

U.S. Fish & Wildlife Service

West Virginia Ecological Services Field Office

Liz Stout

Fish and Wildlife Biologist

694 Beverly Pike

Elkins, West Virginia 26241

elizabeth_stout@fws.gov

304-636-6586 x 15



Today's Goals

Inform everyone of their obligations under the Endangered Species Act and Migratory Bird Treaty Act

- Introduction to the USFWS Mission and WVFO
- Introduction to the Endangered Species Act
- Discuss how these laws relate to energy projects, more specifically to oil & gas operations within West Virginia
- Discuss the process of consulting with the USFWS



U.S. Fish and Wildlife Service

Mission Statement: Working with others to conserve, protect, and enhance fish, wildlife, plants and their habitats for the continuing benefit of the American people.

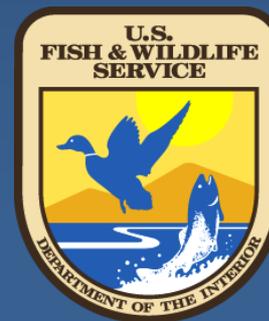
USFWS Programs:

Authority:

- Endangered Species Act (1973)
- Bald/Golden Eagle Prot. Act (1940)
- Migratory Bird Treaty Act (1918)
- Fish & Wildlife Coord. Act (1965)

Major Divisions:

- Migratory Birds
- Fisheries
- Wildlife Refuges
- Law Enforcement
- Ecological Services



Functions:

▪ Enforce Federal wildlife laws

- Migratory Bird Treaty Act – 1918 & 1934
- Bald Eagle & Golden Eagle Protection Act – 1940
- Endangered Species Act - 1973



▪ Manage the 95 Million acre National Wildlife Refuge System

- Canaan Valley NWR
- Ohio River Islands NWR



▪ Operate 66 National Fish Hatcheries

- Warm Springs NFH

▪ Manage migratory birds – waterfowl, shorebirds, songbirds

Functions - continued:

- Restore Nationally significant fisheries

- Trout, Salmon



- Conserve and restore wildlife habitat

- Private Lands Program
- Refuge System



- Assist with international conservation efforts



- Oversee the Federal Aid program to State fish and wildlife agencies

- Wildlife Restoration Act (Pittman-Robertson) - 1937
- Sport Fish Restoration Act (Dingell-Johnson) – 1950
- These programs are economically beneficial by supporting hunting, fishing, and outdoor recreational industries



- Protect Endangered Species !!

U.S. Fish and Wildlife Service Major Divisions

- Fisheries
- Refuges
- Law Enforcement
- Migratory Birds
- **Ecological Services**

Ecological Services Programs

- Environmental Contaminants
- ESA and MBTA Consultation – (Pre-Development Consultation) the WVFO consults on about 700 – 800 projects a year including oil and gas, coal, transportation, infrastructure (water lines, sewer lines, cell towers, commercial development), and many other types of projects
- Federal Activities – CWA permits (404), FERC-hydropower, flood damage reduction, water resource projects
- Private Lands / Partners for Fish & Wildlife
- Endangered Species
 - Recovery / Listing
 - Candidate Conservation

The Endangered Species Act of 1973

A Brief Overview

A Legislative History

- Federal laws of 1966 and 1969 initiated protection for species in danger of extinction.
- The Endangered Species Act of 1973 added management tools to save “vanishing species.”
- The 1973 Act was amended in 1976, 1978, 1979, 1982, and 1988.

The Endangered Species Act

Section 2: Findings and Purposes

Section 3: Definitions

Section 4: Listing and Critical Habitat Designation; Recovery; Monitoring

Section 5: Land Acquisition

Section 6: Financial Assistance to States and Territories

Section 7: The Role of Federal Agencies

Section 9: Unlawful Activities – “Take”

Section 10: Exceptions, including Permits

Section 11: Penalties and Enforcement

Section 7 of the ESA: Interagency Consultations

- Enlists all federal agencies in conservation of threatened and endangered species
- **7(a)(1)** - Federal agencies must use their authorities to conserve endangered and threatened species.
- **7(a)(2)** - Agencies must ensure that **actions** they authorize, fund, or carry out are not likely to jeopardize the continued existence of listed species or adversely modify critical habitat.
 - Action = any discretionary action funded, authorized, or carried out by a Federal action agency that may affect a listed species.

