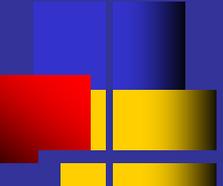


Mexican Spotted Owl and the Endangered Species Act

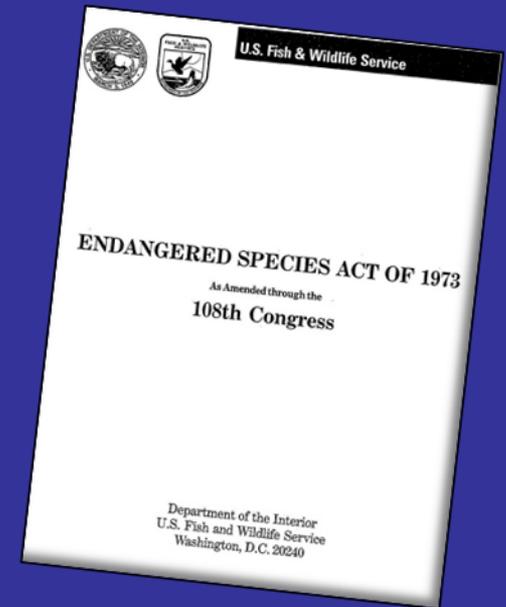
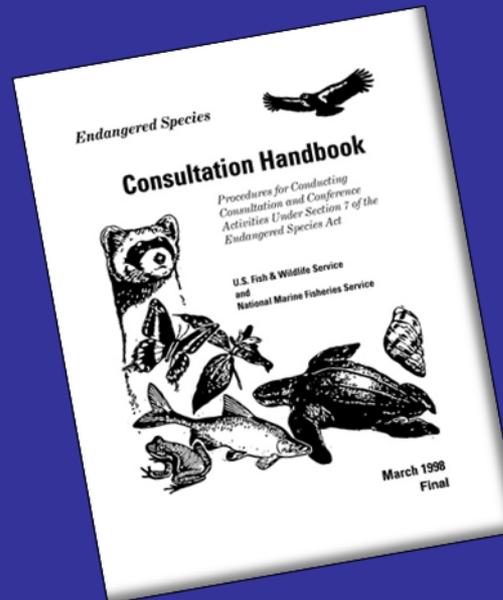


Betsy Herrmann
U.S. Fish and Wildlife Service
Ecological Services
Utah Field Office

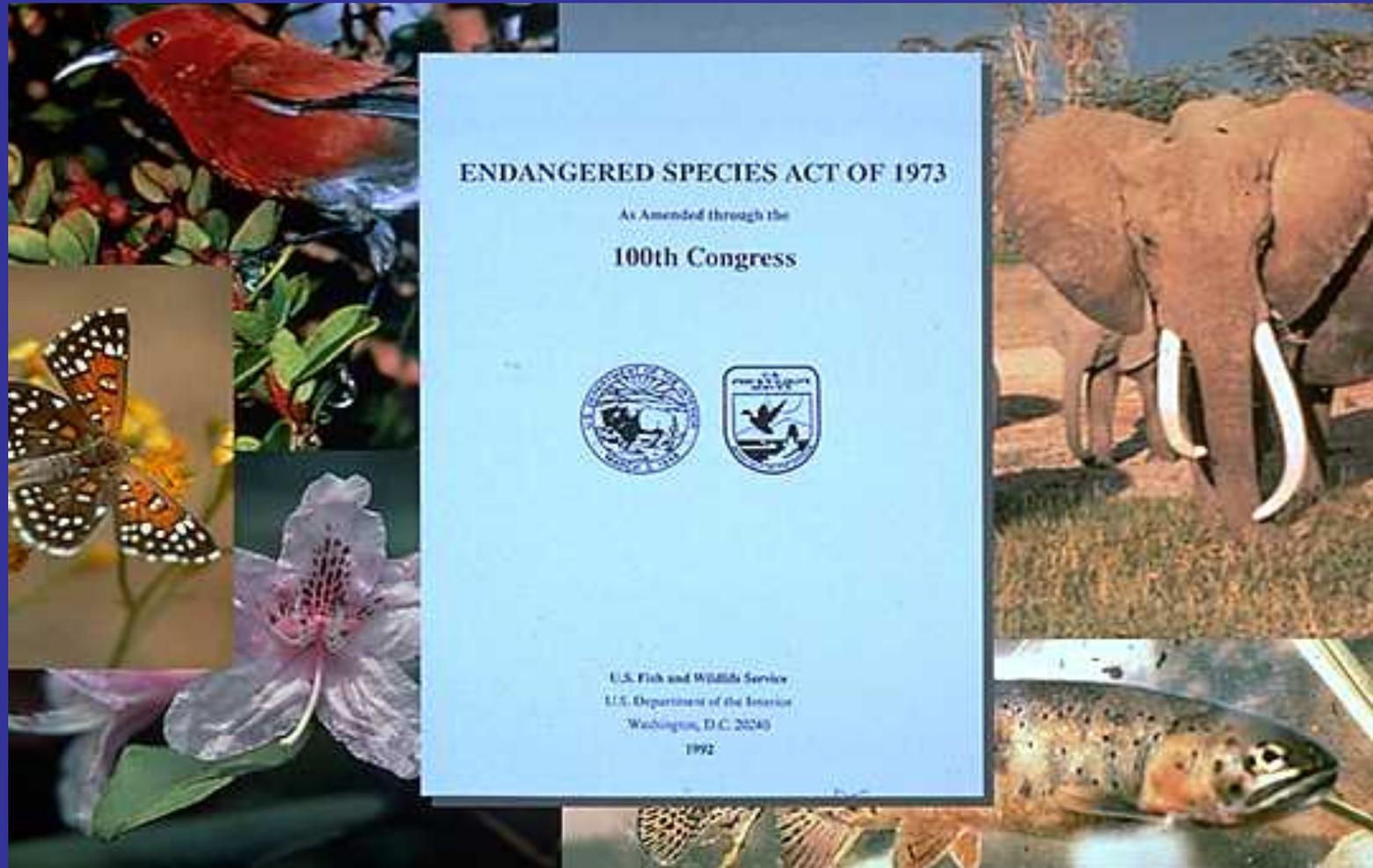


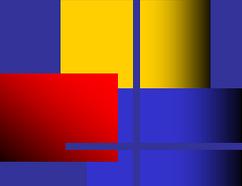
Laws, Regulations, and Guidelines

- Statutory Authority
 - Endangered Species Act
- Regulations
 - 50 CFR 402
- Consultation Handbook



Listed as threatened in 1993





ESA Listing Factors

- A. Habitat destruction/mod
- B. Overutilization
- C. Disease/predation
- D. Inadequate regulatory mechanisms
- E. Other factors





MSO Listing Factors

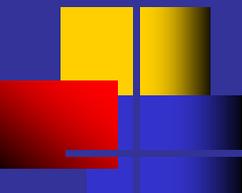
- A. Habitat destruction/mod ➤ Timber harvest practices
- B. Overutilization
- C. Disease/predation ➤ Increased predation associated with habitat fragmentation
- D. Inadequate regulatory mechanisms ➤ Inadequacy of existing regulatory mechanisms
- E. Other factors

Listing of the Mexican Spotted Owl



- Provided protection under the Endangered Species Act
 - Take prohibition (Section 9)
 - Interagency consultation (Sec 7)
 - Critical habitat
- Recovery Plan

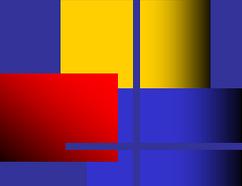




Endangered Species Act

- Section 9 of the Act prohibits the taking of any federally endangered or threatened animal species.
- Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.
- Applies to all (private companies, citizens, as well as public agencies)





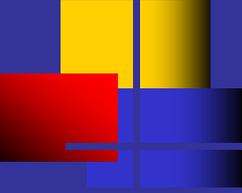
Harm & Harass?

