



2016 Ohio Storm Water Management & Drainage Conference



**COUNTY ENGINEERS
ASSOCIATION OF OHIO**

"ALL TRAVEL STARTS AND ENDS ON A LOCAL ROAD"

Managing for *Myotis* and Mussels

The impact of protected
bat and mussel species
on project planning



ENDANGERED SPECIES PROTECTION

Regulatory basis for
protection of bats and
mussels

PROTECTION OF BAT SPECIES

- ❑ **Federal law provides regulatory basis for protection of bat species**
- ❑ **Endangered Species Act (ESA):**
 - Provides for the conservation and protection of threatened and endangered species and their habitats
 - Administered by the U.S. Fish and Wildlife Service (USFWS)



PROTECTION OF MUSSEL SPECIES

□ Federal and State Protection:

- **Endangered Species Act** - Federally listed mussel species on Endangered Species list
- **Ohio Revised Code (ORC)** - All native mussels are protected by state law in Ohio
- (ORC 1533.324 - “No person shall take mussels or sell mussels taken in this state.”)
- Administered by Ohio Department of Natural Resources (ODNR)



WHEN DO THESE LAWS APPLY?

❑ Endangered Species Act

- Section 7 - Requires consultation with USFWS for all federal actions that may affect a listed species
- Section 9 – Unlawful for any entities (public or private) to “take” an endangered or threatened species

❑ Ohio Revised Code

- Applies to all entities, public or private, regardless of funding or federal action

ENDANGERED SPECIES ACT OF 1973

AN ACT To provide for the conservation of endangered and threatened species of fish, wildlife, and plants, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the “Endangered Species Act of 1973”.

Section 3(5)(A) The term “critical habitat” for a threatened or endangered species means—

(i) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 4 of this Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and

(i.) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 4 of this Act, upon a determination by the Secretary that such areas are essential for the conservation of the species...

PROTECTED BAT (MYOTIS) SPECIES

Indiana and northern
long-eared bats

MYOTIS SPECIES

- **Indiana bat** (*Myotis sodalis*)
 - Federally-listed endangered since 1967
- **Northern long-eared bat** (*Myotis septentrionalis*)
 - Federally-listed threatened as of April 2015
- Endangered Species List (by County) - Listed in all 88 Ohio counties



MYOTIS HABITAT

- ❑ Hibernate in caves and mines; summer habitat includes riparian corridors and forests
- ❑ If there are trees within a project area, they should be assessed for potential bat habitat
- ❑ Now addressing trees with 3"+ diameter for NLE bat (low threshold)



USFWS CONSULTATION

If bat habitat is present, consult with USFWS :

- ❑ Propose measures to minimize harm (e.g. minimize tree clearing; avoid “high quality” habitat)
- ❑ Identify and avoid cutting potential roost trees
- ❑ Winter Tree Clearing – almost all projects now require **seasonal clearing restrictions regardless of habitat** (can clear only between **October 1 and March 31**)



