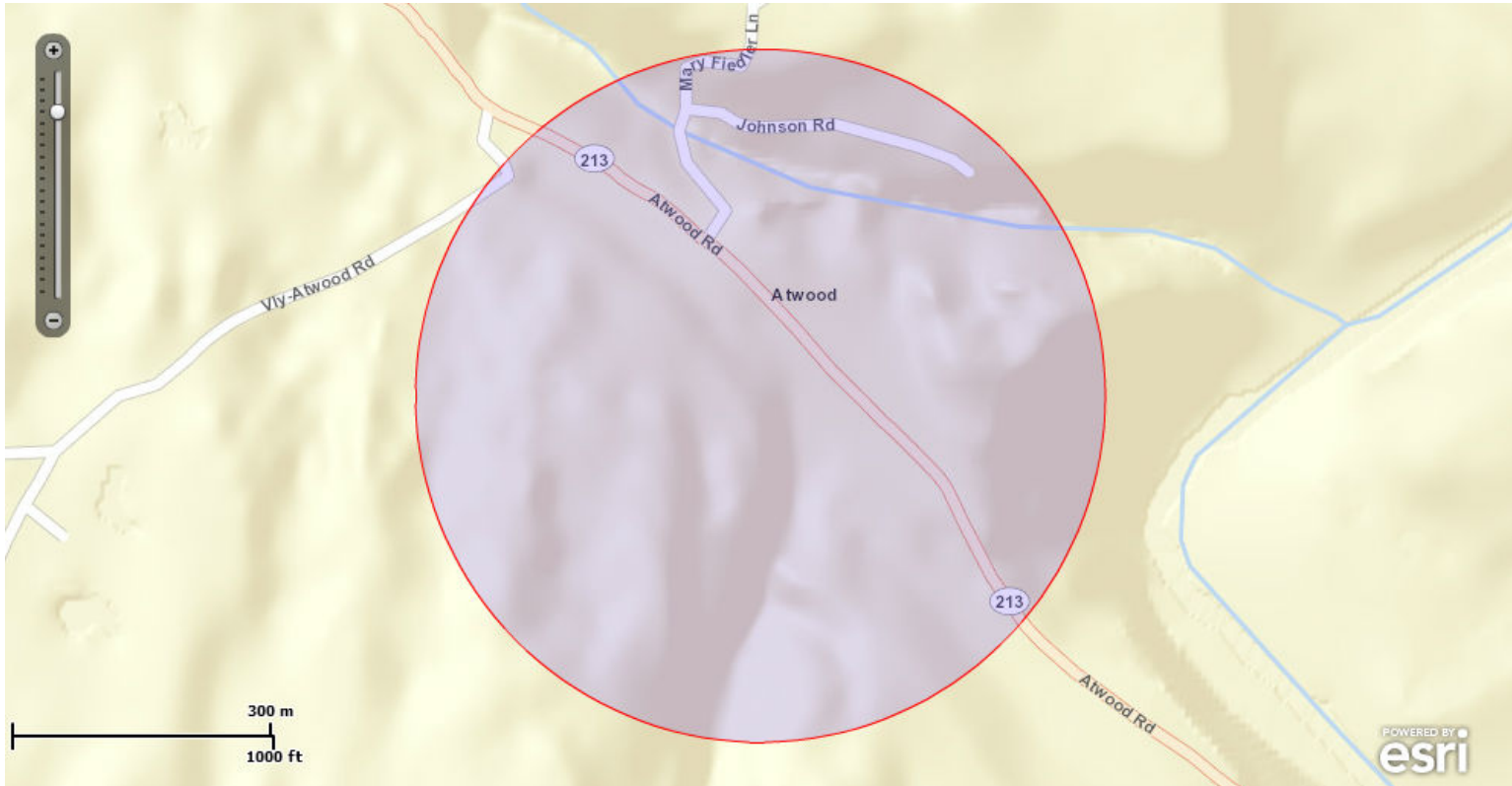
Project Description: The DEP proposes to repair multiple leaks in the Catskill Aqueduct that runs from the Ashokan Reservoir south through Newburgh, beneath the Hudson River and continues south into New York City. Additionally, the Catskill Aqueduct would be restored to historic carrying capacity. Options include various cleaning or lining methods, upstream chemical addition, a possible downstream dechlorination facility, and increasing vent capacity by rehabilitating existing and constructing new vent structures.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-74.1710562 41.9063381, -74.1701969 41.9062745, -74.1695698 41.9061525, -74.1691663 41.9060369, -74.1684085 41.9057278, -74.167895 41.9054326, -74.1675839 41.9052085, -74.1670478 41.9047028, -74.166827 41.9044253, -74.16656 41.9039843, -74.166374 41.9035206, -74.1662968 41.9032029, -74.1662571 41.9025586, -74.1663282 41.9020774, -74.1664231 41.9017625, -74.1667233 41.9011577, -74.1671622 41.9006022, -74.1675743 41.9002287, -74.1678845 41.9000039, -74.1685788 41.8996205, -74.1691534 41.8993968, -74.1695564 41.8992803, -74.1699717 41.8991911, -74.1706104 41.8991099, -74.1714737 41.8991018, -74.1723253 41.8992081, -74.1731382 41.8994256, -74.1738865 41.8997472, -74.174229 41.8999441, -74.1746954 41.9002801, -74.1750978 41.9006595, -74.1753268 41.9009333, -74.1756827 41.901521, -74.1758548 41.9019876, -74.1759226 41.9023065, -74.1759431 41.9029513, -74.1758958 41.9032722, -74.1757536 41.9037445, -74.1754355 41.9043441, -74.1749801 41.9048922, -74.1744019 41.9053712, -74.1737191 41.9057661, -74.1729535 41.9060643, -74.1721291 41.9062563, -74.1714881 41.9063269, -74.1710562 41.9063381)))



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Project Counties: Ulster, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Endangered Species Act Species List

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Bog Turtle (*Clemmys muhlenbergii*)

Population: northern

Listing Status: Threatened

Indiana bat (*Myotis sodalis*)

Population: Entire

Listing Status: Endangered

Northern Wild monkshood (*Aconitum noveboracense*)

Listing Status: Threatened



United States Department of the Interior



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Consultation Tracking Number: 05E1NY00-2013-SLI-0395

March 27, 2013

Project Name: Catskill Aqueduct Optimization & Leak Repairs

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

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Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Official Species List

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

Consultation Tracking Number: 05E1NY00-2013-SLI-0395

Project Type: Water Withdrawal / Depletion

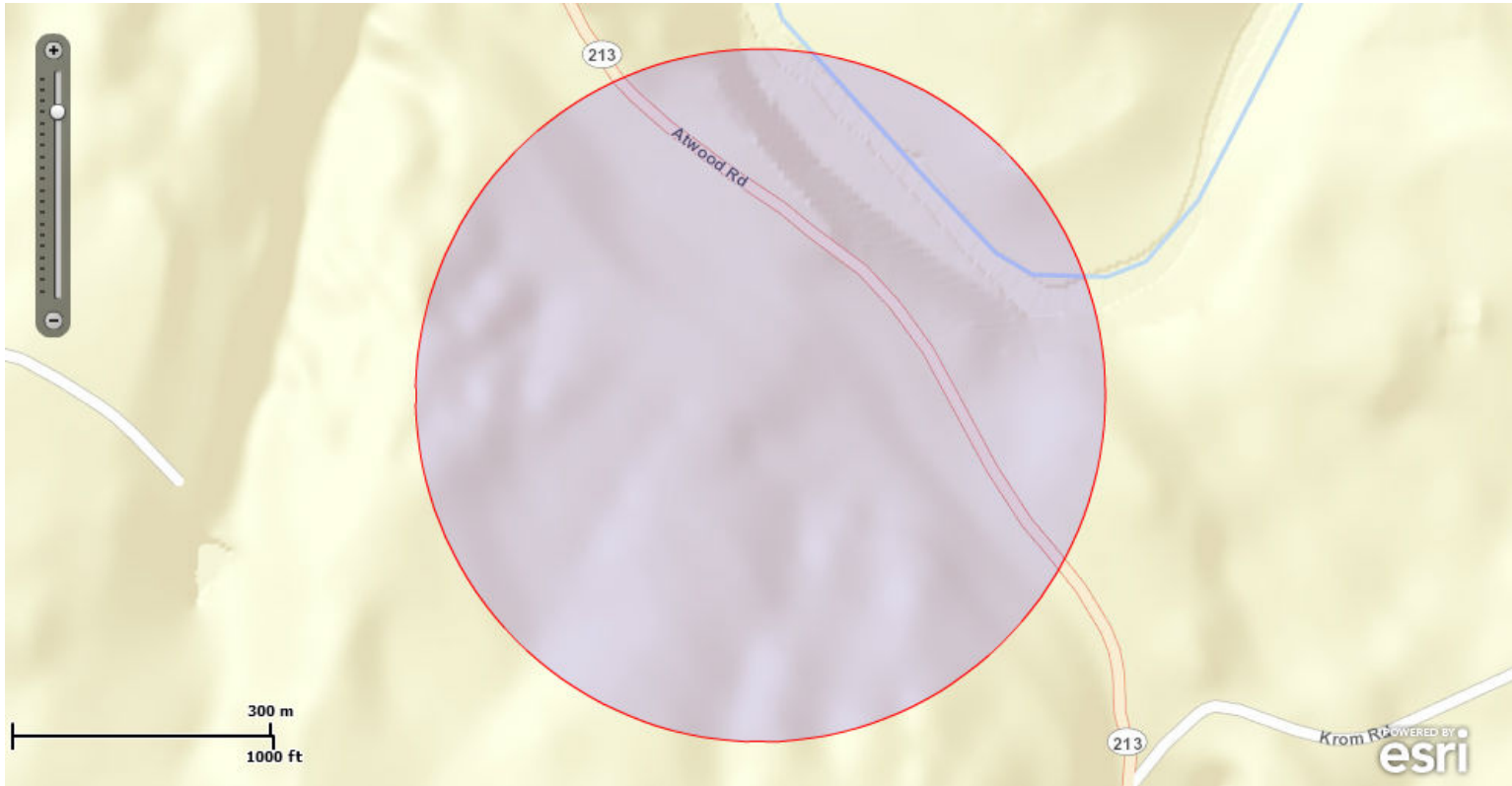
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United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-74.1653192 41.9006223, -74.16446 41.9005587, -74.163833 41.9004367, -74.1634295 41.9003211, -74.1630414 41.9001791, -74.1624948 41.8999192, -74.1618473 41.8994925, -74.1614338 41.8991198, -74.1611968 41.8988499, -74.1608236 41.8982682, -74.1606904 41.8979611, -74.1605605 41.8974869, -74.1605209 41.8968425, -74.1606348 41.8962032, -74.160819 41.8957391, -74.1609872 41.8954417, -74.1614261 41.8948862, -74.1616934 41.8946326, -74.1621483 41.894288, -74.1628427 41.8939046, -74.1634172 41.8936809, -74.1638202 41.8935645, -74.1644466 41.8934411, -74.1648741 41.8933941, -74.1657374 41.893386, -74.1665888 41.8934924, -74.1672035 41.8936454, -74.1675957 41.8937809, -74.168324 41.8941272, -74.1688099 41.8944473, -74.1691002 41.8946864, -74.1695899 41.8952177, -74.1699457 41.8958054, -74.1701564 41.8964309, -74.1702051 41.8967517, -74.170206 41.8972358, -74.1700732 41.8978731, -74.1697912 41.8984828, -74.169487 41.8989102, -74.1692429 41.8991766, -74.1686647 41.8996556, -74.167982 41.9000504, -74.1672163 41.9003486, -74.1663921 41.9005406, -74.1657511 41.9006111, -74.1653192 41.9006223)))



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Project Counties: Ulster, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

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Listing Status: Threatened

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Listing Status: Threatened



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URL: www.fws.gov/northeast/nyfo/es/section7.htm

Consultation Tracking Number: 05E1NY00-2013-SLI-0396

March 27, 2013

Project Name: Catskill Aqueduct Optimization & Leak Repairs

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

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3817 LUKER ROAD
CORTLAND, NY 13045
(607) 753-9334
<http://www.fws.gov/northeast/nyfo/es/section7.htm>

Consultation Tracking Number: 05E1NY00-2013-SLI-0396

Project Type: Water Withdrawal / Depletion

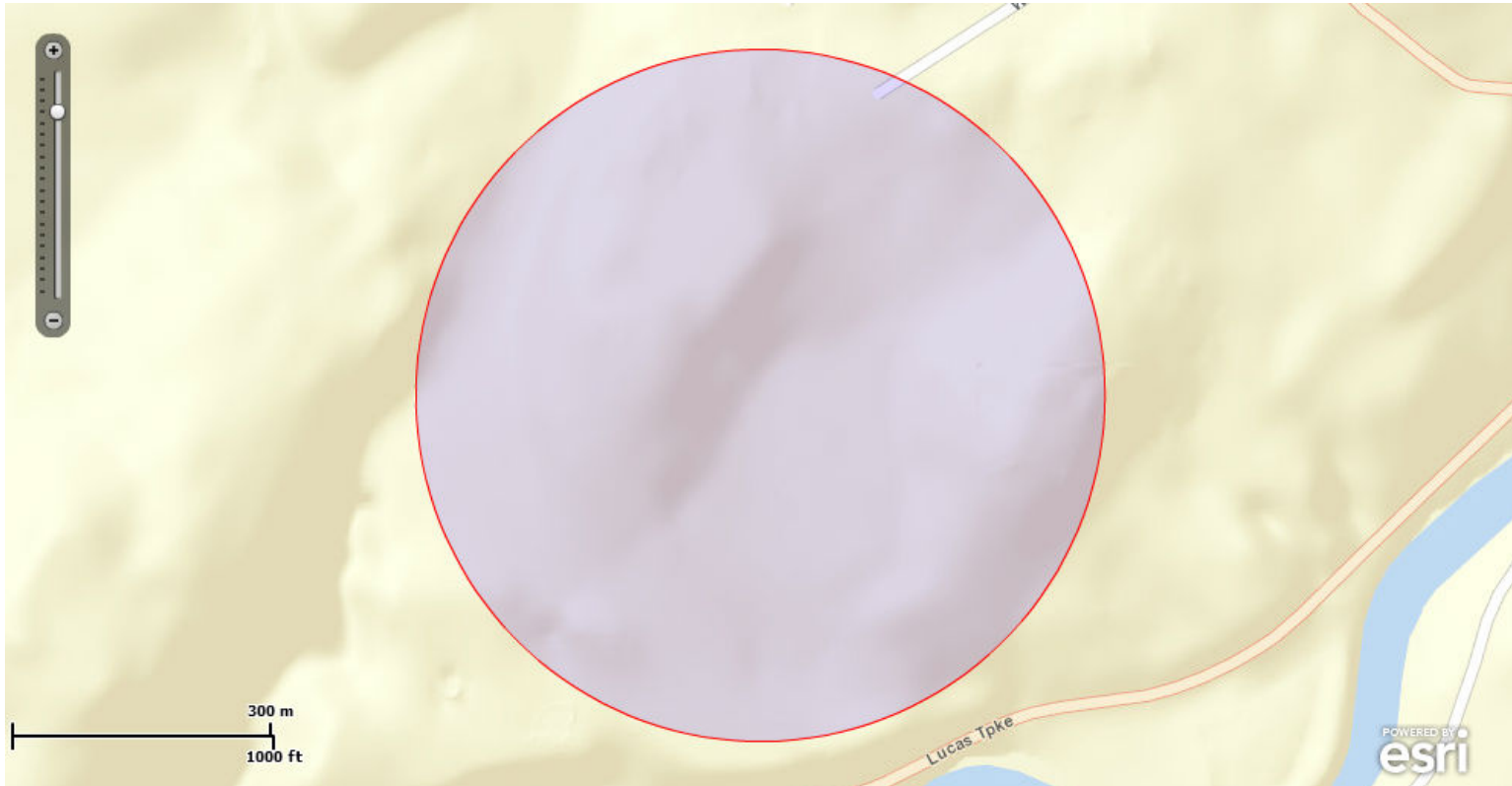
Project Description: The DEP proposes to repair multiple leaks in the Catskill Aqueduct that runs from the Ashokan Reservoir south through Newburgh, beneath the Hudson River and continues south into New York City. Additionally, the Catskill Aqueduct would be restored to historic carrying capacity. Options include various cleaning or lining methods, upstream chemical addition, a possible downstream dechlorination facility, and increasing vent capacity by rehabilitating existing and constructing new vent structures.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-74.1480762 41.8309725, -74.1476452 41.8309549, -74.1470069 41.830875, -74.1461887 41.8306709, -74.1458011 41.8305289, -74.1452551 41.8302689, -74.1446084 41.8298421, -74.1440731 41.8293364, -74.1437551 41.8289148, -74.1435861 41.8286177, -74.1434532 41.8283106, -74.1433235 41.8278363, -74.1432841 41.827192, -74.143322 41.8268704, -74.1434502 41.8263959, -74.1437502 41.8257911, -74.143953 41.8255061, -74.1443186 41.8251067, -74.1449104 41.8246376, -74.1452458 41.8244344, -74.1457909 41.8241734, -74.1465806 41.8239143, -74.1474193 41.823764, -74.1480644 41.8237257, -74.1484958 41.8237361, -74.1493463 41.8238426, -74.1501581 41.8240602, -74.1509055 41.824382, -74.1514094 41.8246858, -74.1517133 41.824915, -74.1522334 41.8254296, -74.1525388 41.8258563, -74.1526989 41.8261561, -74.1528707 41.8266228, -74.1529383 41.8269417, -74.1529586 41.8275865, -74.1528732 41.8280664, -74.152769 41.8283797, -74.1524511 41.8289793, -74.1519961 41.8295272, -74.1514184 41.8300062, -74.1507363 41.8304009, -74.1499714 41.830699, -74.1493579 41.8308532, -74.148936 41.8309214, -74.1480762 41.8309725))))



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Project Counties: Ulster, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Endangered Species Act Species List

Species lists are not entirely based upon the current range of a species but may also take into consideration actions that affect a species that exists in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Please contact the designated FWS office if you have questions.

Bog Turtle (*Clemmys muhlenbergii*)

Population: northern

Listing Status: Threatened

Indiana bat (*Myotis sodalis*)

Population: Entire

Listing Status: Endangered

Northern Wild monkshood (*Aconitum noveboracense*)

Listing Status: Threatened



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 Tracking Number: 05E1NY00-2013-SLI-0397

March 27, 2013

Project Name: Catskill Aqueduct Optimization & Leak Repairs

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, and proposed species, designated critical habitat, and candidate species 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: Catskill Aqueduct Optimization & Leak Repairs

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 Tracking Number: 05E1NY00-2013-SLI-0397

Project Type: Water Withdrawal / Depletion

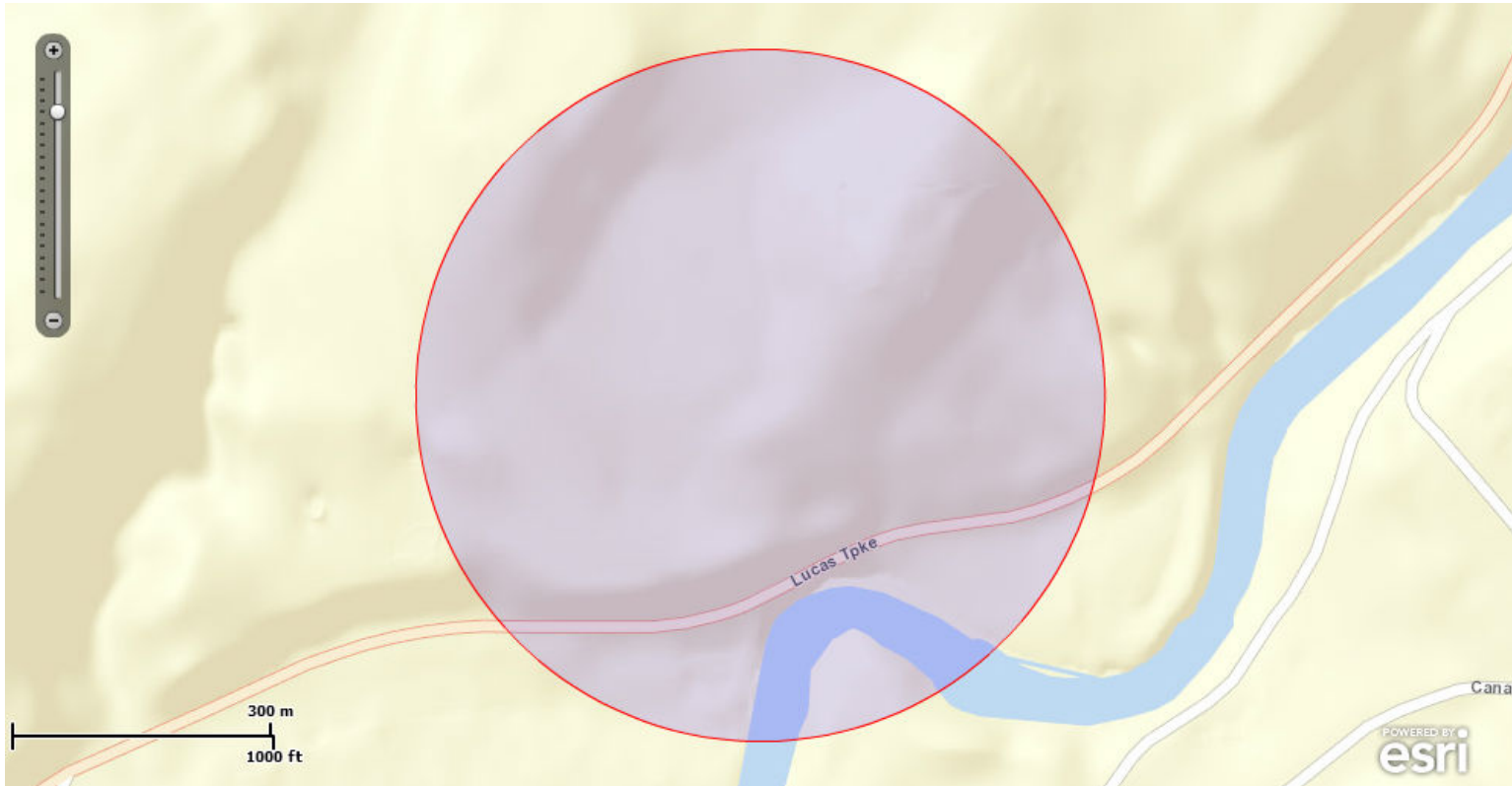
Project Description: The DEP proposes to repair multiple leaks in the Catskill Aqueduct that runs from the Ashokan Reservoir south through Newburgh, beneath the Hudson River and continues south into New York City. Additionally, the Catskill Aqueduct would be restored to historic carrying capacity. Options include various cleaning or lining methods, upstream chemical addition, a possible downstream dechlorination facility, and increasing vent capacity by rehabilitating existing and constructing new vent structures.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-74.1461503 41.8290938, -74.1452921 41.82903, -74.1448721 41.8289555, -74.1442628 41.8287922, -74.143506 41.8284828, -74.1431582 41.8282916, -74.1426826 41.8279634, -74.1422697 41.8275906, -74.142033 41.8273207, -74.1416604 41.8267389, -74.1415274 41.8264318, -74.1413978 41.8259575, -74.1413584 41.8253132, -74.1413963 41.8249916, -74.1415245 41.8245171, -74.1418245 41.8239124, -74.1421412 41.8234902, -74.1423929 41.8232228, -74.1429848 41.8227588, -74.1434966 41.8224626, -74.1438652 41.8222947, -74.1446549 41.8220356, -74.1454935 41.8218853, -74.1461386 41.821847, -74.14657 41.8218574, -74.1472105 41.8219267, -74.1476281 41.8220081, -74.1484261 41.8222526, -74.1491536 41.822599, -74.1496389 41.8229192, -74.1499288 41.8231584, -74.1504177 41.8236897, -74.150773 41.8242775, -74.1509833 41.8249031, -74.1510417 41.8253851, -74.1510326 41.8257079, -74.1508997 41.8263452, -74.150777 41.8266548, -74.1505251 41.8271006, -74.15007 41.8276486, -74.1494923 41.8281275, -74.1488102 41.8285223, -74.1480454 41.8288203, -74.1474319 41.8289745, -74.14701 41.8290427, -74.1461503 41.8290938)))



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Project Counties: Ulster, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Endangered Species Act Species List

Species lists are not entirely based upon the current range of a species but may also take into consideration actions that affect a species that exists in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Please contact the designated FWS office if you have questions.

Bog Turtle (*Clemmys muhlenbergii*)

Population: northern

Listing Status: Threatened

Indiana bat (*Myotis sodalis*)

Population: Entire

Listing Status: Endangered

Northern Wild monkshood (*Aconitum noveboracense*)

Listing Status: Threatened



United States Department of the Interior



FISH AND WILDLIFE SERVICE
NEW YORK ECOLOGICAL SERVICES FIELD OFFICE
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CORTLAND, NY 13045
PHONE: (607)753-9334 FAX: (607)753-9699
URL: www.fws.gov/northeast/nyfo/es/section7.htm

Consultation Tracking Number: 05E1NY00-2013-SLI-0398

March 27, 2013

Project Name: Catskill Aqueduct Optimization & Leak Repairs

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, and proposed species, designated critical habitat, and candidate species 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: Catskill Aqueduct Optimization & Leak Repairs

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 Tracking Number: 05E1NY00-2013-SLI-0398

Project Type: Water Withdrawal / Depletion

Project Description: The DEP proposes to repair multiple leaks in the Catskill Aqueduct that runs from the Ashokan Reservoir south through Newburgh, beneath the Hudson River and continues south into New York City. Additionally, the Catskill Aqueduct would be restored to historic carrying capacity. Options include various cleaning or lining methods, upstream chemical addition, a possible downstream dechlorination facility, and increasing vent capacity by rehabilitating existing and constructing new vent structures.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-74.1415465 41.8257539, -74.1409013 41.8257168, -74.1404773 41.8256564, -74.1396592 41.8254523, -74.1392716 41.8253102, -74.1387257 41.8250502, -74.1380791 41.8246234, -74.1377964 41.8243794, -74.1374296 41.8239807, -74.137057 41.8233989, -74.1369241 41.8230918, -74.1367945 41.8226175, -74.1367552 41.8219732, -74.1367931 41.8216516, -74.1369213 41.8211771, -74.1372214 41.8205724, -74.13766 41.820017, -74.1379271 41.8197634, -74.1383816 41.8194189, -74.138717 41.8192157, -74.1392621 41.8189548, -74.1400518 41.8186957, -74.1406775 41.8185725, -74.1411045 41.8185255, -74.1419668 41.8185176, -74.1426072 41.8185869, -74.1430248 41.8186684, -74.1438228 41.8189128, -74.1445501 41.8192593, -74.1451839 41.8196967, -74.1455855 41.8200762, -74.1458141 41.8203501, -74.1461693 41.8209379, -74.1463796 41.8215634, -74.1464382 41.822207, -74.1463434 41.8228481, -74.1461731 41.8233151, -74.146014 41.8236152, -74.1455921 41.8241778, -74.1450435 41.8246755, -74.1443856 41.8250925, -74.1438329 41.8253443, -74.1434416 41.8254805, -74.1426182 41.8256724, -74.1419779 41.8257428, -74.1415465 41.8257539))))



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Project Counties: Ulster, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Endangered Species Act Species List

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Bog Turtle (*Clemmys muhlenbergii*)

Population: northern

Listing Status: Threatened

Indiana bat (*Myotis sodalis*)

Population: Entire

Listing Status: Endangered

Northern Wild monkshood (*Aconitum noveboracense*)

Listing Status: Threatened



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 Tracking Number: 05E1NY00-2014-SLI-0199
Project Name: Catskill Aqueduct Repair and Rehabilitation

December 16, 2013

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, and proposed species, designated critical habitat, and candidate species 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>

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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: Catskill Aqueduct Repair and Rehabilitation

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 Tracking Number: 05E1NY00-2014-SLI-0199

Project Type: Water Supply / Delivery

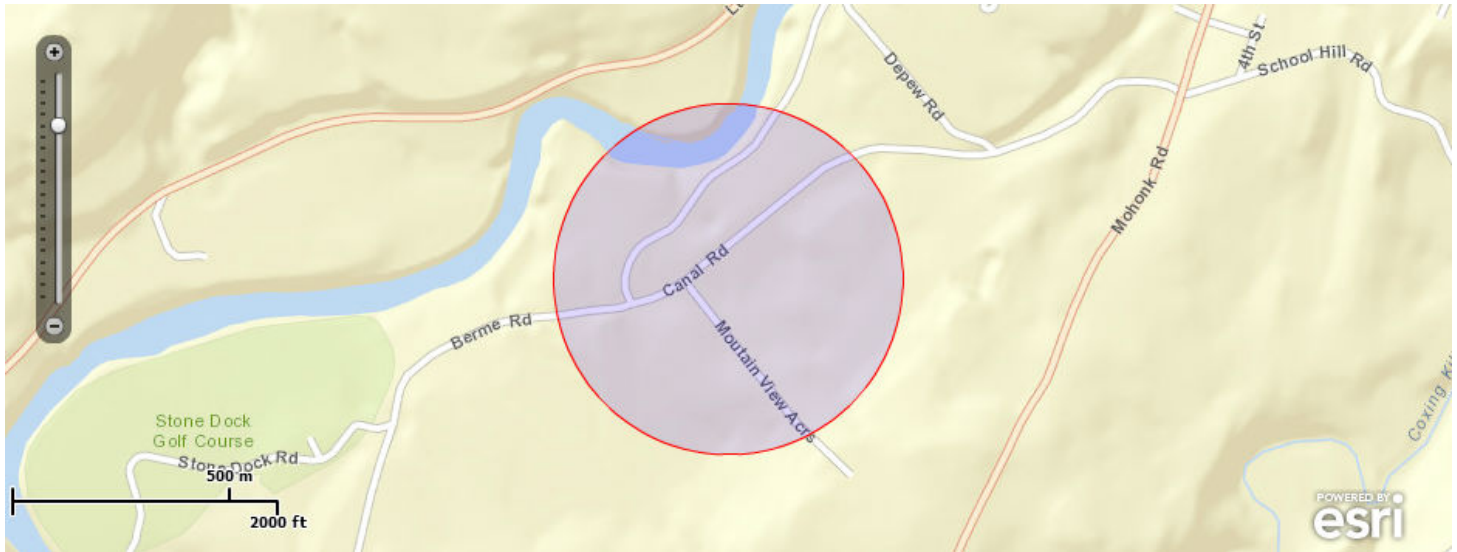
Project Description: DEP proposes to repair multiple small leaks in the Catskill Aqueduct (CA) that runs from the Ashokan Reservoir south into New York City. These leak repairs will aid in restoring the CA to historic carrying capacity. Other options for capacity improvement include the creation of multiple new vent structures along the CA, cleaning or lining the interior and upstream chemical addition. Leaks not eliminated through repair would require local dechlorination to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-74.1402578 41.8233304, -74.1396126 41.8232932, -74.1391886 41.8232328, -74.1383705 41.8230287, -74.1377959 41.822806, -74.1374371 41.8226266, -74.1367905 41.8221998, -74.1362553 41.821694, -74.1359374 41.8212724, -74.1357685 41.8209753, -74.1356356 41.8206681, -74.135506 41.8201939, -74.1354667 41.8195495, -74.1355807 41.8189101, -74.1356943 41.8185987, -74.1359329 41.8181487, -74.1363715 41.8175934, -74.1367832 41.8172199, -74.1370931 41.8169953, -74.1374285 41.8167921, -74.1379736 41.8165312, -74.1387632 41.8162721, -74.139178 41.816183, -74.1398159 41.8161019, -74.1406781 41.816094, -74.1415286 41.8162006, -74.1421424 41.8163537, -74.1425341 41.8164893, -74.1432614 41.8168357, -74.1437466 41.817156, -74.1440365 41.8173952, -74.1444151 41.8177877, -74.1446272 41.8180689, -74.144947 41.8186679, -74.1451197 41.8192999, -74.14514 41.8199448, -74.1450071 41.8205821, -74.1448843 41.8208916, -74.1446324 41.8213375, -74.1441773 41.8218854, -74.1435996 41.8223643, -74.1429176 41.822759, -74.1421528 41.823057, -74.1415393 41.8232112, -74.1411175 41.8232794, -74.1402578 41.8233304)))

Project Counties: Ulster, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

There are a total of 4 threatened, endangered, or candidate 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 on the **Has Critical Habitat** lines 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.