Harass: An act that creates the likelihood of injury to listed species by **annoying** it....
(May be intentional or negligent.)

Harm: Significant **habitat modification** or degradation that results in **death or injury** to listed species...

Significantly disrupts/impairs behavioral patterns such as **breeding, feeding, sheltering**





Section 7 of the Act

Ensures that actions that are funded, authorized, or carried out by federal agencies will not:

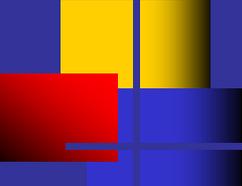
- **Jeopardize the continued existence of listed species**
 - appreciably reduce the likelihood of the species survival and recovery
- **Destroy or adversely modify critical habitat**
 - appreciably reduce the value of critical habitat for the survival and recovery of the listed species



Section 7 Consultation

- Between Federal action agency and USFWS
- Federal agency makes the determination of effect: “No effect” or “May affect”
- More later!





Critical Habitat

Specific geographic areas formally designated by USFWS which contain the physical or biological features (**Primary Constituent Elements**):

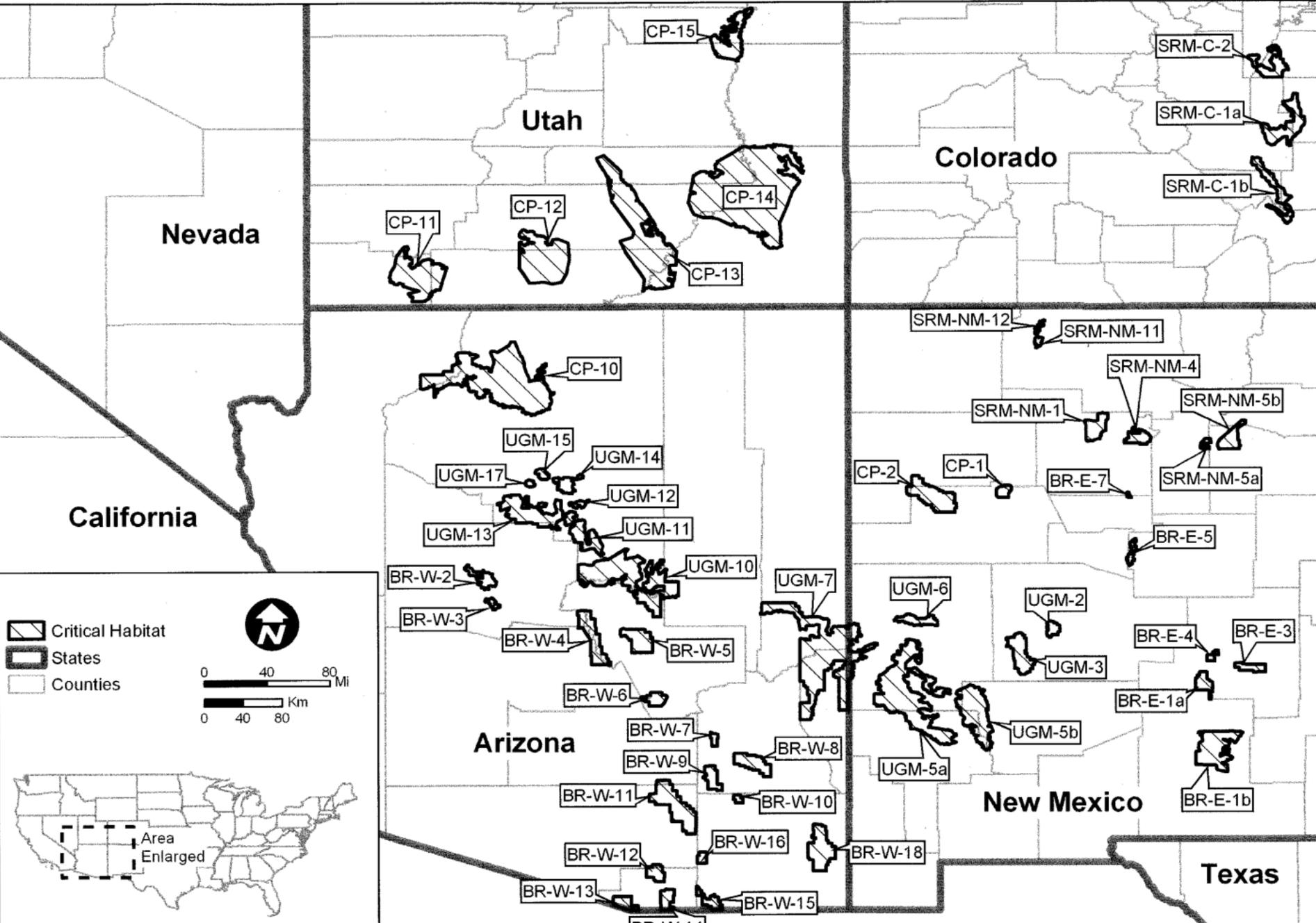
- (1) essential to the conservation of the species
- (2) may require special management considerations or protection

May be within the geographical area occupied by the species at the time of listing or not, if those areas are essential for the conservation of the species.

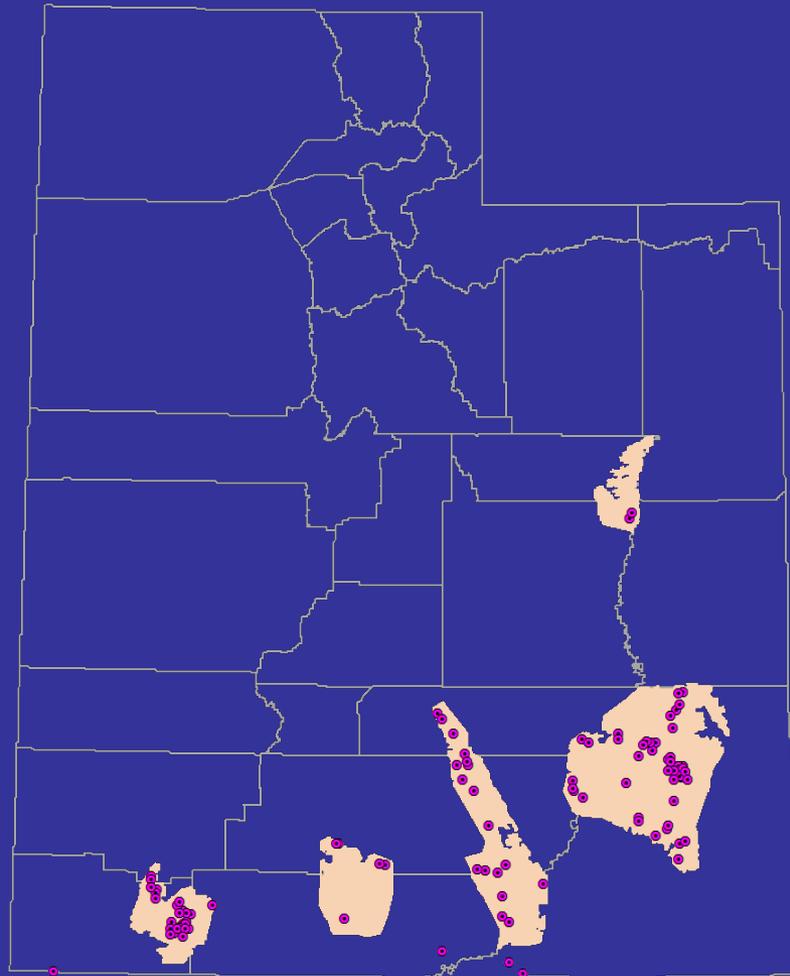
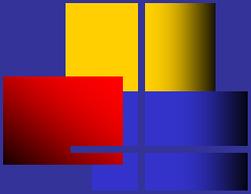


General Locations of Critical Habitat for the Mexican Spotted Owl

Units Overview



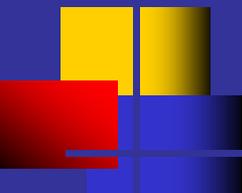
2.25 million acres designated in Utah



Critical Habitat - Canyons

Primary constituent elements (PCEs) related to canyon habitat include the following:

- (1) presence of water (often providing cooler and often higher humidity than the surrounding areas);
- (2) clumps or stringers of mixed conifer, pine-oak, pinyon-juniper, and/ or riparian vegetation;
- (3) canyon wall containing crevices, ledges, or caves; and
- (4) high percent of ground litter and woody debris.



