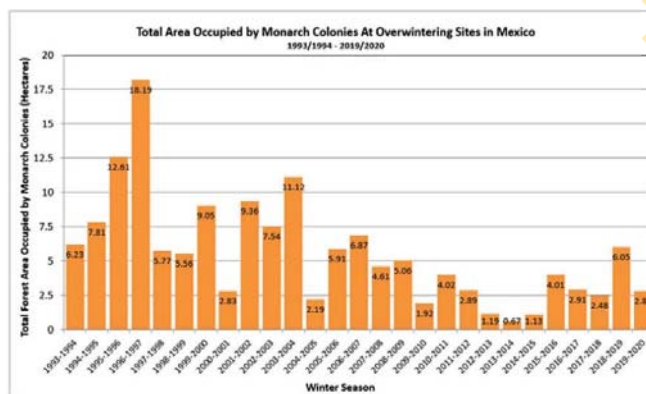


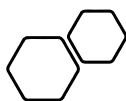


Overview of Monarch Butterflies

- Monarch butterfly populations have a wide distribution
 - Span ~90 different countries
 - Represented by 31 populations
 - Four populations in United States
- Eastern Population of monarchs has been in decline since the 1990's
 - Systematically monitored since the early 1990's
 - Migration and overwintering sites
- "Warranted but Precluded" status under the Endangered Species Act in 2020
 - Loss of habitat, exposure to chemicals, impacts to overwintering sites, climate change
 - Species reassessed annually

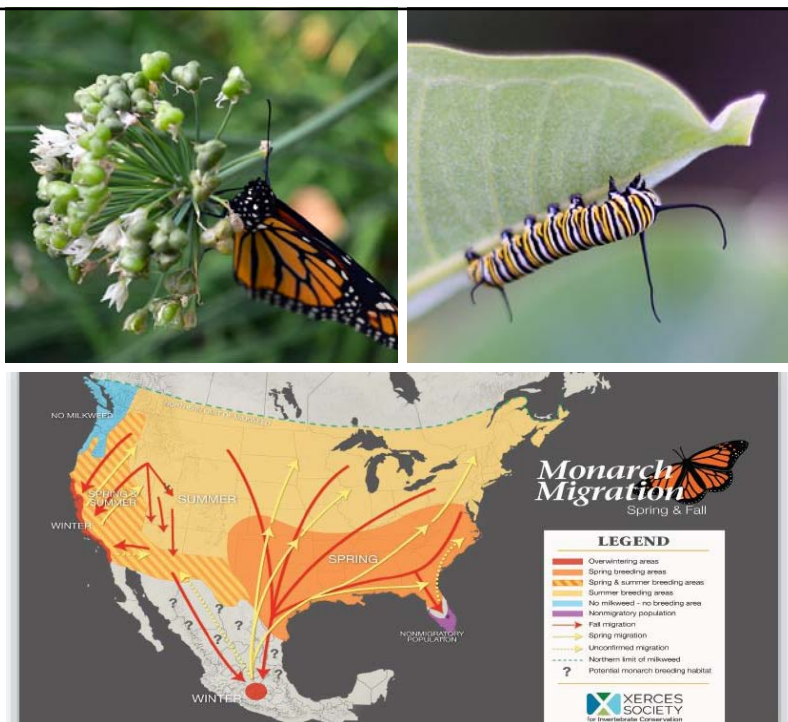


Population estimates from over wintering grounds in Mexico.
Data displayed in hectares where 1 ha = ~21 million individuals.
Photo from Monarch Joint Venture.



Monarch Butterflies in Michigan

- Eastern Population is one of two migratory populations in the U.S.
 - Summer months in the northeastern and Midwestern US (including MI)
 - Overwinters in Mexico
- Monarchs require milkweed for breeding and reproduction
- Also require nectar from other flowering plants



Monarch Habitat within Rights-of-Way

- Rights-of-way provide habitat!
- Rights-of-way can be broken into three zones
 - Zone 1 – Road surface & shoulder
 - Zone 2 – Ditch (inslope)
 - Zone 3 – Backslope
- Zones 2 and 3 are typically managed for either early successional or natural vegetation characteristics and can support monarchs
- Project and maintenance actions can remove habitat or impact monarchs