Bog Turtle (*Clemmys muhlenbergii*)

Population: northern

Listing Status: Threatened

Indiana bat (*Myotis sodalis*)

Population: Entire

Listing Status: Endangered

northern long-eared Bat (*Myotis septentrionalis*)

Listing Status: Proposed Endangered

Northern Wild monkshood (*Aconitum noveboracense*)

Listing Status: Threatened



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Critical habitats that lie within your project area

There are no critical habitats within your project area.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
NEW YORK ECOLOGICAL SERVICES FIELD OFFICE
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CORTLAND, NY 13045
PHONE: (607)753-9334 FAX: (607)753-9699
URL: www.fws.gov/northeast/nyfo/es/section7.htm

Consultation Tracking Number: 05E1NY00-2013-SLI-0399

March 27, 2013

Project Name: Catskill Aqueduct Optimization & Leak Repairs

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:

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Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

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 Tracking Number: 05E1NY00-2013-SLI-0399

Project Type: Water Withdrawal / Depletion

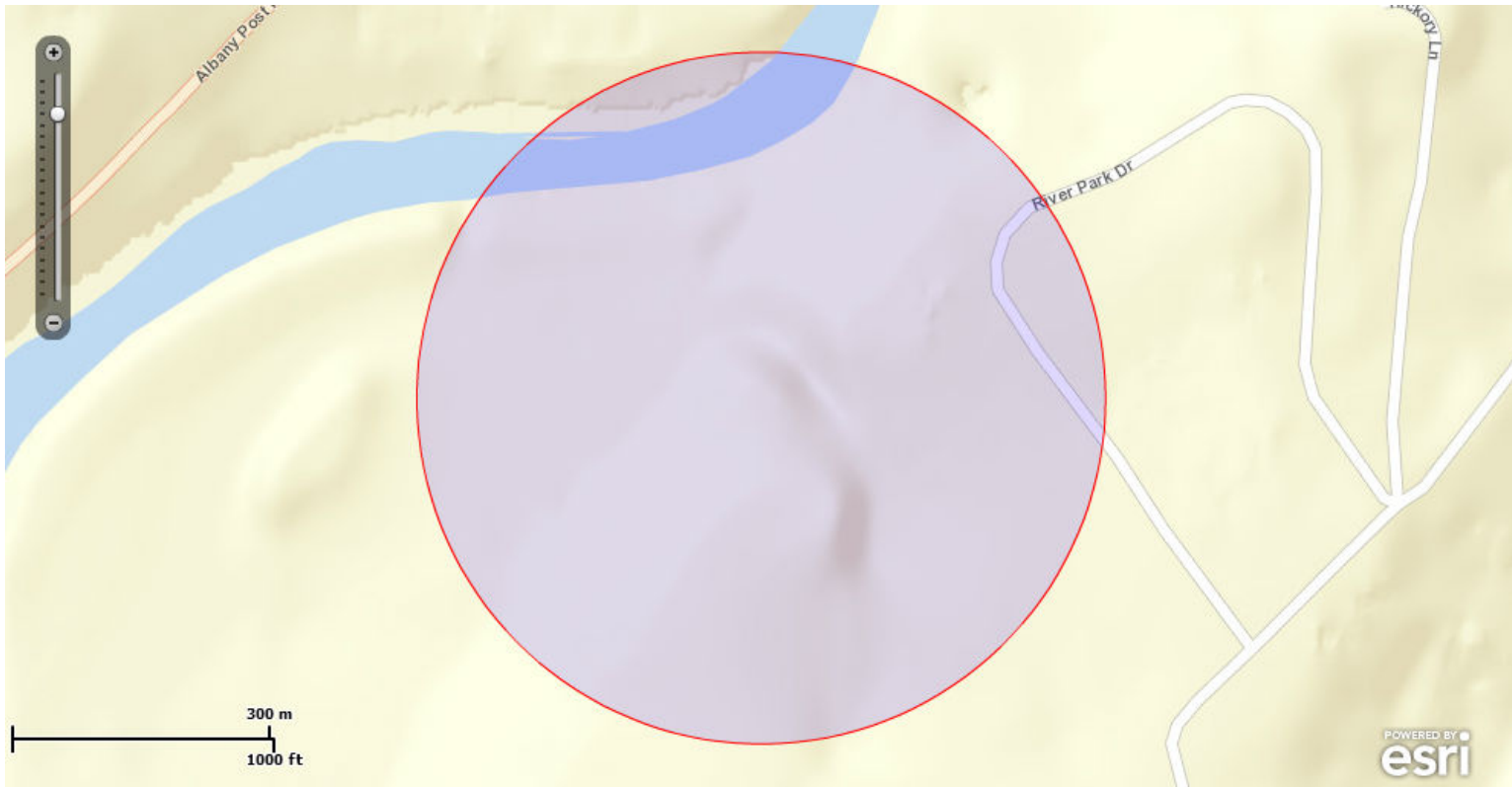
Project Description: The DEP proposes to repair multiple leaks in the Catskill Aqueduct that runs from the Ashokan Reservoir south through Newburgh, beneath the Hudson River and continues south into New York City. Additionally, the Catskill Aqueduct would be restored to historic carrying capacity. Options include various cleaning or lining methods, upstream chemical addition, a possible downstream dechlorination facility, and increasing vent capacity by rehabilitating existing and constructing new vent structures.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-74.1432938 41.718972, -74.1426496 41.7189349, -74.1422263 41.7188745, -74.1414096 41.7186704, -74.1410226 41.7185284, -74.1404776 41.7182684, -74.1398321 41.7178416, -74.1395498 41.7175976, -74.1391836 41.7171989, -74.1388116 41.7166171, -74.1385832 41.7159952, -74.1385253 41.7156753, -74.1385102 41.7151913, -74.138548 41.7148697, -74.138676 41.7143953, -74.1389755 41.7137905, -74.1394134 41.7132351, -74.13968 41.7129815, -74.1401338 41.712637, -74.1404686 41.7124338, -74.1410127 41.7121728, -74.1418011 41.7119137, -74.1426383 41.7117634, -74.1430669 41.7117307, -74.1437129 41.7117356, -74.144562 41.7118421, -74.1453724 41.7120597, -74.1459393 41.7122918, -74.1462921 41.7124772, -74.1469248 41.7129146, -74.147444 41.7134291, -74.1476557 41.7137103, -74.1479087 41.7141557, -74.1481186 41.7147813, -74.1481772 41.7154249, -74.1481205 41.7159071, -74.1480352 41.7162235, -74.1477538 41.7168331, -74.1475599 41.7171215, -74.1472069 41.7175269, -74.1466302 41.7180058, -74.1459492 41.7184006, -74.1451857 41.7186986, -74.1445732 41.7188528, -74.1441521 41.718921, -74.1432938 41.718972)))



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Project Counties: Ulster, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Endangered Species Act Species List

Species lists are not entirely based upon the current range of a species but may also take into consideration actions that affect a species that exists in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Please contact the designated FWS office if you have questions.

Bog Turtle (*Clemmys muhlenbergii*)

Population: northern

Listing Status: Threatened

Indiana bat (*Myotis sodalis*)

Population: Entire

Listing Status: Endangered

Northern Wild monkshood (*Aconitum noveboracense*)

Listing Status: Threatened



United States Department of the Interior



FISH AND WILDLIFE SERVICE
LONG ISLAND ECOLOGICAL SERVICES FIELD OFFICE
340 SMITH ROAD
SHIRLEY, NY 11967
PHONE: (631)286-0485 FAX: (631)286-4003

Consultation Tracking Number: 05E1LI00-2013-SLI-0085

January 22, 2013

Project Name: Catskill Aqueduct Leak & Carrying Capacity Repairs

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, and proposed species, designated critical habitat, and candidate species 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 (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

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 Act, 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 website 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.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the

human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

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 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 Act. 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: Catskill Aqueduct Leak & Carrying Capacity Repairs

Official Species List

Provided by:

LONG ISLAND ECOLOGICAL SERVICES FIELD OFFICE
340 SMITH ROAD
SHIRLEY, NY 11967
(631) 286-0485

Expect additional Species list documents from the following office(s):

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 Tracking Number: 05E1LI00-2013-SLI-0085

Project Type: Water Supply / Delivery

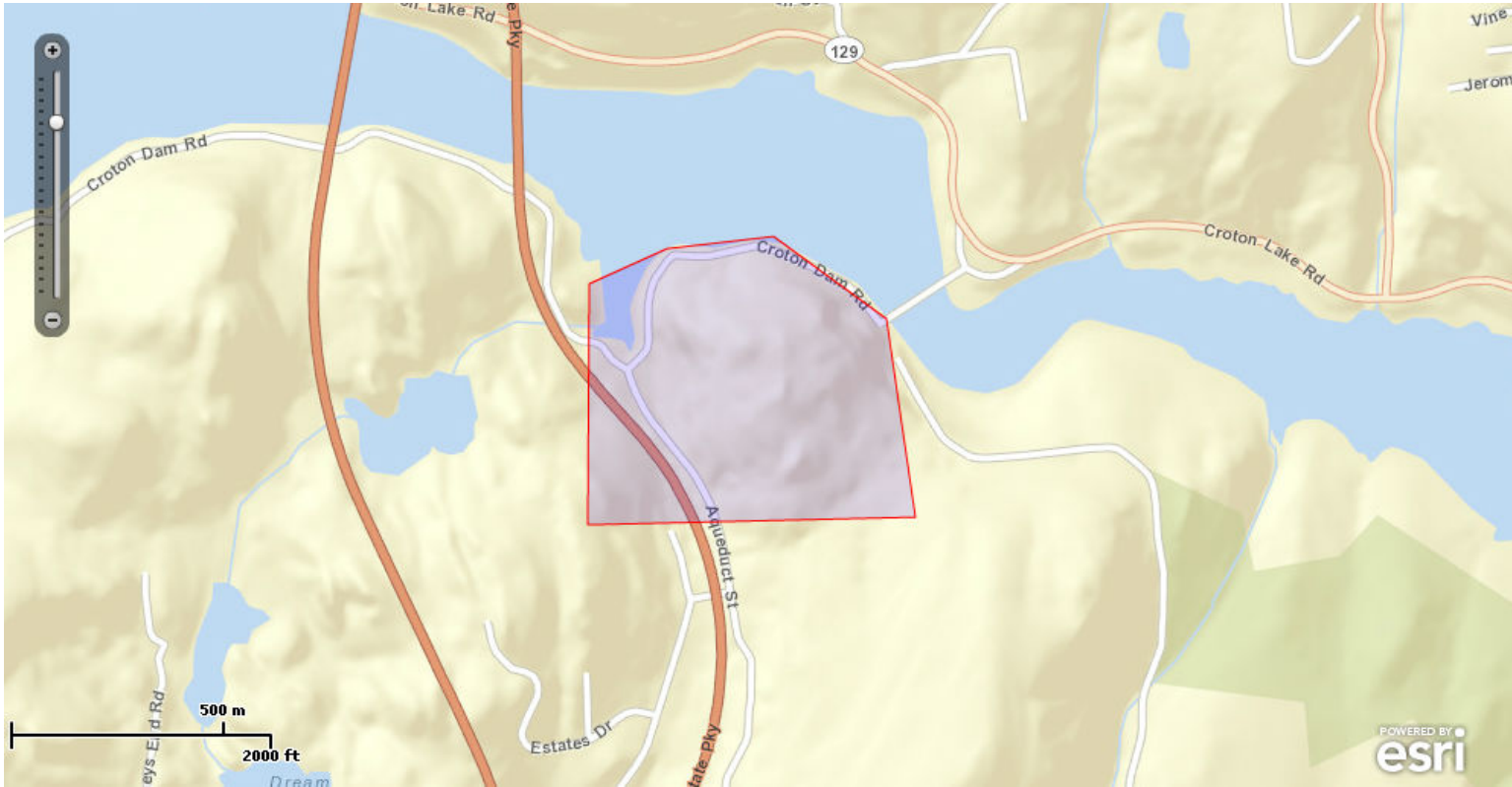
Project Description: The DEP proposes to repair multiple leaks in the upper West of Hudson Catskill Aqueduct that runs from the Ashokan Reservoir south through Newburgh, NY. There is also a plan to restore capacity of the existing Catskill Aqueduct to historical carrying capacity. Options include various cleaning or lining methods, upstream chemical addition, a possible downstream dechlorination facility, and increasing vent capacity by rehabilitating existing and constructing new vent structures.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Leak & Carrying Capacity Repairs

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.8108259 41.2342814, -73.8086394 41.2350253, -73.8056353 41.2352835, -73.8024596 41.2335392, -73.8016442 41.2293434, -73.8108689 41.2291821, -73.8108259 41.2342814)))

Project Counties: Westchester, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Leak & Carrying Capacity Repairs

Endangered Species Act Species List

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There are no listed species identified for the vicinity of your project.



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 Tracking Number: 05E1NY00-2013-SLI-0845

September 24, 2013

Project Name: Catskill Aqueduct Optimization & Leak Repairs

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, and proposed species, designated critical habitat, and candidate species 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: Catskill Aqueduct Optimization & Leak Repairs

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>

Expect additional Species list documents from the following office(s):

LONG ISLAND ECOLOGICAL SERVICES FIELD OFFICE
340 SMITH ROAD
SHIRLEY, NY 11967
(631) 286-0485

Consultation Tracking Number: 05E1NY00-2013-SLI-0845

Project Type: Water Withdrawal / Depletion

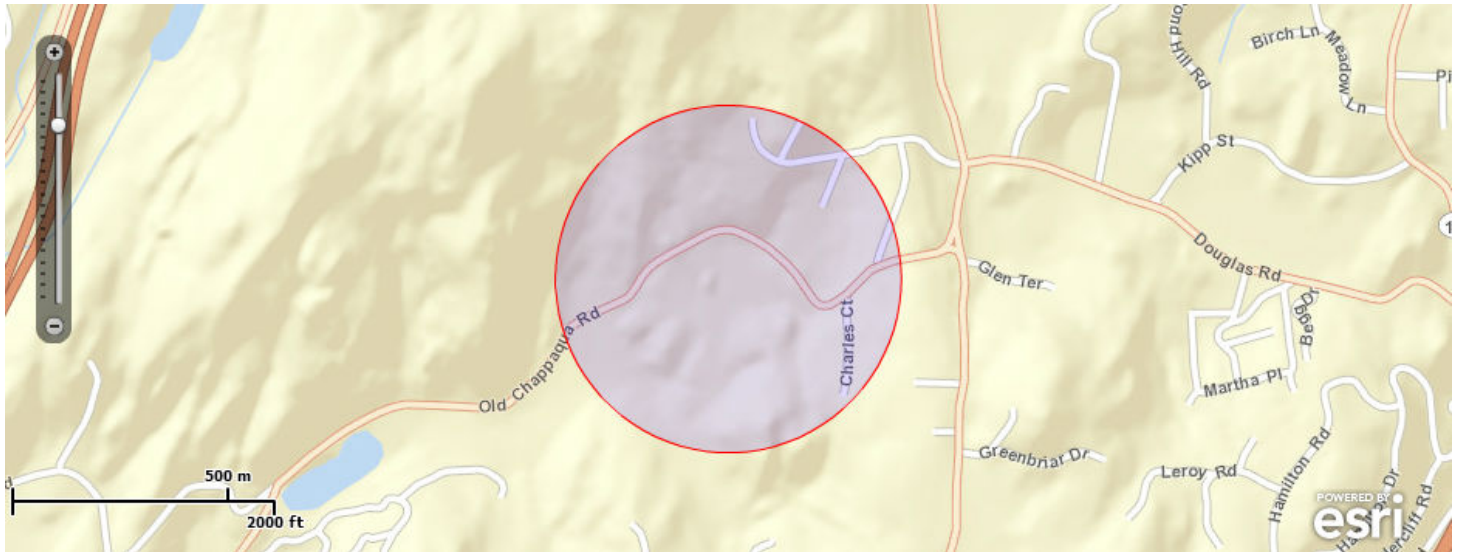
Project Description: The DEP proposes to repair multiple leaks in the Catskill Aqueduct that runs from the Ashokan Reservoir south through Newburgh, beneath the Hudson River and continues south into New York City. Additionally, the Catskill Aqueduct would be restored to historic carrying capacity. Options include various cleaning or lining methods, upstream chemical addition, a possible downstream dechlorination facility, and increasing vent capacity by rehabilitating existing and constructing new vent structures.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.7968874 41.1655509, -73.7961471 41.1655029, -73.7954255 41.165369, -73.7950771 41.1652707, -73.7947399 41.1651524, -73.7941069 41.1648584, -73.7935416 41.164494, -73.7932886 41.164288, -73.7928498 41.1638349, -73.7926665 41.1635905, -73.7923778 41.1630731, -73.7921983 41.1625282, -73.792151 41.1622495, -73.7921426 41.1616881, -73.7921816 41.1614087, -73.7923448 41.1608609, -73.792618 41.1603387, -73.7929947 41.1598547, -73.7934659 41.1594205, -73.7937334 41.1592254, -73.7940201 41.1590466, -73.7946441 41.1587418, -73.795323 41.1585136, -73.7960403 41.1583674, -73.7967789 41.1583067, -73.7971507 41.158309, -73.7978879 41.1583787, -73.798602 41.1585336, -73.798945 41.158642, -73.7992759 41.1587701, -73.7998933 41.1590824, -73.8004395 41.1594631, -73.8009013 41.159903, -73.801097 41.1601419, -73.8014121 41.1606504, -73.8016195 41.1611896, -73.8016811 41.1614666, -73.8017184 41.1620274, -73.8016938 41.1623078, -73.8015589 41.16286, -73.8013127 41.1633898, -73.8009612 41.1638845, -73.8007484 41.1641149, -73.8002554 41.164535, -73.7996824 41.1648924, -73.7990431 41.1651787, -73.7987034 41.1652929, -73.7979941 41.16546, -73.797259 41.1655423, -73.7968874 41.1655509)))

Project Counties: Westchester, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Endangered Species Act Species List

Species lists are not entirely based upon the current range of a species but may also take into consideration actions that affect a species that exists in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Please contact the designated FWS office if you have questions.

Bog Turtle (*Clemmys muhlenbergii*)

Population: northern

Listing Status: Threatened

Indiana bat (*Myotis sodalis*)

Population: Entire

Listing Status: Endangered

New England Cottontail rabbit (*Sylvilagus transitionalis*)

Listing Status: Candidate



United States Department of the Interior



FISH AND WILDLIFE SERVICE
LONG ISLAND ECOLOGICAL SERVICES FIELD OFFICE
340 SMITH ROAD
SHIRLEY, NY 11967
PHONE: (631)286-0485 FAX: (631)286-4003

Consultation Tracking Number: 05E1LI00-2013-SLI-0247

September 24, 2013

Project Name: Catskill Aqueduct Optimization & Leak Repairs

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, and proposed species, designated critical habitat, and candidate species 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 (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

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 Act, 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 website 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.

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human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

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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 Act. 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: Catskill Aqueduct Optimization & Leak Repairs

Official Species List

Provided by:

LONG ISLAND ECOLOGICAL SERVICES FIELD OFFICE
340 SMITH ROAD
SHIRLEY, NY 11967
(631) 286-0485

Expect additional Species list documents from the following office(s):

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 Tracking Number: 05E1LI00-2013-SLI-0247

Project Type: Water Withdrawal / Depletion

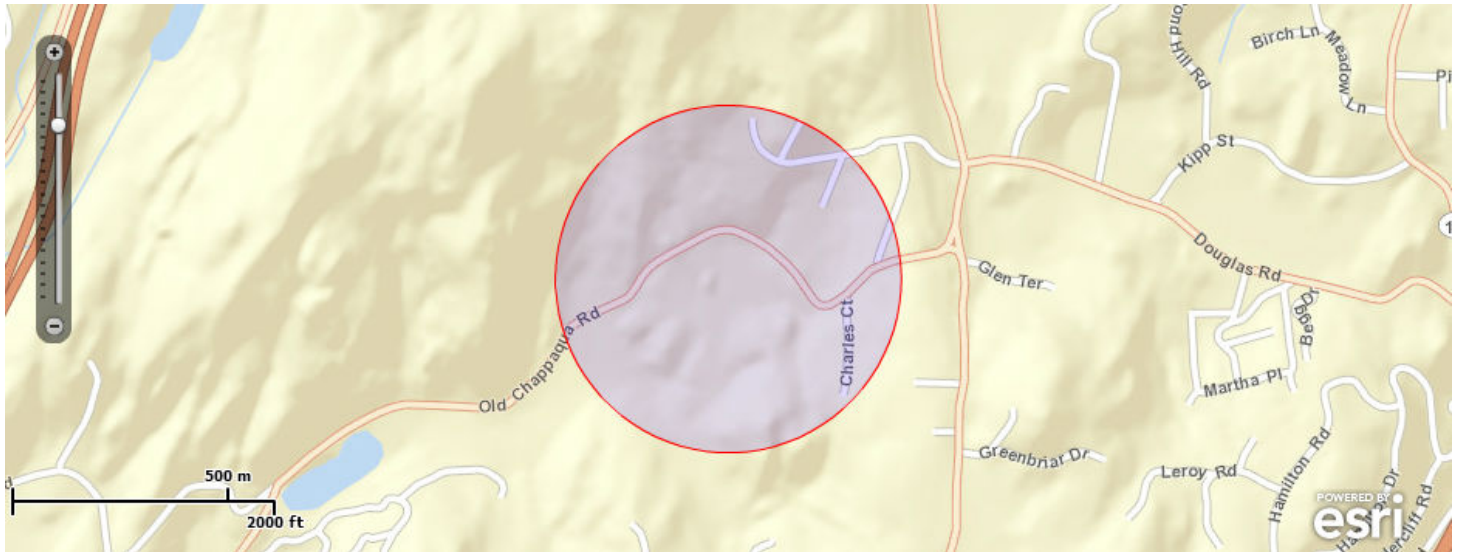
Project Description: The DEP proposes to repair multiple leaks in the Catskill Aqueduct that runs from the Ashokan Reservoir south through Newburgh, beneath the Hudson River and continues south into New York City. Additionally, the Catskill Aqueduct would be restored to historic carrying capacity. Options include various cleaning or lining methods, upstream chemical addition, a possible downstream dechlorination facility, and increasing vent capacity by rehabilitating existing and constructing new vent structures.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.7968874 41.1655509, -73.7961471 41.1655029, -73.7954255 41.165369, -73.7950771 41.1652707, -73.7947399 41.1651524, -73.7941069 41.1648584, -73.7935416 41.164494, -73.7932886 41.164288, -73.7928498 41.1638349, -73.7926665 41.1635905, -73.7923778 41.1630731, -73.7921983 41.1625282, -73.792151 41.1622495, -73.7921426 41.1616881, -73.7921816 41.1614087, -73.7923448 41.1608609, -73.792618 41.1603387, -73.7929947 41.1598547, -73.7934659 41.1594205, -73.7937334 41.1592254, -73.7940201 41.1590466, -73.7946441 41.1587418, -73.795323 41.1585136, -73.7960403 41.1583674, -73.7967789 41.1583067, -73.7971507 41.158309, -73.7978879 41.1583787, -73.798602 41.1585336, -73.798945 41.158642, -73.7992759 41.1587701, -73.7998933 41.1590824, -73.8004395 41.1594631, -73.8009013 41.159903, -73.801097 41.1601419, -73.8014121 41.1606504, -73.8016195 41.1611896, -73.8016811 41.1614666, -73.8017184 41.1620274, -73.8016938 41.1623078, -73.8015589 41.16286, -73.8013127 41.1633898, -73.8009612 41.1638845, -73.8007484 41.1641149, -73.8002554 41.164535, -73.7996824 41.1648924, -73.7990431 41.1651787, -73.7987034 41.1652929, -73.7979941 41.16546, -73.797259 41.1655423, -73.7968874 41.1655509)))

Project Counties: Westchester, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Endangered Species Act Species List

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There are no listed species identified for the vicinity of your project.



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 Tracking Number: 05E1NY00-2013-SLI-0846

September 24, 2013

Project Name: Catskill Aqueduct Optimization & Leak Repairs

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, and proposed species, designated critical habitat, and candidate species 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>

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Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Official Species List

Provided by:

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3817 LUKER ROAD
CORTLAND, NY 13045
(607) 753-9334
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LONG ISLAND ECOLOGICAL SERVICES FIELD OFFICE
340 SMITH ROAD
SHIRLEY, NY 11967
(631) 286-0485

Consultation Tracking Number: 05E1NY00-2013-SLI-0846

Project Type: Water Withdrawal / Depletion

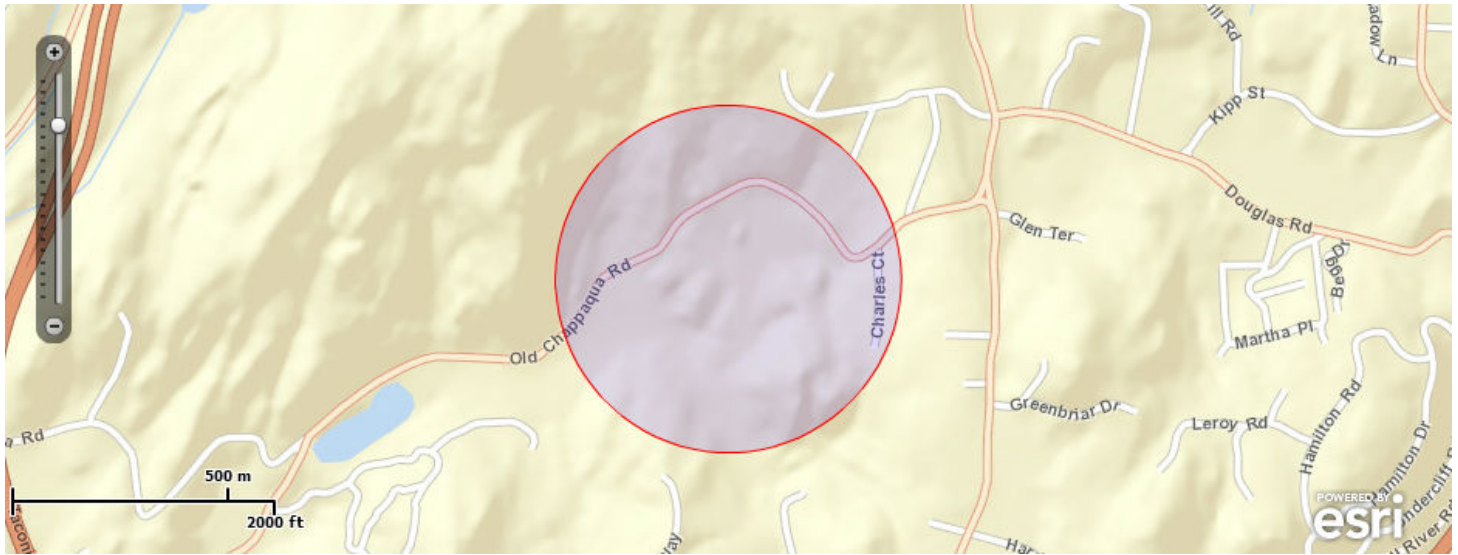
Project Description: The DEP proposes to repair multiple leaks in the Catskill Aqueduct that runs from the Ashokan Reservoir south through Newburgh, beneath the Hudson River and continues south into New York City. Additionally, the Catskill Aqueduct would be restored to historic carrying capacity. Options include various cleaning or lining methods, upstream chemical addition, a possible downstream dechlorination facility, and increasing vent capacity by rehabilitating existing and constructing new vent structures.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.7977517 41.1645531, -73.7970114 41.1645051, -73.7962898 41.1643712, -73.7959415 41.164273, -73.7952802 41.1640169, -73.7946792 41.1636867, -73.794406 41.1634962, -73.793922 41.1630702, -73.7935309 41.1625928, -73.7933732 41.1623383, -73.7931384 41.1618056, -73.7930153 41.1612518, -73.7929967 41.1609712, -73.793046 41.1604109, -73.7931135 41.1601346, -73.7933324 41.159598, -73.7936583 41.1590935, -73.7938591 41.158857, -73.7943302 41.1584228, -73.7945977 41.1582277, -73.7951886 41.1578873, -73.795842 41.15762, -73.7961872 41.1575159, -73.7969046 41.1573697, -73.7972723 41.1573285, -73.7980149 41.1573113, -73.7987521 41.1573809, -73.7991132 41.1574479, -73.7998092 41.1576442, -73.8001401 41.1577723, -73.8007575 41.1580846, -73.8013037 41.1584653, -73.8017655 41.1589052, -73.8019612 41.1591441, -73.8022763 41.1596526, -73.8024837 41.1601918, -73.8025453 41.1604688, -73.8025826 41.1610296, -73.802558 41.16131, -73.8024231 41.1618622, -73.8021769 41.162392, -73.8020139 41.1626445, -73.8016127 41.1631171, -73.8011196 41.1635372, -73.8008423 41.1637243, -73.8002344 41.1640471, -73.7995677 41.1642951, -73.7992173 41.1643891, -73.798493 41.1645142, -73.7977517 41.1645531)))

Project Counties: Westchester, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Endangered Species Act Species List

Species lists are not entirely based upon the current range of a species but may also take into consideration actions that affect a species that exists in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Please contact the designated FWS office if you have questions.

Bog Turtle (*Clemmys muhlenbergii*)

Population: northern

Listing Status: Threatened

Indiana bat (*Myotis sodalis*)

Population: Entire

Listing Status: Endangered

New England Cottontail rabbit (*Sylvilagus transitionalis*)

Listing Status: Candidate



United States Department of the Interior



FISH AND WILDLIFE SERVICE
LONG ISLAND ECOLOGICAL SERVICES FIELD OFFICE
340 SMITH ROAD
SHIRLEY, NY 11967
PHONE: (631)286-0485 FAX: (631)286-4003

Consultation Tracking Number: 05E1LI00-2013-SLI-0248

September 24, 2013

Project Name: Catskill Aqueduct Optimization & Leak Repairs

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, and proposed species, designated critical habitat, and candidate species 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 (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

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 Act, 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 website 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.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the

human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

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 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 Act. 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: Catskill Aqueduct Optimization & Leak Repairs

Official Species List

Provided by:

LONG ISLAND ECOLOGICAL SERVICES FIELD OFFICE
340 SMITH ROAD
SHIRLEY, NY 11967
(631) 286-0485

Expect additional Species list documents from the following office(s):

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 Tracking Number: 05E1LI00-2013-SLI-0248

Project Type: Water Withdrawal / Depletion

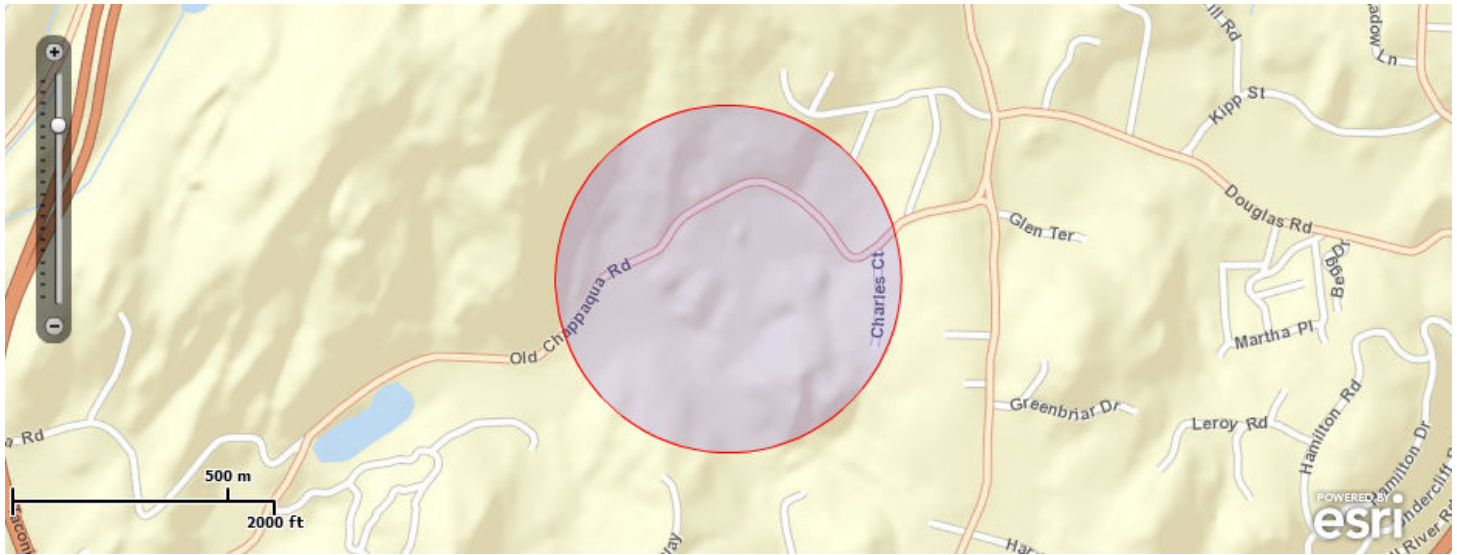
Project Description: The DEP proposes to repair multiple leaks in the Catskill Aqueduct that runs from the Ashokan Reservoir south through Newburgh, beneath the Hudson River and continues south into New York City. Additionally, the Catskill Aqueduct would be restored to historic carrying capacity. Options include various cleaning or lining methods, upstream chemical addition, a possible downstream dechlorination facility, and increasing vent capacity by rehabilitating existing and constructing new vent structures.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.7977517 41.1645531, -73.7970114 41.1645051, -73.7962898 41.1643712, -73.7959415 41.164273, -73.7952802 41.1640169, -73.7946792 41.1636867, -73.794406 41.1634962, -73.793922 41.1630702, -73.7935309 41.1625928, -73.7933732 41.1623383, -73.7931384 41.1618056, -73.7930153 41.1612518, -73.7929967 41.1609712, -73.793046 41.1604109, -73.7931135 41.1601346, -73.7933324 41.159598, -73.7936583 41.1590935, -73.7938591 41.158857, -73.7943302 41.1584228, -73.7945977 41.1582277, -73.7951886 41.1578873, -73.795842 41.15762, -73.7961872 41.1575159, -73.7969046 41.1573697, -73.7972723 41.1573285, -73.7980149 41.1573113, -73.7987521 41.1573809, -73.7991132 41.1574479, -73.7998092 41.1576442, -73.8001401 41.1577723, -73.8007575 41.1580846, -73.8013037 41.1584653, -73.8017655 41.1589052, -73.8019612 41.1591441, -73.8022763 41.1596526, -73.8024837 41.1601918, -73.8025453 41.1604688, -73.8025826 41.1610296, -73.802558 41.16131, -73.8024231 41.1618622, -73.8021769 41.162392, -73.8020139 41.1626445, -73.8016127 41.1631171, -73.8011196 41.1635372, -73.8008423 41.1637243, -73.8002344 41.1640471, -73.7995677 41.1642951, -73.7992173 41.1643891, -73.798493 41.1645142, -73.7977517 41.1645531)))

Project Counties: Westchester, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Optimization & Leak Repairs

Endangered Species Act Species List

Species lists are not entirely based upon the current range of a species but may also take into consideration actions that affect a species that exists in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Please contact the designated FWS office if you have questions.

There are no listed species identified for the vicinity of your project.