Recovery Plans

Describe the process to reverse downward trends to ensure long-term survival.

- Site-specific management actions needed to achieve the Plan's goal for the conservation and survival of the species;
- Objective, measurable criteria that, when met, would result in a determination that the species be removed from the list; and
- Estimate resources needed (time and cost) to recover the species.

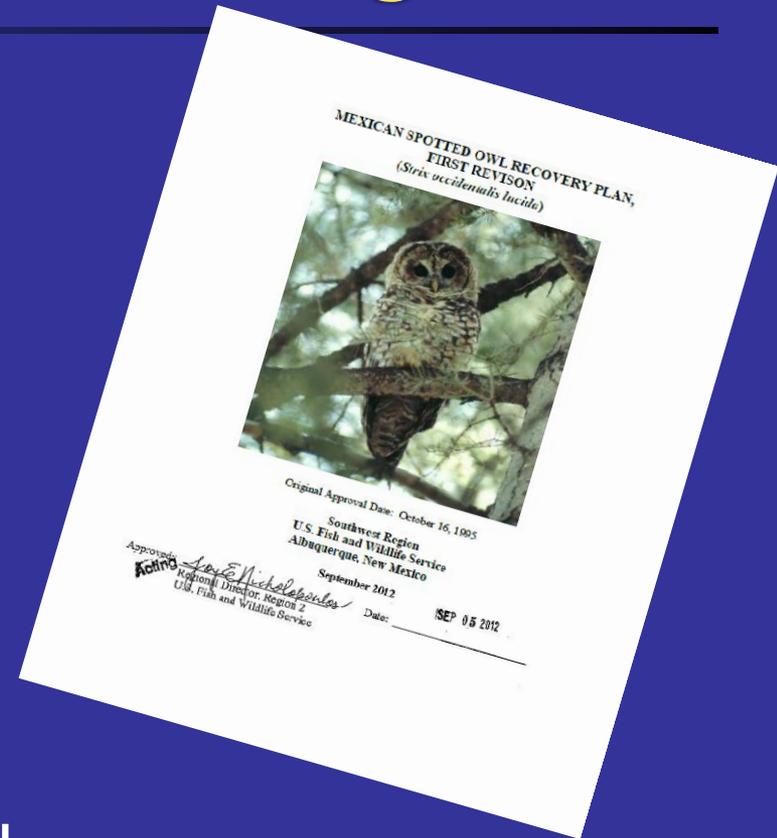
Recovery plans are neither self-implementing nor legally binding.



MSO Recovery Planning

- 1995 – Original plan
- 2012 – Plan revised

Goal is to recover owl populations to the point that the owl can be removed from the Federal list of endangered and threatened species.



Recovery Plan – Ecological Management Units

Colorado
Plateau
EMU



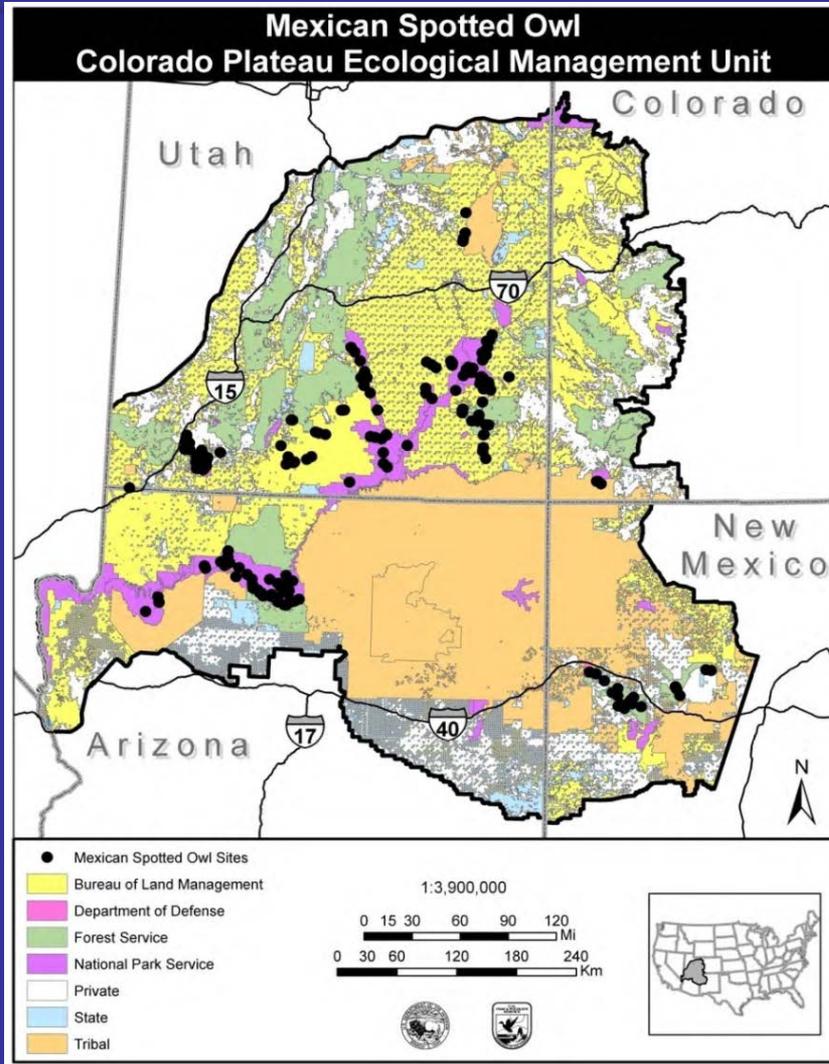
From the 2012
Recovery Plan



Colorado Plateau EMU

Contains 15% of all known MSO sites across range.

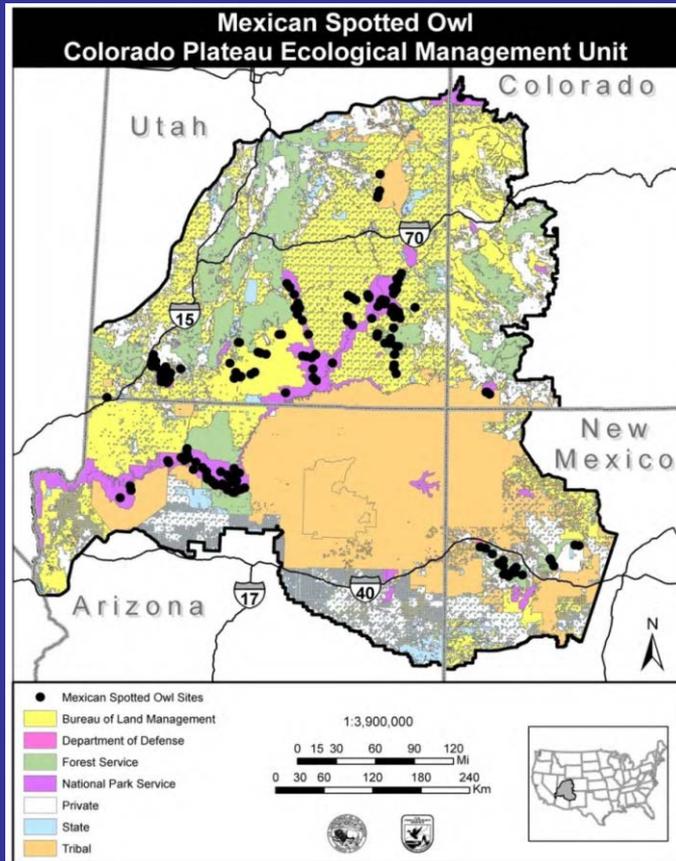
46% federal land
27% tribal



From the 2012
Recovery Plan



Potential Threats in the Colorado Plateau EMU



- Recreation
- Overgrazing
- Road development in canyons
- Oil, gas, and mining development
- Catastrophic fire, timber harvest in upland forests



