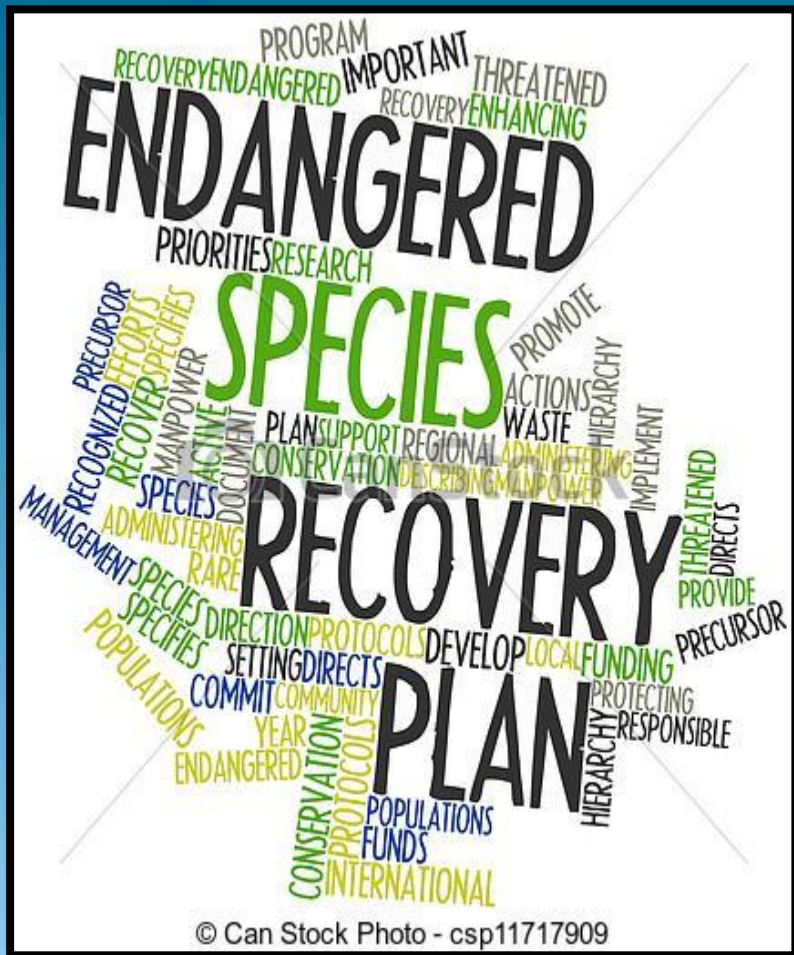


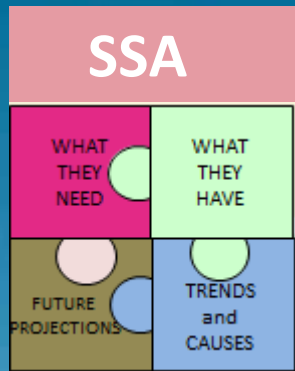


# The Recovery Planning and Implementation Process and the Eastern Massasauga Rattlesnake





# Recovery Planning and Implementation (RPI)\*



\*RPI Process relatively new for FWS.



# Species Status Assessment

SPECIES NEEDS



Current Availability  
or Condition of those  
Needs

SPECIES CURRENT CONDITION



Future Availability  
or Condition of those  
Needs

FUTURE SPECIES' CONDITION  
SPECIES VIABILITY

- The SSA Framework is a way of thinking about biological status assessments under the ESA.
- Its purpose is to describe the viability of species in a way that supports our ESA decisions.