Proposed Catskill Aqueduct Repair and Rehabilitation



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 Tracking Number: 05E1NY00-2014-SLI-0951
Project Name: Catskill Aqueduct Repair and Rehabilitation

July 28, 2014

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: Catskill Aqueduct Repair and Rehabilitation

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 Tracking Number: 05E1NY00-2014-SLI-0951

Project Type: Water Supply / Delivery

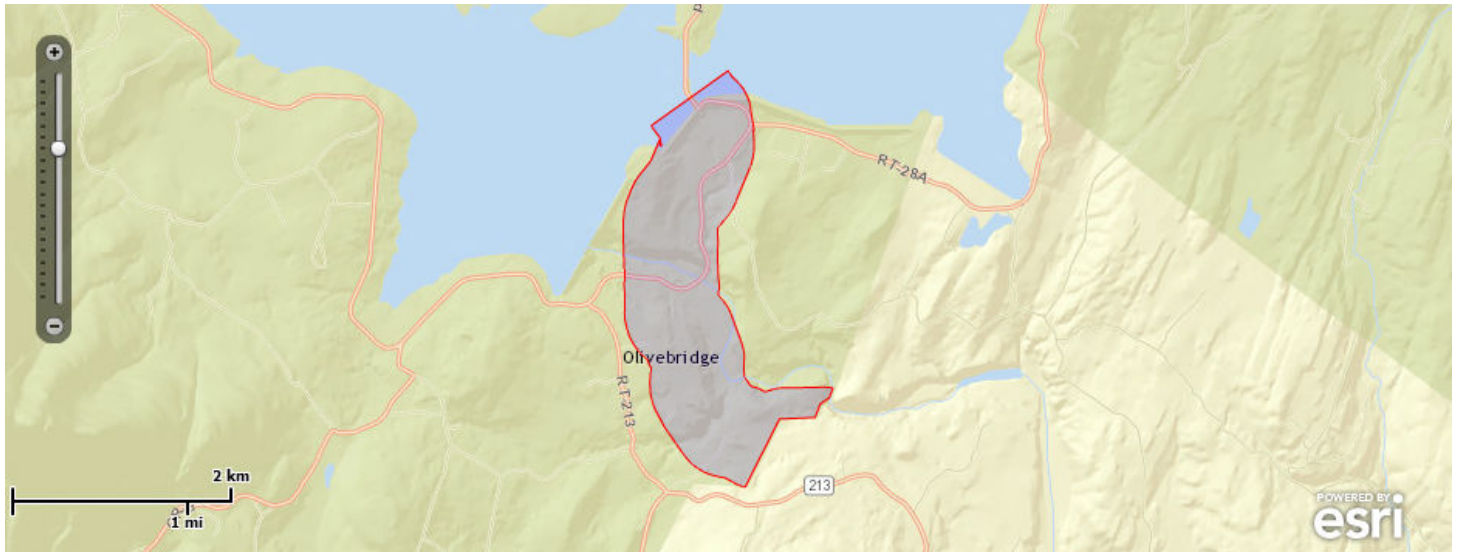
Project Description: DEP seeks to restore the capacity of the Catskill Aqueduct closer to historical capacity by: 1) cleaning/lining the interior; 2) adding chemicals to reduce extent of biofilm; 3) constructing new vent structures along the aqueduct to improve ability to release air; 4) repair/replacement of mechanical components; and 5) repairing leaks or, where repair is not feasible, constructing temporary local dechlorination facilities to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-74.1918681 41.9264144, -74.1922813 41.9255554, -74.1932929 41.9250765, -74.1938419 41.9239796, -74.1977987 41.9238314, -74.2015989 41.9182247, -74.2022527 41.9183829, -74.2026657 41.9185179, -74.203832 41.9190066, -74.2049382 41.9191509, -74.2058443 41.9193688, -74.206564 41.9196336, -74.2071547 41.9199267, -74.2076562 41.920242, -74.2082287 41.920706, -74.21037 41.9229733, -74.2107586 41.9234473, -74.2115814 41.9246195, -74.2117726 41.9249584, -74.2120017 41.9255298, -74.2121065 41.9259841, -74.2121449 41.9263508, -74.2121289 41.9281115, -74.2124568 41.9287626, -74.2129774 41.9290817, -74.2135159 41.9295094, -74.2139411 41.9299453, -74.2142902 41.9304139, -74.2145632 41.9309166, -74.2148102 41.9315595, -74.2149813 41.9323908, -74.2150839 41.9403264, -74.2150145 41.94102, -74.2149298 41.9413482, -74.2147377 41.9418359, -74.214018 41.9431428, -74.2138081 41.9434362, -74.2134243 41.943867, -74.2120841 41.945094, -74.211033 41.946983, -74.2120257 41.948021, -74.2035164 41.9525375, -74.202976 41.9519718, -74.2024727 41.9516414, -74.2019144 41.9511489, -74.2015714 41.950738, -74.2012993 41.9502986, -74.2011594 41.9499931, -74.2010142 41.9495212, -74.2005913 41.9476091, -74.2007444 41.94759, -74.2006154 41.9468501, -74.2006497 41.9458492, -74.2007768 41.9452541, -74.2009987 41.9447033, -74.202838 41.9414116, -74.2030484 41.9411172, -74.2034285 41.9406898, -74.2046408 41.9395788, -74.2045754 41.9340266, -74.2040529 41.9336003, -74.2037838 41.9333282, -74.2033326 41.9327419, -74.2020642 41.9302687, -74.2018215 41.9296538, -74.2016993 41.9290273, -74.2017014 41.9273296, -74.200981 41.9265486, -74.2002429 41.9263848, -74.1993721



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

41.9260821, -74.1984169 41.926306, -74.1974757 41.9264035, -74.1930368 41.9264687, -
74.1918681 41.9264144), (-74.2109176 41.9464538, -74.2109988 41.946832, -74.2110432
41.9465646, -74.211028 41.9463221, -74.2108921 41.9463388, -74.2109176 41.9464538)))

Project Counties: Ulster, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

There are a total of 4 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.

Flowering Plants	Status	Has Critical Habitat	Condition(s)
Northern Wild monkshood (<i>Aconitum noveboracense</i>)	Threatened		
Mammals			
Indiana bat (<i>Myotis sodalis</i>) Population: Entire	Endangered		
northern long-eared Bat (<i>Myotis septentrionalis</i>)	Proposed Endangered		
Reptiles			
Bog Turtle (<i>Clemmys muhlenbergii</i>) Population: northern	Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Critical habitats that lie within your project area

There are no critical habitats within your 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 Tracking Number: 05E1NY00-2014-SLI-0947
Project Name: Catskill Aqueduct Repair and Rehabilitation

July 25, 2014

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.

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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: Catskill Aqueduct Repair and Rehabilitation

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 Tracking Number: 05E1NY00-2014-SLI-0947

Project Type: Water Supply / Delivery

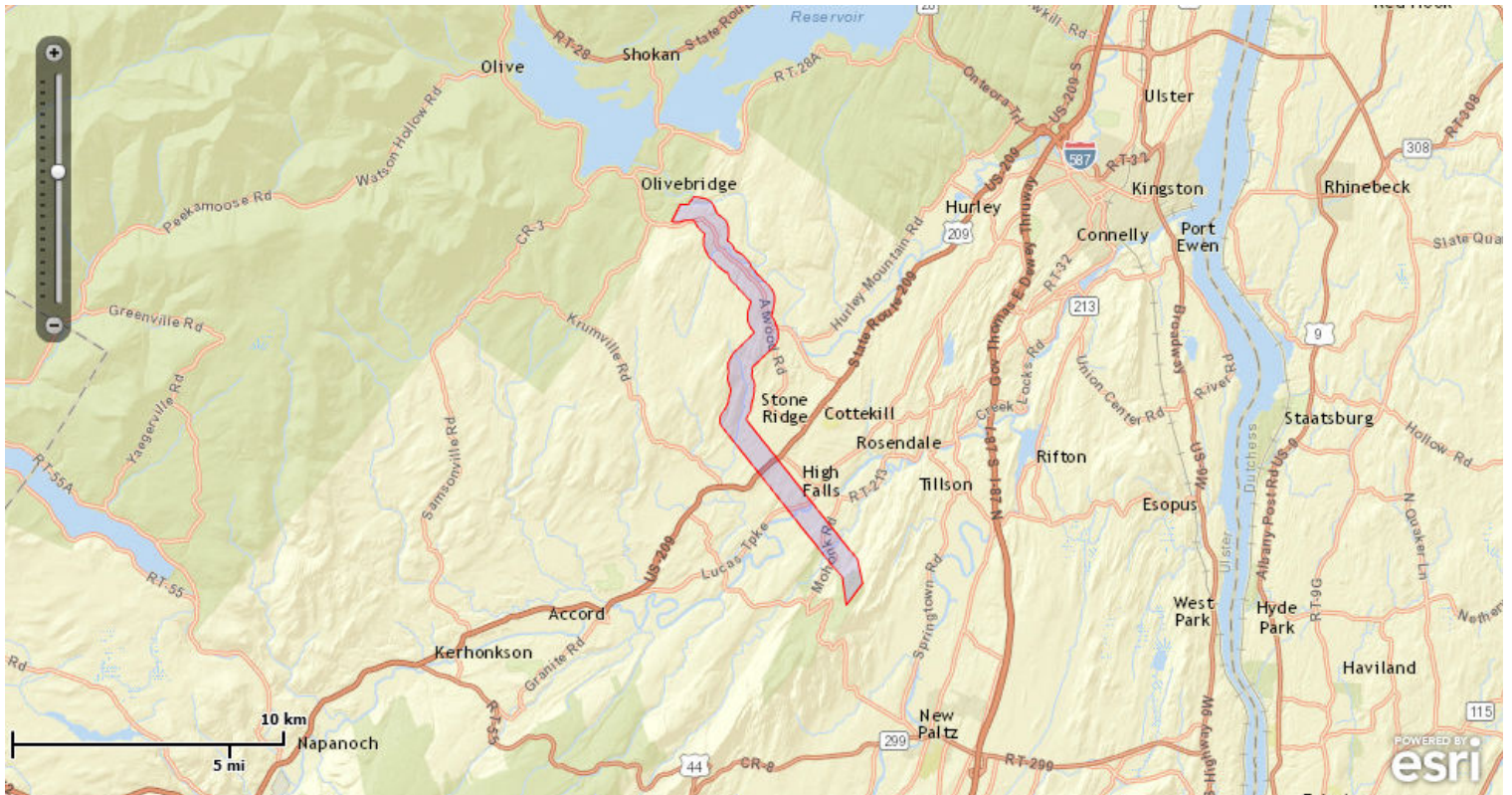
Project Description: DEP seeks to restore the capacity of the Catskill Aqueduct closer to historical capacity by: 1) cleaning/lining the interior; 2) adding chemicals to reduce extent of biofilm; 3) constructing new vent structures along the aqueduct to improve ability to release air; 4) repair/replacement of mechanical components; and 5) repairing leaks or, where repair is not feasible, constructing temporary local dechlorination facilities to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-74.1163211 41.7981401, -74.1236391 41.7908998, -74.1254441 41.8003088, -74.1295517 41.8037187, -74.1789184 41.8500505, -74.1792941 41.8504526, -74.1795058 41.8507389, -74.1798293 41.8513461, -74.1799802 41.8518234, -74.1800356 41.8521479, -74.1800502 41.8526382, -74.1800141 41.8529642, -74.1798329 41.8536037, -74.1795114 41.8542115, -74.1791834 41.8546363, -74.1789262 41.8549009, -74.1780264 41.8556849, -74.1772747 41.8566128, -74.1769514 41.8571946, -74.176311 41.8580718, -74.1762016 41.8590139, -74.1761076 41.8594298, -74.1759663 41.8598261, -74.1755888 41.8606397, -74.1751414 41.8621396, -74.1750916 41.8628435, -74.1754308 41.8632892, -74.1756195 41.8636075, -74.1761634 41.8647643, -74.1763713 41.8653324, -74.1764768 41.865902, -74.1764864 41.8664101, -74.1764438 41.8667854, -74.1760654 41.8684201, -74.1763796 41.8697833, -74.176422 41.8701608, -74.1764213 41.8705397, -74.1763038 41.8712446, -74.17618 41.871612, -74.1760168 41.8719666, -74.1756775 41.8725053, -74.1745911 41.8739594, -74.1743213 41.874266, -74.1738469 41.8746995, -74.1647275 41.8812997, -74.1649708 41.8818136, -74.1655929 41.8824029, -74.1666341 41.883579, -



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

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United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

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74.121509 41.808674, -74.1187377 41.8063807, -74.1163211 41.7981401)))

Project Counties: Ulster, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

There are a total of 4 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.

Flowering Plants	Status	Has Critical Habitat	Condition(s)
Northern Wild monkshood (<i>Aconitum noveboracense</i>)	Threatened		
Mammals			
Indiana bat (<i>Myotis sodalis</i>) Population: Entire	Endangered		
northern long-eared Bat (<i>Myotis septentrionalis</i>)	Proposed Endangered		
Reptiles			
Bog Turtle (<i>Clemmys muhlenbergii</i>) Population: northern	Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Critical habitats that lie within your project area

There are no critical habitats within your 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 Tracking Number: 05E1NY00-2014-SLI-0949
Project Name: Catskill Aqueduct Repair and Rehabilitation

July 28, 2014

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: Catskill Aqueduct Repair and Rehabilitation

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 Tracking Number: 05E1NY00-2014-SLI-0949

Project Type: Water Supply / Delivery

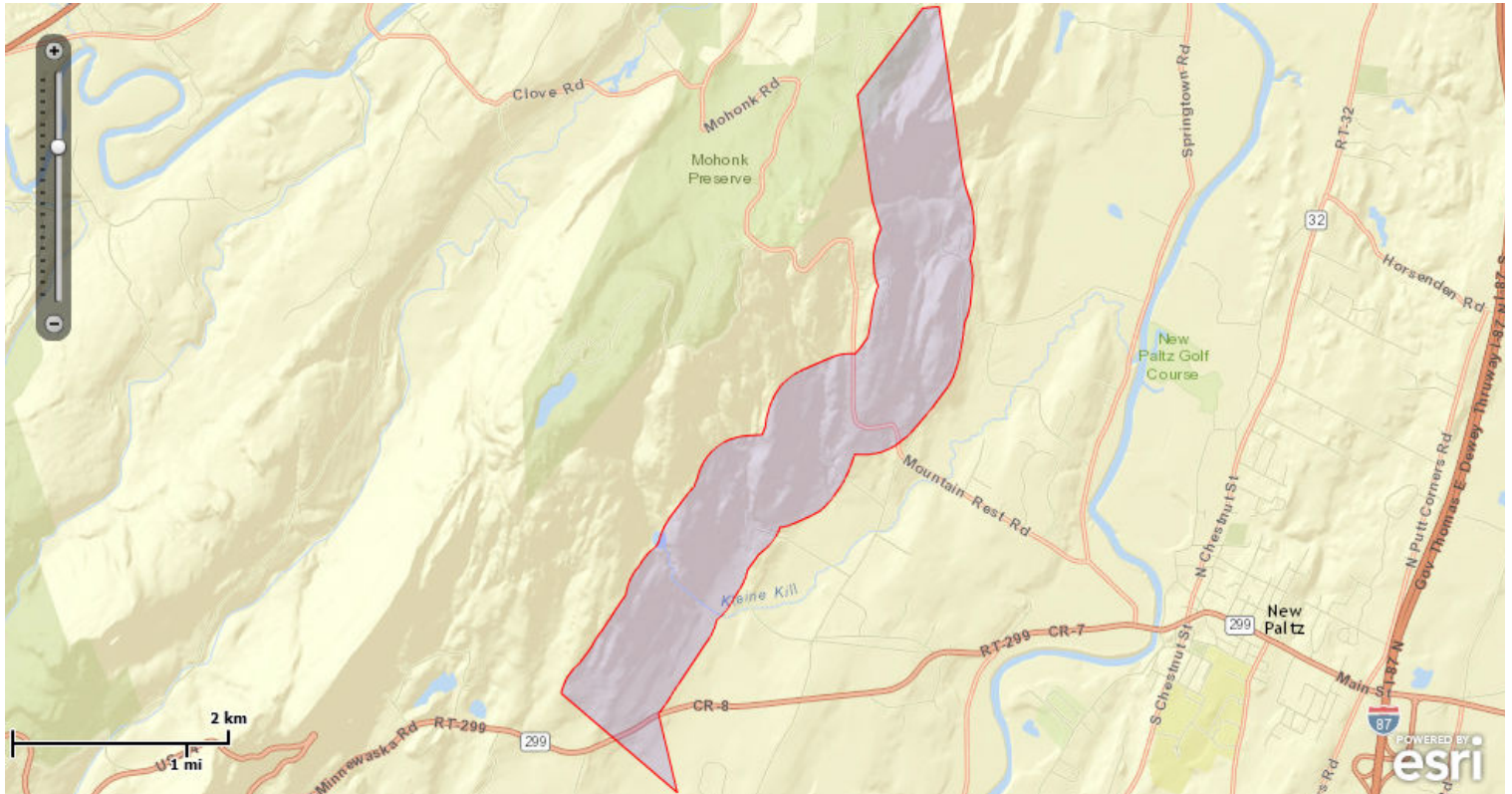
Project Description: DEP seeks to restore the capacity of the Catskill Aqueduct closer to historical capacity by: 1) cleaning/lining the interior; 2) adding chemicals to reduce extent of biofilm; 3) constructing new vent structures along the aqueduct to improve ability to release air; 4) repair/replacement of mechanical components; and 5) repairing leaks or, where repair is not feasible, constructing temporary local dechlorination facilities to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-74.14366 41.7330264, -74.1565867 41.7412473, -74.1564082 41.7418173, -74.1560781 41.7424181, -74.1557454 41.7428372, -74.1551983 41.7433414, -74.1545469 41.7437705, -74.1535464 41.7448097, -74.1527671 41.7457605, -74.1494105 41.7494687, -74.1493165 41.7498608, -74.1491515 41.7502978, -74.1489698 41.7506497, -74.1486558 41.7511138, -74.1482348 41.751582, -74.1478631 41.7519099, -74.1476063 41.7522372, -74.147189 41.7526619, -74.1466368 41.7530971, -74.1460996 41.7534223, -74.1457746 41.7538031, -74.1455262 41.7544142, -74.1452649 41.754886, -74.1445584 41.7558121, -74.1425337 41.7578319, -74.1422162 41.7581059, -74.1417959 41.758409, -74.1415847 41.7588887, -74.1414386 41.7591404, -74.1412587 41.7596328, -74.1410555 41.760021, -74.1407549 41.7604585, -74.1401689 41.761077, -74.1396505 41.7614819, -74.1389847 41.761877, -74.1384478 41.7621215, -74.1377738 41.762354, -74.1373404 41.7624649, -74.136514 41.7626032, -74.1342168 41.7627475, -74.1338824 41.7633886, -74.1336644 41.7643631, -74.1333936 41.765055, -74.1332092 41.7654357, -74.1328085 41.7660445, -74.1324667 41.766468, -74.1320993 41.7668296, -74.1315853



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

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41.7395772, -74.14366 41.7330264)))

Project Counties: Ulster, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

There are a total of 4 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.

Flowering Plants	Status	Has Critical Habitat	Condition(s)
Northern Wild monkshood (<i>Aconitum noveboracense</i>)	Threatened		
Mammals			
Indiana bat (<i>Myotis sodalis</i>) Population: Entire	Endangered		
northern long-eared Bat (<i>Myotis septentrionalis</i>)	Proposed Endangered		
Reptiles			
Bog Turtle (<i>Clemmys muhlenbergii</i>) Population: northern	Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Critical habitats that lie within your project area

There are no critical habitats within your 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 Tracking Number: 05E1NY00-2014-SLI-0946
Project Name: Catskill Aqueduct Repair and Rehabilitation

July 25, 2014

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: Catskill Aqueduct Repair and Rehabilitation

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 Tracking Number: 05E1NY00-2014-SLI-0946

Project Type: Water Supply / Delivery

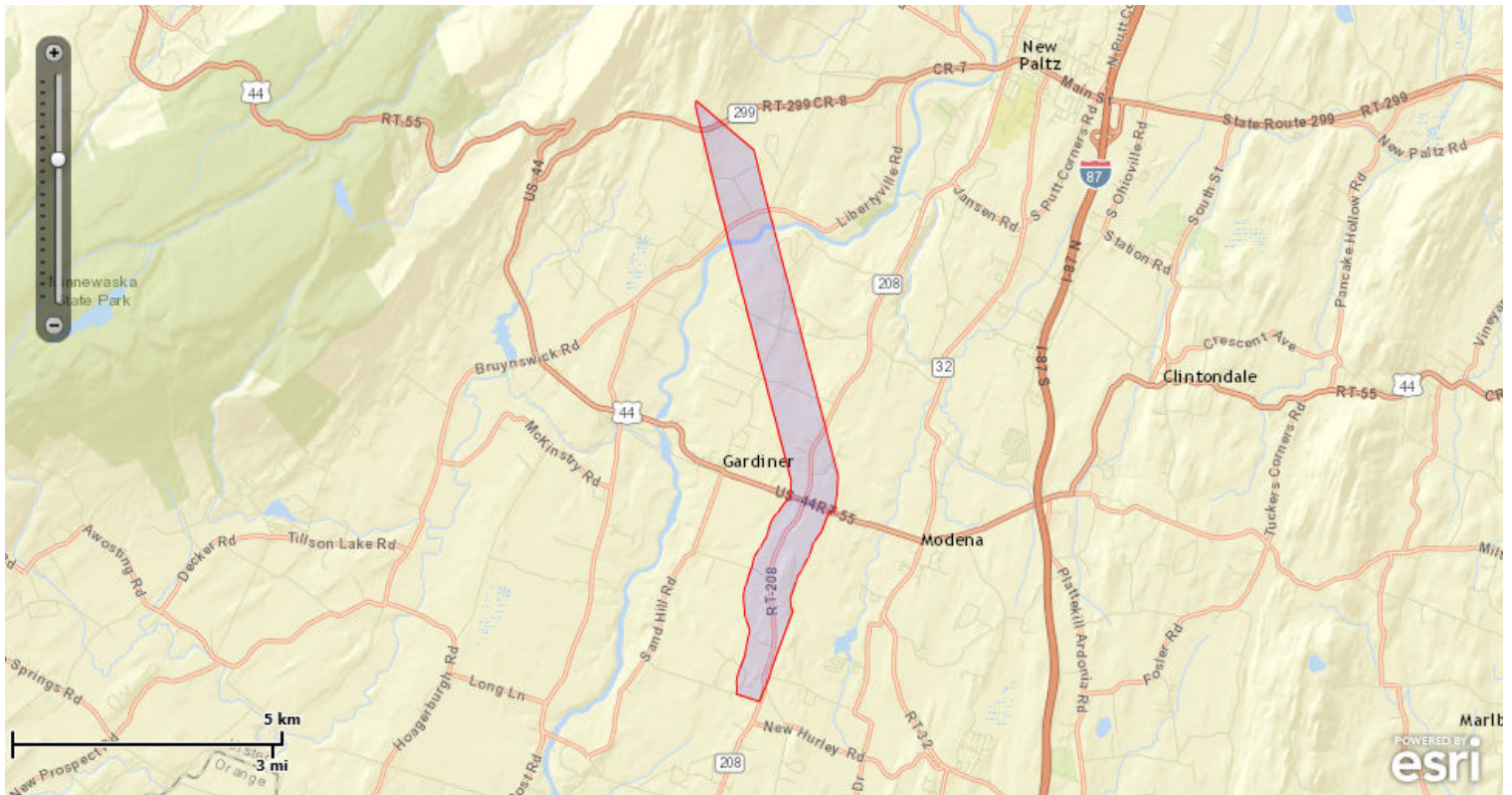
Project Description: DEP seeks to restore the capacity of the Catskill Aqueduct closer to historical capacity by: 1) cleaning/lining the interior; 2) adding chemicals to reduce extent of biofilm; 3) constructing new vent structures along the aqueduct to improve ability to release air; 4) repair/replacement of mechanical components; and 5) repairing leaks or, where repair is not feasible, constructing temporary local dechlorination facilities to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-74.14366 41.7330264, -74.1420469 41.7279863, -74.1251031 41.6794389, -74.124982 41.6789813, -74.1249347 41.6785161, -74.1251566 41.6757783, -74.1257632 41.6727212, -74.1268909 41.6730424, -74.1286414 41.6694255, -74.1288281 41.6693326, -74.1300586 41.6680196, -74.1304724 41.6676279, -74.1311249 41.6660009, -74.1314564 41.6653748, -74.1324376 41.6641184, -74.1326674 41.6636721, -74.1329956 41.6631788, -74.1339589 41.6621, -74.1341405 41.6615619, -74.135572 41.6583437, -74.1354654 41.6572066, -74.1350278 41.656307, -74.1396474 41.6468589, -74.1402785 41.6452904, -74.1409395 41.6439564, -74.1416095 41.6429364, -74.1424356 41.6412484, -74.1475381 41.6425094, -74.1475456 41.6446315, -74.1475002 41.6450428, -74.1474042 41.6454493, -74.1471558 41.6460657, -74.1457311 41.6488467, -74.1450616 41.6516469, -74.1446669 41.6530128, -74.1448174 41.653689, -74.1455222 41.65515, -74.145739 41.6558475, -74.1460128 41.6586147, -74.1460083 41.6590061, -74.1459458 41.6594597, -74.1457422 41.6601105, -74.1441158 41.6637674, -74.1438527 41.6647156, -74.1436045 41.6652992, -74.143268 41.6658279, -74.1429919 41.6661622, -74.1426244 41.6665246, -74.1421301



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

41.6669358, -74.1417037 41.6676769, -74.1409015 41.6686893, -74.1400787 41.6707416, -
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74.1565867 41.7412473, -74.14366 41.7330264)))

Project Counties: Ulster, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

There are a total of 4 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.

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northern long-eared Bat (<i>Myotis septentrionalis</i>)	Proposed Endangered		
Reptiles			
Bog Turtle (<i>Clemmys muhlenbergii</i>) Population: northern	Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Critical habitats that lie within your project area

There are no critical habitats within your 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 Tracking Number: 05E1NY00-2014-SLI-0953
Project Name: Catskill Aqueduct Repair and Rehabilitation

July 28, 2014

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: Catskill Aqueduct Repair and Rehabilitation

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 Tracking Number: 05E1NY00-2014-SLI-0953

Project Type: Water Supply / Delivery

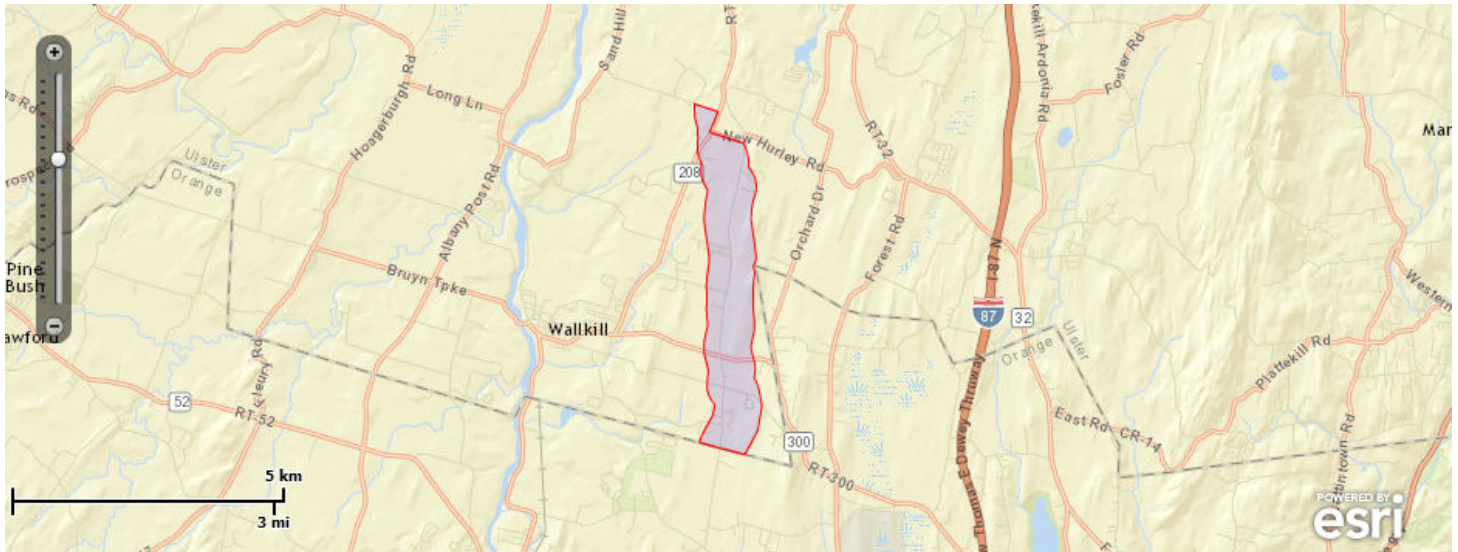
Project Description: DEP seeks to restore the capacity of the Catskill Aqueduct closer to historical capacity by: 1) cleaning/lining the interior; 2) adding chemicals to reduce extent of biofilm; 3) constructing new vent structures along the aqueduct to improve ability to release air; 4) repair/replacement of mechanical components; and 5) repairing leaks or, where repair is not feasible, constructing temporary local dechlorination facilities to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-74.1424356 41.6412484, -74.1433346 41.6394615, -74.1439255 41.6384014, -74.1442496 41.6379024, -74.1408736 41.6370695, -74.1396295 41.6367184, -74.1365259 41.6359781, -74.1365342 41.6357254, -74.1360804 41.6348087, -74.1356659 41.6334966, -74.1356 41.6331425, -74.1355714 41.6327354, -74.1356204 41.6321355, -74.1347504 41.6311215, -74.1344615 41.6307069, -74.1342544 41.6303204, -74.1341133 41.629971, -74.1339494 41.6292709, -74.1339267 41.6287331, -74.1339961 41.6281649, -74.1341353 41.6276796, -74.1345625 41.6265128, -74.1349007 41.6250778, -74.1350658 41.623585, -74.1340439 41.6178684, -74.1339914 41.6172583, -74.1339948 41.6166648, -74.1345254 41.61569, -74.1342313 41.6145087, -74.1345256 41.6130868, -74.1346163 41.6121433, -74.1345843 41.6091275, -74.1343172 41.6059471, -74.134319 41.6053742, -74.1344306 41.6047586, -74.1351405 41.6022057, -74.1343392 41.5998451, -74.1342002 41.5992866, -74.1341618 41.59856, -74.1343199 41.5969972, -74.1340521 41.5966824, -74.1337979 41.5963122, -74.1335895 41.5959231, -74.1334458 41.5955657, -74.1327893 41.5932915, -74.1327174 41.5928451, -74.1327122 41.5923003, -74.1327757 41.5918455, -74.1334088 41.5891572, -74.133568 41.5886559, -74.1337234 41.5883171, -74.134037 41.5878093, -74.1364647 41.5844561, -74.1465559 41.5864324, -74.1463995 41.5868857, -74.146056 41.5875227, -74.1435059 41.5910527, -74.1431712 41.5924721, -74.1432971 41.5929067, -74.1438251 41.5934152, -74.144253 41.5939771, -74.1445192 41.5944704, -74.1446934 41.5949399, -74.1448151 41.5955643, -74.1448287 41.5960186, -74.1445837 41.5984565, -74.1453636 41.6007604, -74.1454594 41.6011607, -74.1455099 41.6016377, -



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

74.1455353 41.6025924, -74.1454695 41.6031781, -74.1447198 41.6059083, -74.1449655
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74.1468028 41.6341772, -74.1469157 41.6347092, -74.1469427 41.6352523, -74.1468429
41.6383094, -74.1473616 41.6396964, -74.1474728 41.6401404, -74.1475271 41.6407172, -
74.1475381 41.6425094, -74.1424356 41.6412484)))

Project Counties: Orange, NY | Ulster, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

There are a total of 6 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		
Flowering Plants			
Northern Wild monkshood (<i>Aconitum noveboracense</i>)	Threatened		
Small Whorled pogonia (<i>Isotria medeoloides</i>)	Threatened		
Mammals			
Indiana bat (<i>Myotis sodalis</i>) Population: Entire	Endangered		
northern long-eared Bat (<i>Myotis septentrionalis</i>)	Proposed Endangered		
Reptiles			
Bog Turtle (<i>Clemmys mühlenbergii</i>) Population: northern	Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Critical habitats that lie within your project area

There are no critical habitats within your 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 Tracking Number: 05E1NY00-2014-SLI-0963
Project Name: Catskill Aqueduct Repair and Rehabilitation

July 29, 2014

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: Catskill Aqueduct Repair and Rehabilitation

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 Tracking Number: 05E1NY00-2014-SLI-0963