Project Evaluation

1. Is the project area in or adjacent to owl habitat?
Use all the following steps to determine if **suitable habitat** is present:

- Habitat models
(Use as a guide)
- Field evaluations
(Critical!)
- Coordination with experts

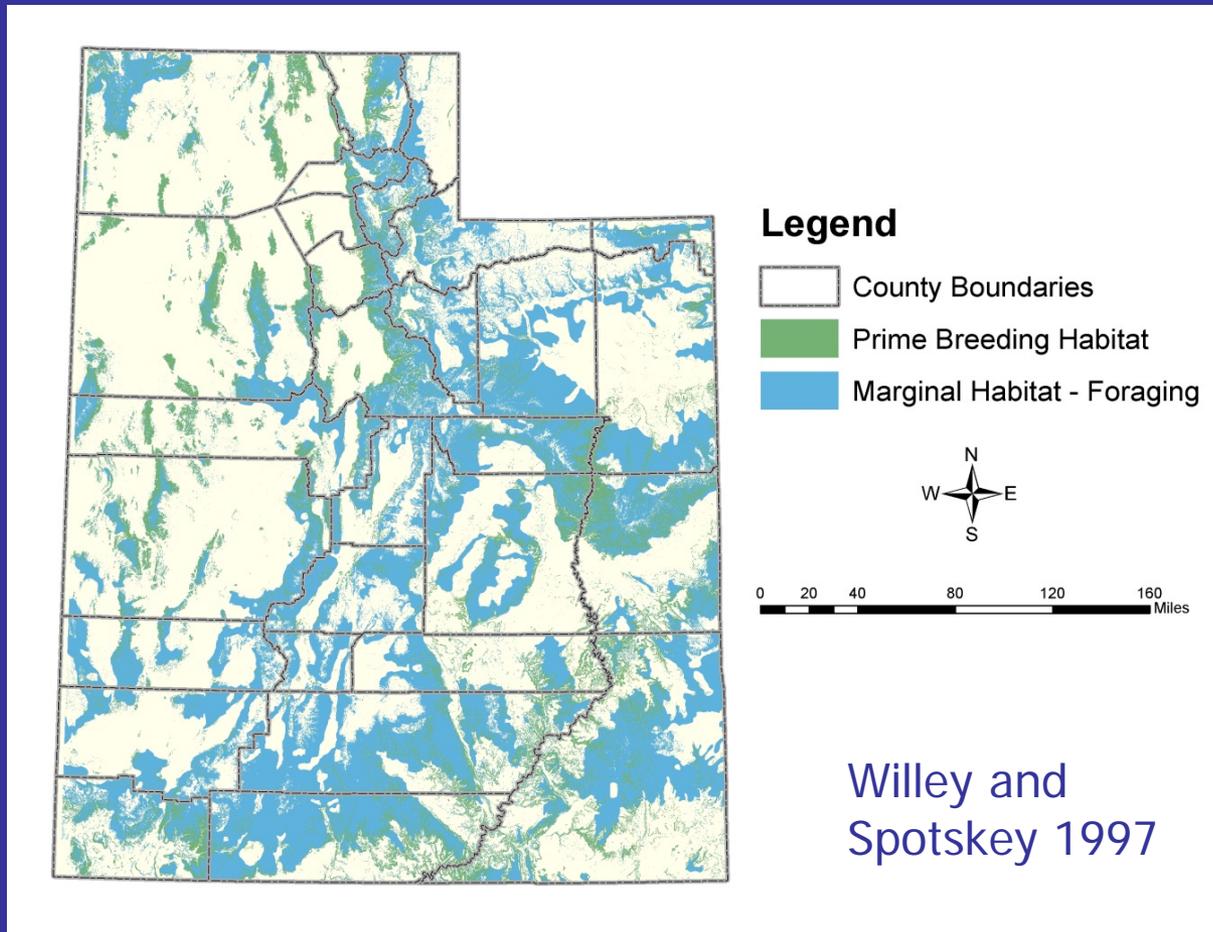


Canyon Habitat Parameters

- Presence of water-microclimate
 - Tree cover/type
 - Canyon wall height
 - Rock faces contain crevices, ledges, or caves
 - Lots of litter/woody debris— food supply
-
- Canyons Meeting the 2x2 Rule (<2km wide and >2km long)
 - Steep Slope Mixed Conifer near Canyons