# RPI Recovery Plan

## INTRODUCTION

RECOVERY  
VISION

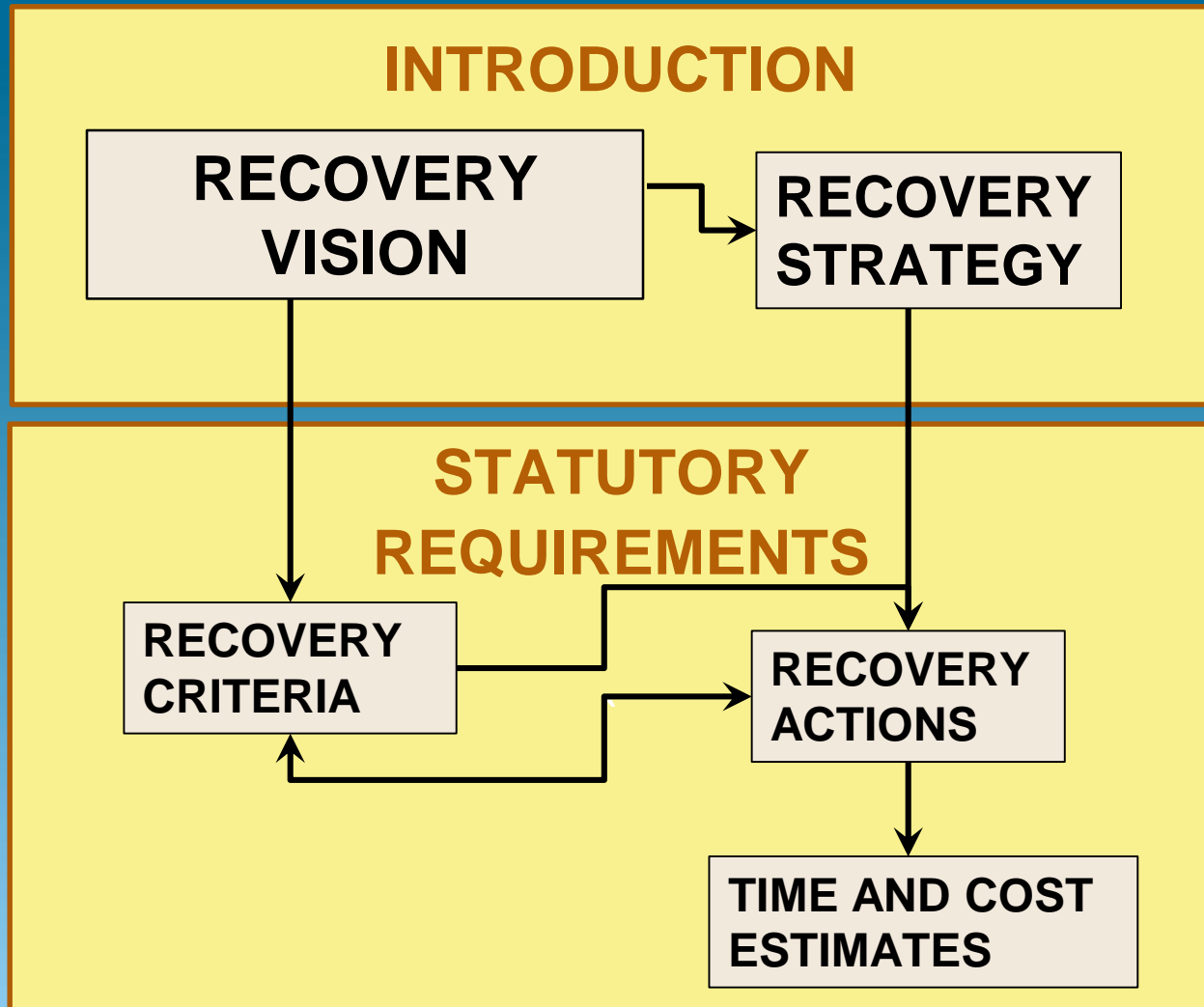
RECOVERY  
STRATEGY

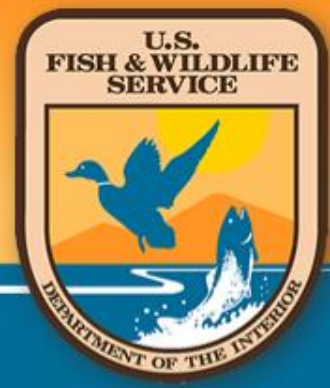
## STATUTORY REQUIREMENTS

RECOVERY  
CRITERIA

RECOVERY  
ACTIONS

TIME AND COST  
ESTIMATES





# Recovery Implementation Strategy (RIS)

## Recovery Plan:

- Overall strategy for **recovery** of species through actions.

## RIS:

- Strategy for **implementation** of the recovery plan through specific activities in a flexible, adjustable format.





# Recovery Implementation Strategy (RIS)

Actions (Recovery Plan) → Activities (RIS)

## RP Action:

Establish additional populations in Y drainage.

## RIS Example Activities:

- Identify # populations necessary for this particular drainage
- Survey habitat to identify suitable sites
- Restore habitat where necessary
- Introduce/translocate
- Monitor
- Revise approach if monitoring indicates need



# Recovery Implementation Strategy (RIS): Benefits

RIS outside of the Recovery Plan allows for:

- **Ability to adjust** in response to new information, completion of activities, initiation of activities.
- **Opportunity for adaptive management** (depending on design of activities).
- **Reduction** of number of plan revisions.
- **Savings** of time and \$ currently spent on plan revisions.
- **Avoiding** current situation of plans quickly becoming outdated.



# Recovery Implementation Strategy for Eastern Massasauga Rattlesnake

- “EMR” is a wide-ranging pit viper, historically found in 10 states and Ontario.
- Listed as Federally Threatened in October 2016.
- One of the first wide-ranging vertebrates to be listed following adoption of RPI process, thus one of the first to go entirely through the process.







# Recovery Implementation Strategy for Eastern Massasauga Rattlesnake

## Timeline:

- EMR SSA completed by FWS June 2016.
- EMR RPI Recovery Plan collaboratively drafted by FWS and state agency partners, Jan 2017-July 2018.
- Draft Recovery Plan **currently under** review by DOI/FWS Headquarters.
- RIS process started October 23, 2018, in Ohio.