Project Type: Water Supply / Delivery

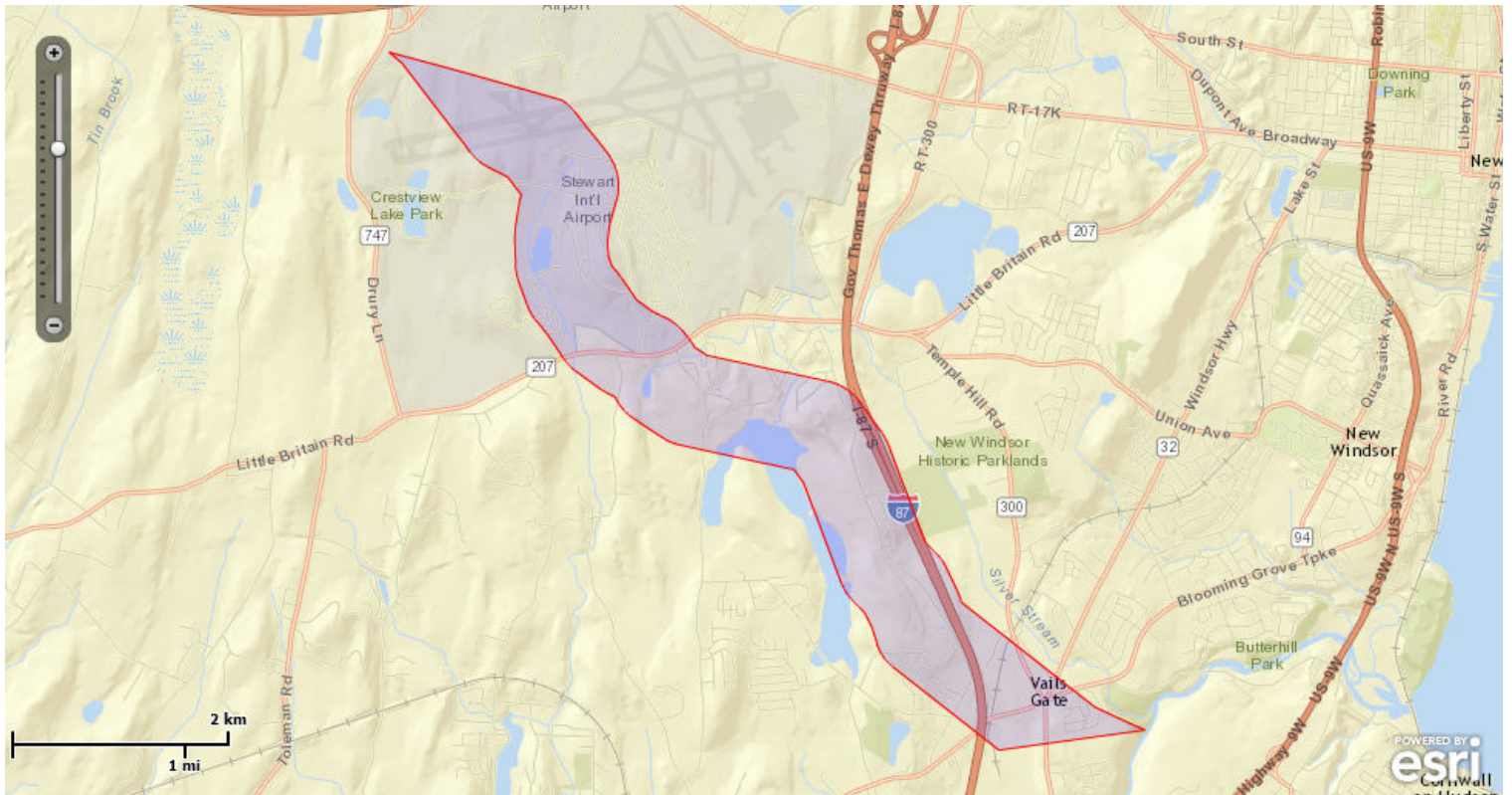
Project Description: DEP seeks to restore the capacity of the Catskill Aqueduct closer to historical capacity by: 1) cleaning/lining the interior; 2) adding chemicals to reduce extent of biofilm; 3) constructing new vent structures along the aqueduct to improve ability to release air; 4) repair/replacement of mechanical components; and 5) repairing leaks or, where repair is not feasible, constructing temporary local dechlorination facilities to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-74.1110855 41.5045028, -74.1102817 41.5040328, -74.1096719 41.5035367, -74.1059419 41.4999948, -74.1055681 41.4995615, -74.1051849 41.4989491, -74.1050244 41.4985864, -74.1048597 41.4980135, -74.1048 41.4975025, -74.1048168 41.4970001, -74.1049637 41.4963182, -74.1057375 41.4942474, -74.1059708 41.4931649, -74.1059862 41.4929205, -74.1059307 41.491482, -74.1055497 41.4906876, -74.1044667 41.4896878, -74.1027643 41.4878099, -74.101032 41.4868839, -74.0992819 41.4862405, -74.0984906 41.4858515, -74.098054 41.4855708, -74.0975619 41.4851772, -74.0969057 41.4845747, -74.0963747 41.48394, -74.0949254 41.4832179, -74.0811883 41.4810038, -74.0806081 41.4808676, -74.0800447 41.4806859, -74.0793181 41.4803668, -74.0788084 41.4800723, -74.0782912 41.4796958, -74.0778659 41.4793031, -74.0754453 41.4767928, -74.0750155 41.476275, -74.0747159 41.4757838, -74.0706191 41.4676856, -74.0690836 41.4664587, -74.0685313 41.4658945, -74.0682114 41.4654543, -74.0669423 41.4634335, -74.0665608 41.4626102, -74.0516831 41.4538494, -74.0460716 41.451929, -74.0623761 41.4502479, -74.0743813 41.4573208, -74.0750042 41.4577962, -74.0753956



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

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41.4958251, -74.1156164 41.4966275, -74.1171826 41.4981121, -74.1195946 41.4990274, -
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41.5085182, -74.1246524 41.5073743, -74.1110855 41.5045028)))

Project Counties: Orange, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

There are a total of 5 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		
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Mammals			
Indiana bat (<i>Myotis sodalis</i>) Population: Entire	Endangered		
northern long-eared Bat (<i>Myotis septentrionalis</i>)	Proposed Endangered		
Reptiles			
Bog Turtle (<i>Clemmys muhlenbergii</i>) Population: northern	Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Critical habitats that lie within your project area

There are no critical habitats within your 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 Tracking Number: 05E1NY00-2014-SLI-0962

July 29, 2014

Project Name: Catskill Aqueduct Repair and Rehabilitation

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.

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

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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: Catskill Aqueduct Repair and Rehabilitation

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 Tracking Number: 05E1NY00-2014-SLI-0962

Project Type: Water Supply / Delivery

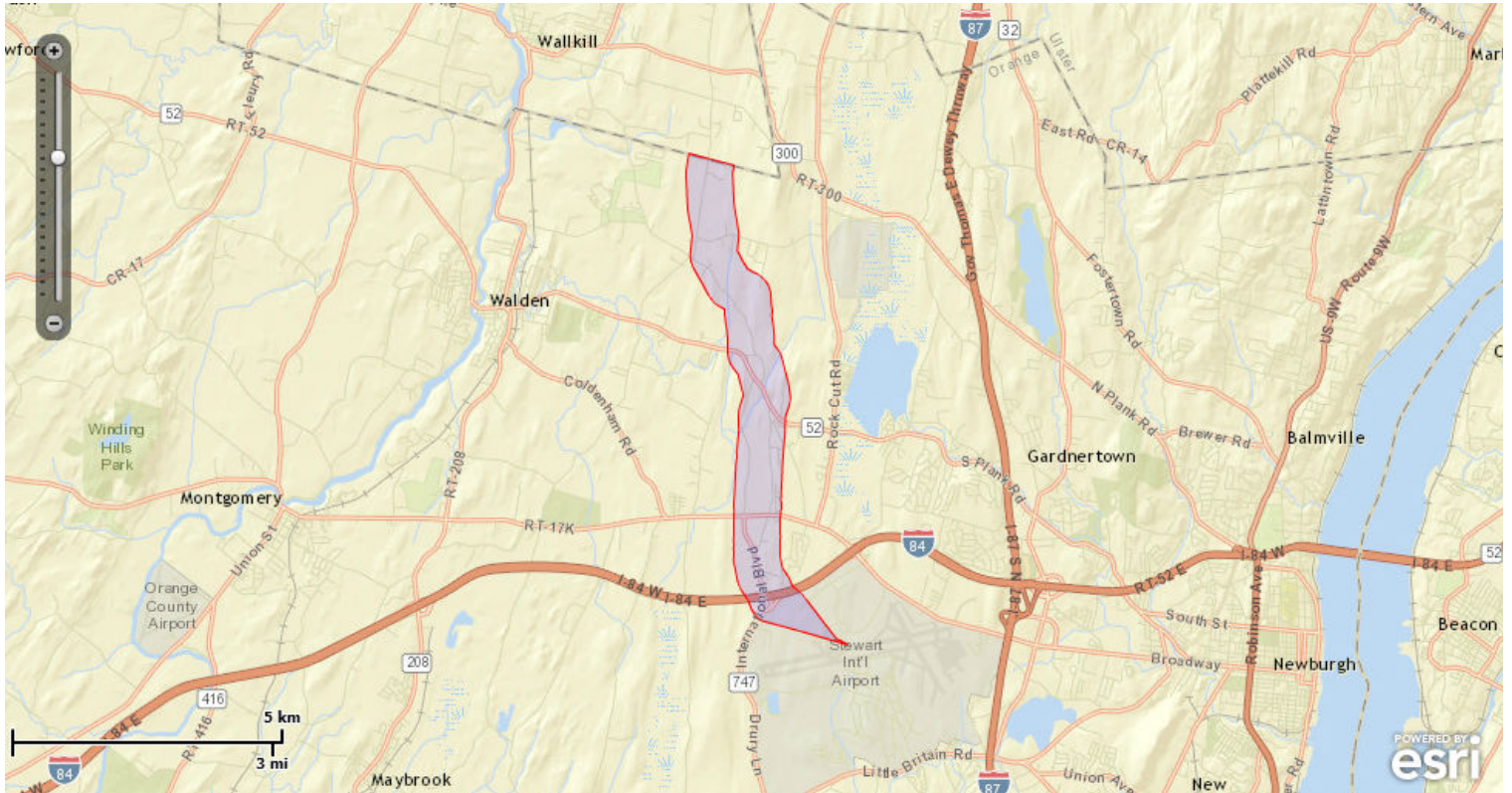
Project Description: DEP seeks to restore the capacity of the Catskill Aqueduct closer to historical capacity by: 1) cleaning/lining the interior; 2) adding chemicals to reduce extent of biofilm; 3) constructing new vent structures along the aqueduct to improve ability to release air; 4) repair/replacement of mechanical components; and 5) repairing leaks or, where repair is not feasible, constructing temporary local dechlorination facilities to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-74.1113153 41.5046114, -74.1110855 41.5045028, -74.1246524 41.5073743, -74.1304261 41.5085182, -74.1311756 41.5089907, -74.1315305 41.5092503, -74.1318542 41.5095302, -74.1321814 41.50987, -74.1326519 41.5105243, -74.1333985 41.5119397, -74.1349155 41.5136395, -74.1352146 41.5140532, -74.1354855 41.5145601, -74.1356469 41.5149969, -74.1365268 41.518077, -74.1366444 41.5187023, -74.1366579 41.51908, -74.1364563 41.528717, -74.1359209 41.5365629, -74.1354764 41.5403158, -74.1354411 41.5434497, -74.1353317 41.5440131, -74.1352092 41.5443732, -74.1344486 41.5460103, -74.1345935 41.5466565, -74.1356318 41.5496514, -74.1366398 41.5506234, -74.1370922 41.5511262, -74.1374922 41.5517485, -74.1377563 41.5524029, -74.1378867 41.5531246, -74.1379367 41.5557038, -74.1381313 41.5572148, -74.1384618 41.558934, -74.1385514 41.5604111, -74.1398823 41.5609611, -74.14056 41.5613151, -74.1412221 41.5617841, -74.1417463 41.5622832, -74.1456173 41.5674535, -74.1459113 41.567961, -74.1461172 41.5684885, -74.1462499 41.5691601, -74.1462547 41.5697237, -74.1458389 41.5727245, -74.1467781 41.5767665, -74.1468474 41.5771795, -74.1471903 41.5832243, -



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

74.1471714 41.5836361, -74.1471195 41.5839639, -74.1465559 41.5864324, -74.1364647
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41.5127985, -74.1137002 41.5055163, -74.1113153 41.5046114)))

Project Counties: Orange, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

There are a total of 5 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		
Flowering Plants			
Small Whorled pogonia (<i>Isotria medeoloides</i>)	Threatened		
Mammals			
Indiana bat (<i>Myotis sodalis</i>) Population: Entire	Endangered		
northern long-eared Bat (<i>Myotis septentrionalis</i>)	Proposed Endangered		
Reptiles			
Bog Turtle (<i>Clemmys muhlenbergii</i>) Population: northern	Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Critical habitats that lie within your project area

There are no critical habitats within your 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 Tracking Number: 05E1NY00-2014-SLI-0958
Project Name: Catskill Aqueduct Repair and Rehabilitation

July 28, 2014

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: Catskill Aqueduct Repair and Rehabilitation

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 Tracking Number: 05E1NY00-2014-SLI-0958

Project Type: Water Supply / Delivery

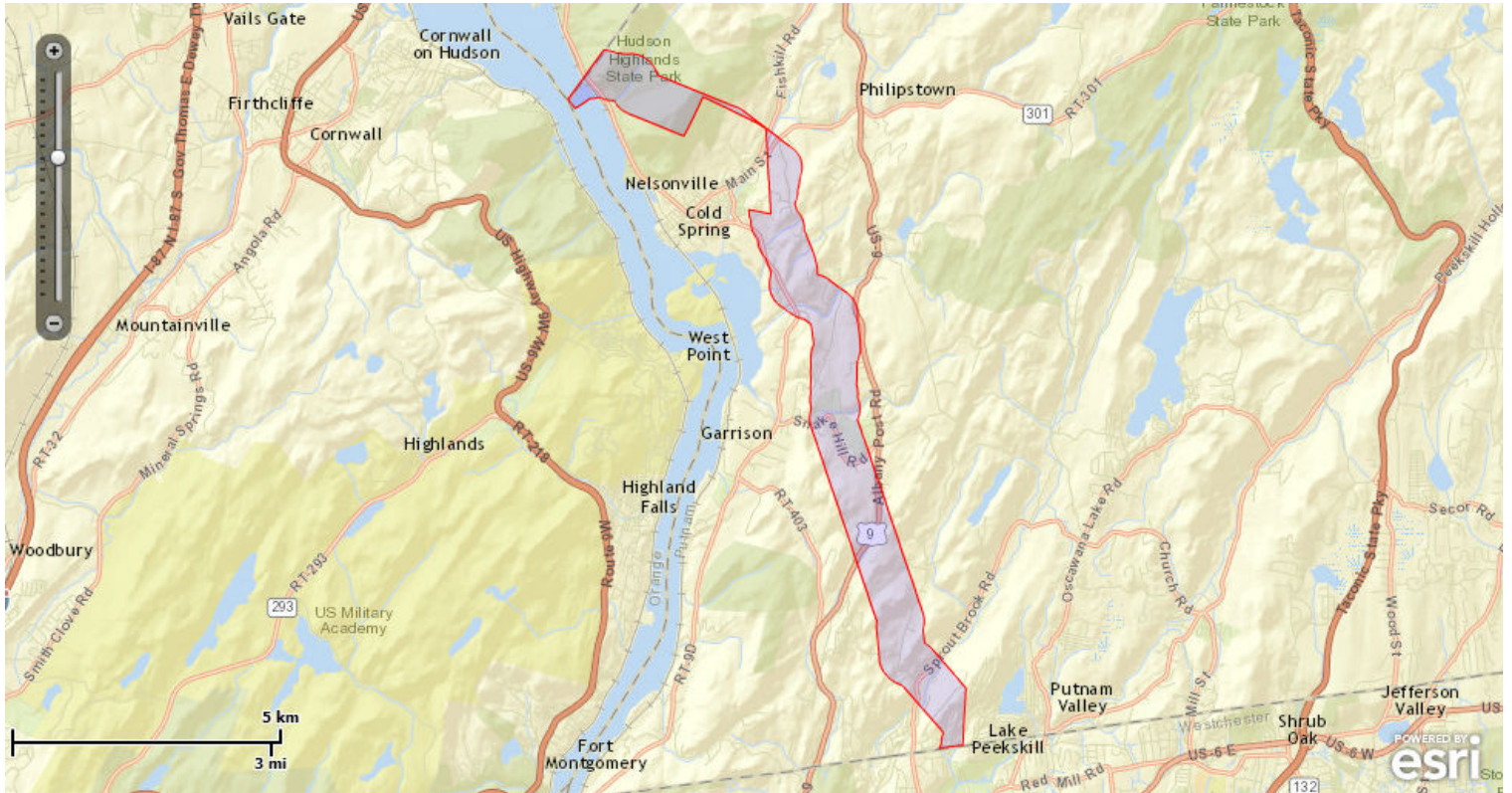
Project Description: DEP seeks to restore the capacity of the Catskill Aqueduct closer to historical capacity by: 1) cleaning/lining the interior; 2) adding chemicals to reduce extent of biofilm; 3) constructing new vent structures along the aqueduct to improve ability to release air; 4) repair/replacement of mechanical components; and 5) repairing leaks or, where repair is not feasible, constructing temporary local dechlorination facilities to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.9382002 41.4347074, -73.9311911 41.4307025, -73.9307283 41.4303649, -73.9302649 41.4299254, -73.9299078 41.4294743, -73.929632 41.4289919, -73.929442 41.4284867, -73.9293438 41.4279906, -73.9293231 41.4276329, -73.9293703 41.427109, -73.9295694 41.4264335, -73.9299004 41.4258235, -73.9299512 41.4249859, -73.9300647 41.4245138, -73.930275 41.4239886, -73.9303239 41.4233049, -73.930394 41.4228862, -73.9305753 41.4223225, -73.9309474 41.4215618, -73.9309306 41.4214463, -73.9306638 41.4209103, -73.9305209 41.4204636, -73.9300687 41.420084, -73.9298021 41.4198091, -73.9294194 41.4193135, -73.929183 41.4189077, -73.9290197 41.4185354, -73.9288578 41.4179639, -73.9287987 41.4174094, -73.9288111 41.4170401, -73.9284966 41.416612, -73.9283253 41.4163141, -73.9266105 41.4129757, -73.926167 41.4117199, -73.9260092 41.4111382, -73.9259174 41.4105115, -73.9259106 41.4097828, -73.9248629 41.4095531, -73.9239681 41.4092283, -73.9234592 41.4089745, -73.9190634 41.406533, -73.9184541 41.4061022, -73.9178969 41.4055738, -73.9174481 41.4049808, -73.9171503 41.4044034, -73.9170005 41.4039621, -73.916897 41.4033855, -73.9168959



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

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United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

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73.9425056 41.4371609, -73.9382002 41.4347074)))

Project Counties: Dutchess, NY | Putnam, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

There are a total of 5 threatened, endangered, or candidate 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			
Indiana bat (<i>Myotis sodalis</i>) Population: Entire	Endangered		
New England Cottontail rabbit (<i>Sylvilagus transitionalis</i>)	Candidate		
northern long-eared Bat (<i>Myotis septentrionalis</i>)	Proposed Endangered		
Reptiles			
Bog Turtle (<i>Clemmys muhlenbergii</i>) Population: northern	Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Critical habitats that lie within your project area

There are no critical habitats within your 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 Tracking Number: 05E1NY00-2014-SLI-0955
Project Name: Catskill Aqueduct Repair and Rehabilitation

July 28, 2014

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: Catskill Aqueduct Repair and Rehabilitation

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 Tracking Number: 05E1NY00-2014-SLI-0955

Project Type: Water Supply / Delivery

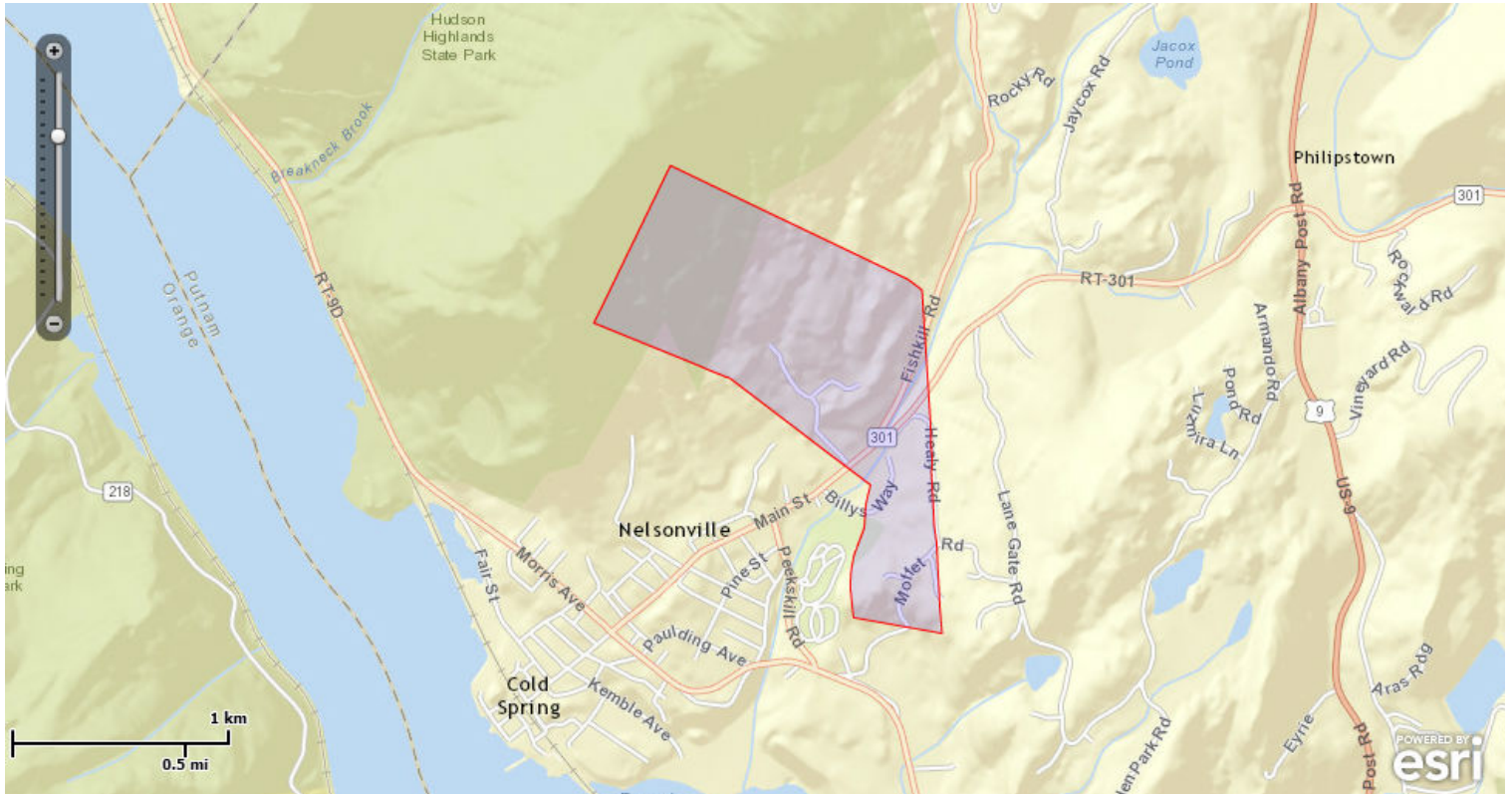
Project Description: DEP seeks to restore the capacity of the Catskill Aqueduct closer to historical capacity by: 1) cleaning/lining the interior; 2) adding chemicals to reduce extent of biofilm; 3) constructing new vent structures along the aqueduct to improve ability to release air; 4) repair/replacement of mechanical components; and 5) repairing leaks or, where repair is not feasible, constructing temporary local dechlorination facilities to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.9382002 41.4347074, -73.9373992 41.4342509, -73.9369211 41.4286842, -73.9368945 41.4267574, -73.9367225 41.4243974, -73.9365894 41.4236994, -73.9364067 41.4210903, -73.9362859 41.4199249, -73.9412242 41.4205948, -73.9413806 41.4217104, -73.9413923 41.4220565, -73.9413246 41.4226718, -73.9411242 41.4233233, -73.9406203 41.4243457, -73.9405224 41.4253195, -73.9404349 41.4256561, -73.9402609 41.4261043, -73.9480929 41.4305677, -73.95568 41.4328786, -73.951407 41.4394442, -73.9382002 41.4347074)))

Project Counties: Putnam, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

There are a total of 4 threatened, endangered, or candidate 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.

Mammals	Status	Has Critical Habitat	Condition(s)
Indiana bat (<i>Myotis sodalis</i>) Population: Entire	Endangered		
New England Cottontail rabbit (<i>Sylvilagus transitionalis</i>)	Candidate		
northern long-eared Bat (<i>Myotis septentrionalis</i>)	Proposed Endangered		
Reptiles			
Bog Turtle (<i>Clemmys muhlenbergii</i>) Population: northern	Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Critical habitats that lie within your project area

There are no critical habitats within your project area.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Long Island Ecological Services Field Office
340 SMITH ROAD
SHIRLEY, NY 11967
PHONE: (631)286-0485 FAX: (631)286-4003

Consultation Tracking Number: 05E1LI00-2014-SLI-0065
Project Name: Catskill Aqueduct Repair and Rehabilitation

July 28, 2014

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 (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

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 Act, 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 website 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.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the

human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

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 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 Act. 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: Catskill Aqueduct Repair and Rehabilitation

Official Species List

Provided by:

Long Island Ecological Services Field Office
340 SMITH ROAD
SHIRLEY, NY 11967
(631) 286-0485

Expect additional Species list documents from the following office(s):

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 Tracking Number: 05E1LI00-2014-SLI-0065

Project Type: Water Supply / Delivery

Project Description: DEP seeks to restore the capacity of the Catskill Aqueduct closer to historical capacity by: 1) cleaning/lining the interior; 2) adding chemicals to reduce extent of biofilm; 3) constructing new vent structures along the aqueduct to improve ability to release air; 4) repair/replacement of mechanical components; and 5) repairing leaks or, where repair is not feasible, constructing temporary local dechlorination facilities to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.886976 41.3318342, -73.8934918 41.3311189, -73.8927974 41.3406882, -73.8881948 41.3367205, -73.8878541 41.3363698, -73.8874502 41.3358307, -73.8872027 41.3353736, -73.8870145 41.3348695, -73.8869356 41.3345355, -73.8867858 41.3335268, -73.8867508 41.3330229, -73.88677 41.3326806, -73.8868244 41.3323406, -73.886976 41.3318342)))

Project Counties: Putnam, NY | Westchester, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

There are a total of 1 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.

Mammals	Status	Has Critical Habitat	Condition(s)
northern long-eared Bat (<i>Myotis septentrionalis</i>)	Proposed Endangered		



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Critical habitats that lie within your project area

There are no critical habitats within your 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 Tracking Number: 05E1NY00-2014-SLI-0952
Project Name: Catskill Aqueduct Repair and Rehabilitation

July 28, 2014

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: Catskill Aqueduct Repair and Rehabilitation

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>

Expect additional Species list documents from the following office(s):

Long Island Ecological Services Field Office

340 SMITH ROAD

SHIRLEY, NY 11967

(631) 286-0485

Consultation Tracking Number: 05E1NY00-2014-SLI-0952

Project Type: Water Supply / Delivery

Project Description: DEP seeks to restore the capacity of the Catskill Aqueduct closer to historical capacity by: 1) cleaning/lining the interior; 2) adding chemicals to reduce extent of biofilm; 3) constructing new vent structures along the aqueduct to improve ability to release air; 4) repair/replacement of mechanical components; and 5) repairing leaks or, where repair is not feasible, constructing temporary local dechlorination facilities to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.886976 41.3318342, -73.8934918 41.3311189, -73.8927974 41.3406882, -73.8881948 41.3367205, -73.8878541 41.3363698, -73.8874502 41.3358307, -73.8872027 41.3353736, -73.8870145 41.3348695, -73.8869356 41.3345355, -73.8867858 41.3335268, -73.8867508 41.3330229, -73.88677 41.3326806, -73.8868244 41.3323406, -73.886976 41.3318342)))

Project Counties: Putnam, NY | Westchester, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

There are a total of 4 threatened, endangered, or candidate 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.

Mammals	Status	Has Critical Habitat	Condition(s)
Indiana bat (<i>Myotis sodalis</i>) Population: Entire	Endangered		
New England Cottontail rabbit (<i>Sylvilagus transitionalis</i>)	Candidate		
northern long-eared Bat (<i>Myotis septentrionalis</i>)	Proposed Endangered		
Reptiles			
Bog Turtle (<i>Clemmys muhlenbergii</i>) Population: northern	Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Critical habitats that lie within your project area

There are no critical habitats within your project area.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Long Island Ecological Services Field Office
340 SMITH ROAD
SHIRLEY, NY 11967
PHONE: (631)286-0485 FAX: (631)286-4003

Consultation Tracking Number: 05E1LI00-2014-SLI-0063
Project Name: Catskill Aqueduct Repair and Rehabilitation

July 25, 2014

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 (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

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 Act, 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 website 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.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the

human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

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 wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

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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 Act. 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: Catskill Aqueduct Repair and Rehabilitation

Official Species List

Provided by:

Long Island Ecological Services Field Office
340 SMITH ROAD
SHIRLEY, NY 11967
(631) 286-0485

Expect additional Species list documents from the following office(s):

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 Tracking Number: 05E1LI00-2014-SLI-0063

Project Type: Water Supply / Delivery

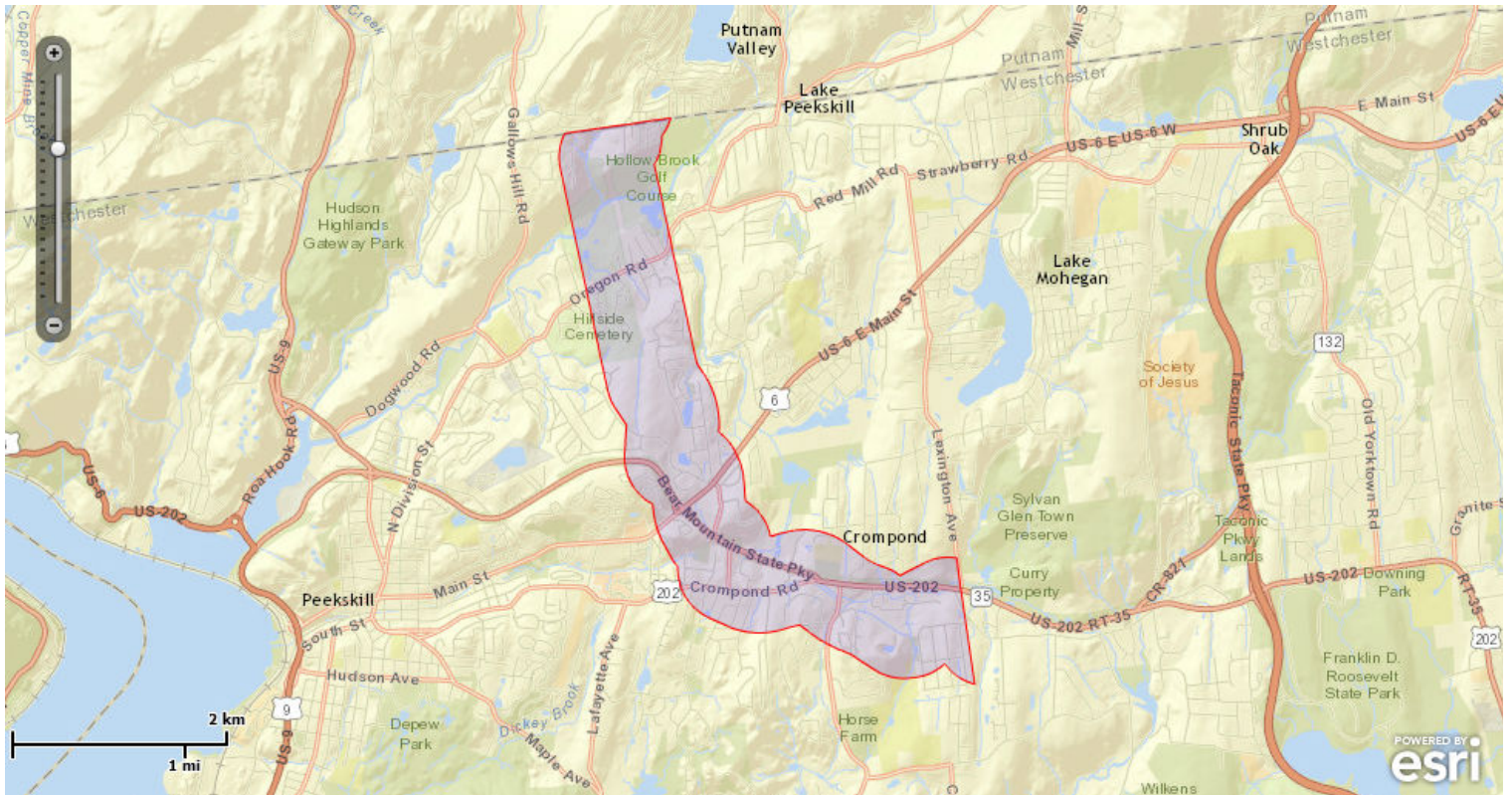
Project Description: DEP seeks to restore the capacity of the Catskill Aqueduct closer to historical capacity by: 1) cleaning/lining the interior; 2) adding chemicals to reduce extent of biofilm; 3) constructing new vent structures along the aqueduct to improve ability to release air; 4) repair/replacement of mechanical components; and 5) repairing leaks or, where repair is not feasible, constructing temporary local dechlorination facilities to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.8550818 41.295021, -73.8546105 41.2923993, -73.8530766 41.2844566, -73.853789 41.2846294, -73.8541974 41.2847654, -73.8549674 41.2851053, -73.8556606 41.285529, -73.8564313 41.2861607, -73.8570425 41.2857891, -73.8575588 41.2855448, -73.858309 41.2852791, -73.8591771 41.2850833, -73.8598412 41.2850039, -73.8610221 41.2849392, -73.8619138 41.2849933, -73.8625919 41.2851057, -73.8632053 41.2852636, -73.8639564 41.2855413, -73.8669834 41.2870116, -73.8685145 41.2874645, -73.8699108 41.2880026, -73.8710789 41.2885599, -73.8726071 41.2894254, -73.8739055 41.2891856, -73.8748634 41.2889605, -73.8759466 41.2888026, -73.8772635 41.2887497, -73.8779978 41.2887849, -73.8787257 41.2888663, -73.879442 41.2889931, -73.8802838 41.2892056, -73.8828629 41.2900822, -73.8834112 41.2903116, -73.8838516 41.2905409, -73.8842632 41.2907998, -73.8846419 41.2910858, -73.8849846 41.2913966, -73.8853232 41.2917722, -73.8855804 41.2921268, -73.8857966 41.2925028, -73.8859619 41.2928815, -73.8861214 41.2934496, -73.8861683 41.2937891, -73.8861762 41.2942624, -73.8866225 41.2947053, -73.8868563 41.2949898, -73.8878424 41.2963113, -73.888268



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

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41.2950673, -73.8550818 41.295021)))

Project Counties: Putnam, NY | Westchester, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

There are a total of 1 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.