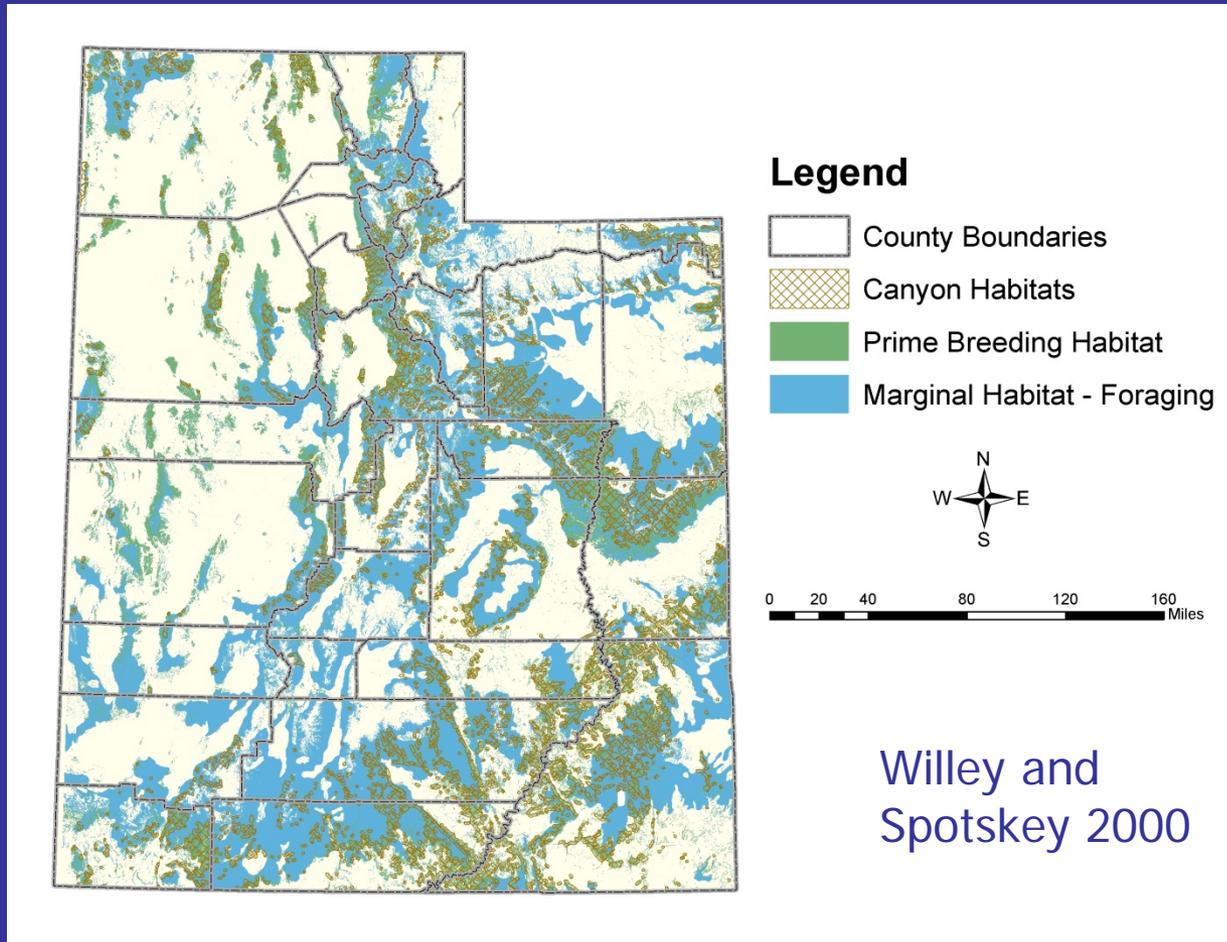
1997 Habitat Model

- Based on vegetation and topography
- Depicts range of potential foraging + breeding habitat



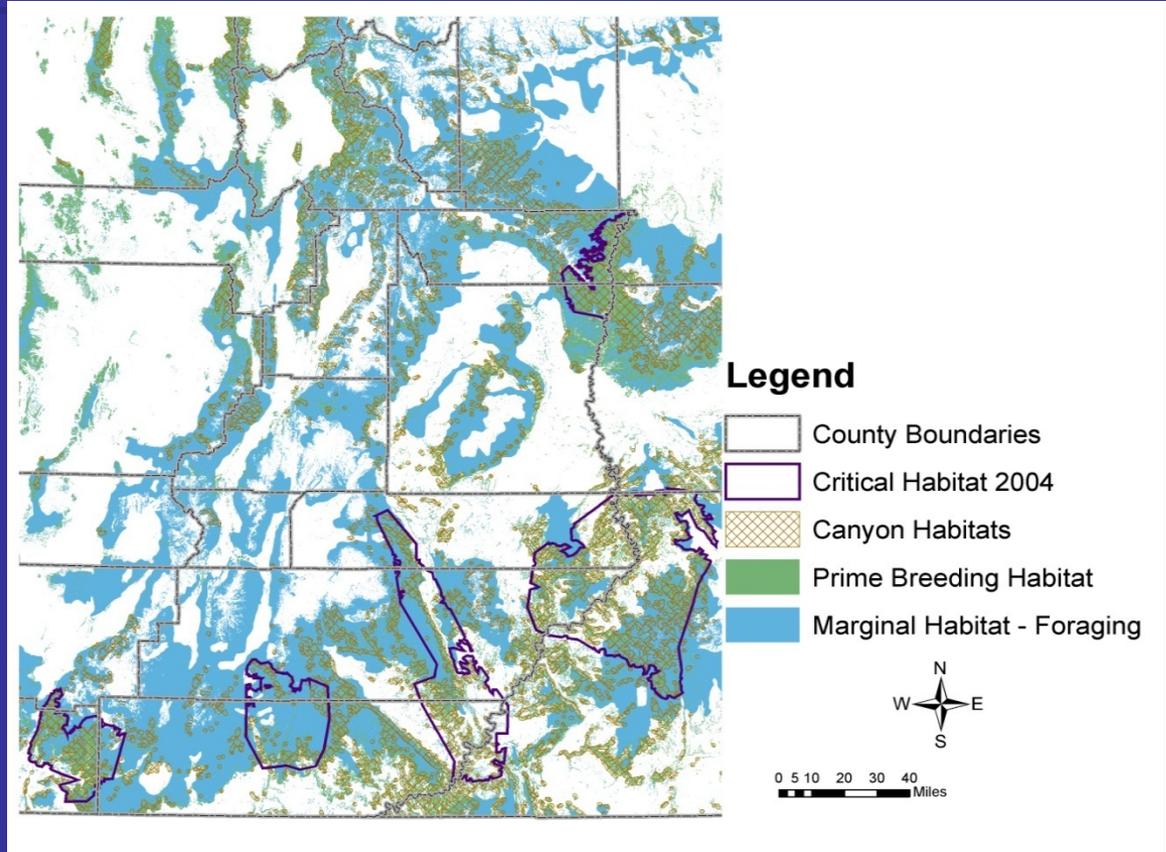
2000 Model laid over 1997 Model

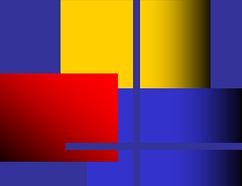
- Refined 1997 model to better define nesting and roosting habitat.



Critical Habitat Units Relative to Modeled Areas

Suitable habitat is not always in designated critical habitat!





Habitat Models are 1st step

Models are a guide only.
Field assessment needed to
determine if habitat
components are present.



- Survey all areas that have suitable habitat and canyons meeting 2x2 rule.

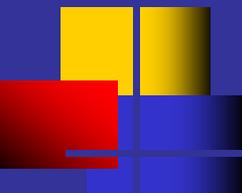


Project Evaluation

1. Is the project area in or adjacent to owl habitat?
2. Will the action potentially impact the owl?

- Habitat within 0.5 miles of proposed action?
- Temporary or Permanent?
- Noise, increased human activities?
- Habitat alteration (nesting, roosting, foraging)?





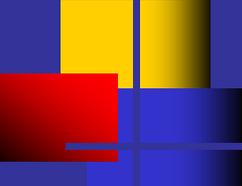
Project Evaluation

1. Is the project area in or adjacent to owl habitat?
2. Will the action potentially impact the owl?
3. Are owls present in the project area (surveys?)



Photo credit: Kyle Flessness





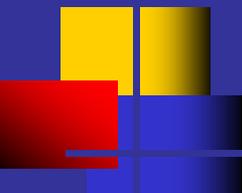
ESA Section 7



Section 7(a)(1):

- All Federal agencies shall use their authorities ... (to carry) out programs for the conservation of endangered and threatened species.
- Agencies are guided to conserve T/E species.





Section 7 Consultation

Section 7(a)(2):

Each Federal agency must, in consultation with the Service, ensure that any action funded, authorized, or carried out by the agency is not likely to:

- jeopardize the continued existence of any endangered or threatened species or
- result in the destruction or adverse modification of critical habitat.

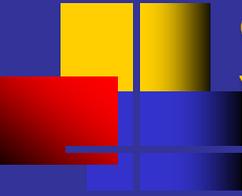
Conservation is measured against impacts.



Section 7 Consultation

Federal agency considers the effects of their actions on listed species.





Section 7 Consultation

What USFWS does:

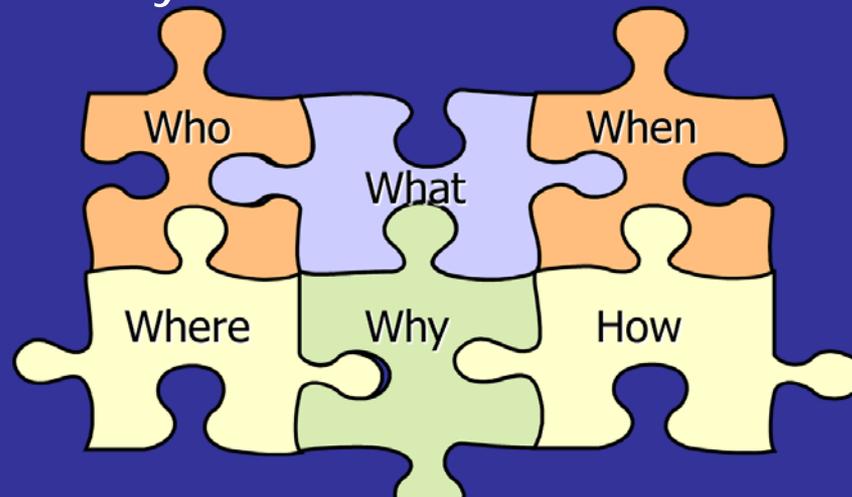
- We assist federal agencies in meeting their responsibilities under the Act.
- Review all information provided by action agency.
- Evaluate status of species and critical habitat.
- Evaluate effects of the action.
- Issue a biological opinion, regarding jeopardy and adverse modification of critical habitat.