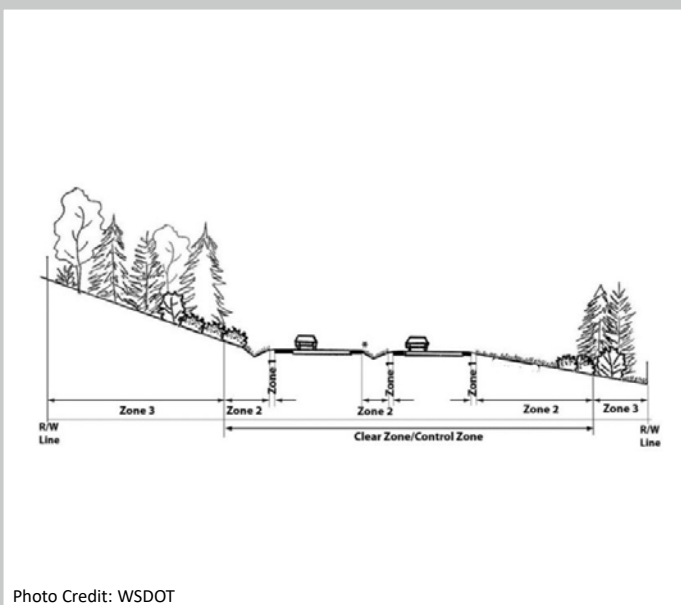


Photo Credit: WSDOT

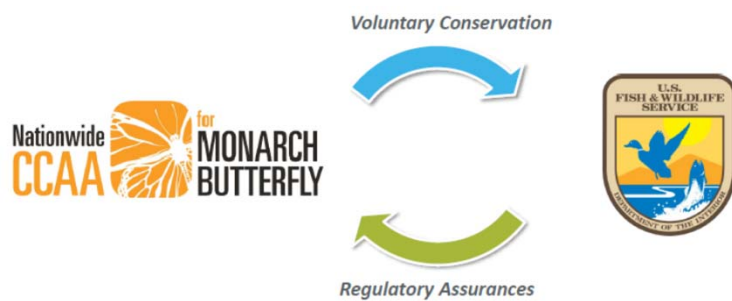
What if Monarch is Listed under ESA?

- Take prohibitions apply like other species (e.g., illegal to harm or harass)
 - Possibility of 4(d) Rule if listed as Threatened
 - Section 7 consultation - (activities with federal aid)
 - Take avoidance or develop a [Habitat Conservation Plan](#) - (activities without federal aid)
- Projects and maintenance activities would be subject to regulatory restrictions and timelines
- The Candidate Conservation Agreement with Assurances offers limited time opportunity to secure regulatory certainty



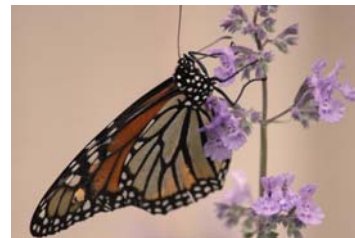
What is the Conservation Candidate Agreement with Assurances (CCAA)?

- Nationwide agreement available for transportation and energy lands
 - Goal is to address needs of a species before listing
 - Administered by the University of Illinois Chicago (UIC)
- You (Partner) agree to voluntarily commit to implement conservation actions for monarch
- We (FWS) provide an Enhancement of Survival permit with assurances that additional conservation would not be required if monarch is listed in the future



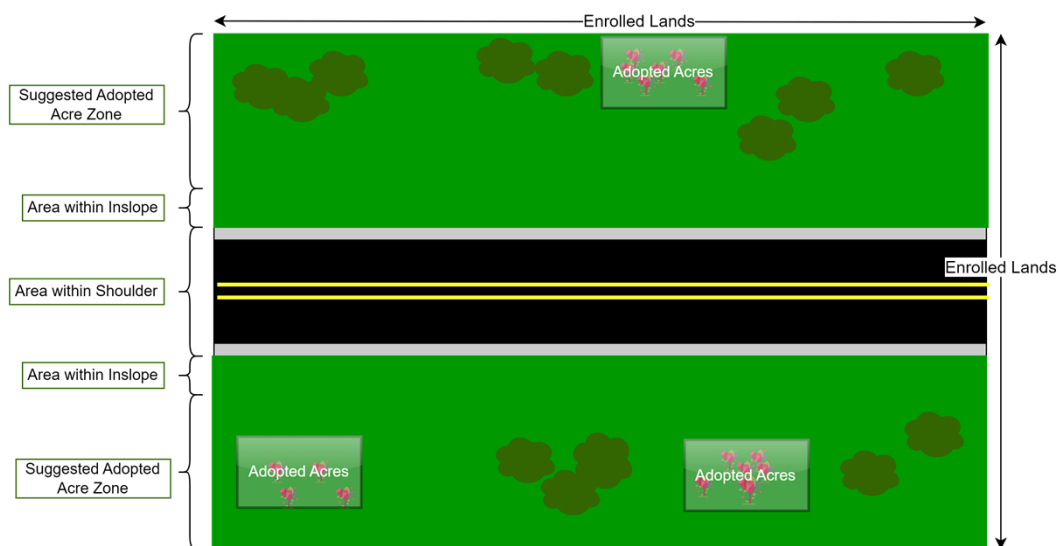
Enrolled Land and Adopted Acres

- Can enroll transportation lands that can support monarch habitat:
 - ROWs along roadsides, storage and maintenance facilities, mitigation sites, etc.
- Applicants can enroll all lands, but only need to adopt 5% of lands
 - Adopt means to apply conservation measures
- Adopted acres should occur where it is possible to carry out conservation measures and to meet 5-year targets
 - Habitat is most likely to be maintained in areas that are **not** frequently managed