Mammals	Status	Has Critical Habitat	Condition(s)
northern long-eared Bat (<i>Myotis septentrionalis</i>)	Proposed Endangered		



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Critical habitats that lie within your project area

There are no critical habitats within your 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 Tracking Number: 05E1NY00-2014-SLI-0945
Project Name: Catskill Aqueduct Repair and Rehabilitation

July 25, 2014

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

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Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

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>

Expect additional Species list documents from the following office(s):

Long Island Ecological Services Field Office

340 SMITH ROAD

SHIRLEY, NY 11967

(631) 286-0485

Consultation Tracking Number: 05E1NY00-2014-SLI-0945

Project Type: Water Supply / Delivery

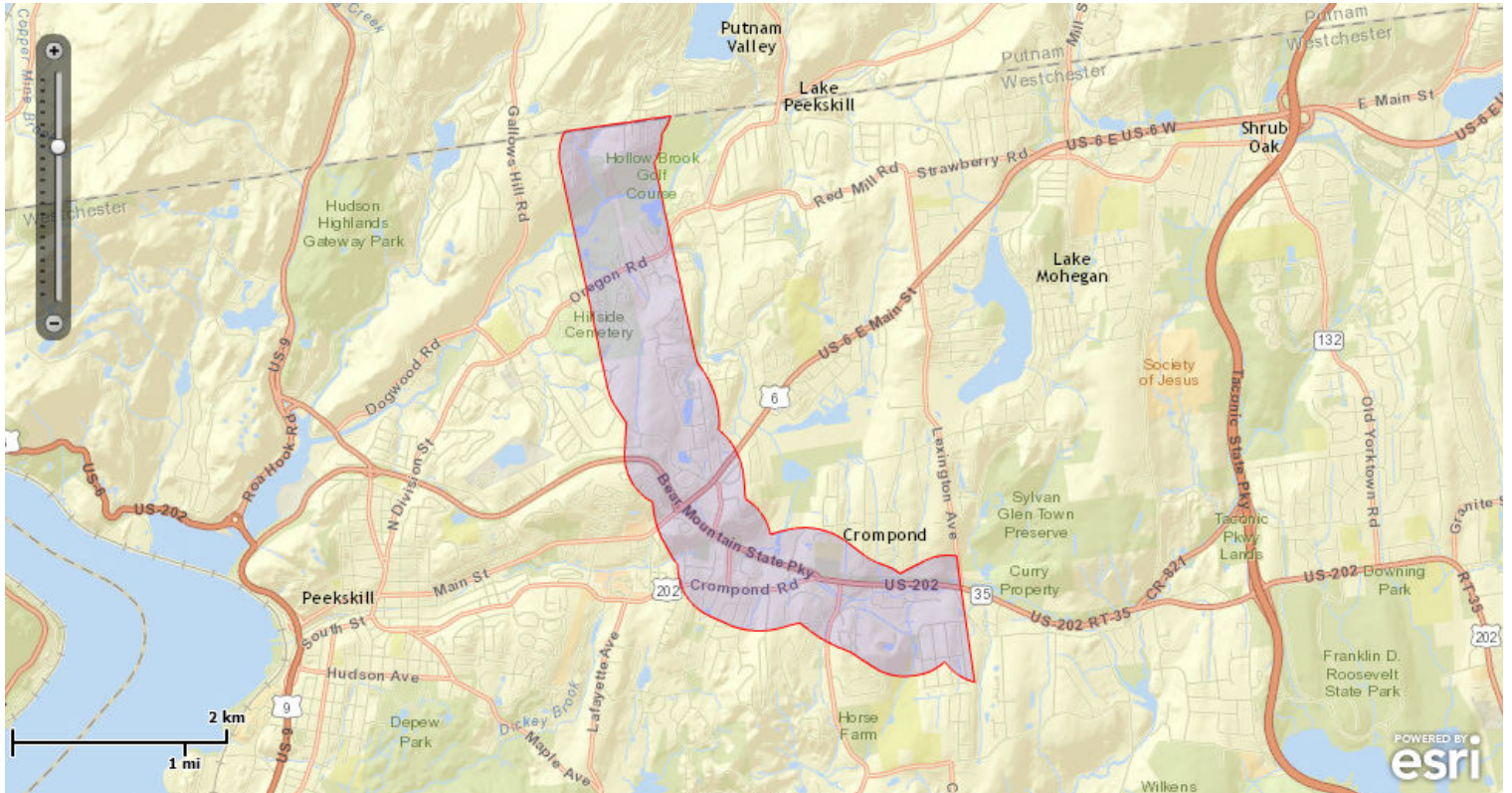
Project Description: DEP seeks to restore the capacity of the Catskill Aqueduct closer to historical capacity by: 1) cleaning/lining the interior; 2) adding chemicals to reduce extent of biofilm; 3) constructing new vent structures along the aqueduct to improve ability to release air; 4) repair/replacement of mechanical components; and 5) repairing leaks or, where repair is not feasible, constructing temporary local dechlorination facilities to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.8550818 41.295021, -73.8546105 41.2923993, -73.8530766 41.2844566, -73.853789 41.2846294, -73.8541974 41.2847654, -73.8549674 41.2851053, -73.8556606 41.285529, -73.8564313 41.2861607, -73.8570425 41.2857891, -73.8575588 41.2855448, -73.858309 41.2852791, -73.8591771 41.2850833, -73.8598412 41.2850039, -73.8610221 41.2849392, -73.8619138 41.2849933, -73.8625919 41.2851057, -73.8632053 41.2852636, -73.8639564 41.2855413, -73.8669834 41.2870116, -73.8685145 41.2874645, -73.8699108 41.2880026, -73.8710789 41.2885599, -73.8726071 41.2894254, -73.8739055 41.2891856, -73.8748634 41.2889605, -73.8759466 41.2888026, -73.8772635 41.2887497, -73.8779978 41.2887849, -73.8787257 41.2888663, -73.879442 41.2889931, -73.8802838 41.2892056, -73.8828629 41.2900822, -73.8834112 41.2903116, -73.8838516 41.2905409, -73.8842632 41.2907998, -73.8846419 41.2910858, -73.8849846 41.2913966, -73.8853232 41.2917722, -73.8855804 41.2921268, -73.8857966 41.2925028, -73.8859619 41.2928815, -73.8861214 41.2934496, -73.8861683 41.2937891, -73.8861762 41.2942624, -73.8866225 41.2947053, -73.8868563 41.2949898, -73.8878424 41.2963113, -73.888268



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

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41.2950673, -73.8550818 41.295021)))

Project Counties: Putnam, NY | Westchester, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

There are a total of 4 threatened, endangered, or candidate 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.

Mammals	Status	Has Critical Habitat	Condition(s)
Indiana bat (<i>Myotis sodalis</i>) Population: Entire	Endangered		
New England Cottontail rabbit (<i>Sylvilagus transitionalis</i>)	Candidate		
northern long-eared Bat (<i>Myotis septentrionalis</i>)	Proposed Endangered		
Reptiles			
Bog Turtle (<i>Clemmys muhlenbergii</i>) Population: northern	Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Critical habitats that lie within your project area

There are no critical habitats within your project area.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Long Island Ecological Services Field Office
340 SMITH ROAD
SHIRLEY, NY 11967
PHONE: (631)286-0485 FAX: (631)286-4003

Consultation Tracking Number: 05E1LI00-2014-SLI-0066
Project Name: Catskill Aqueduct Repair and Rehabilitation

July 28, 2014

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 (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

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 Act, 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 website 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.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the

human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

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 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 Act. 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: Catskill Aqueduct Repair and Rehabilitation

Official Species List

Provided by:

Long Island Ecological Services Field Office
340 SMITH ROAD
SHIRLEY, NY 11967
(631) 286-0485

Expect additional Species list documents from the following office(s):

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 Tracking Number: 05E1LI00-2014-SLI-0066

Project Type: Water Supply / Delivery

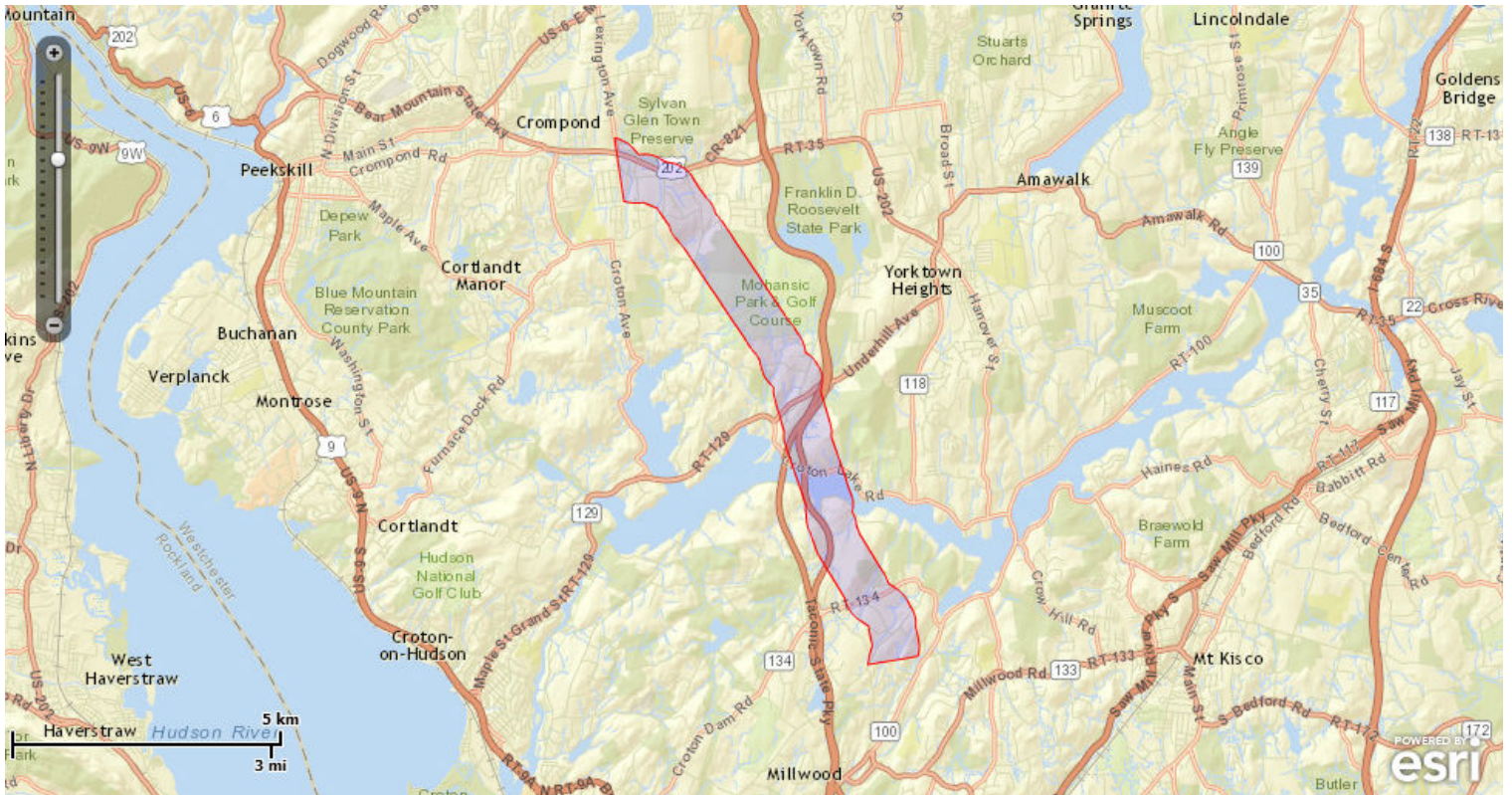
Project Description: DEP seeks to restore the capacity of the Catskill Aqueduct closer to historical capacity by: 1) cleaning/lining the interior; 2) adding chemicals to reduce extent of biofilm; 3) constructing new vent structures along the aqueduct to improve ability to release air; 4) repair/replacement of mechanical components; and 5) repairing leaks or, where repair is not feasible, constructing temporary local dechlorination facilities to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.7874351 41.2082138, -73.7986342 41.206845, -73.7981417 41.2087323, -73.797972 41.2091522, -73.7975674 41.2099631, -73.7982324 41.2121474, -73.7983206 41.2126935, -73.7983424 41.2131704, -73.7984408 41.2133082, -73.8004203 41.2142548, -73.8011023 41.2146331, -73.8019259 41.2152257, -73.802562 41.2158325, -73.802948 41.2163005, -73.8032674 41.2167829, -73.8034899 41.2172045, -73.8038871 41.2181324, -73.8095718 41.2251153, -73.8100163 41.225781, -73.8110607 41.22797, -73.8113411 41.2287697, -73.8115931 41.2290959, -73.8118137 41.2294482, -73.8119925 41.2298136, -73.8121283 41.2301895, -73.8122525 41.2307905, -73.8124817 41.2327304, -73.8124934 41.2331621, -73.8124493 41.2335941, -73.8171078 41.2438966, -73.8172261 41.2442625, -73.8173269 41.2448306, -73.8173303 41.2453871, -73.8172501 41.2459002, -73.8194678 41.2515995, -73.8195794 41.2520382, -73.8196243 41.2523744, -73.819635 41.2527181, -73.8195796 41.2532554, -73.8200924 41.2536305, -73.8210685 41.254467, -73.8214119 41.2548187, -73.8216753 41.2551485, -73.8220653 41.2558121, -73.8224318 41.2567294, -73.8226259 41.2573494, -73.8227244 41.2579061, -73.8235191 41.2588244, -



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

73.8240254 41.2592088, -73.8244954 41.2596683, -73.8395608 41.2765858, -73.8416257
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Project Counties: Westchester, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

There are a total of 1 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.

Mammals	Status	Has Critical Habitat	Condition(s)
northern long-eared Bat (<i>Myotis septentrionalis</i>)	Proposed Endangered		



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Critical habitats that lie within your project area

There are no critical habitats within your 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 Tracking Number: 05E1NY00-2014-SLI-0954
Project Name: Catskill Aqueduct Repair and Rehabilitation

July 28, 2014

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: Catskill Aqueduct Repair and Rehabilitation

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>

Expect additional Species list documents from the following office(s):

Long Island Ecological Services Field Office

340 SMITH ROAD

SHIRLEY, NY 11967

(631) 286-0485

Consultation Tracking Number: 05E1NY00-2014-SLI-0954

Project Type: Water Supply / Delivery

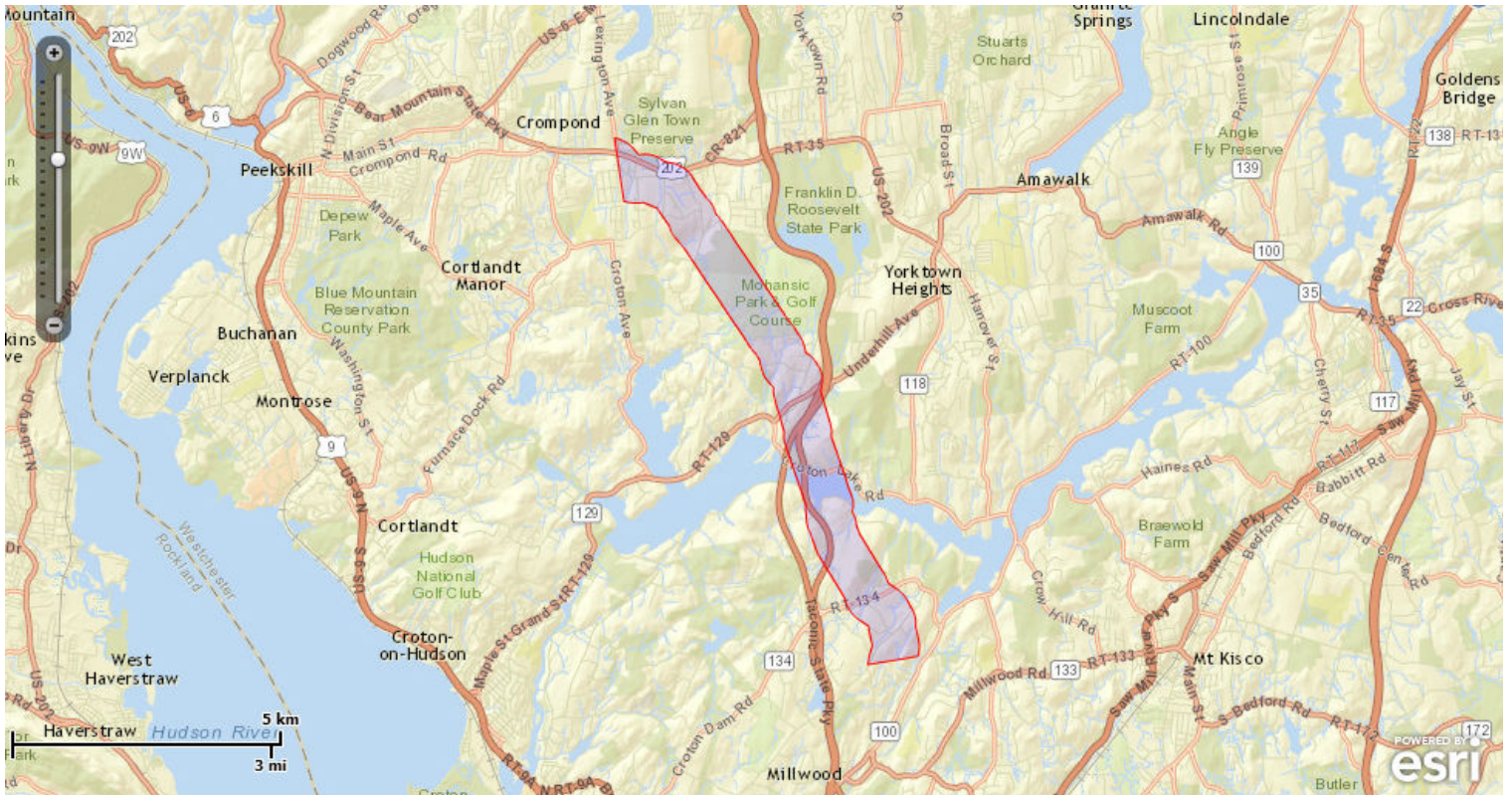
Project Description: DEP seeks to restore the capacity of the Catskill Aqueduct closer to historical capacity by: 1) cleaning/lining the interior; 2) adding chemicals to reduce extent of biofilm; 3) constructing new vent structures along the aqueduct to improve ability to release air; 4) repair/replacement of mechanical components; and 5) repairing leaks or, where repair is not feasible, constructing temporary local dechlorination facilities to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.7874351 41.2082138, -73.7986342 41.206845, -73.7981417 41.2087323, -73.797972 41.2091522, -73.7975674 41.2099631, -73.7982324 41.2121474, -73.7983206 41.2126935, -73.7983424 41.2131704, -73.7984408 41.2133082, -73.8004203 41.2142548, -73.8011023 41.2146331, -73.8019259 41.2152257, -73.802562 41.2158325, -73.802948 41.2163005, -73.8032674 41.2167829, -73.8034899 41.2172045, -73.8038871 41.2181324, -73.8095718 41.2251153, -73.8100163 41.225781, -73.8110607 41.22797, -73.8113411 41.2287697, -73.8115931 41.2290959, -73.8118137 41.2294482, -73.8119925 41.2298136, -73.8121283 41.2301895, -73.8122525 41.2307905, -73.8124817 41.2327304, -73.8124934 41.2331621, -73.8124493 41.2335941, -73.8171078 41.2438966, -73.8172261 41.2442625, -73.8173269 41.2448306, -73.8173303 41.2453871, -73.8172501 41.2459002, -73.8194678 41.2515995, -73.8195794 41.2520382, -73.8196243 41.2523744, -73.819635 41.2527181, -73.8195796 41.2532554, -73.8200924 41.2536305, -73.8210685 41.254467, -73.8214119 41.2548187, -73.8216753 41.2551485, -73.8220653 41.2558121, -73.8224318 41.2567294, -73.8226259 41.2573494, -73.8227244 41.2579061, -73.8235191 41.2588244, -



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

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41.2099256, -73.7871609 41.2093444, -73.7872626 41.2087681, -73.7874351 41.2082138)))

Project Counties: Westchester, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

There are a total of 4 threatened, endangered, or candidate 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.

Mammals	Status	Has Critical Habitat	Condition(s)
Indiana bat (<i>Myotis sodalis</i>) Population: Entire	Endangered		
New England Cottontail rabbit (<i>Sylvilagus transitionalis</i>)	Candidate		
northern long-eared Bat (<i>Myotis septentrionalis</i>)	Proposed Endangered		
Reptiles			
Bog Turtle (<i>Clemmys muhlenbergii</i>) Population: northern	Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Critical habitats that lie within your project area

There are no critical habitats within your project area.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Long Island Ecological Services Field Office
340 SMITH ROAD
SHIRLEY, NY 11967
PHONE: (631)286-0485 FAX: (631)286-4003

Consultation Tracking Number: 05E1LI00-2014-SLI-0064
Project Name: Catskill Aqueduct Repair and Rehabilitation

July 28, 2014

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 (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

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 Act, 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 website 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.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the

human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

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 wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

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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 Act. 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: Catskill Aqueduct Repair and Rehabilitation

Official Species List

Provided by:

Long Island Ecological Services Field Office
340 SMITH ROAD
SHIRLEY, NY 11967
(631) 286-0485

Expect additional Species list documents from the following office(s):

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 Tracking Number: 05E1LI00-2014-SLI-0064

Project Type: Water Supply / Delivery

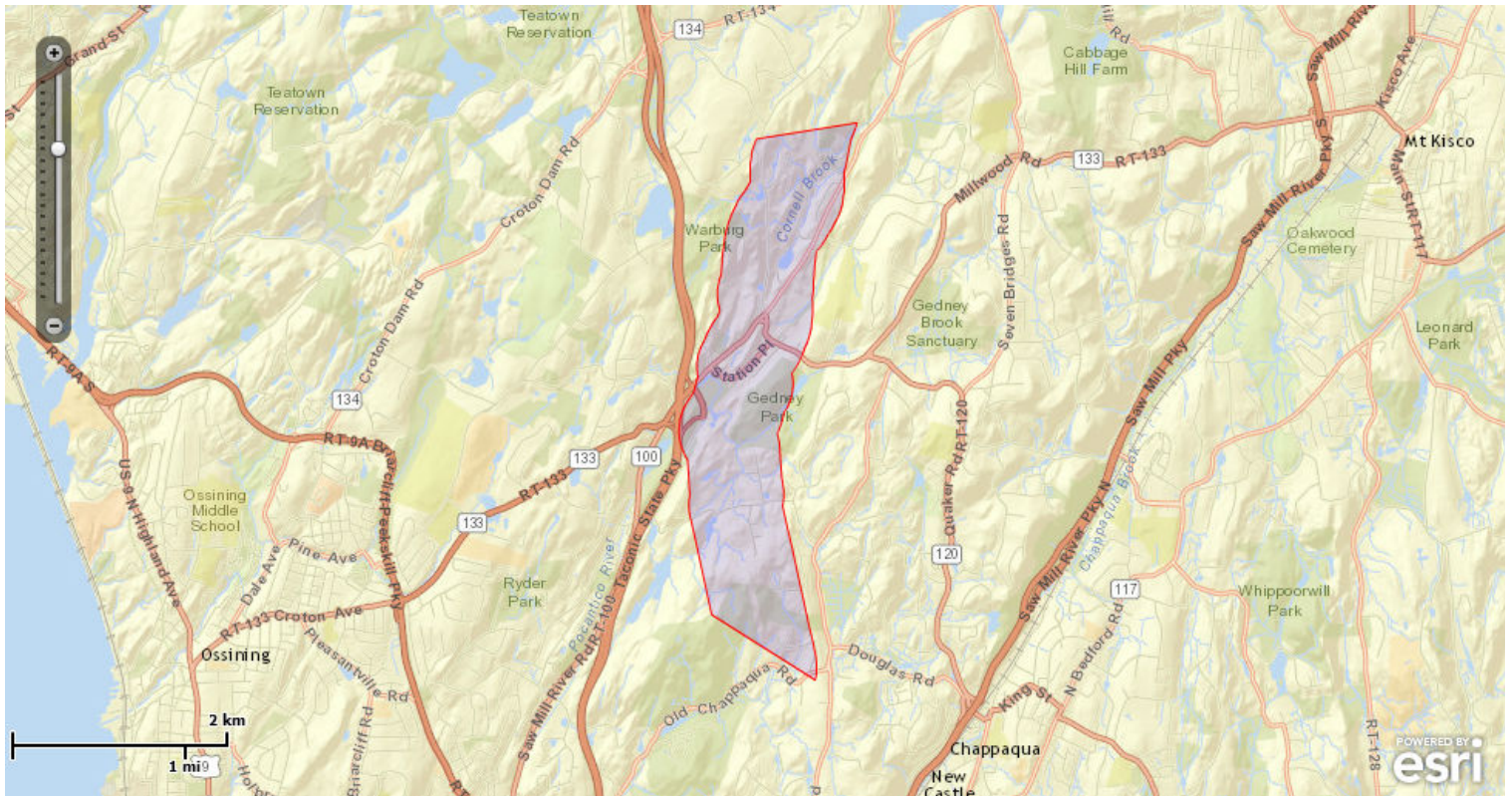
Project Description: DEP seeks to restore the capacity of the Catskill Aqueduct closer to historical capacity by: 1) cleaning/lining the interior; 2) adding chemicals to reduce extent of biofilm; 3) constructing new vent structures along the aqueduct to improve ability to release air; 4) repair/replacement of mechanical components; and 5) repairing leaks or, where repair is not feasible, constructing temporary local dechlorination facilities to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.7921005 41.1615317, -73.8036187 41.1670056, -73.8060924 41.1754569, -73.8061559 41.1758255, -73.8061785 41.1762637, -73.8061565 41.1766006, -73.8060524 41.1771201, -73.8061163 41.177541, -73.8062994 41.1799532, -73.8067335 41.1805665, -73.8070708 41.1812549, -73.8071794 41.1816018, -73.8072579 41.1820041, -73.8072875 41.1824101, -73.8072678 41.1828165, -73.8071314 41.183471, -73.8068935 41.1840508, -73.8064877 41.1846894, -73.8056423 41.1856571, -73.8054249 41.1863443, -73.8051652 41.1869448, -73.8052667 41.1875092, -73.8052675 41.1880566, -73.8051731 41.1886008, -73.8049852 41.1891303, -73.8047124 41.1896283, -73.8044935 41.1899306, -73.8038704 41.1909751, -73.8034639 41.1914912, -73.8030518 41.1918901, -73.8027282 41.1925158, -73.8028739 41.1929547, -73.8029621 41.1933606, -73.8030002 41.1937709, -73.8029805 41.1942588, -73.8028297 41.1949439, -73.8025526 41.195579, -73.8024606 41.1969265, -73.8022286 41.1983588, -73.8020749 41.1990191, -73.8018504 41.1996588, -73.8016131 41.2001716, -73.8008093 41.2015237, -73.8005071 41.2019347, -73.7998971 41.202546, -73.7996242 41.2029257, -73.7993012 41.2032841, -73.7992957



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

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73.7919604 41.1625819, -73.7919916 41.162113, -73.7921005 41.1615317)))

Project Counties: Westchester, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

There are a total of 1 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.

Mammals	Status	Has Critical Habitat	Condition(s)
northern long-eared Bat (<i>Myotis septentrionalis</i>)	Proposed Endangered		



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Critical habitats that lie within your project area

There are no critical habitats within your 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 Tracking Number: 05E1NY00-2014-SLI-0948
Project Name: Catskill Aqueduct Repair and Rehabilitation

July 28, 2014

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: Catskill Aqueduct Repair and Rehabilitation

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>

Expect additional Species list documents from the following office(s):

Long Island Ecological Services Field Office

340 SMITH ROAD

SHIRLEY, NY 11967

(631) 286-0485

Consultation Tracking Number: 05E1NY00-2014-SLI-0948

Project Type: Water Supply / Delivery

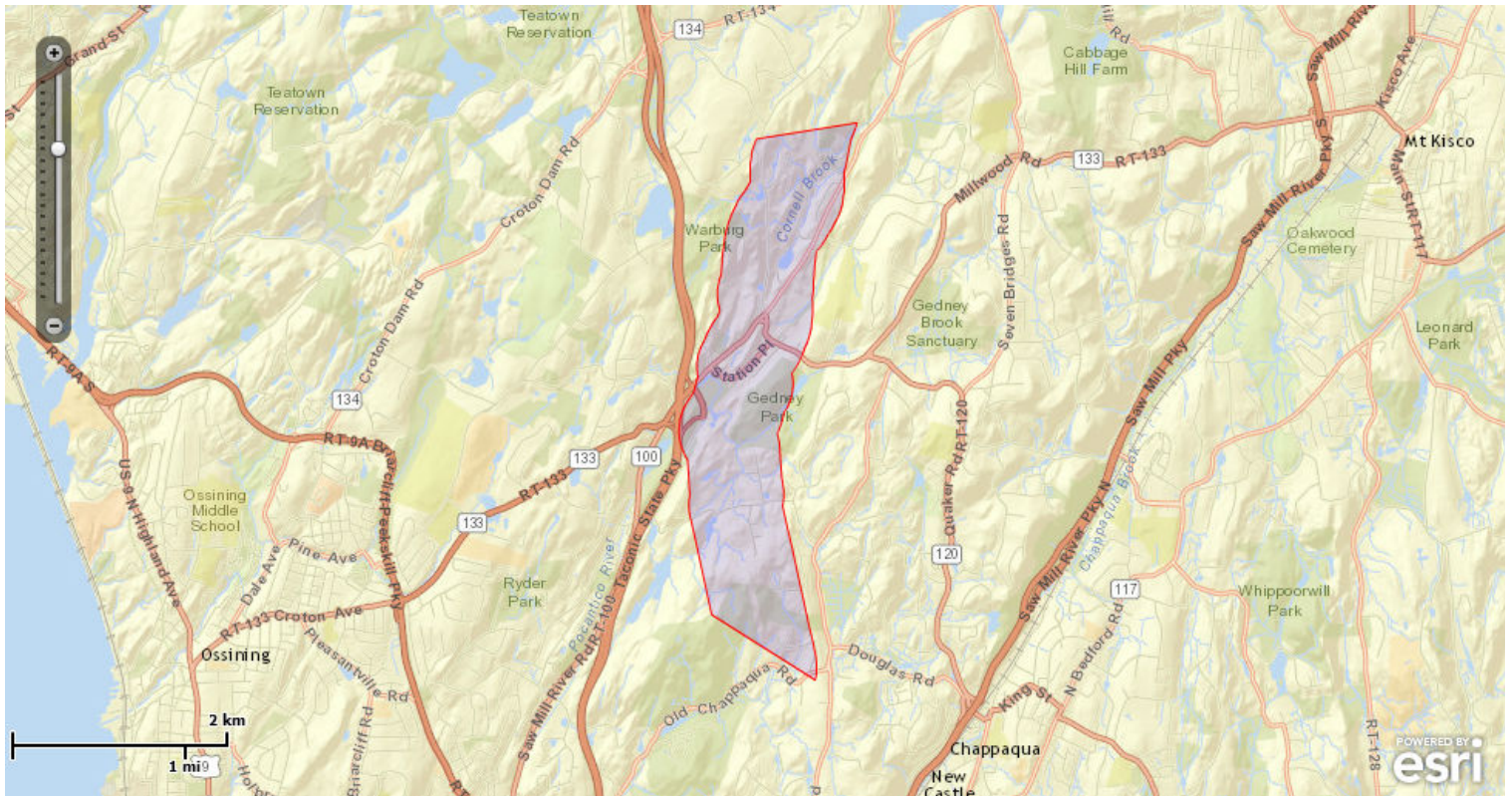
Project Description: DEP seeks to restore the capacity of the Catskill Aqueduct closer to historical capacity by: 1) cleaning/lining the interior; 2) adding chemicals to reduce extent of biofilm; 3) constructing new vent structures along the aqueduct to improve ability to release air; 4) repair/replacement of mechanical components; and 5) repairing leaks or, where repair is not feasible, constructing temporary local dechlorination facilities to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.7921005 41.1615317, -73.8036187 41.1670056, -73.8060924 41.1754569, -73.8061559 41.1758255, -73.8061785 41.1762637, -73.8061565 41.1766006, -73.8060524 41.1771201, -73.8061163 41.177541, -73.8062994 41.1799532, -73.8067335 41.1805665, -73.8070708 41.1812549, -73.8071794 41.1816018, -73.8072579 41.1820041, -73.8072875 41.1824101, -73.8072678 41.1828165, -73.8071314 41.183471, -73.8068935 41.1840508, -73.8064877 41.1846894, -73.8056423 41.1856571, -73.8054249 41.1863443, -73.8051652 41.1869448, -73.8052667 41.1875092, -73.8052675 41.1880566, -73.8051731 41.1886008, -73.8049852 41.1891303, -73.8047124 41.1896283, -73.8044935 41.1899306, -73.8038704 41.1909751, -73.8034639 41.1914912, -73.8030518 41.1918901, -73.8027282 41.1925158, -73.8028739 41.1929547, -73.8029621 41.1933606, -73.8030002 41.1937709, -73.8029805 41.1942588, -73.8028297 41.1949439, -73.8025526 41.195579, -73.8024606 41.1969265, -73.8022286 41.1983588, -73.8020749 41.1990191, -73.8018504 41.1996588, -73.8016131 41.2001716, -73.8008093 41.2015237, -73.8005071 41.2019347, -73.7998971 41.202546, -73.7996242 41.2029257, -73.7993012 41.2032841, -73.7992957



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

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73.7919604 41.1625819, -73.7919916 41.162113, -73.7921005 41.1615317)))

Project Counties: Westchester, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

There are a total of 4 threatened, endangered, or candidate 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.