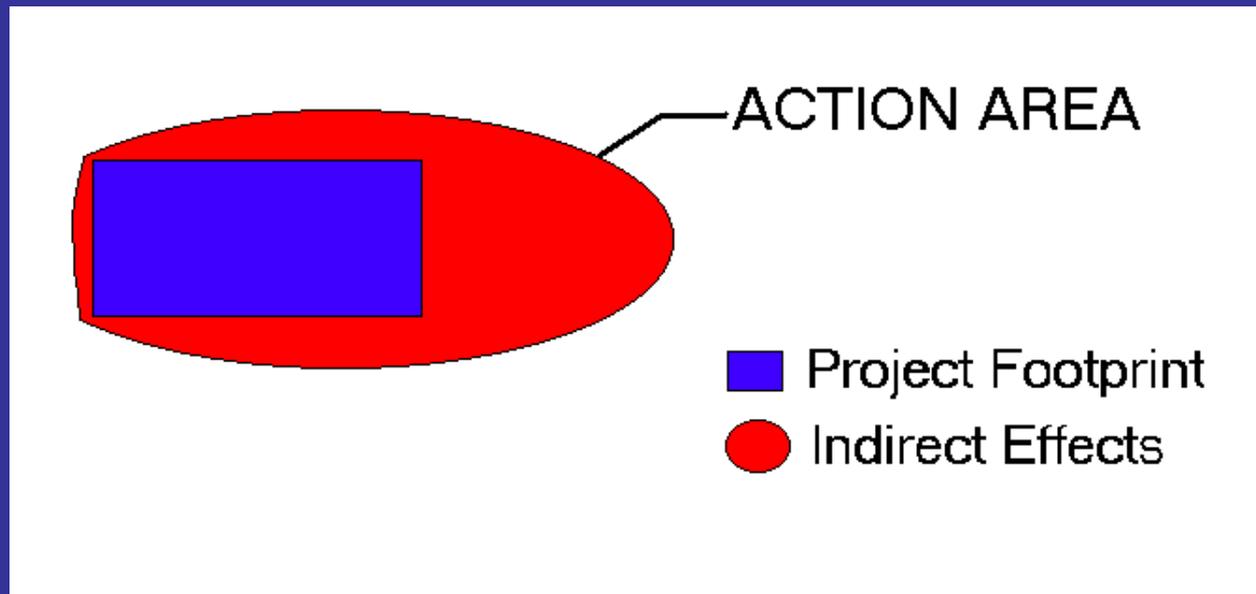
Section 7 Consultation

What we need:

- Project Description - includes any measures you will implement to avoid adverse effects.
- Action Area - Description of the specific area affected by the action
- Effects Analysis - A description of listed species or critical habitat that may be affected



Section 7 Consultation

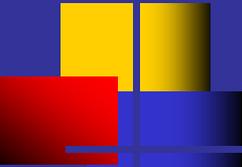


The action area should be determined based on consideration of all direct and indirect effects of the proposed agency action

Follow the effects:

- Downwind
- Sound (blasting, chainsaws, etc.)
- Future associated impacts? New roads, access?





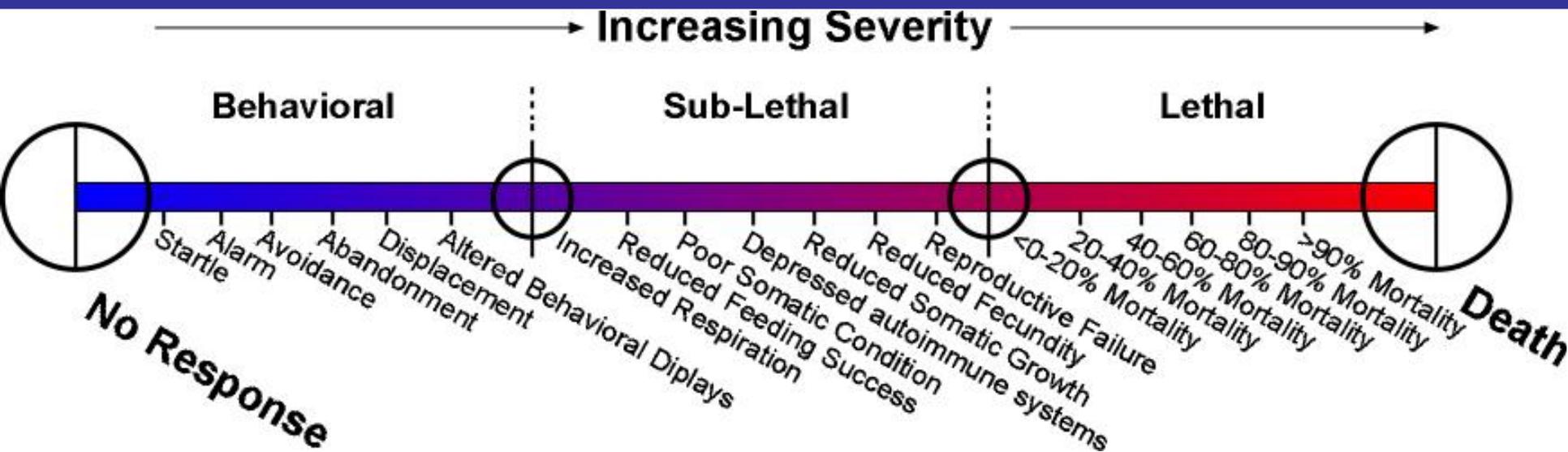
Effects Analysis

- Beneficial Effects
- Direct Effects
- Indirect Effects
- Effects of Interrelated Activities
- Effects of Interdependent Activities
- Cumulative Effects

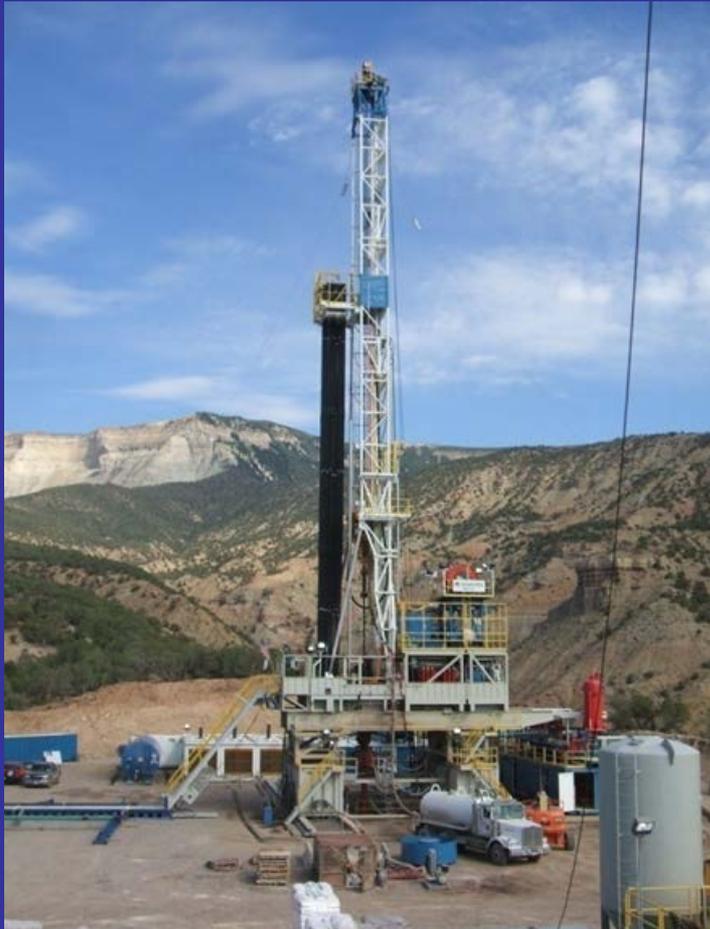


Section 7 Consultation

- Determination of Effects
- Any response to a stressor.
 - ✓ Regardless of size (e.g., startle).
- Consider the individual.