SCHEDULE CONSIDERATIONS

Understand and **PLAN AHEAD!**

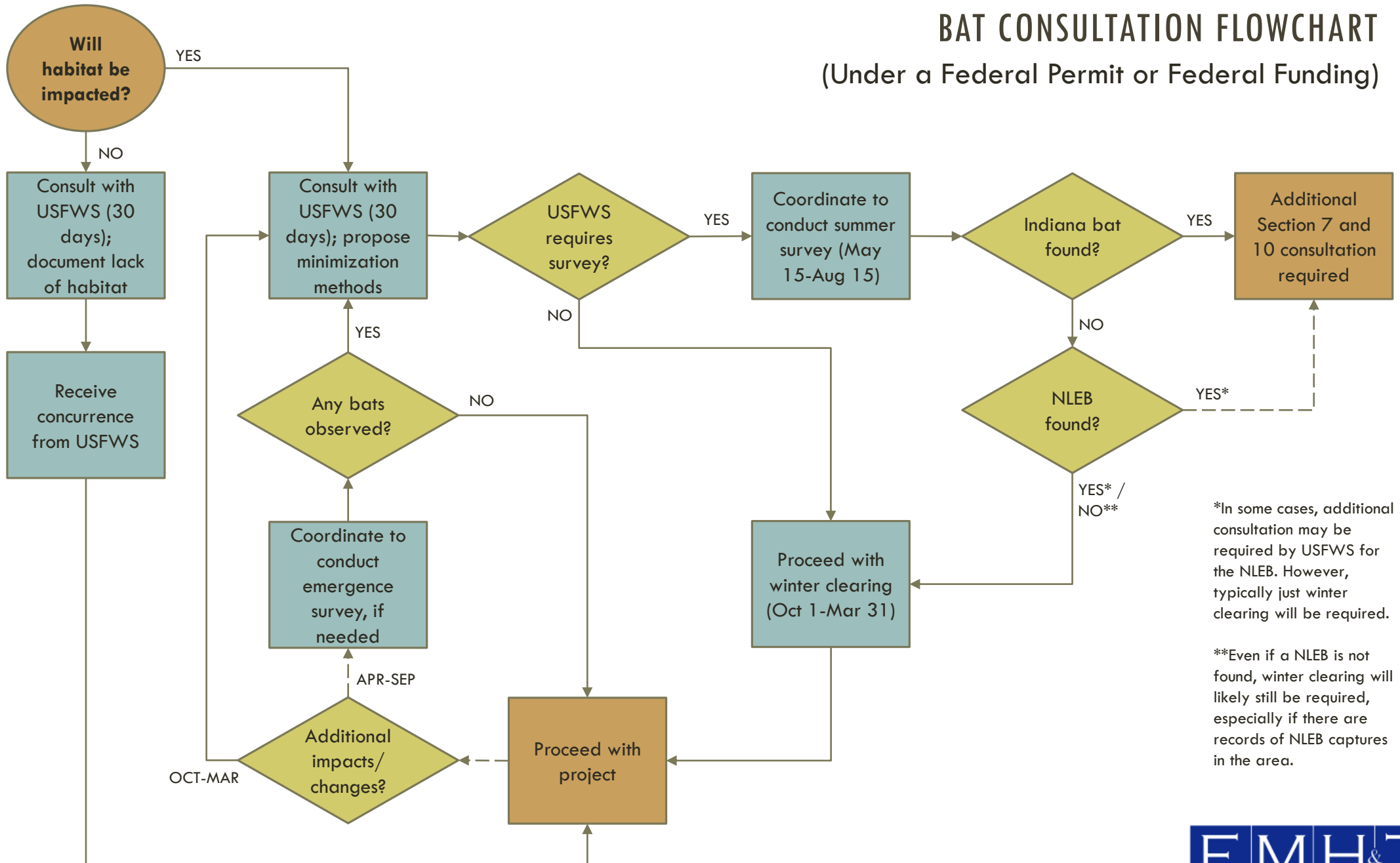
- ❑ Tree-Cutting and Construction
 - Construction season in Ohio is typically March to October
 - Winter tree clearing must be completed by March 31
 - Separate tree clearing contracts
 - Vendor availability
- ❑ Agency Coordination
 - Typically a **30-day** response time from USFWS
- ❑ Additional Bat Surveys
 - USFWS may require a mist-net survey (i.e. capture bats), which can only be done from **May 15 - August 15**

Winter Clearing!



BAT CONSULTATION FLOWCHART

(Under a Federal Permit or Federal Funding)



*In some cases, additional consultation may be required by USFWS for the NLEB. However, typically just winter clearing will be required.

**Even if a NLEB is not found, winter clearing will likely still be required, especially if there are records of NLEB captures in the area.