Mammals	Status	Has Critical Habitat	Condition(s)
Indiana bat (<i>Myotis sodalis</i>) Population: Entire	Endangered		
New England Cottontail rabbit (<i>Sylvilagus transitionalis</i>)	Candidate		
northern long-eared Bat (<i>Myotis septentrionalis</i>)	Proposed Endangered		
Reptiles			
Bog Turtle (<i>Clemmys muhlenbergii</i>) Population: northern	Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Critical habitats that lie within your project area

There are no critical habitats within your project area.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Long Island Ecological Services Field Office
340 SMITH ROAD
SHIRLEY, NY 11967
PHONE: (631)286-0485 FAX: (631)286-4003

Consultation Tracking Number: 05E1LI00-2014-SLI-0067

July 28, 2014

Project Name: Catskill Aqueduct Repair and Rehabilitation

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

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The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the

human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

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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 Act. 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: Catskill Aqueduct Repair and Rehabilitation

Official Species List

Provided by:

Long Island Ecological Services Field Office
340 SMITH ROAD
SHIRLEY, NY 11967
(631) 286-0485

Expect additional Species list documents from the following office(s):

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 Tracking Number: 05E1LI00-2014-SLI-0067

Project Type: Water Supply / Delivery

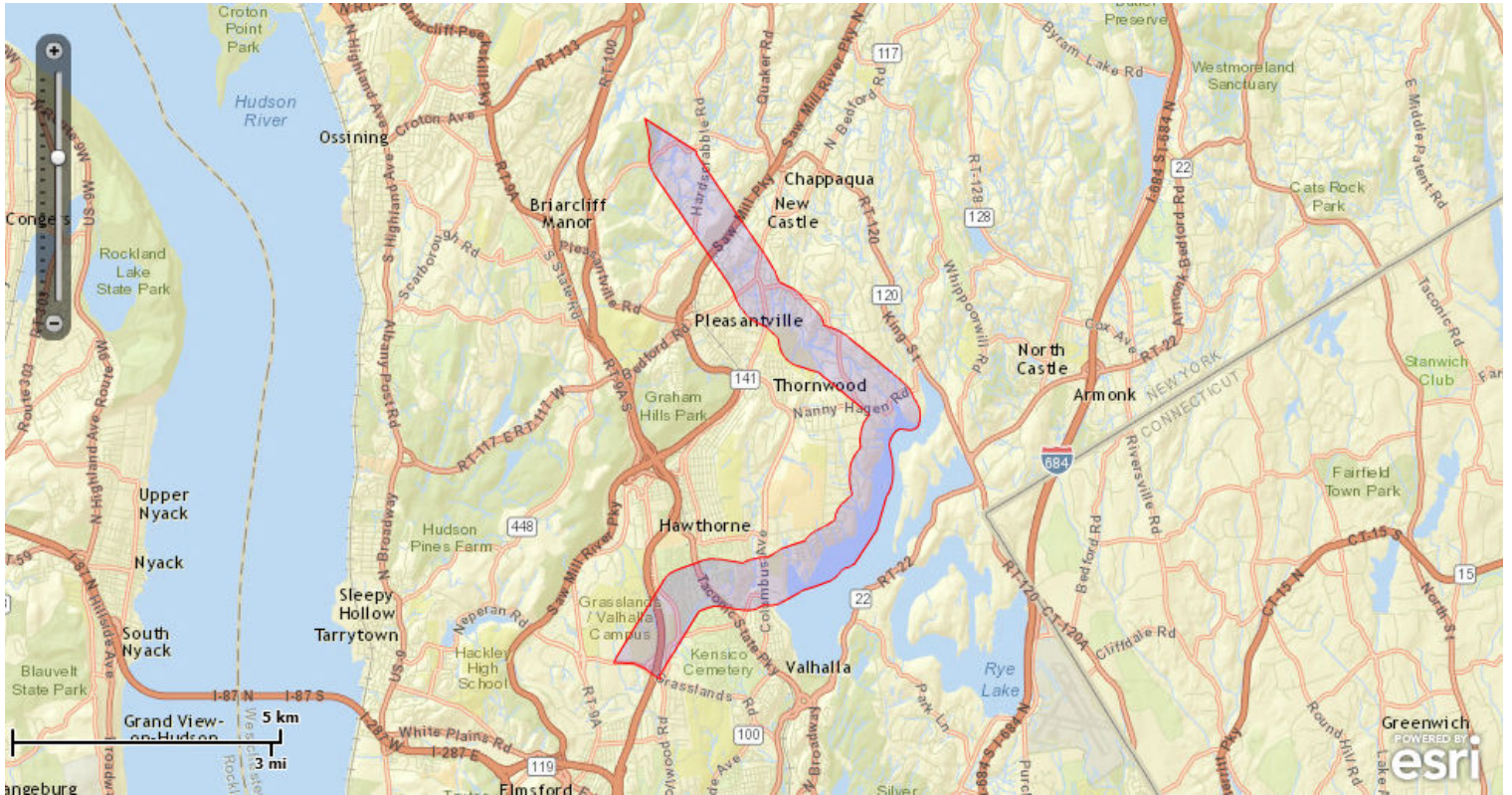
Project Description: DEP seeks to restore the capacity of the Catskill Aqueduct closer to historical capacity by: 1) cleaning/lining the interior; 2) adding chemicals to reduce extent of biofilm; 3) constructing new vent structures along the aqueduct to improve ability to release air; 4) repair/replacement of mechanical components; and 5) repairing leaks or, where repair is not feasible, constructing temporary local dechlorination facilities to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.7427354 41.1152829, -73.743546 41.1149287, -73.7444333 41.1147381, -73.7455891 41.1148256, -73.7467494 41.1149814, -73.7476696 41.1145776, -73.7484771 41.1138071, -73.7489764 41.1130332, -73.749083 41.1121009, -73.7486869 41.1106635, -73.7483699 41.1093545, -73.7482811 41.1078037, -73.7483611 41.1064089, -73.7486882 41.1051774, -73.7491729 41.1042361, -73.7495776 41.103833, -73.7497147 41.1036282, -73.7518615 41.0980168, -73.7570549 41.0921223, -73.757236 41.0921087, -73.7576696 41.0919192, -73.7582932 41.0917069, -73.758985 41.0915408, -73.759843 41.0911781, -73.7603523 41.0906194, -73.7609476 41.0901394, -73.761653 41.0897197, -73.7623013 41.0894355, -73.7630463 41.089201, -73.7686478 41.087774, -73.7692747 41.0874343, -73.7732363 41.0857764, -73.7736133 41.0856335, -73.7742048 41.0854644, -73.7748192 41.0853515, -73.7756582 41.0852916, -73.7762897 41.0853154, -73.7771166 41.0854381, -73.7779843 41.0850337, -73.7789531 41.0847072, -73.779919 41.0845254, -73.7808791 41.084469, -73.781777 41.0845245, -73.7870745 41.0851789, -73.7878068 41.0851481, -73.7884756 41.0851814, -73.7915685 41.0843273, -73.800272



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

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United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

41.138468, -73.769997 41.1382133, -73.7693081 41.1377889, -73.768765 41.1373419, -
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41.1161258, -73.7425152 41.1157877, -73.7427195 41.1153849, -73.7427354 41.1152829)))

Project Counties: Westchester, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

There are a total of 1 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.

Mammals	Status	Has Critical Habitat	Condition(s)
northern long-eared Bat (<i>Myotis septentrionalis</i>)	Proposed Endangered		



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Critical habitats that lie within your project area

There are no critical habitats within your 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 Tracking Number: 05E1NY00-2014-SLI-0957
Project Name: Catskill Aqueduct Repair and Rehabilitation

July 28, 2014

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: Catskill Aqueduct Repair and Rehabilitation

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>

Expect additional Species list documents from the following office(s):

Long Island Ecological Services Field Office

340 SMITH ROAD

SHIRLEY, NY 11967

(631) 286-0485

Consultation Tracking Number: 05E1NY00-2014-SLI-0957

Project Type: Water Supply / Delivery

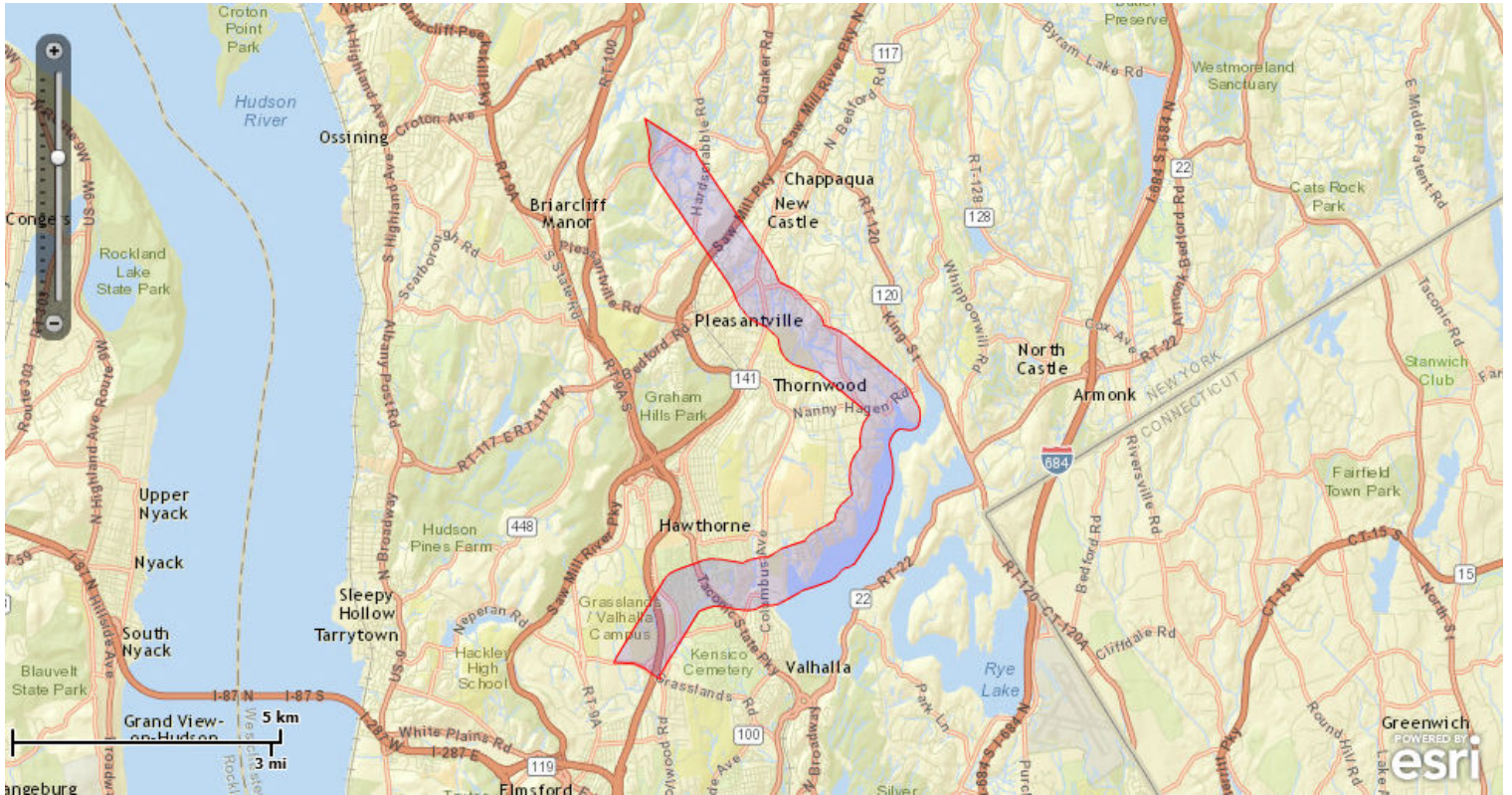
Project Description: DEP seeks to restore the capacity of the Catskill Aqueduct closer to historical capacity by: 1) cleaning/lining the interior; 2) adding chemicals to reduce extent of biofilm; 3) constructing new vent structures along the aqueduct to improve ability to release air; 4) repair/replacement of mechanical components; and 5) repairing leaks or, where repair is not feasible, constructing temporary local dechlorination facilities to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.7427354 41.1152829, -73.743546 41.1149287, -73.7444333 41.1147381, -73.7455891 41.1148256, -73.7467494 41.1149814, -73.7476696 41.1145776, -73.7484771 41.1138071, -73.7489764 41.1130332, -73.749083 41.1121009, -73.7486869 41.1106635, -73.7483699 41.1093545, -73.7482811 41.1078037, -73.7483611 41.1064089, -73.7486882 41.1051774, -73.7491729 41.1042361, -73.7495776 41.103833, -73.7497147 41.1036282, -73.7518615 41.0980168, -73.7570549 41.0921223, -73.757236 41.0921087, -73.7576696 41.0919192, -73.7582932 41.0917069, -73.758985 41.0915408, -73.759843 41.0911781, -73.7603523 41.0906194, -73.7609476 41.0901394, -73.761653 41.0897197, -73.7623013 41.0894355, -73.7630463 41.089201, -73.7686478 41.087774, -73.7692747 41.0874343, -73.7732363 41.0857764, -73.7736133 41.0856335, -73.7742048 41.0854644, -73.7748192 41.0853515, -73.7756582 41.0852916, -73.7762897 41.0853154, -73.7771166 41.0854381, -73.7779843 41.0850337, -73.7789531 41.0847072, -73.779919 41.0845254, -73.7808791 41.084469, -73.781777 41.0845245, -73.7870745 41.0851789, -73.7878068 41.0851481, -73.7884756 41.0851814, -73.7915685 41.0843273, -73.800272



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

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United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

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41.1161258, -73.7425152 41.1157877, -73.7427195 41.1153849, -73.7427354 41.1152829)))

Project Counties: Westchester, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

There are a total of 4 threatened, endangered, or candidate 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.

Mammals	Status	Has Critical Habitat	Condition(s)
Indiana bat (<i>Myotis sodalis</i>) Population: Entire	Endangered		
New England Cottontail rabbit (<i>Sylvilagus transitionalis</i>)	Candidate		
northern long-eared Bat (<i>Myotis septentrionalis</i>)	Proposed Endangered		
Reptiles			
Bog Turtle (<i>Clemmys muhlenbergii</i>) Population: northern	Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Critical habitats that lie within your project area

There are no critical habitats within your 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 Tracking Number: 05E1NY00-2014-SLI-0131
Project Name: Catskill Aqueduct Repair and Rehabilitation

November 22, 2013

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, and proposed species, designated critical habitat, and candidate species 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: Catskill Aqueduct Repair and Rehabilitation

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 Tracking Number: 05E1NY00-2014-SLI-0131

Project Type: Water Supply / Delivery

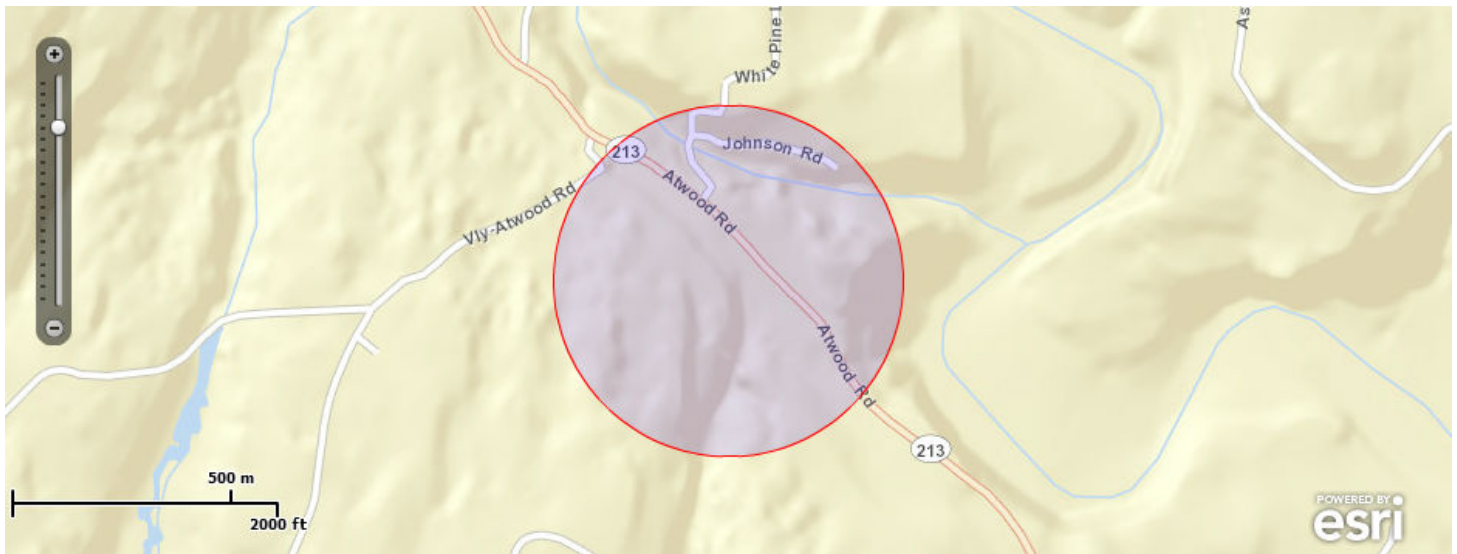
Project Description: DEP proposes to repair multiple small leaks in the Catskill Aqueduct (CA) that runs from the Ashokan Reservoir south into New York City. These leak repairs will aid in restoring the CA to historic carrying capacity. Other options for capacity improvement include the creation of multiple new vent structures along the CA, cleaning or lining the interior and upstream chemical addition. Leaks not eliminated through repair would require local dechlorination to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-74.1710562 41.9063381, -74.1701969 41.9062745, -74.1695698 41.9061525, -74.1691663 41.9060369, -74.1684085 41.9057278, -74.167895 41.9054326, -74.1675839 41.9052085, -74.1670478 41.9047028, -74.166827 41.9044253, -74.16656 41.9039843, -74.166374 41.9035206, -74.1662968 41.9032029, -74.1662571 41.9025586, -74.1663282 41.9020774, -74.1664231 41.9017625, -74.1667233 41.9011577, -74.1671622 41.9006022, -74.1675743 41.9002287, -74.1678845 41.9000039, -74.1685788 41.8996205, -74.1691534 41.8993968, -74.1695564 41.8992803, -74.1699717 41.8991911, -74.1706104 41.8991099, -74.1714737 41.8991018, -74.1723253 41.8992081, -74.1731382 41.8994256, -74.1738865 41.8997472, -74.174229 41.8999441, -74.1746954 41.9002801, -74.1750978 41.9006595, -74.1753268 41.9009333, -74.1756827 41.901521, -74.1758548 41.9019876, -74.1759226 41.9023065, -74.1759431 41.9029513, -74.1758958 41.9032722, -74.1757536 41.9037445, -74.1754355 41.9043441, -74.1749801 41.9048922, -74.1744019 41.9053712, -74.1737191 41.9057661, -74.1729535 41.9060643, -74.1721291 41.9062563, -74.1714881 41.9063269, -74.1710562 41.9063381)))

Project Counties: Ulster, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

Species lists are not entirely based upon the current range of a species but may also take into consideration actions that affect a species that exists in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Please contact the designated FWS office if you have questions.

Bog Turtle (*Clemmys muhlenbergii*)

Population: northern

Listing Status: Threatened

Indiana bat (*Myotis sodalis*)

Population: Entire

Listing Status: Endangered

northern long-eared Bat (*Myotis septentrionalis*)

Listing Status: Proposed Endangered

Northern Wild monkshood (*Aconitum noveboracense*)

Listing Status: Threatened



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 Tracking Number: 05E1NY00-2014-SLI-0132
Project Name: Catskill Aqueduct Repair and Rehabilitation

November 22, 2013

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, and proposed species, designated critical habitat, and candidate species 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: Catskill Aqueduct Repair and Rehabilitation

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 Tracking Number: 05E1NY00-2014-SLI-0132

Project Type: Water Supply / Delivery

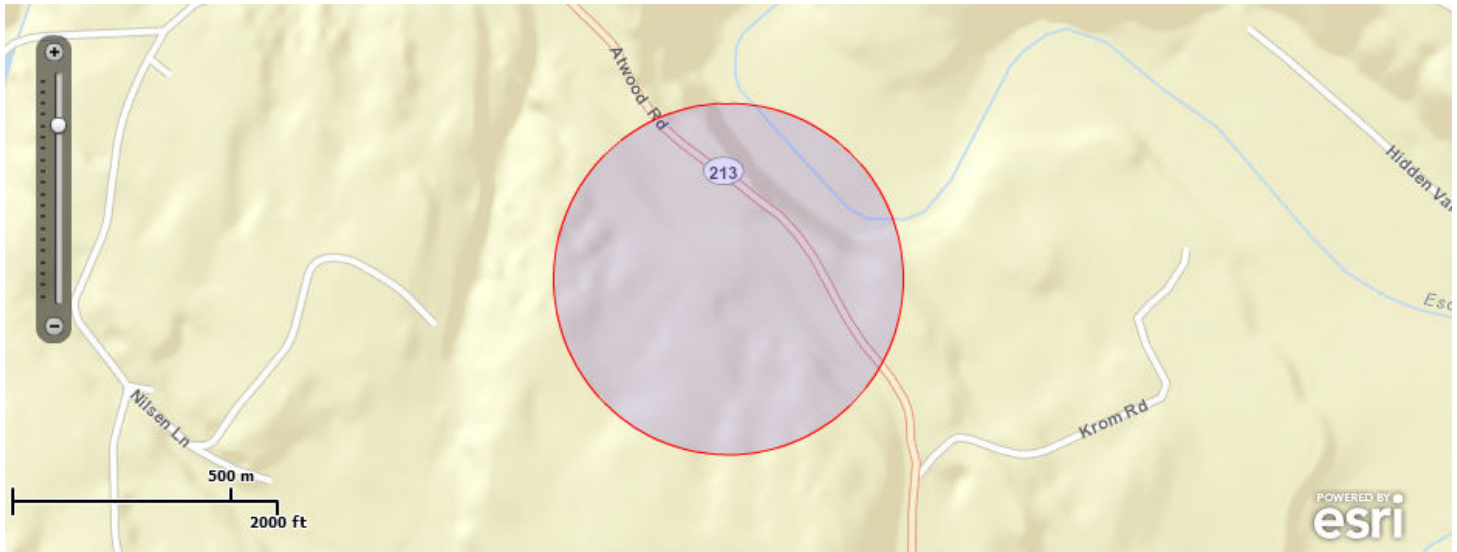
Project Description: DEP proposes to repair multiple small leaks in the Catskill Aqueduct (CA) that runs from the Ashokan Reservoir south into New York City. These leak repairs will aid in restoring the CA to historic carrying capacity. Other options for capacity improvement include the creation of multiple new vent structures along the CA, cleaning or lining the interior and upstream chemical addition. Leaks not eliminated through repair would require local dechlorination to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-74.1653192 41.9006223, -74.16446 41.9005587, -74.163833 41.9004367, -74.1634295 41.9003211, -74.1630414 41.9001791, -74.1624948 41.8999192, -74.1618473 41.8994925, -74.1614338 41.8991198, -74.1611968 41.8988499, -74.1608236 41.8982682, -74.1606904 41.8979611, -74.1605605 41.8974869, -74.1605209 41.8968425, -74.1606348 41.8962032, -74.160819 41.8957391, -74.1609872 41.8954417, -74.1614261 41.8948862, -74.1616934 41.8946326, -74.1621483 41.894288, -74.1628427 41.8939046, -74.1634172 41.8936809, -74.1638202 41.8935645, -74.1644466 41.8934411, -74.1648741 41.8933941, -74.1657374 41.893386, -74.1665888 41.8934924, -74.1672035 41.8936454, -74.1675957 41.8937809, -74.168324 41.8941272, -74.1688099 41.8944473, -74.1691002 41.8946864, -74.1695899 41.8952177, -74.1699457 41.8958054, -74.1701564 41.8964309, -74.1702051 41.8967517, -74.170206 41.8972358, -74.1700732 41.8978731, -74.1697912 41.8984828, -74.169487 41.8989102, -74.1692429 41.8991766, -74.1686647 41.8996556, -74.167982 41.9000504, -74.1672163 41.9003486, -74.1663921 41.9005406, -74.1657511 41.9006111, -74.1653192 41.9006223)))

Project Counties: Ulster, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

Species lists are not entirely based upon the current range of a species but may also take into consideration actions that affect a species that exists in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Please contact the designated FWS office if you have questions.

Bog Turtle (*Clemmys muhlenbergii*)

Population: northern

Listing Status: Threatened

Indiana bat (*Myotis sodalis*)

Population: Entire

Listing Status: Endangered

northern long-eared Bat (*Myotis septentrionalis*)

Listing Status: Proposed Endangered

Northern Wild monkshood (*Aconitum noveboracense*)

Listing Status: Threatened



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 Tracking Number: 05E1NY00-2014-SLI-0133
Project Name: Catskill Aqueduct Repair and Rehabilitation

November 22, 2013

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, and proposed species, designated critical habitat, and candidate species 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: Catskill Aqueduct Repair and Rehabilitation

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 Tracking Number: 05E1NY00-2014-SLI-0133

Project Type: Water Supply / Delivery

Project Description: DEP proposes to repair multiple small leaks in the Catskill Aqueduct (CA) that runs from the Ashokan Reservoir south into New York City. These leak repairs will aid in restoring the CA to historic carrying capacity. Other options for capacity improvement include the creation of multiple new vent structures along the CA, cleaning or lining the interior and upstream chemical addition. Leaks not eliminated through repair would require local dechlorination to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-74.1480762 41.8309725, -74.1476452 41.8309549, -74.1470069 41.830875, -74.1461887 41.8306709, -74.1458011 41.8305289, -74.1452551 41.8302689, -74.1446084 41.8298421, -74.1440731 41.8293364, -74.1437551 41.8289148, -74.1435861 41.8286177, -74.1434532 41.8283106, -74.1433235 41.8278363, -74.1432841 41.827192, -74.143322 41.8268704, -74.1434502 41.8263959, -74.1437502 41.8257911, -74.143953 41.8255061, -74.1443186 41.8251067, -74.1449104 41.8246376, -74.1452458 41.8244344, -74.1457909 41.8241734, -74.1465806 41.8239143, -74.1474193 41.823764, -74.1480644 41.8237257, -74.1484958 41.8237361, -74.1493463 41.8238426, -74.1501581 41.8240602, -74.1509055 41.824382, -74.1514094 41.8246858, -74.1517133 41.824915, -74.1522334 41.8254296, -74.1525388 41.8258563, -74.1526989 41.8261561, -74.1528707 41.8266228, -74.1529383 41.8269417, -74.1529586 41.8275865, -74.1528732 41.8280664, -74.152769 41.8283797, -74.1524511 41.8289793, -74.1519961 41.8295272, -74.1514184 41.8300062, -74.1507363 41.8304009, -74.1499714 41.830699, -74.1493579 41.8308532, -74.148936 41.8309214, -74.1480762 41.8309725)))

Project Counties: Ulster, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

Species lists are not entirely based upon the current range of a species but may also take into consideration actions that affect a species that exists in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Please contact the designated FWS office if you have questions.

Bog Turtle (*Clemmys muhlenbergii*)

Population: northern

Listing Status: Threatened

Indiana bat (*Myotis sodalis*)

Population: Entire

Listing Status: Endangered

northern long-eared Bat (*Myotis septentrionalis*)

Listing Status: Proposed Endangered

Northern Wild monkshood (*Aconitum noveboracense*)

Listing Status: Threatened



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 Tracking Number: 05E1NY00-2014-SLI-0134

November 22, 2013

Project Name: Name: Catskill Aqueduct Repair and Rehabilitation

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, and proposed species, designated critical habitat, and candidate species 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.

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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: Name: Catskill Aqueduct Repair and Rehabilitation

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 Tracking Number: 05E1NY00-2014-SLI-0134

Project Type: Water Supply / Delivery

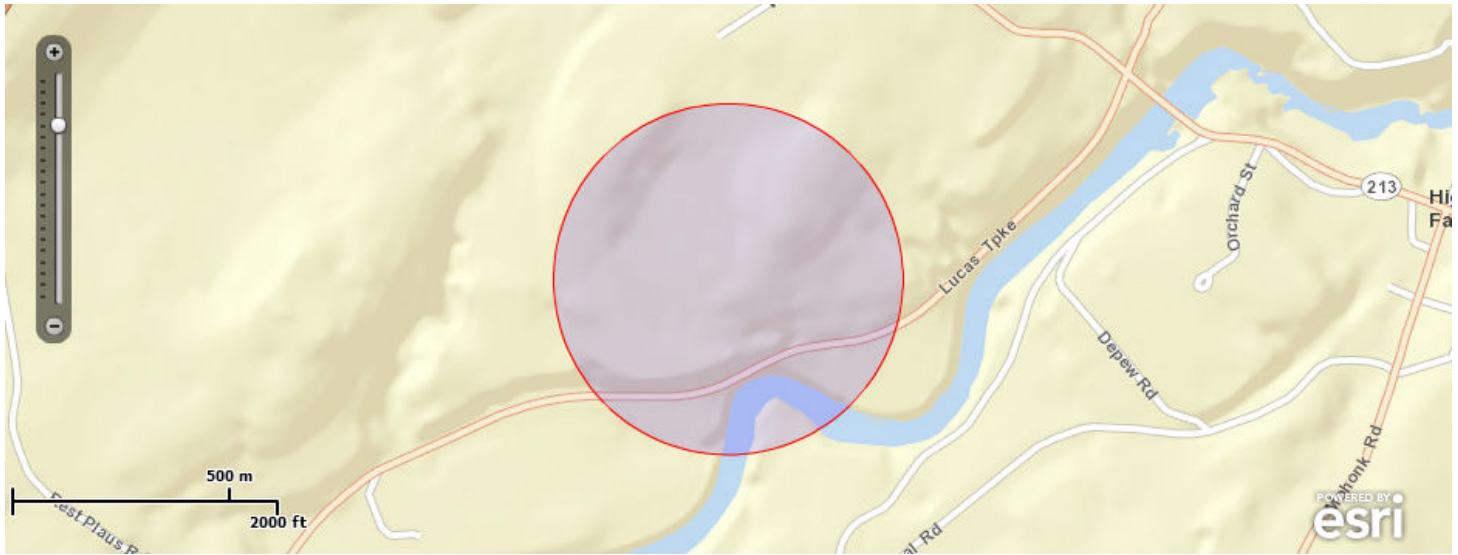
Project Description: DEP proposes to repair multiple small leaks in the Catskill Aqueduct (CA) that runs from the Ashokan Reservoir south into New York City. These leak repairs will aid in restoring the CA to historic carrying capacity. Other options for capacity improvement include the creation of multiple new vent structures along the CA, cleaning or lining the interior and upstream chemical addition. Leaks not eliminated through repair would require local dechlorination to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-74.1461503 41.8290938, -74.1452921 41.82903, -74.1448721 41.8289555, -74.1442628 41.8287922, -74.143506 41.8284828, -74.1431582 41.8282916, -74.1426826 41.8279634, -74.1422697 41.8275906, -74.142033 41.8273207, -74.1416604 41.8267389, -74.1415274 41.8264318, -74.1413978 41.8259575, -74.1413584 41.8253132, -74.1413963 41.8249916, -74.1415245 41.8245171, -74.1418245 41.8239124, -74.1421412 41.8234902, -74.1423929 41.823228, -74.1429848 41.8227588, -74.1434966 41.8224626, -74.1438652 41.8222947, -74.1446549 41.8220356, -74.1454935 41.8218853, -74.1461386 41.821847, -74.14657 41.8218574, -74.1472105 41.8219267, -74.1476281 41.8220081, -74.1484261 41.8222526, -74.1491536 41.822599, -74.1496389 41.8229192, -74.1499288 41.8231584, -74.1504177 41.8236897, -74.150773 41.8242775, -74.1509833 41.8249031, -74.1510417 41.8253851, -74.1510326 41.8257079, -74.1508997 41.8263452, -74.150777 41.8266548, -74.1505251 41.8271006, -74.15007 41.8276486, -74.1494923 41.8281275, -74.1488102 41.8285223, -74.1480454 41.8288203, -74.1474319 41.8289745, -74.14701 41.8290427, -74.1461503 41.8290938)))

Project Counties: Ulster, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

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Bog Turtle (*Clemmys muhlenbergii*)

Population: northern

Listing Status: Threatened

Indiana bat (*Myotis sodalis*)

Population: Entire

Listing Status: Endangered

northern long-eared Bat (*Myotis septentrionalis*)

Listing Status: Proposed Endangered

Northern Wild monkshood (*Aconitum noveboracense*)

Listing Status: Threatened



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 Tracking Number: 05E1NY00-2014-SLI-0329
Project Name: Catskill Aqueduct Repair and Rehabilitation

January 29, 2014

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

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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: Catskill Aqueduct Repair and Rehabilitation

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 Tracking Number: 05E1NY00-2014-SLI-0329