Evaluating Proposed Projects



Types of action

- Permanent
 - Carries on for more than one year
 - Permanent habitat loss
 - Permanent structures
- Temporary
 - Completed outside of breeding season
 - No permanent habitat loss



Evaluating Proposed Projects



©Whit Richardson 2008

- Within ½ mile of suitable habitat?

Also look at:

- Noise impacts
- Potential for impacts to expand into habitat in future



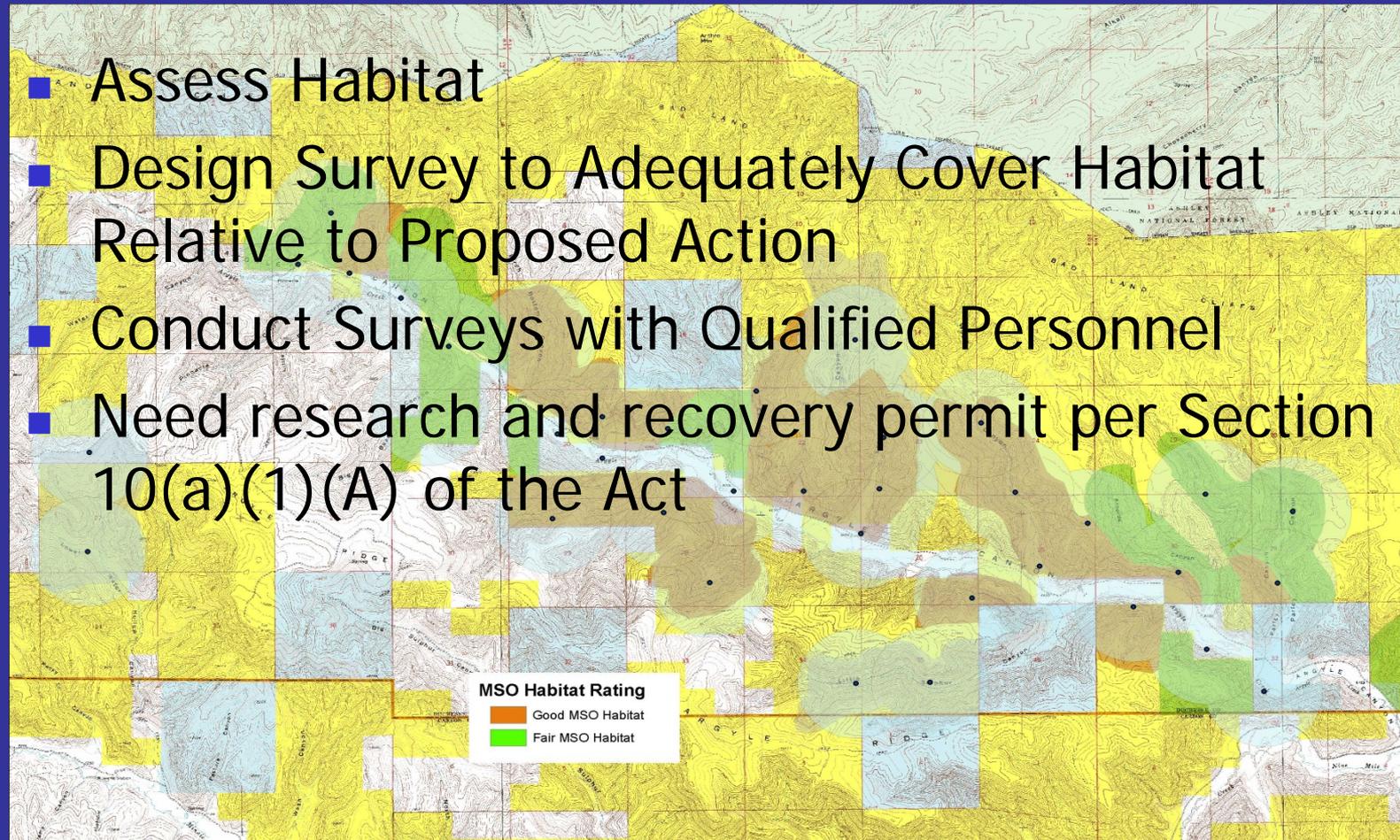
If Impacts to MSO Can't be Avoided

- Is species occupancy and distribution information complete and available ?
If not...
- Inventory for owls using protocol



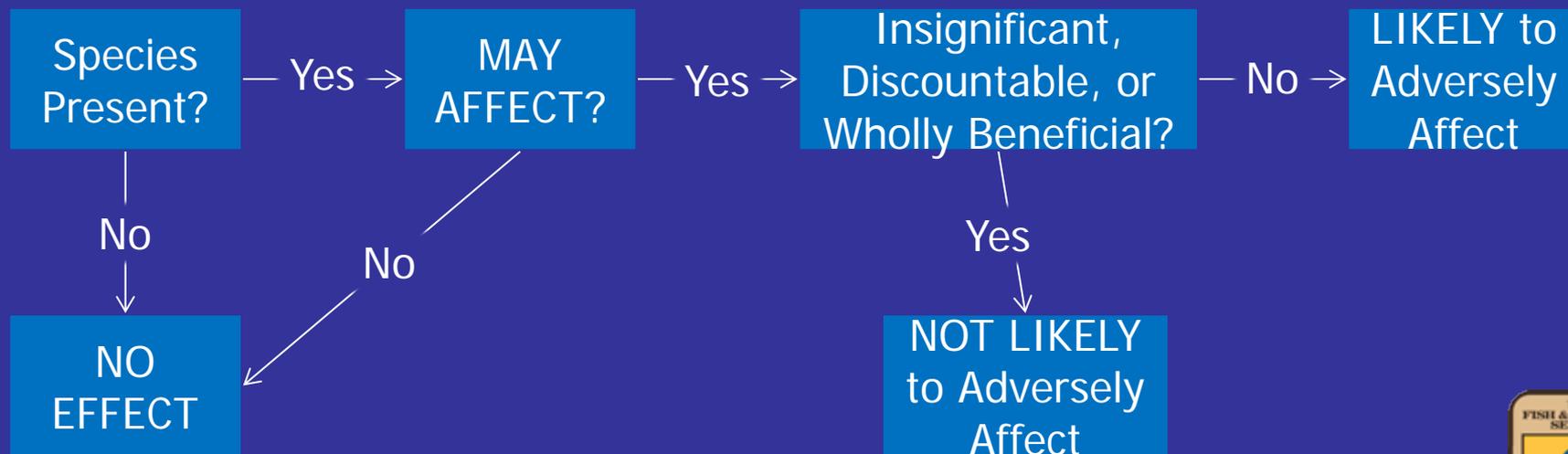
Survey Requirements

- Assess Habitat
- Design Survey to Adequately Cover Habitat Relative to Proposed Action
- Conduct Surveys with Qualified Personnel
- Need research and recovery permit per Section 10(a)(1)(A) of the Act



Section 7 Consultation

- When all info is gathered, the Federal agency determines the effects of their actions on listed species.