Section 7 of the ESA: Informal Consultation

■ Purpose

- Determine potential effects of a proposed action on listed species – 3 types of effects: Direct, Indirect, and Cumulative
- Allows Federal action agencies an opportunity to modify projects to avoid adverse effects to listed species and/or critical habitat
- Determine whether Formal Consultation is needed

Section 7 of the ESA: Informal Consultation

■ Process

- Coordination between the Service and Federal agency, representative, or an applicant
- May involve correspondence, meetings, site review, document review

Section 7 of the ESA: Informal Consultation

■ Effects Determinations

- No Effect
- May Affect – “not likely to adversely affect”
 - Insignificant or beneficial
 - Requires concurrence from the Service
- May Affect – “likely to adversely affect”
 - Requires formal consultation

Section 7 of the ESA: Formal Consultation

Formal Consultation is required when an action is “likely to adversely affect” species or critical habitat

- Service issues a Biological Opinion (BO)
- Service determines whether an action may *jeopardize* the continued existence of a species or *adversely modify* critical habitat
- Incidental take is anticipated and addressed
- Within the BO, the Incidental Take Statement can provide the action agency exemption from liability under Section 9 (Take)
- The Service provides Reasonable and Prudent Measures

Section 9 of the ESA: Prohibited Acts

Purpose:

- Makes it illegal for any person, including private, State, and public entities to “take” individuals of a federally listed species.
- Protect endangered species from threats of commercial trade, collection, or malicious destruction of Federal lands, and similar actions that violate State law
- “Take” is defined in the ESA : to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct. Harm is further defined to include significant habitat modifications or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering. Harass is further defined as actions that create the likelihood of injury to listed species to such an extent to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering.
- “Take” often occurs in the form of habitat loss or habitat degradation.

Penalties Violating the ESA

Section 11 allows for penalties and enforcement, including judicial review, of provisions of the ESA

Civil penalties

- knowing violation of Section 9 regulation
 - \$25,000 per violation
- knowing violation of other regulations
 - \$12,000 per violation

Criminal penalties

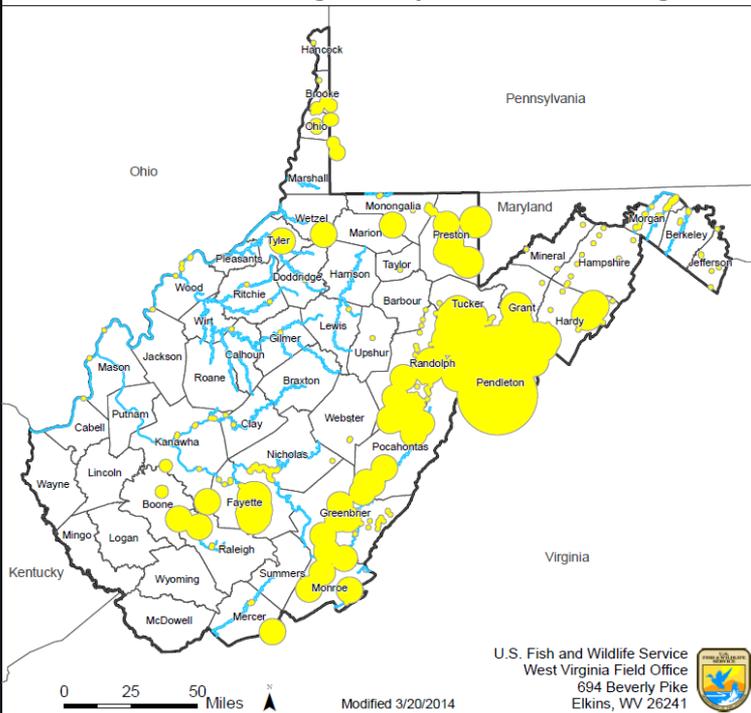
- knowing violation of Section 9 regulation
 - no more than \$50,000 and/or 1 year in jail per violation

■ **There is prosecution discretion in all cases**

Threatened & Endangered Species in West Virginia

23 federally listed species (3 mammals, 1 salamander, 1 fish, 10 mussels, 1 crustacean, 1 snail, 6 plants)

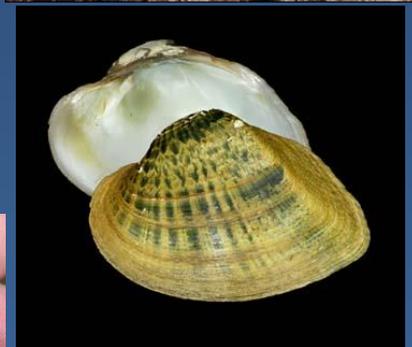
Distribution of Federally Listed Threatened and Endangered Species in West Virginia^{1, 2}



- Habitat buffers around known occurrences of other federally listed species²
- Waterways supporting federally listed aquatic species

1. All forested areas in West Virginia are considered potential summer habitat for the endangered Indiana bat. Please contact this office regarding any projects, anywhere in the state, that will require clearing of 17 acres or more of forest.