PROTECTED MUSSEL SPECIES

Federal and state
protected mussels in
Ohio



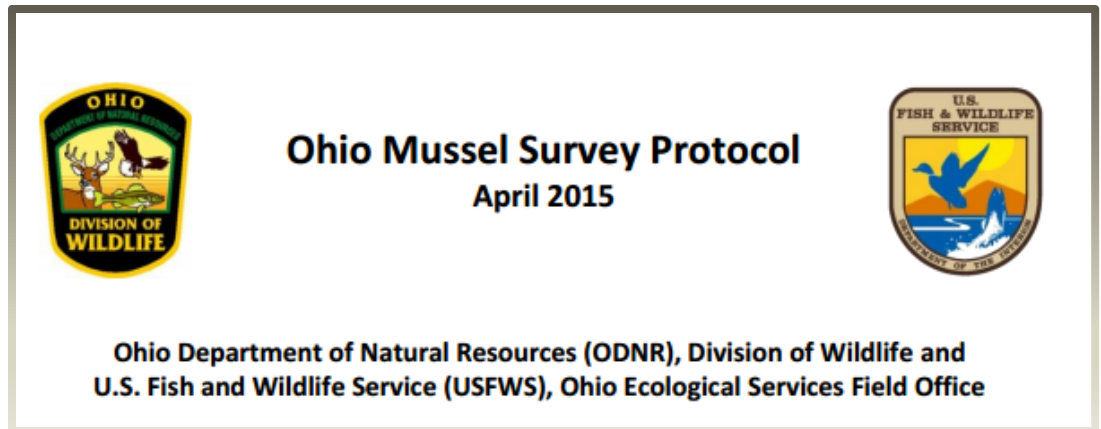
MUSSELS IN OHIO

- ❑ All native mussels are protected by state law in Ohio (ORC 1533.324)
- ❑ In addition, 10 federally-listed threatened or endangered species occur in Ohio:
 - Clubshell
 - Fanshell
 - Northern riffleshell
 - Pink mucket pearlymussel
 - Purple cat's paw pearlymussel
 - Rabbitsfoot
 - Rayed bean
 - Sheepnose
 - Snuffbox
 - White cat's paw pearlymussel



OHIO MUSSEL SURVEY PROTOCOL

- ❑ Ohio Mussel Survey Protocol - protocols for determining presence or absence of mussels
- ❑ First version issued in 2013; Updated April 2015; Expected update in 2016
- ❑ Joint effort by ODNR and USFWS
- ❑ Must be certified by state and/or federal government to conduct surveys



OHIO MUSSEL SURVEY PROTOCOL

- Technically all native mussels are protected, even in smaller Unlisted streams
- Categorizes Ohio streams into five groups (Unlisted, Groups 1-4) based on drainage area and potential for finding federally-listed species (FLS)

Appendix A: Ohio Mussel Stream List - 5/15/2014		
County	Stream	Group
Franklin	Alum Creek	1
Franklin	Big Darby Creek	2
Franklin	Big Run	1
Franklin	Big Walnut Creek	1
Franklin	Blacklick Creek	1
Franklin	Clover Groff Ditch	1

- List is updated periodically by ODNR

OHIO MUSSEL SURVEY PROTOCOL

When is a mussel survey required?

- ❑ **Mussel Reconnaissance**
 - Presence/absence survey
 - Required for Group 1 and Unlisted streams with >10 sq. mi. drainage area
- ❑ **Mussel Survey and Relocation**
 - Triggered by presence of fresh dead or live shells during reconnaissance – Group 1 and Unlisted
 - Automatically triggered: Groups 2, 3, 4
- ❑ **Reconnaissance and Survey season: May 1 – October 1** (with acceptable conditions)
- ❑ **Agency Coordination** – Study Plans and Survey Reports must be approved
 - ODNR is quick, longer for USFWS



SCHEDULE CONSIDERATIONS

- ❑ Survey season is May 1 – Oct 1
- ❑ Conduct survey season prior to construction start
- ❑ Surveys are highly weather dependent; must meet workable flow and visibility requirements
- ❑ Survey data is valid for **five years** from the date of the survey
- ❑ Relocations are to be done in the same field season as expected impacts, or in the previous field season if impacts will occur before June 15
- ❑ Vendor availability and time for agency coordination
- ❑ Waterway Permit Considerations:
 - Survey may be needed even if not specified in Special Conditions
 - Permit may not be issued until survey is completed for Group 2 and 4 streams



ODOT PROJECT CONSIDERATIONS

- ❑ NEW Revised Agreement with USFWS
 - New definitions: “*Suitable Wooded Habitat*” (vs. Roost Trees)
 - Reduced fieldwork for projects within 100’ of ROW
 - Conservation Measures typically apply (e.g. Winter tree clearing)
 - Mitigation is rarely needed for infrastructure improvements (LPA is responsible)

- ❑ Bat Assessments for Bridges and Structures
 - Bridge Bat Inspection Form
 - Valid for 1 year from inspection
 - FHWA guidance – no training specified

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