Section 4.7
Pgs. 16 – 25
Section 6.2
Pgs. 32 - 36

Enrolled Land and Adopted Acres



Section 4.7
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Section 6.2
Pgs. 32 - 36



Section 5
Pgs. 25 - 31

Working Under the CCAA

- Covered Activities within Enrolled Lands
 - General operations and emergency response
 - Construction and modernization within existing footprint
 - Maintenance and vegetation management
- Covered activities do **not** include construction of new infrastructure
- Conservation Measures are applied to Adopted Acres
- If consistent with agreement and other local regulations take for monarch is authorized



Conservation Measures

Section 6.4
Pgs. 39 - 47



CREATE

PLANT A VARIETY OF MILKWEED AND NATIVE FLOWERING PLANTS TO RESTORE OR ENHANCE HABITAT



PLAN

TIME MOWING, BRUSH REMOVAL, AND HERBICIDE USE WHEN MONARCHS, EGGS, OR CATERPILLARS ARE NOT PRESENT



AVOID

REDUCE MOWING AND SPRAYING, AND USE TARGETED PRACTICES WHERE POSSIBLE TO ENHANCE SUITABLE HABITAT



MANAGE

ADOPT GRAZING, BURNING, AND OTHER MANAGEMENT PRACTICES TO PROMOTE BENEFICIAL PLANTS



SET ASIDE

ALLOW CERTAIN AREAS TO REMAIN IN A NATURAL STATE WITH AS LITTLE ACTIVE MANAGEMENT AS POSSIBLE

Section 14
Pgs. 71 – 84

Annual Monitoring

- # of plots determined by # of adopted acres
 - Plots should be 1,500 square ft in size
 - Plots must be random and representative of adopted acres
- 90% of plots should meet target goal
 - Target goal on transportation lands in the Midwest is 156 milkweed stems/acre
 - 6+ milkweed stems per sample plot
 - Not required for monarch to be on sample plot
- Survey protocol and forms available on [CCAA website](#)

Estimated Adopted Acres	Anticipated No. of Annual Samples
Fewer than 1,000	10
1,001 to 10,000	30
10,001 to 30,000	50
30,001 to 60,000	70
60,001 or more	70, plus one additional point for each 1,000 acres exceeding 60,001 adopted acres.



Section 4.4
Pgs. 11 - 14

CCAA Application Process

- There are four steps in the CCAA application process
 1. Pre-Application Outreach
 2. Application Preparation
 3. Application Review
 4. Certificate of Inclusion Issuance
- Applicants cannot rely on CCAA coverage until they receive the Certificate of Inclusion
- Not possible to join CCAA once final rule goes into effect
- FWS anticipates publishing a proposed rule in November 2023
- Can also apply as a consortium of agencies

When to Enroll



Enrollment Timing



- Expectations vary by organization but can be 6 to 12+ months for enrollment.

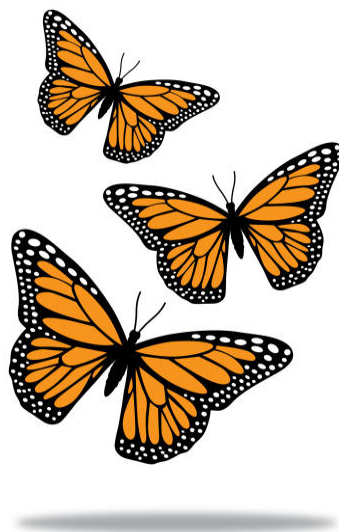
Internal team building, coordination, and buy-in	1-3 months
Pre-application review and implementation decision making	1-3 months
Application preparation	1-2 months
Final internal approval and submittal	1-2 months
UIC and USFWS review and approval	2-6 months

Section 4.4
Pgs. 11 - 14

Pre-Application Outreach

Identify lands you
may be interested
in enrolling

Build internal
support



Gauge public
interest

Contact UIC to
discuss enrollment
(mandatory)