# Recovery Implementation Strategy for Eastern Massasauga Rattlesnake

- Series of meeting with all states within EMR range.
- States determined agenda and invited key stakeholders.
- Most states opted for a “brainstorming” session to identify unique priorities.
- FWS and states currently working closely to distil brainstorms to FWS Recovery Tables (mandatory formats),
- States are providing narratives.
- State recovery plans or strategies may be appended to eventual RIS.



# Recovery Implementation Strategy for Eastern Massasauga Rattlesnake

## DRAFT Ohio RIS

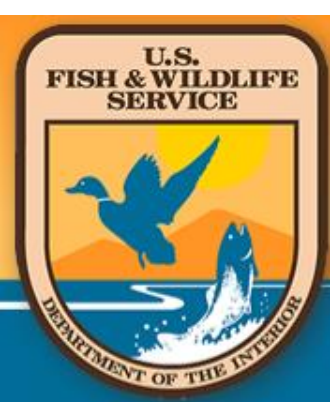
Action #	Description
1	Using appropriate habitat management techniques, <b>maintain</b> the currently occupied fields in a suitable vegetative and structural state to sustain Massasaugas. This includes controlling succession and treating invasive plant species.
2	<b>Rescue</b> small, declining SW OH populations through augmentation.
3	Develop sustainable <b>system for management</b> to maintain suitable habitat in perpetuum.
4	<b>Restore</b> - using appropriate habitat management techniques - areas that are currently unsuitable (i.e., later successional state, monoculture of invasives, row crops) to a suitable vegetative and structural state to increase the total area of suitable Massasauga habitat.
5	<b>Acquire</b> additional habitat surrounding occupied sites
6	Conduct <b>research</b> to identify and abate threats, measure effectiveness of actions, and guide conservation efforts.
7	Establish new sites through <b>repatriation</b>
8	Further <b>education</b> and outreach/inreach to support conservation efforts



# Recovery Implementation Strategy for Eastern Massasauga Rattlesnake

## DRAFT Ohio RIS

Action #	Activity	Description
1		Using appropriate habitat management techniques, <b>maintain</b> the currently occupied fields in a suitable vegetative and structural state to sustain Massasaugas. This includes controlling succession and treating invasive plant species.
	1.1	Develop appropriate metrics and implement regular <b>assessments</b> of fields to track habitat suitability and management needs as well as a system for reporting and tracking management.
	1.2	Maintain habitat in 110 occupied fields totaling 2,792 acres at 8 management units in Ohio.
		Task 1.2.7. Maintain 4 fields totaling 10.1 ac at Rome State Nature Preserve
		Task 1.2.8. Maintain 9 fields totaling 63 ac within Grand River Lowlands (outside of Rome SNP)
		Task 1.2.9. Develop additional access (e.g., creek/ditch crossings) to allow equipment access at Rome and Prairie Rd. Fen SNPs.



# Recovery Implementation Strategy for Eastern Massasauga Rattlesnake

- Thank you to the Ohio EMR Team for all their efforts and input into the Recovery Planning and Implementation Process!

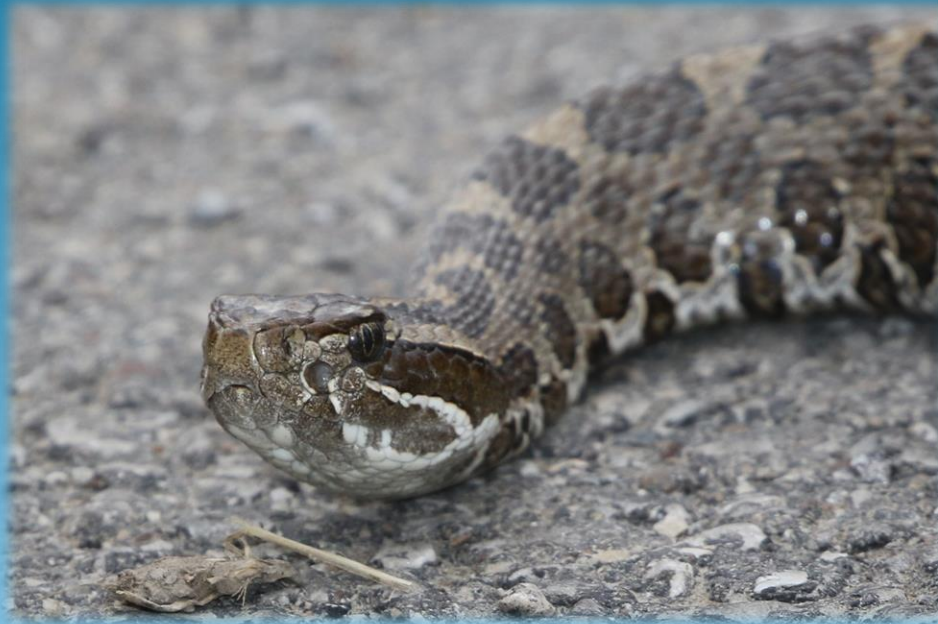


Photo Credit: K.Lott, USFWS