2. Includes nest sites of bald eagles, which are not listed under the Endangered Species Act. However they continue to receive Federal protection under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act.





Indiana bat
Myotis sodalis

Consultation Issues - Indiana Bat is Problematic

- Wide ranging species – nearly half of eastern U.S.
- Habitat is split – caves in winter, forests in summer
- Small and mobile – difficult to find or track
- Potential summer habitat – wide spread and readily available
- Effects of projects on the species are difficult to determine
- Addressing project effects on the species can be costly and conflict with time schedules

West Virginia Field Office Review/Analysis of Projects Potentially Affecting the Indiana Bat

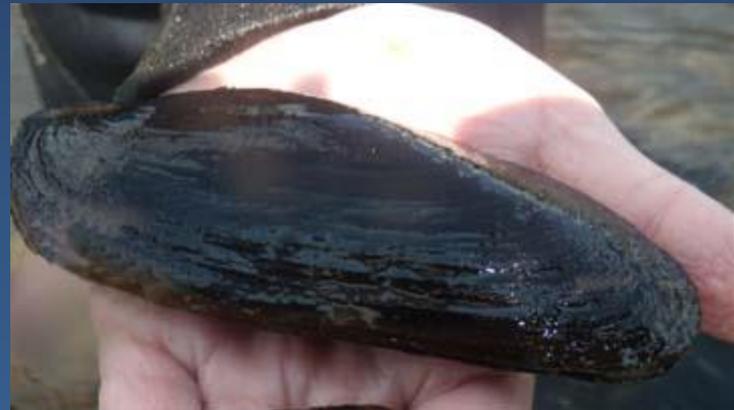
- Potential Habitat – Avoidance, Seasonal Clearing, Surveys, Formal Consultation
- Overlapping Habitat and Sensitive Areas – Avoidance, Formal Consultation
- Known Hibernacula – Avoidance, Seasonal Restrictions, Formal Consultation
- Known Maternity, Swarming, Non-Maternity Summer – Avoidance, Seasonal Restrictions (requires complete indirect and cumulative analysis), Formal Consultation
- Bat Buffer Zones – 2½ miles for roost trees (maternity and bachelor), 5 miles for summer capture sites, 5 miles for hibernacula

The Proposed Northern Long-Eared Bat (*Myotis septentrionalis*)

- On October 2, 2013, in the *Federal Register* (78 FR 61045 -61080) the Service proposed the northern long eared bat (*Myotis septentrionalis*) for listing under the ESA
- Final determination is anticipated within one year of the proposal
- If listed, potential impacts to the species will need to be considered for future developments
 - Exists throughout WV – known records in every county
 - Habitat requirements similar to the Indiana bat

Freshwater Mussels

- 10 federally listed freshwater mussels in West Virginia
- Many federally listed mussel streams (streams containing habitat for federally listed species)
 - Some examples
 - *North Fork Hughes River*
 - *South Fork Hughes River*
 - *Middle Island Creek*
 - *McElroy Creek*
 - *Buckeye Creek*
 - *Fishing Creek*
 - *Fish Creek*
 - *West Fork River*
 - **FULL LIST AVAILABLE ON THE WVFO WEBSITE**



Freshwater Mussels: Why are they important?

- Maintain water quality
 - Cycle nutrients
 - Stabilize substrates
 - Decrease erosion
 - Remove suspended sediments
 - Create habitat complexity
- Filter feeders
- Biological indicator of healthy streams