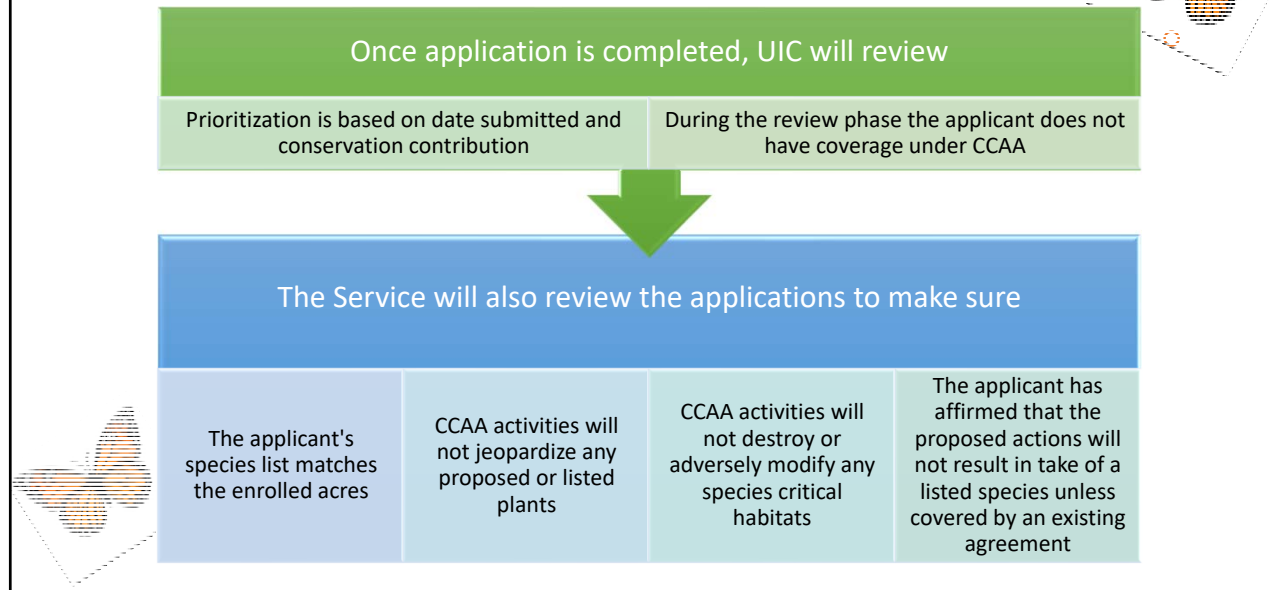
Section 4.4
Pgs. 11 - 14

Application Materials

- Covered lands, activities, and conservation measures
 - Identified using maps or GIS files
- Detailed plan for implementation
 - Conservation measures
 - Monitoring
 - Timeline
- Short summary of habitat availability on enrolled lands
- A list of threatened and endangered species on enrolled lands (IPaC)
 - Measures to avoid/minimize impacts to listed plants or critical habitat
- Application fee (\$3,000)



Application Review



Timeline Following Certificate of Inclusion (CI)

- After CI has been issued there are additional steps to maintain CCAA
- Must file an annual report
 - Summary of lands managed, monitoring, and upcoming year forecast
- Annual administrative fee required
- An implementation plan must be completed within one year ([template](#) and [example](#))
- Must meet adopted acres targets within 5 years



Section 14
Pgs. 71 – 84
Section 17
Pgs. 87 – 88

Administrative Fee Examples

Enrolling 20,500 acres

- If adopted 1,025 acres (5%), annual fee ~ \$8,075
- If adopted 2,050 acres (10%), annual fee ~ \$5,814

Enrolling 5,000 acres

- If adopted 250 acres (5%), annual fee ~ \$3,000
- If adopted 500 acres (10%), annual fee would be ~ \$2,160

Discounts for additional conservation measures

- Invasive species prevention – 2%
- Supplemental pollinator conservation – 2%
- Incorporate integrated vegetation management – 1%
- Spatially-focused conservation – 2%
- Additional monitoring – 3%

Benefits of Enrollment

- Assist in conservation and may help preclude listing
- Voluntary
- Regulatory assurance if monarch is listed regardless of funding source
- Decreased costs
 - Regulatory assurance
 - Potentially from vegetation management practices
- Technical guidance and information sharing

Section 13
Pgs. 67 - 71





Case Study



Conservation Measures Used

- No grazing or mowing in adopted acres
- Spot spraying herbicide
- Brush removal when necessary
- Seeding milkweed when necessary
- Additional pollinator habitat monitoring

Rationale for Joining

- Environmental stewardship
- Net impact was cost neutral or beneficial
- Positive public response
- Regulatory assurance and avoid delays
- Improve practices
- Gain credibility and take a proactive approach
- Voluntary agreement

Web Resources

- [Monarch CCAA Document](#)
- [CCAA Home Page](#)
- [Monarch CCAA Webinars and Case Studies](#)
 - [Kandiyohi County Case Study](#)
- [Monarch CCAA Toolkit](#)
- [FWS FAQs about Monarch CCAA](#)
- Administrative Fees
 - [Calculator](#)
 - [FAQs](#)



Questions?

- Shaughn Galloway
 - shaughn_galloway@fws.gov
- Michelle Kane
 - michelle_kane@fws.gov