Project Type: Water Supply / Delivery

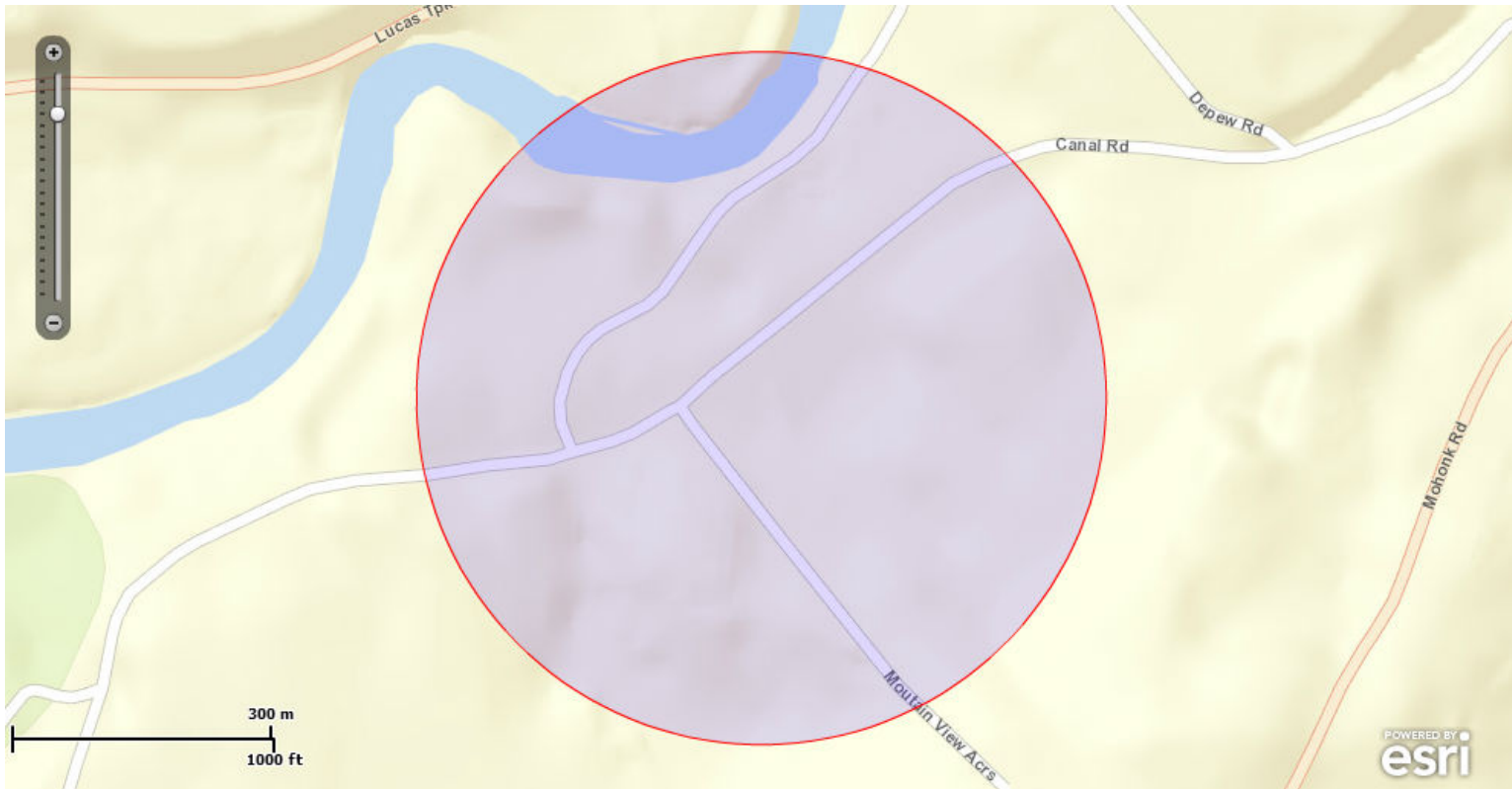
Project Description: DEP proposes to repair multiple small leaks in the Catskill Aqueduct (CA) that runs from the Ashokan Reservoir south into New York City. These leak repairs will aid in restoring the CA to historic carrying capacity. Other options for capacity improvement include the creation of multiple new vent structures along the CA, cleaning or lining the interior and upstream chemical addition. Leaks not eliminated through repair would require local dechlorination to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-74.1403011 41.8234044, -74.1394429 41.8233406, -74.139023 41.8232661, -74.1384138 41.8231027, -74.1376571 41.8227934, -74.1371443 41.8224981, -74.1368338 41.8222739, -74.1362986 41.8217681, -74.1360782 41.8214905, -74.1358118 41.8210494, -74.135583 41.8204274, -74.1355104 41.8199464, -74.1355099 41.8196236, -74.1355479 41.819302, -74.1356761 41.8188275, -74.1359762 41.8182228, -74.1364148 41.8176675, -74.1368265 41.817294, -74.1371364 41.8170693, -74.1376482 41.8167732, -74.1380168 41.8166052, -74.1388065 41.8163462, -74.139645 41.8161959, -74.1402901 41.8161577, -74.1407214 41.8161681, -74.1415718 41.8162747, -74.1423835 41.8164923, -74.1427667 41.8166408, -74.1433047 41.8169098, -74.1439384 41.8173472, -74.1442137 41.8175958, -74.1445686 41.8180006, -74.1449238 41.8185884, -74.145134 41.819214, -74.1451926 41.8198575, -74.1450978 41.8204987, -74.1449275 41.8209657, -74.1447684 41.8212658, -74.1445742 41.8215541, -74.1442206 41.8219595, -74.1436429 41.8224384, -74.1433136 41.8226471, -74.1427765 41.8229171, -74.1419947 41.8231893, -74.1411607 41.8233534, -74.1403011 41.8234044)))



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Counties: Ulster, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

There are a total of 4 threatened, endangered, or candidate 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 on the **Has Critical Habitat** lines 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.

Bog Turtle (*Clemmys muhlenbergii*)

Population: northern

Listing Status: Threatened

Indiana bat (*Myotis sodalis*)

Population: Entire

Listing Status: Endangered

northern long-eared Bat (*Myotis septentrionalis*)

Listing Status: Proposed Endangered

Northern Wild monkshood (*Aconitum noveboracense*)

Listing Status: Threatened



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Critical habitats that lie within your project area

There are no critical habitats within your 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 Tracking Number: 05E1NY00-2014-SLI-0130
Project Name: Catskill Aqueduct Repair and Rehabilitation

November 22, 2013

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, and proposed species, designated critical habitat, and candidate species 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.

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Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

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 Tracking Number: 05E1NY00-2014-SLI-0130

Project Type: Water Supply / Delivery

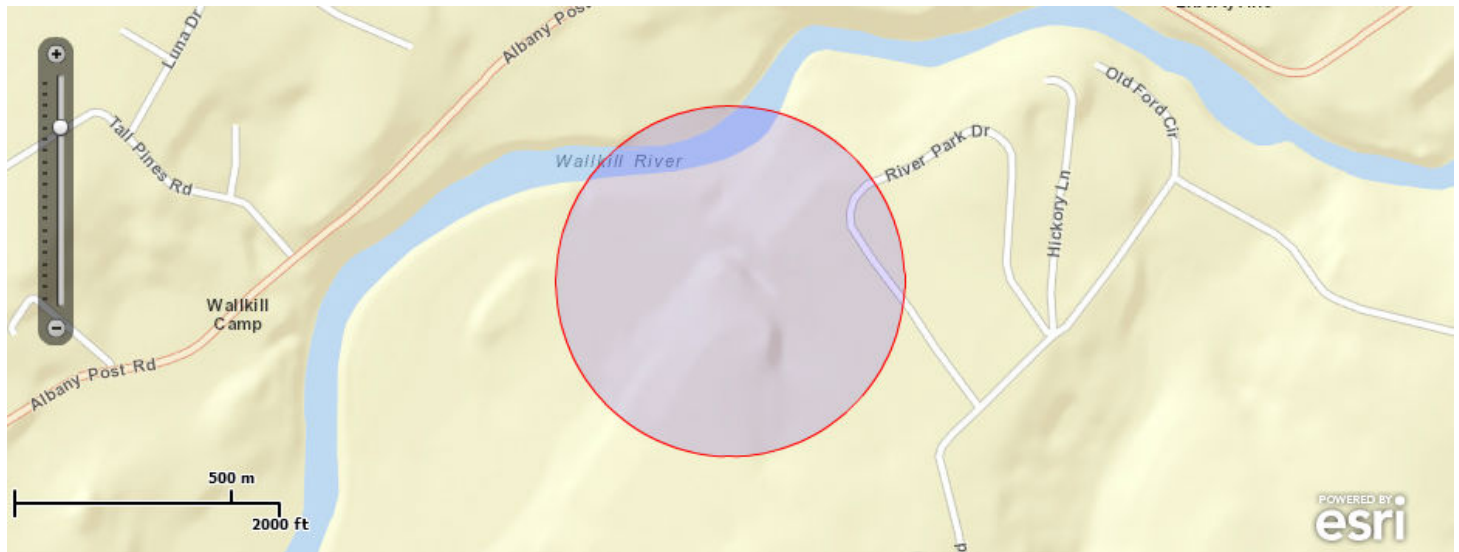
Project Description: DEP proposes to repair multiple small leaks in the Catskill Aqueduct (CA) that runs from the Ashokan Reservoir south into New York City. These leak repairs will aid in restoring the CA to historic carrying capacity. Other options for capacity improvement include the creation of multiple new vent structures along the CA, cleaning or lining the interior and upstream chemical addition. Leaks not eliminated through repair would require local dechlorination to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-74.1432938 41.718972, -74.1426496 41.7189349, -74.1422263 41.7188745, -74.1414096 41.7186704, -74.1410226 41.7185284, -74.1404776 41.7182684, -74.1398321 41.7178416, -74.1395498 41.7175976, -74.1391836 41.7171989, -74.1388116 41.7166171, -74.1385832 41.7159952, -74.1385253 41.7156753, -74.1385102 41.7151913, -74.138548 41.7148697, -74.138676 41.7143953, -74.1389755 41.7137905, -74.1394134 41.7132351, -74.13968 41.7129815, -74.1401338 41.712637, -74.1404686 41.7124338, -74.1410127 41.7121728, -74.1418011 41.7119137, -74.1426383 41.7117634, -74.1430669 41.7117307, -74.1437129 41.7117356, -74.144562 41.7118421, -74.1453724 41.7120597, -74.1459393 41.7122918, -74.1462921 41.7124772, -74.1469248 41.7129146, -74.147444 41.7134291, -74.1476557 41.7137103, -74.1479087 41.7141557, -74.1481186 41.7147813, -74.1481772 41.7154249, -74.1481205 41.7159071, -74.1480352 41.7162235, -74.1477538 41.7168331, -74.1475599 41.7171215, -74.1472069 41.7175269, -74.1466302 41.7180058, -74.1459492 41.7184006, -74.1451857 41.7186986, -74.1445732 41.7188528, -74.1441521 41.718921, -74.1432938 41.718972)))

Project Counties: Ulster, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

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Bog Turtle (*Clemmys muhlenbergii*)

Population: northern

Listing Status: Threatened

Indiana bat (*Myotis sodalis*)

Population: Entire

Listing Status: Endangered

northern long-eared Bat (*Myotis septentrionalis*)

Listing Status: Proposed Endangered

Northern Wild monkshood (*Aconitum noveboracense*)

Listing Status: Threatened



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 Tracking Number: 05E1NY00-2014-SLI-0129
Project Name: Catskill Aqueduct Repair and Rehabilitation

November 22, 2013

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, and proposed species, designated critical habitat, and candidate species 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.

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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

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Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

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>

Expect additional Species list documents from the following office(s):

LONG ISLAND ECOLOGICAL SERVICES FIELD OFFICE
340 SMITH ROAD
SHIRLEY, NY 11967
(631) 286-0485

Consultation Tracking Number: 05E1NY00-2014-SLI-0129

Project Type: Water Supply / Delivery

Project Description: DEP proposes to repair multiple small leaks in the Catskill Aqueduct (CA) that runs from the Ashokan Reservoir south into New York City. These leak repairs will aid in restoring the CA to historic carrying capacity. Other options for capacity improvement include the creation of multiple new vent structures along the CA, cleaning or lining the interior and upstream chemical addition. Leaks not eliminated through repair would require local dechlorination to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.8075243 41.2356214, -73.8068851 41.2355825, -73.8064652 41.2355209, -73.8056556 41.2353145, -73.8050873 41.2350902, -73.8047326 41.2349098, -73.804094 41.2344812, -73.8035662 41.2339739, -73.8032532 41.2335514, -73.8030873 41.2332538, -73.8028637 41.2326312, -73.8028078 41.2323111, -73.8027952 41.2318271, -73.8028344 41.2315056, -73.8029638 41.2310315, -73.8032641 41.2304276, -73.80358 41.2300063, -73.8038307 41.2297448, -73.8044195 41.2292773, -73.8051087 41.228896, -73.8054842 41.2287416, -73.8060779 41.2285588, -73.8069096 41.2284108, -73.807549 41.2283744, -73.8079764 41.228386, -73.8088186 41.2284949, -73.8094261 41.2286498, -73.8098135 41.2287864, -73.8105326 41.2291349, -73.8111584 41.2295741, -73.8116711 41.2300901, -73.8120546 41.2306666, -73.8122498 41.2311277, -73.8123339 41.2314442, -73.8123889 41.232088, -73.8122917 41.2327289, -73.8121869 41.2330419, -73.8119616 41.2334951, -73.8115407 41.2340565, -73.8109947 41.2345527, -73.8103407 41.2349679, -73.8099796 41.2351409, -73.8094034 41.2353533, -73.8087947 41.2355058, -73.8083764 41.2355728, -73.8075243 41.2356214)))

Project Counties: Westchester, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

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Bog Turtle (*Clemmys muhlenbergii*)

Population: northern

Listing Status: Threatened

Indiana bat (*Myotis sodalis*)

Population: Entire

Listing Status: Endangered

New England Cottontail rabbit (*Sylvilagus transitionalis*)

Listing Status: Candidate

northern long-eared Bat (*Myotis septentrionalis*)

Listing Status: Proposed Endangered



United States Department of the Interior



FISH AND WILDLIFE SERVICE
LONG ISLAND ECOLOGICAL SERVICES FIELD OFFICE
340 SMITH ROAD
SHIRLEY, NY 11967
PHONE: (631)286-0485 FAX: (631)286-4003

Consultation Tracking Number: 05E1LI00-2014-SLI-0012
Project Name: Catskill Aqueduct Repair and Rehabilitation

November 22, 2013

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, and proposed species, designated critical habitat, and candidate species 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 (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

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The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the

human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

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Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Official Species List

Provided by:

LONG ISLAND ECOLOGICAL SERVICES FIELD OFFICE
340 SMITH ROAD
SHIRLEY, NY 11967
(631) 286-0485

Expect additional Species list documents from the following office(s):

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 Tracking Number: 05E1LI00-2014-SLI-0012

Project Type: Water Supply / Delivery

Project Description: DEP proposes to repair multiple small leaks in the Catskill Aqueduct (CA) that runs from the Ashokan Reservoir south into New York City. These leak repairs will aid in restoring the CA to historic carrying capacity. Other options for capacity improvement include the creation of multiple new vent structures along the CA, cleaning or lining the interior and upstream chemical addition. Leaks not eliminated through repair would require local dechlorination to neutralize the chemically treated water.



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.8075243 41.2356214, -73.8068851 41.2355825, -73.8064652 41.2355209, -73.8056556 41.2353145, -73.8050873 41.2350902, -73.8047326 41.2349098, -73.804094 41.2344812, -73.8035662 41.2339739, -73.8032532 41.2335514, -73.8030873 41.2332538, -73.8028637 41.2326312, -73.8028078 41.2323111, -73.8027952 41.2318271, -73.8028344 41.2315056, -73.8029638 41.2310315, -73.8032641 41.2304276, -73.80358 41.2300063, -73.8038307 41.2297448, -73.8044195 41.2292773, -73.8051087 41.228896, -73.8054842 41.2287416, -73.8060779 41.2285588, -73.8069096 41.2284108, -73.807549 41.2283744, -73.8079764 41.228386, -73.8088186 41.2284949, -73.8094261 41.2286498, -73.8098135 41.2287864, -73.8105326 41.2291349, -73.8111584 41.2295741, -73.8116711 41.2300901, -73.8120546 41.2306666, -73.8122498 41.2311277, -73.8123339 41.2314442, -73.8123889 41.232088, -73.8122917 41.2327289, -73.8121869 41.2330419, -73.8119616 41.2334951, -73.8115407 41.2340565, -73.8109947 41.2345527, -73.8103407 41.2349679, -73.8099796 41.2351409, -73.8094034 41.2353533, -73.8087947 41.2355058, -73.8083764 41.2355728, -73.8075243 41.2356214)))

Project Counties: Westchester, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

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northern long-eared Bat (*Myotis septentrionalis*)

Listing Status: Proposed Endangered



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 Tracking Number: 05E1NY00-2014-SLI-0127
Project Name: Catskill Aqueduct Repair and Rehabilitation

November 22, 2013

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

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United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

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>

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LONG ISLAND ECOLOGICAL SERVICES FIELD OFFICE
340 SMITH ROAD
SHIRLEY, NY 11967
(631) 286-0485

Consultation Tracking Number: 05E1NY00-2014-SLI-0127

Project Type: Water Supply / Delivery

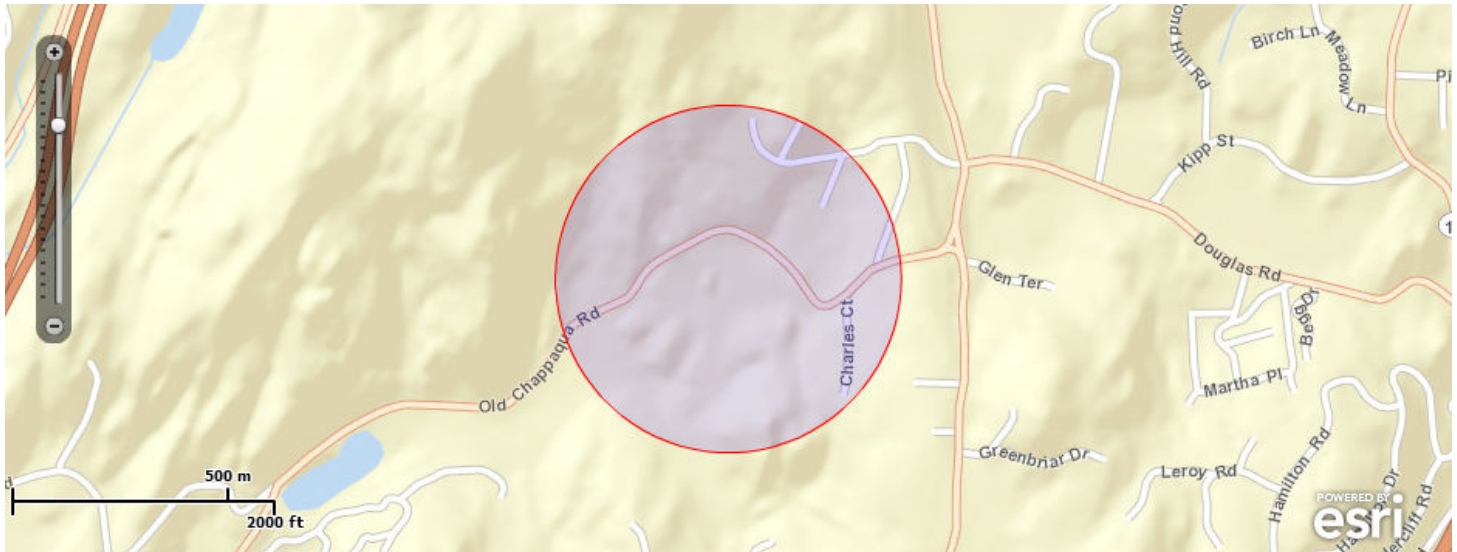
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United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.7968874 41.1655509, -73.7961471 41.1655029, -73.7954255 41.165369, -73.7950771 41.1652707, -73.7947399 41.1651524, -73.7941069 41.1648584, -73.7935416 41.164494, -73.7932886 41.164288, -73.7928498 41.1638349, -73.7926665 41.1635905, -73.7923778 41.1630731, -73.7921983 41.1625282, -73.792151 41.1622495, -73.7921426 41.1616881, -73.7921816 41.1614087, -73.7923448 41.1608609, -73.792618 41.1603387, -73.7929947 41.1598547, -73.7934659 41.1594205, -73.7937334 41.1592254, -73.7940201 41.1590466, -73.7946441 41.1587418, -73.795323 41.1585136, -73.7960403 41.1583674, -73.7967789 41.1583067, -73.7971507 41.158309, -73.7978879 41.1583787, -73.798602 41.1585336, -73.798945 41.158642, -73.7992759 41.1587701, -73.7998933 41.1590824, -73.8004395 41.1594631, -73.8009013 41.159903, -73.801097 41.1601419, -73.8014121 41.1606504, -73.8016195 41.1611896, -73.8016811 41.1614666, -73.8017184 41.1620274, -73.8016938 41.1623078, -73.8015589 41.16286, -73.8013127 41.1633898, -73.8009612 41.1638845, -73.8007484 41.1641149, -73.8002554 41.164535, -73.7996824 41.1648924, -73.7990431 41.1651787, -73.7987034 41.1652929, -73.7979941 41.16546, -73.797259 41.1655423, -73.7968874 41.1655509)))

Project Counties: Westchester, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

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Population: northern

Listing Status: Threatened

Indiana bat (*Myotis sodalis*)

Population: Entire

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New England Cottontail rabbit (*Sylvilagus transitionalis*)

Listing Status: Candidate

northern long-eared Bat (*Myotis septentrionalis*)

Listing Status: Proposed Endangered



United States Department of the Interior



FISH AND WILDLIFE SERVICE
LONG ISLAND ECOLOGICAL SERVICES FIELD OFFICE
340 SMITH ROAD
SHIRLEY, NY 11967
PHONE: (631)286-0485 FAX: (631)286-4003

Consultation Tracking Number: 05E1LI00-2014-SLI-0010
Project Name: Catskill Aqueduct Repair and Rehabilitation

November 22, 2013

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:

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A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the

human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

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Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Official Species List

Provided by:

LONG ISLAND ECOLOGICAL SERVICES FIELD OFFICE
340 SMITH ROAD
SHIRLEY, NY 11967
(631) 286-0485

Expect additional Species list documents from the following office(s):

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 Tracking Number: 05E1LI00-2014-SLI-0010

Project Type: Water Supply / Delivery

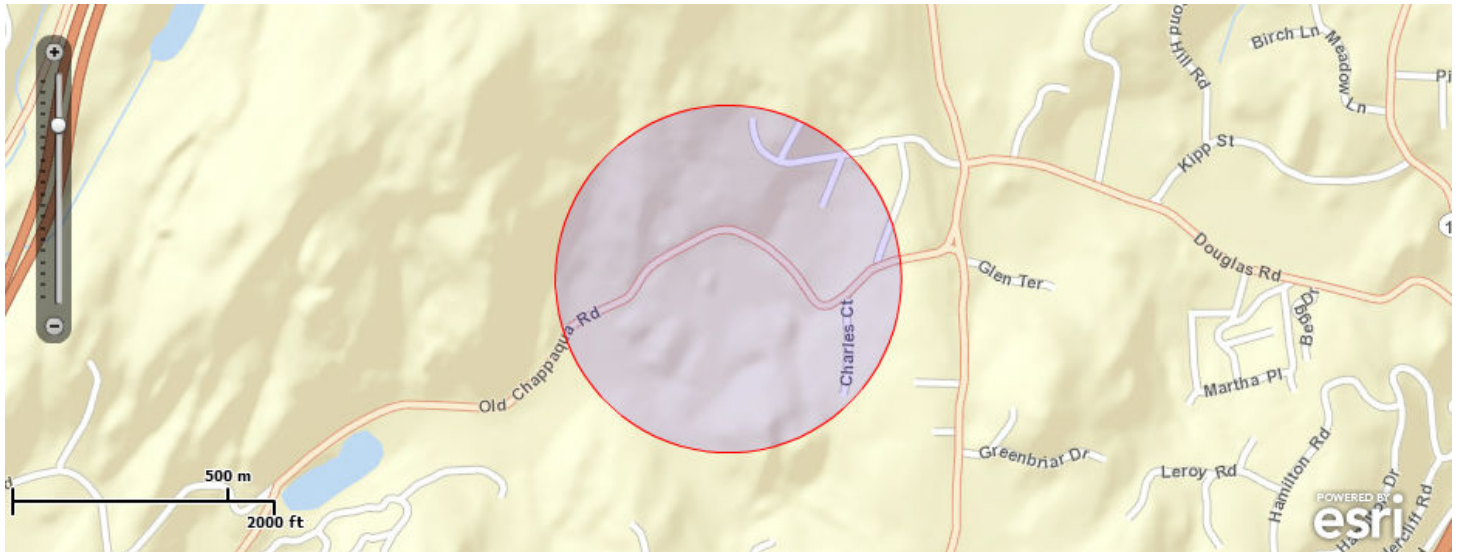
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United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.7968874 41.1655509, -73.7961471 41.1655029, -73.7954255 41.165369, -73.7950771 41.1652707, -73.7947399 41.1651524, -73.7941069 41.1648584, -73.7935416 41.164494, -73.7932886 41.164288, -73.7928498 41.1638349, -73.7926665 41.1635905, -73.7923778 41.1630731, -73.7921983 41.1625282, -73.792151 41.1622495, -73.7921426 41.1616881, -73.7921816 41.1614087, -73.7923448 41.1608609, -73.792618 41.1603387, -73.7929947 41.1598547, -73.7934659 41.1594205, -73.7937334 41.1592254, -73.7940201 41.1590466, -73.7946441 41.1587418, -73.795323 41.1585136, -73.7960403 41.1583674, -73.7967789 41.1583067, -73.7971507 41.158309, -73.7978879 41.1583787, -73.798602 41.1585336, -73.798945 41.158642, -73.7992759 41.1587701, -73.7998933 41.1590824, -73.8004395 41.1594631, -73.8009013 41.159903, -73.801097 41.1601419, -73.8014121 41.1606504, -73.8016195 41.1611896, -73.8016811 41.1614666, -73.8017184 41.1620274, -73.8016938 41.1623078, -73.8015589 41.16286, -73.8013127 41.1633898, -73.8009612 41.1638845, -73.8007484 41.1641149, -73.8002554 41.164535, -73.7996824 41.1648924, -73.7990431 41.1651787, -73.7987034 41.1652929, -73.7979941 41.16546, -73.797259 41.1655423, -73.7968874 41.1655509)))

Project Counties: Westchester, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

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northern long-eared Bat (*Myotis septentrionalis*)

Listing Status: Proposed Endangered



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 Tracking Number: 05E1NY00-2014-SLI-0128
Project Name: Catskill Aqueduct Repair and Rehabilitation

November 22, 2013

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, and proposed species, designated critical habitat, and candidate species 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>

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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: Catskill Aqueduct Repair and Rehabilitation

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>

Expect additional Species list documents from the following office(s):

LONG ISLAND ECOLOGICAL SERVICES FIELD OFFICE
340 SMITH ROAD
SHIRLEY, NY 11967
(631) 286-0485

Consultation Tracking Number: 05E1NY00-2014-SLI-0128

Project Type: Water Supply / Delivery

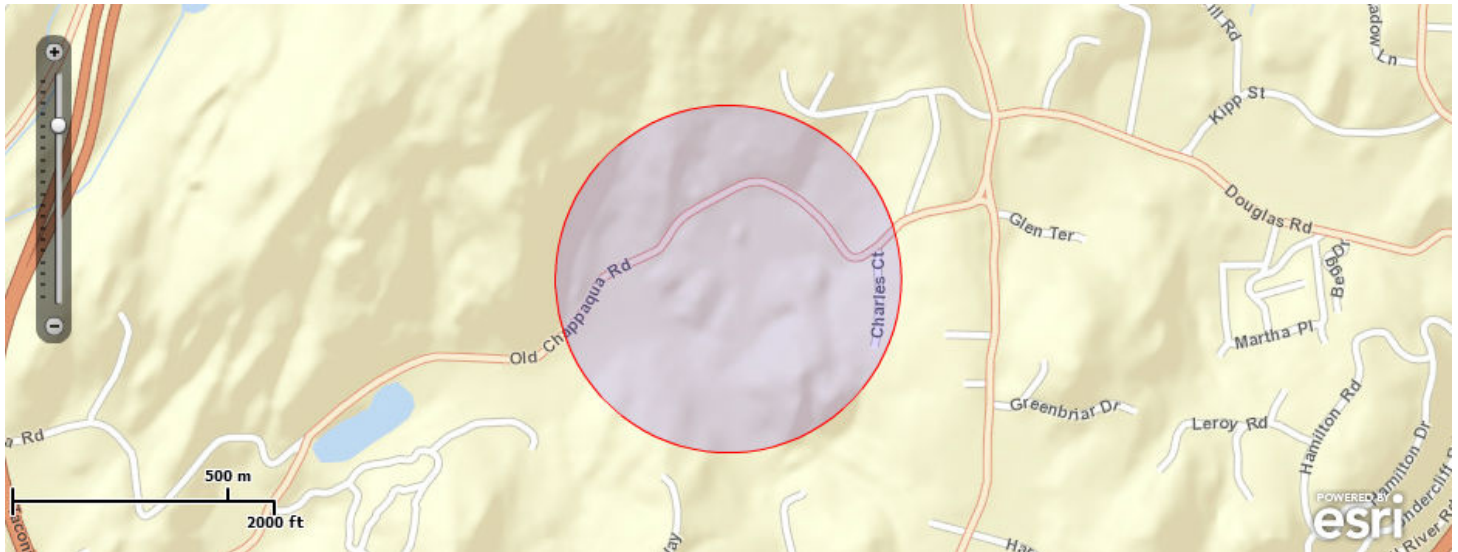
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United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.7977517 41.1645531, -73.7970114 41.1645051, -73.7962898 41.1643712, -73.7959415 41.164273, -73.7952802 41.1640169, -73.7946792 41.1636867, -73.794406 41.1634962, -73.793922 41.1630702, -73.7935309 41.1625928, -73.7933732 41.1623383, -73.7931384 41.1618056, -73.7930153 41.1612518, -73.7929967 41.1609712, -73.793046 41.1604109, -73.7931135 41.1601346, -73.7933324 41.159598, -73.7936583 41.1590935, -73.7938591 41.158857, -73.7943302 41.1584228, -73.7945977 41.1582277, -73.7951886 41.1578873, -73.795842 41.15762, -73.7961872 41.1575159, -73.7969046 41.1573697, -73.7972723 41.1573285, -73.7980149 41.1573113, -73.7987521 41.1573809, -73.7991132 41.1574479, -73.7998092 41.1576442, -73.8001401 41.1577723, -73.8007575 41.1580846, -73.8013037 41.1584653, -73.8017655 41.1589052, -73.8019612 41.1591441, -73.8022763 41.1596526, -73.8024837 41.1601918, -73.8025453 41.1604688, -73.8025826 41.1610296, -73.802558 41.16131, -73.8024231 41.1618622, -73.8021769 41.162392, -73.8020139 41.1626445, -73.8016127 41.1631171, -73.8011196 41.1635372, -73.8008423 41.1637243, -73.8002344 41.1640471, -73.7995677 41.1642951, -73.7992173 41.1643891, -73.798493 41.1645142, -73.7977517 41.1645531)))

Project Counties: Westchester, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

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Bog Turtle (*Clemmys muhlenbergii*)

Population: northern

Listing Status: Threatened

Indiana bat (*Myotis sodalis*)

Population: Entire

Listing Status: Endangered

New England Cottontail rabbit (*Sylvilagus transitionalis*)

Listing Status: Candidate

northern long-eared Bat (*Myotis septentrionalis*)

Listing Status: Proposed Endangered



United States Department of the Interior



FISH AND WILDLIFE SERVICE
LONG ISLAND ECOLOGICAL SERVICES FIELD OFFICE
340 SMITH ROAD
SHIRLEY, NY 11967
PHONE: (631)286-0485 FAX: (631)286-4003

Consultation Tracking Number: 05E1LI00-2014-SLI-0011

November 22, 2013

Project Name: Catskill Aqueduct Repair and Rehabilitation

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

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United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Official Species List

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LONG ISLAND ECOLOGICAL SERVICES FIELD OFFICE
340 SMITH ROAD
SHIRLEY, NY 11967
(631) 286-0485

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3817 LUKER ROAD
CORTLAND, NY 13045
(607) 753-9334
<http://www.fws.gov/northeast/nyfo/es/section7.htm>

Consultation Tracking Number: 05E1LI00-2014-SLI-0011

Project Type: Water Supply / Delivery

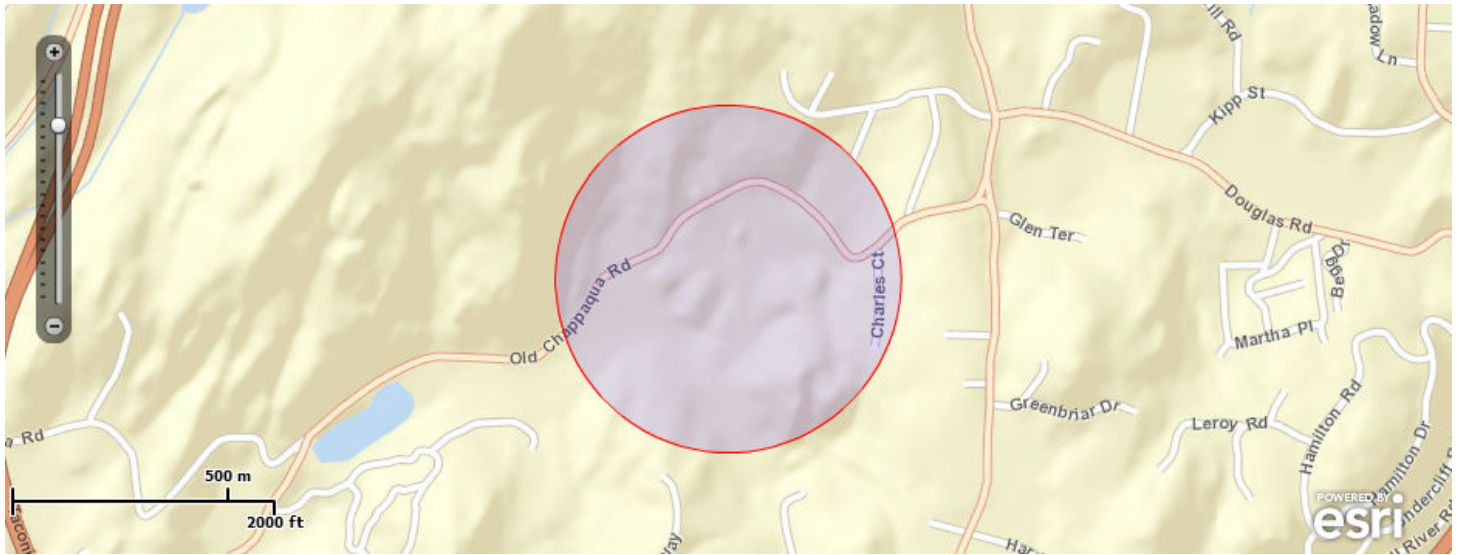
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United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

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Project Coordinates: MULTIPOLYGON (((-73.7977517 41.1645531, -73.7970114 41.1645051, -73.7962898 41.1643712, -73.7959415 41.164273, -73.7952802 41.1640169, -73.7946792 41.1636867, -73.794406 41.1634962, -73.793922 41.1630702, -73.7935309 41.1625928, -73.7933732 41.1623383, -73.7931384 41.1618056, -73.7930153 41.1612518, -73.7929967 41.1609712, -73.793046 41.1604109, -73.7931135 41.1601346, -73.7933324 41.159598, -73.7936583 41.1590935, -73.7938591 41.158857, -73.7943302 41.1584228, -73.7945977 41.1582277, -73.7951886 41.1578873, -73.795842 41.15762, -73.7961872 41.1575159, -73.7969046 41.1573697, -73.7972723 41.1573285, -73.7980149 41.1573113, -73.7987521 41.1573809, -73.7991132 41.1574479, -73.7998092 41.1576442, -73.8001401 41.1577723, -73.8007575 41.1580846, -73.8013037 41.1584653, -73.8017655 41.1589052, -73.8019612 41.1591441, -73.8022763 41.1596526, -73.8024837 41.1601918, -73.8025453 41.1604688, -73.8025826 41.1610296, -73.802558 41.16131, -73.8024231 41.1618622, -73.8021769 41.162392, -73.8020139 41.1626445, -73.8016127 41.1631171, -73.8011196 41.1635372, -73.8008423 41.1637243, -73.8002344 41.1640471, -73.7995677 41.1642951, -73.7992173 41.1643891, -73.798493 41.1645142, -73.7977517 41.1645531)))

Project Counties: Westchester, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Catskill Aqueduct Repair and Rehabilitation

Endangered Species Act Species List

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northern long-eared Bat (*Myotis septentrionalis*)

Listing Status: Proposed Endangered



United States Department of the Interior



FISH AND WILDLIFE SERVICE

New York Field Office

3817 Luker Road

Cortland, NY 13045

Phone: (607) 753-9334 Fax: (607) 753-9699

<http://www.fws.gov/northeast/nyfo>

To: Jennifer Farmwald

Date: Feb 23, 2016

USFWS File No: 14-B-0003

Regarding your: Letter Fax Email

Dated: Sep 19, 2014

For project: Catskill Aqueduct Repair & Rehabilitation (Water for the Future)

Located: various

In Town/County: various

Pursuant to the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*), the U.S. Fish and Wildlife Service:

Acknowledges receipt of your "no effect" and/or no impact determination. No further ESA coordination or consultation is required.