Energy Projects in West Virginia

Coal



Hydropower



Wind Energy



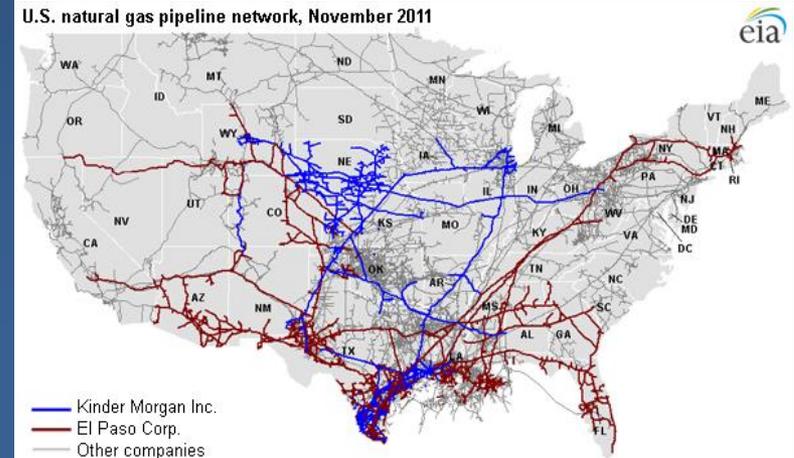
Oil and Gas



Oil and Gas in West Virginia

■ Transmission lines traverse West Virginia

- These are regulated by FERC
- The Service consults with the operating companies for these projects
 - Federal nexus
 - Programmatic Agreements in place for most of these companies



Oil and Gas in West Virginia con't

- FERC does not regulate oil and gas drilling activities or gathering lines
 - No Federal nexus unless a permit is required from USACE
- Most oil and gas drilling activities and gathering lines in West Virginia are on private
 - State regulated by WVDEP Office of Oil and Gas as the lead agency
- However, **Section 9 of the ESA applies to these actions**. Some states require that the operator consult with the USFWS prior to the issuance of the permit. This ensures that the project is in compliance with the ESA. WVDEP does not require ESA consultation.
 - Recall, Section 9 covers prohibited acts and makes it illegal for any entity to “take” federally listed species



Drilling and Holding Pits

- Have the potential to adversely affect listed species and migratory bird species
- Have potential to contaminate nearby surface water and ground water
 - Important that they are properly lined
- Contamination events could result in “take” to listed aquatic species or their habitat
 - Also potential for negative impacts to migratory birds



“No Effect” Actions

- Wells, gathering lines, tanks, compressor stations, impoundments, pipe yards, located within **fields or previously disturbed areas outside of species buffer zones** and/or clearing less than 17 acres of forested habitat
 - ¼-mile buffer around streams containing habitat for federally listed mussels
 - 1-mile buffer around known species locations
 - Various buffer distances for Indiana and Northern long-eared bats



“May Adversely Affect” Actions

- Actions that involve the removal of forested areas, in-channel and/or riparian disturbance to streams inhabited by federally listed aquatic species, or effect caves or karst areas have the potential to adversely affect federally listed species within West Virginia.



Impacts to Listed Species from Oil and Gas Development

■ Forest habitat removal

- Not just project by project basis – think about cumulative effect
- New developments = increased clearing
 - This results in loss of summer habitat for bats



■ Erosion and sedimentation issues

- Increased runoff from the increased development
- Increased sedimentation to streams
 - Results in high sediment loads in streams that suffocate and kill mussels and other aquatic life
- Water withdrawals that sometimes dewater streams – despite regulations
 - Results in mussels being dewatered which can lead to death



Minimizing Impacts

■ Forest clearing

- Minimize the amount to be cleared
- Avoid potential roost trees
- Clear seasonally when bats aren't present (Nov. 15 – Mar. 31)

■ Erosion and sedimentation

- Apply **strong** E&S BMPs throughout the project site
 - Triple stack compost filter sock
 - Super silt fence & corrugated metal fence
 - Armored outlets
 - **Maintain riparian buffers along waterways**

■ Heightened concern for survival of mussel populations in the near future

Why should an oil and gas operator consult with the USFWS ?

- Consulting with the USFWS reduces the liability under the ESA and MBTA if a project results in take to federally listed species (Insurance Policy Analogy)
- Consulting reduces the risks of litigation from NGOs, etc.
- Operating in compliance with all applicable laws is “corporate responsibility”.
- Consulting with the USFWS can be used as positive PR and demonstrates a company's commitment to providing energy in an environmentally responsible way that considers the conservation of threatened and endangered species.
- Addressing the needs of candidate species now, ideally will help prevent them from being listed in the future. Addressing the needs of listed species, will ideally help to recover these species and facilitate their delisting.

Why should an oil and gas operator not consult with the USFWS ?

- In some cases it may add to the project costs.

How to Consult for ESA Compliance

Projects should be submitted to our office and:

- Should include
 - Description of the proposed action
 - May include survey results, views of experts, published literature
 - Description of baseline conditions
 - Analysis of impacts and determination of effect
 - Avoidance, minimization, and conservation measures
 - For “major construction” activities, information must be presented in a Biological Assessment

- Please note, review time period is 45-60 days



The End....*Thank you!*