Acknowledges receipt of your determination. Please provide a copy of your determination and supporting materials to any involved Federal agency for their final ESA determination.

Is taking no action pursuant to ESA or any legislation at this time, but would like to be kept informed of project developments.

As a reminder, until the proposed project is complete, we recommend that you check our website (<http://www.fws.gov/northeast/nyfo/es/section7.htm>) every 90 days from the date of this letter to ensure that listed species presence/absence information for the proposed project is current. Should project plans change or if additional information on listed or proposed species or critical habitat becomes available, this determination may be reconsidered.

USFWS Contact(s): Sandra L. Dorax 02/23/2016

Supervisor: Patricia Cole Date: 2/23/2016

Proposed Water for the Future System Shutdown Operations



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: 05E1NY00-2014-SLI-0922

September 01, 2015

Event Code: 05E1NY00-2015-E-04194

Project Name: Mod Ops 1 -- created on July 23, 2014 12:12

Subject: Updated 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.

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Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: Mod Ops 1 -- created on July 23, 2014 12:12

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: 05E1NY00-2014-SLI-0922

Event Code: 05E1NY00-2015-E-04194

Project Type: SPILL / RELEASE

Project Name: Mod Ops 1 -- created on July 23, 2014 12:12

Project Description: This project is a component of NYC DEPs Water for the Future Program. For a full Project Description see <http://www.nyc.gov/>. This part of WFF is known as Modified Operations. When the Rondout-West Branch Tunnel is temporarily shutdown, the Delaware System of the water supply system will be unavailable. This accounts for 50% of New York City's drinking water. To meet demands during the shutdown, the transfer of water between the upstate reservoirs and receiving water bodies will be altered.

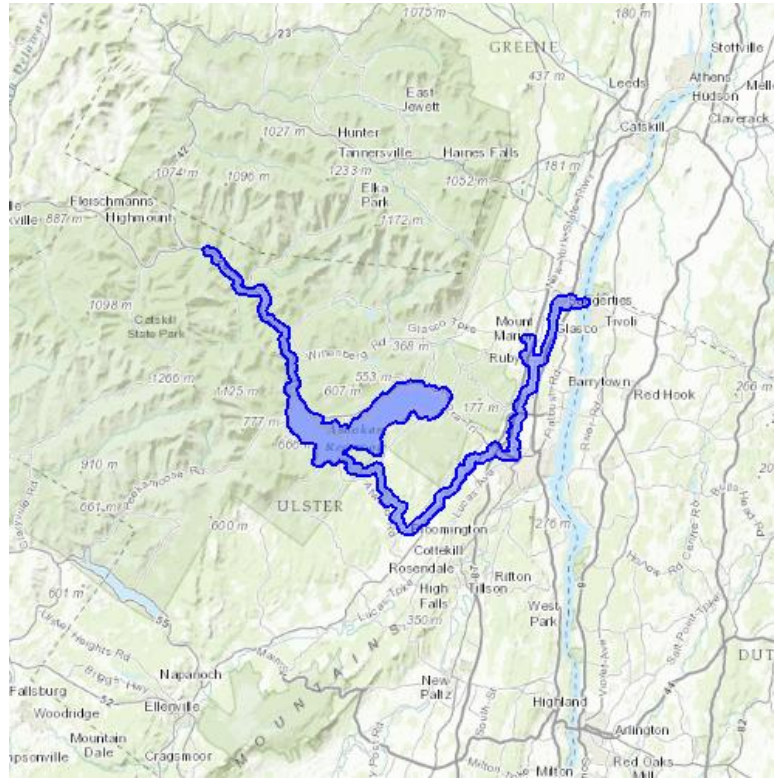
Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your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



United States Department of Interior
Fish and Wildlife Service

Project name: Mod Ops 1 -- created on July 23, 2014 12:12

Project Location Map:



Project Coordinates: The coordinates are too numerous to display here.

Project Counties: Ulster, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Mod Ops 1 -- created on July 23, 2014 12:12

Endangered Species Act Species List

There are a total of 5 threatened, endangered, or candidate 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			
Indiana bat (<i>Myotis sodalis</i>) Population: Entire	Endangered		
New England Cottontail (<i>Sylvilagus transitionalis</i>)	Candidate		
Northern long-eared Bat (<i>Myotis septentrionalis</i>)	Threatened		
Reptiles			
Bog Turtle (<i>Clemmys muhlenbergii</i>) Population: northern	Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: Mod Ops 1 -- created on July 23, 2014 12:12

Critical habitats that lie within your project area

There are no critical habitats within your 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: 05E1NY00-2014-SLI-0923

September 01, 2015

Event Code: 05E1NY00-2015-E-04195

Project Name: Mod Ops 2 -- created on July 23, 2014 12:26

Subject: Updated 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: Mod Ops 2 -- created on July 23, 2014 12:26

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>

Expect additional Species list documents from the following office(s):

Long Island Ecological Services Field Office

340 SMITH ROAD

SHIRLEY, NY 11967

(631) 286-0485

Consultation Code: 05E1NY00-2014-SLI-0923

Event Code: 05E1NY00-2015-E-04195

Project Type: SPILL / RELEASE

Project Name: Mod Ops 2 -- created on July 23, 2014 12:26

Project Description: This project is a component of NYC DEPs Water for the Future Program. For a full Project Description see <http://www.nyc.gov/>. This part of WFF is known as Modified Operations. When the Rondout-West Branch Tunnel is temporarily shutdown, the Delaware System of the water supply system will be unavailable. This accounts for 50% of New York City's drinking water. To meet demands during the shutdown, the transfer of water between the upstate reservoirs and receiving water bodies will be altered.

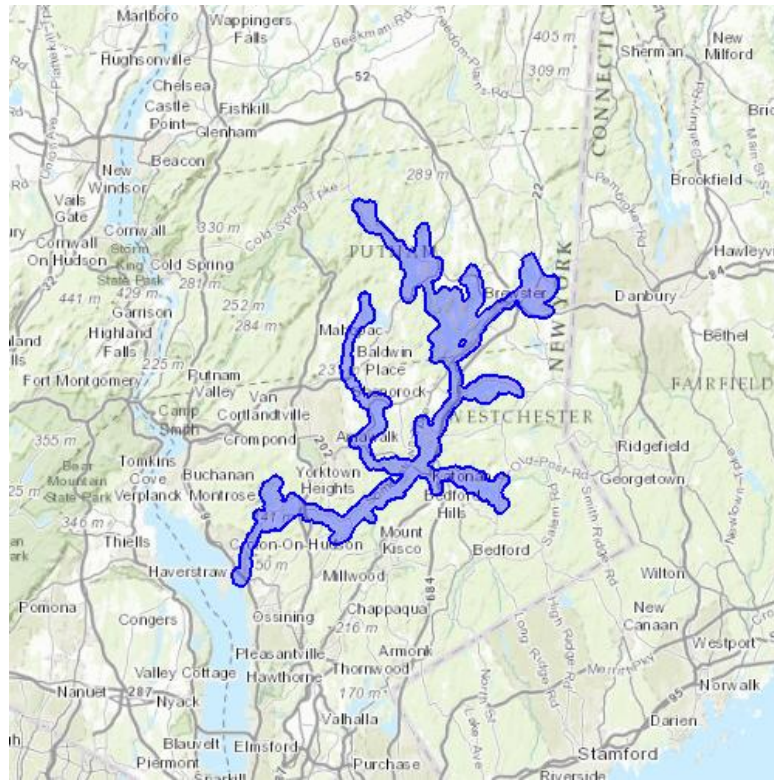
Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your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



United States Department of Interior
Fish and Wildlife Service

Project name: Mod Ops 2 -- created on July 23, 2014 12:26

Project Location Map:



Project Coordinates: The coordinates are too numerous to display here.

Project Counties: Westchester, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Mod Ops 2 -- created on July 23, 2014 12:26

Endangered Species Act Species List

There are a total of 4 threatened, endangered, or candidate 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.

Mammals	Status	Has Critical Habitat	Condition(s)
Indiana bat (<i>Myotis sodalis</i>) Population: Entire	Endangered		
New England Cottontail (<i>Sylvilagus transitionalis</i>)	Candidate		
Northern long-eared Bat (<i>Myotis septentrionalis</i>)	Threatened		
Reptiles			
Bog Turtle (<i>Clemmys muhlenbergii</i>) Population: northern	Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: Mod Ops 2 -- created on July 23, 2014 12:26

Critical habitats that lie within your project area

There are no critical habitats within your 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: 05E1NY00-2014-SLI-0924

September 01, 2015

Event Code: 05E1NY00-2015-E-04199

Project Name: Mod Ops 3 -- created on July 23, 2014 12:29

Subject: Updated 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: Mod Ops 3 -- created on July 23, 2014 12:29

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>

Expect additional Species list documents from the following office(s):

New Jersey Ecological Services Field Office

927 NORTH MAIN STREET, BUILDING D

PLEASANTVILLE, NJ 08232

(609) 646-9310

<http://www.fws.gov/northeast/njfieldoffice/Endangered/consultation.html>

Pennsylvania Ecological Services Field Office

315 SOUTH ALLEN STREET, SUITE 322

STATE COLLEGE, PA 16801

(814) 234-4090

<http://www.fws.gov/northeast/pafo/>

Consultation Code: 05E1NY00-2014-SLI-0924

Event Code: 05E1NY00-2015-E-04199

Project Type: SPILL / RELEASE

Project Name: Mod Ops 3 -- created on July 23, 2014 12:29

Project Description: This project is a component of NYC DEPs Water for the Future Program. For a full Project Description see <http://www.nyc.gov/>. This part of WFF is known as Modified Operations. When the Rondout-West Branch Tunnel is temporarily shutdown, the Delaware System of the water supply system will be unavailable. This accounts for 50% of New York City's drinking water. To meet demands during the shutdown, the transfer of water between the upstate reservoirs and receiving water bodies will be altered.

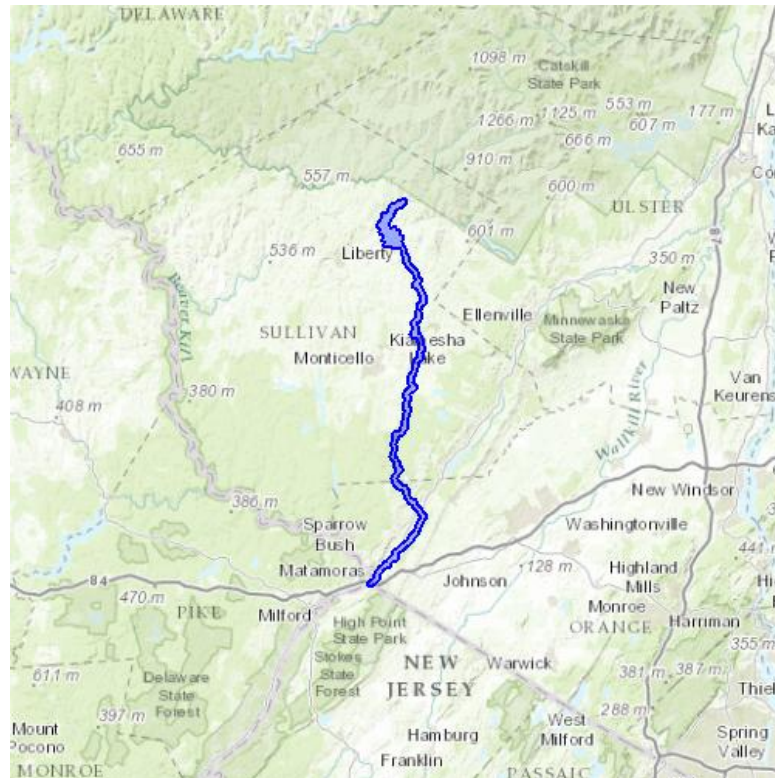
Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your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



United States Department of Interior
Fish and Wildlife Service

Project name: Mod Ops 3 -- created on July 23, 2014 12:29

Project Location Map:



Project Coordinates: The coordinates are too numerous to display here.

Project Counties: Sullivan, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Mod Ops 3 -- created on July 23, 2014 12:29

Endangered Species Act Species List

There are a total of 5 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		
Flowering Plants			
Small Whorled pogonia (<i>Isotria medeoloides</i>)	Threatened		
Mammals			
Indiana bat (<i>Myotis sodalis</i>) Population: Entire	Endangered		
Northern long-eared Bat (<i>Myotis septentrionalis</i>)	Threatened		
Reptiles			
Bog Turtle (<i>Clemmys muhlenbergii</i>) Population: northern	Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: Mod Ops 3 -- created on July 23, 2014 12:29

Critical habitats that lie within your project area

There are no critical habitats within your 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: 05E1NY00-2014-SLI-0925

September 01, 2015

Event Code: 05E1NY00-2015-E-04201

Project Name: Mod Ops 4 -- created on July 23, 2014 12:32

Subject: Updated 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: Mod Ops 4 -- created on July 23, 2014 12:32

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>

Expect additional Species list documents from the following office(s):

Pennsylvania Ecological Services Field Office

315 SOUTH ALLEN STREET, SUITE 322

STATE COLLEGE, PA 16801

(814) 234-4090

<http://www.fws.gov/northeast/pafo/>

Consultation Code: 05E1NY00-2014-SLI-0925

Event Code: 05E1NY00-2015-E-04201

Project Type: SPILL / RELEASE

Project Name: Mod Ops 4 -- created on July 23, 2014 12:32

Project Description: This project is a component of NYC DEPs Water for the Future Program. For a full Project Description see <http://www.nyc.gov/>. This part of WFF is known as Modified Operations. When the Rondout-West Branch Tunnel is temporarily shutdown, the Delaware System of the water supply system will be unavailable. This accounts for 50% of New York City's drinking water. To meet demands during the shutdown, the transfer of water between the upstate reservoirs and receiving water bodies will be altered.

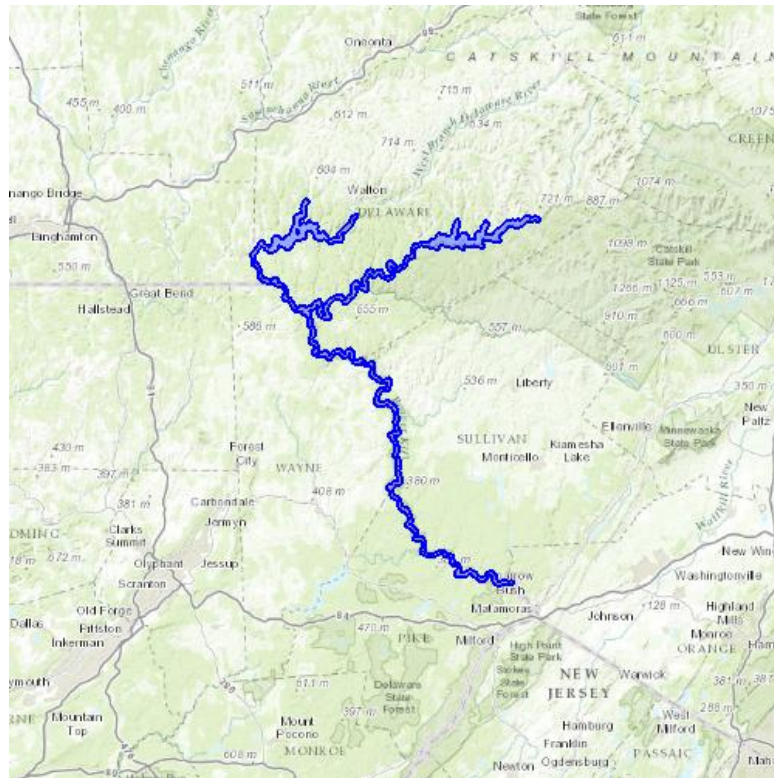
Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your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



United States Department of Interior
Fish and Wildlife Service

Project name: Mod Ops 4 -- created on July 23, 2014 12:32

Project Location Map:



Project Coordinates: The coordinates are too numerous to display here.

Project Counties: Delaware, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Mod Ops 4 -- created on July 23, 2014 12:32

Endangered Species Act Species List

There are a total of 5 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		
Flowering Plants			
Small Whorled pogonia (<i>Isotria medeoloides</i>)	Threatened		
Mammals			
Indiana bat (<i>Myotis sodalis</i>) Population: Entire	Endangered		
Northern long-eared Bat (<i>Myotis septentrionalis</i>)	Threatened		
Reptiles			
Bog Turtle (<i>Clemmys muhlenbergii</i>) Population: northern	Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: Mod Ops 4 -- created on July 23, 2014 12:32

Critical habitats that lie within your project area

There are no critical habitats within your 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: 05E1NY00-2014-SLI-0926

September 01, 2015

Event Code: 05E1NY00-2015-E-04202

Project Name: Mod Ops 5 -- created on July 23, 2014 12:36

Subject: Updated 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.

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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: Mod Ops 5 -- created on July 23, 2014 12:36

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: 05E1NY00-2014-SLI-0926

Event Code: 05E1NY00-2015-E-04202

Project Type: SPILL / RELEASE

Project Name: Mod Ops 5 -- created on July 23, 2014 12:36

Project Description: This project is a component of NYC DEPs Water for the Future Program. For a full Project Description see <http://www.nyc.gov/>. This part of WFF is known as Modified Operations. When the Rondout-West Branch Tunnel is temporarily shutdown, the Delaware System of the water supply system will be unavailable. This accounts for 50% of New York City's drinking water. To meet demands during the shutdown, the transfer of water between the upstate reservoirs and receiving water bodies will be altered.

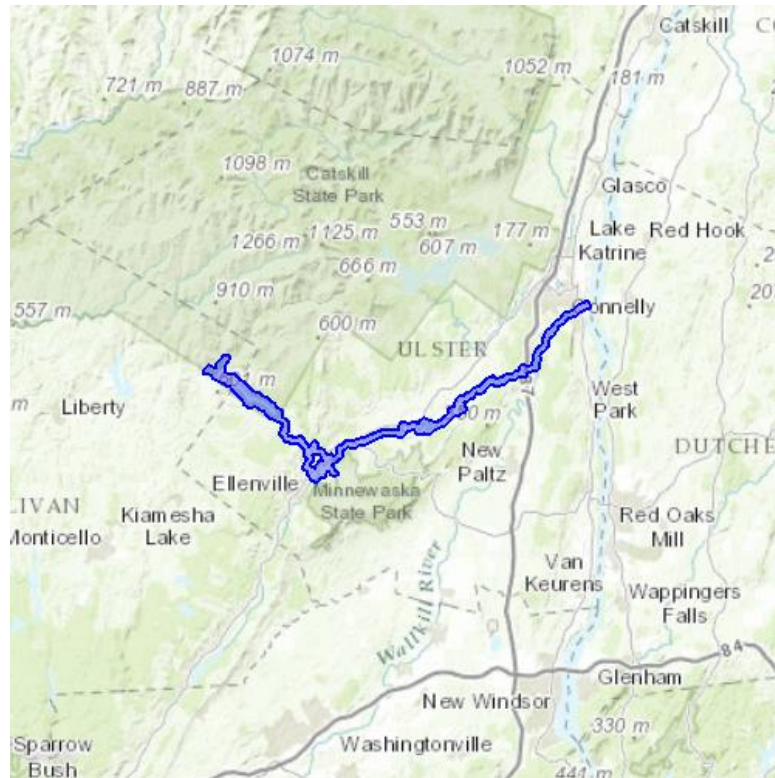
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United States Department of Interior
Fish and Wildlife Service

Project name: Mod Ops 5 -- created on July 23, 2014 12:36

Project Location Map:



Project Coordinates: The coordinates are too numerous to display here.

Project Counties: Ulster, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Mod Ops 5 -- created on July 23, 2014 12:36

Endangered Species Act Species List

There are a total of 4 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			
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Reptiles			
Bog Turtle (<i>Clemmys mühlenbergii</i>) Population: northern	Threatened		



United States Department of Interior
Fish and Wildlife Service

Project name: Mod Ops 5 -- created on July 23, 2014 12:36

Critical habitats that lie within your project area

There are no critical habitats within your 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: 05E1NY00-2014-SLI-0927

September 01, 2015

Event Code: 05E1NY00-2015-E-04203

Project Name: Mod Ops 6 -- created on July 23, 2014 12:37

Subject: Updated 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: Mod Ops 6 -- created on July 23, 2014 12:37

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: 05E1NY00-2014-SLI-0927

Event Code: 05E1NY00-2015-E-04203

Project Type: SPILL / RELEASE

Project Name: Mod Ops 6 -- created on July 23, 2014 12:37

Project Description: This project is a component of NYC DEPs Water for the Future Program. For a full Project Description see <http://www.nyc.gov/>. This part of WFF is known as Modified Operations. When the Rondout-West Branch Tunnel is temporarily shutdown, the Delaware System of the water supply system will be unavailable. This accounts for 50% of New York City's drinking water. To meet demands during the shutdown, the transfer of water between the upstate reservoirs and receiving water bodies will be altered.

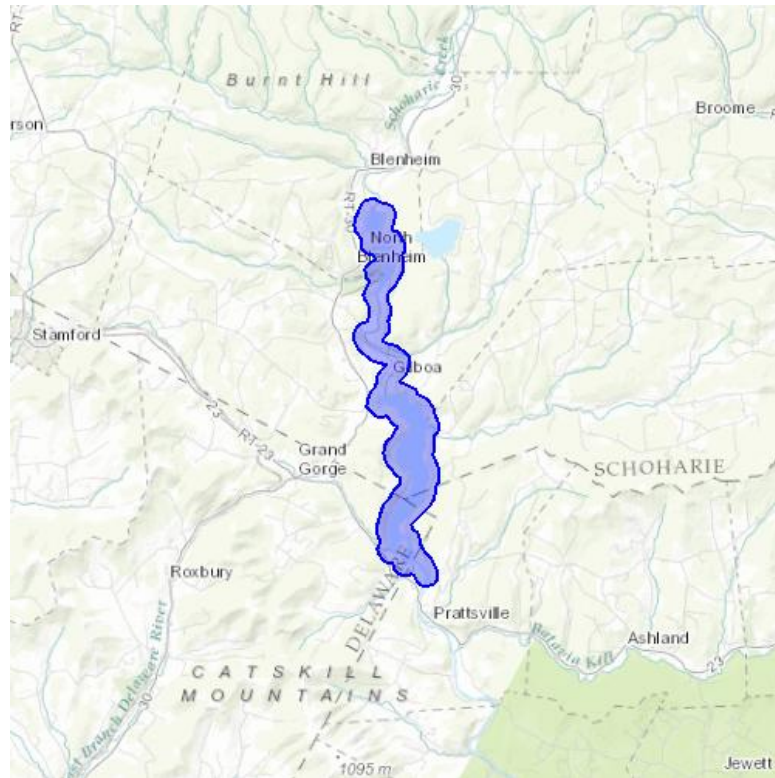
Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your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



United States Department of Interior
Fish and Wildlife Service

Project name: Mod Ops 6 -- created on July 23, 2014 12:37

Project Location Map:



Project Coordinates: The coordinates are too numerous to display here.

Project Counties: Schoharie, NY



United States Department of Interior
Fish and Wildlife Service

Project name: Mod Ops 6 -- created on July 23, 2014 12:37

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: Mod Ops 6 -- created on July 23, 2014 12:37

Critical habitats that lie within your project area

There are no critical habitats within your project area.

Proposed Rondout-West Branch Tunnel Inspection and Repair



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 Tracking Number: 05E1NY00-2013-SLI-0326

February 27, 2013

Project Name: NYCDEP Rondout-West Branch Tunnel Repair 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, and proposed species, designated critical habitat, and candidate species 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: NYCDEP Rondout-West Branch Tunnel Repair 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 Tracking Number: 05E1NY00-2013-SLI-0326

Project Type: Water Supply / Delivery

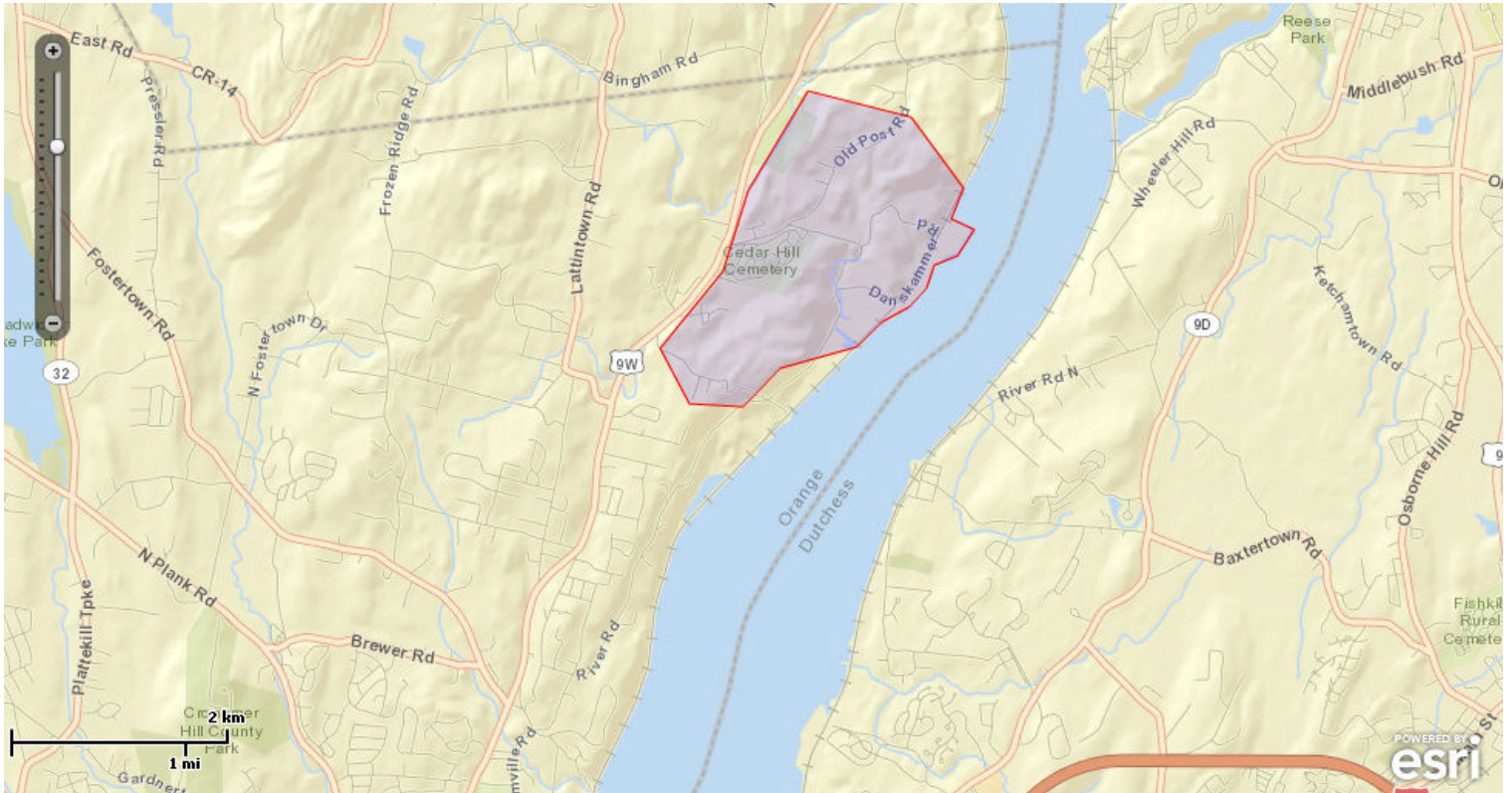
Project Description: NYCDEP is investigating the potential that local groundwater and surface waters may be influenced by water leaking from the Rondout-West Branch Tunnel (RWBT). These water resources have the potential to be influenced by planned repairs to the RWBT. In addition, a series of three deep stratigraphic well borings will be completed in support of the design of the proposed RWBT bypass tunnel. For each boring, the proposed limits of work is approximately 7,000 square feet.



United States Department of Interior
Fish and Wildlife Service

Project name: NYCDEP Rondout-West Branch Tunnel Repair Project

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-73.9639743 41.5776149, -73.9653476 41.5750595, -73.9627727 41.5741605, -73.964661 41.5719774, -73.9672359 41.5712068, -73.9680942 41.5692804, -73.9699825 41.5677392, -73.9730724 41.5664549, -73.975819 41.5643999, -73.984402 41.5626017, -73.9885219 41.5593778, -73.9945301 41.5596475, -73.9977916 41.5642715, -73.9907793 41.5706931, -73.9880069 41.5773581, -73.9813121 41.5857108, -73.9698108 41.583528, -73.9639743 41.5776149)))

Project Counties: Orange, NY



United States Department of Interior
Fish and Wildlife Service

Project name: NYCDEP Rondout-West Branch Tunnel Repair Project

Endangered Species Act Species List

Species lists are not entirely based upon the current range of a species but may also take into consideration actions that affect a species that exists in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Please contact the designated FWS office if you have questions.

bog turtle (*Clemmys (Glyptemys) muhlenbergii*)

Population: northern

Listing Status: Threatened

Dwarf wedgemussel (*Alasmidonta heterodon*)

Population: Entire

Listing Status: Endangered

Indiana bat (*Myotis sodalis*)

Population: Entire

Listing Status: Endangered

Small Whorled pogonia (*Isotria medeoloides*)

Listing Status: Threatened



United States Department of the Interior



FISH AND WILDLIFE SERVICE

New York Field Office

3817 Luker Road

Cortland, NY 13045

Phone: (607) 753-9334 Fax: (607) 753-9699

<http://www.fws.gov/northeast/nyfo>

To: Jennifer Farmwald

Date: Feb 23, 2016

USFWS File No: 15-B-0051

Regarding your: Letter Fax Email

Dated: Aug 7, 2015

For project: Delaware Aqueduct Rondout-West Branch Tunnel (Water for the Future)

Located: various

In Town/County: various

Pursuant to the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*), the U.S. Fish and Wildlife Service:

Acknowledges receipt of your “no effect” and/or no impact determination. No further ESA coordination or consultation is required.

Acknowledges receipt of your determination. Please provide a copy of your determination and supporting materials to any involved Federal agency for their final ESA determination.

Is taking no action pursuant to ESA or any legislation at this time, but would like to be kept informed of project developments.

As a reminder, until the proposed project is complete, we recommend that you check our website (<http://www.fws.gov/northeast/nyfo/es/section7.htm>) every 90 days from the date of this letter to ensure that listed species presence/absence information for the proposed project is current. Should project plans change or if additional information on listed or proposed species or critical habitat becomes available, this determination may be reconsidered.

USFWS Contact(s): Sandra L. Doron 02/23/2016

Supervisor: Patricio Cole Date: 2/23/16