Section 7 Consultation - Informal

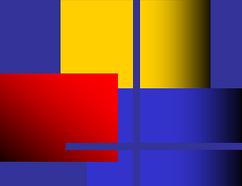
- “No Effect”
 - This means there are **absolutely no effects** of the project, positive or negative
- “May Affect, Not Likely to Adversely Affect”
 - Any effect no matter how small or unlikely
 - An effect exists even if only one individual or habitat segment may be affected
 - If effects are **insignificant, discountable, or entirely beneficial**



Section 7 Consultation - Formal

- “May Affect, Likely to Adversely Affect”
 - The appropriate conclusion when an action is likely to **directly or indirectly** have any adverse effect on a listed species or its critical habitat (even if short-term).
 - Action Agency provides a Biological Assessment
 - USFWS issues a biological opinion and an Incidental Take Statement.





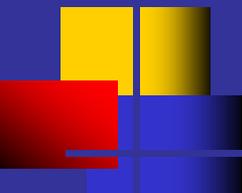
Impacts to Critical Habitat

- Might the proposed project impact critical habitat?
Look at PCEs - If so:



- Separate effects determination
- Impacts evaluated by Ecological Management Unit





General Guidelines

Inventory for owls before implementing management actions that would alter habitat structure.



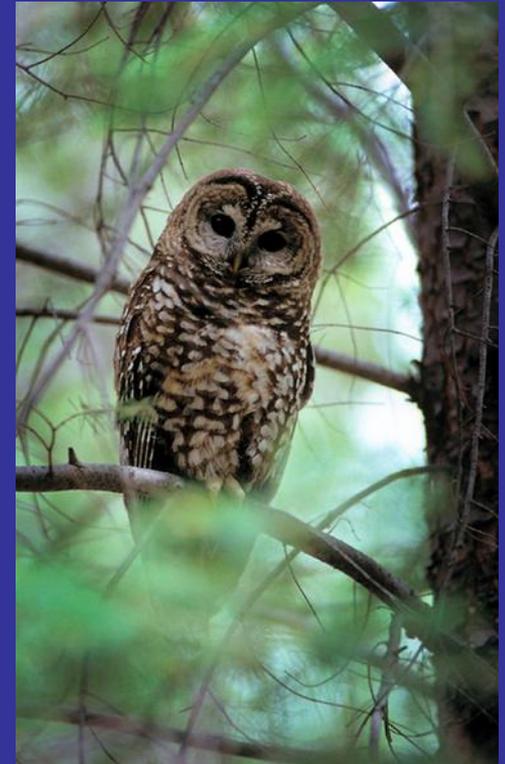
Remember a section 10(a)(1)(A) permit is required!

Q: What kind of "take" may occur when you survey for owls?



Management Considerations if Owls are Present

- Minimize impacts to nest sites
 - Seasonal buffers for temporary impacts
 - Spatial buffers for long-term impacts
- Minimize loss of habitat
 - Minimize footprint, revegetation
- Prevent expansion of impacts into habitat



Management Considerations if Owls are NOT Present

- Evaluate habitat for importance to recovery of the species
- Minimize loss of suitable habitat



Management Recommendations – 3 Categories

- Protected Activity Centers (PACs)
 - May or may not be known nest site – best nesting/roosting habitat (>600 acres)
 - Should also designate a “core” area (100ac)
 - **Most protective** management recommendations
- Recovery Habitats
 - Potential Nesting and Roosting Habitat
 - Riparian Habitat
- Other Forest and Woodland Types



Threat-Specific Management Actions

Tie Management Actions to Abating Threats

- Recreation
- Forest and fire management
- Livestock grazing
- Coal and uranium mining
- Oil and gas development



Recovery Plan – Appendix C - great BA resource!



Recovery Plan - Crosswalk Threats to Management

Table of Crosswalk Between Threats and Management Recommendations

		MANAGEMENT ACTION										
Appendix C Section		C.4.b	C.4.c	C.4.d	C.4.e	C.4.f	C.4.g	C.4.h	C.4.i	C.4.j	C.4.k	C.4.l
Part II Section	THREAT	Insects and disease	Grazing	Energy related development	Land development	Water development	Recreational exploitation	Recreational disturbance	Scientific exploitation	Noise	Climate change	West Nile virus
	FACTOR A											
II.H.3.a.i	Stand-replacing Fire	X									X	
II.H.3.a.vii	Grazing		X									
II.H.3.a.viii	Energy Development			X								

- II.H.3.a.viii
 - Part II. Background
 - H. Threats and Threats Assessment
 - 3. Factors Affecting the Mexican Spotted Owl in the United States
 - a. Factor A
 - viii. Energy Development – page 44



Recovery Plan - Crosswalk Threats to Management

Table of Crosswalk Between Threats and Management Recommendations

		MANAGEMENT ACTION										
Appendix C Section		C.4.b	C.4.c	C.4.d	C.4.e	C.4.f	C.4.g	C.4.h	C.4.i	C.4.j	C.4.k	C.4.l
Part II Section	THREAT	Insects and disease	Grazing	Energy related development	Land development	Water development	Recreational exploitation	Recreational disturbance	Scientific exploitation	Noise	Climate change	West Nile virus
	FACTOR A											
	II.H.3.a.i	Stand-replacing Fire	X									X
II.H.3.a.vii	Grazing		X									
II.H.3.a.viii	Energy Development			X								

- C.4.d
 - Appendix C – Management Recommendations
 - 4. Threat-specific Management Recommendations
 - c. Energy-Related Development – **page 291-292**



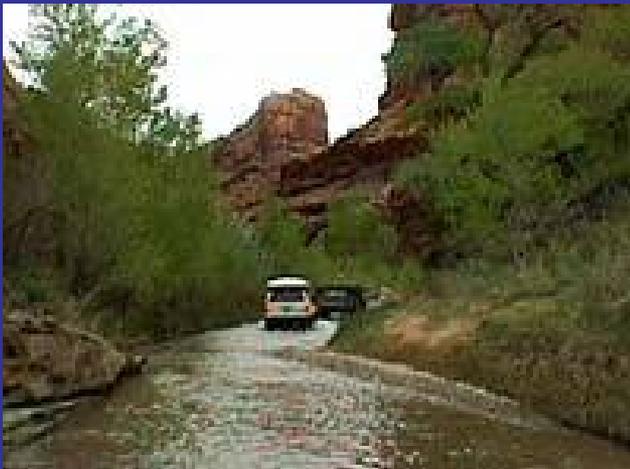
Energy Guidelines

- No seismic activities or construction within PACs during the breeding season.
- Avoid habitat loss, e.g. thru directional drilling, co-location.
- Avoid long-term actions in PACs that would impact owls
- Evaluate noise effects



Threat-Specific Management Guidelines – examples

Recreation



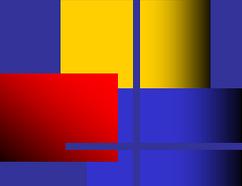
- No facility construction within PACs during the breeding season.
- Assess presence and intensity of recreational vehicles within PACs.
- Evaluate noise effects

Grazing



- Maintain/enhance prey availability
- Promote healthy riparian, meadow and upland plant communities





Section 10

- Research and Recovery Permits – 10(a)(1)(A)
- Form 3-200-55
- Takes at least 90 days
- Must show experience and credentials.
 - MSO training plus 32 hours of spotted owl field survey experience.
- <http://www.fws.gov/forms/3-200-55.pdf>



Final Thoughts

- Pre-consultation during planning phase is important for avoiding/minimizing impacts.
- Good surveys are important for determining species status within Utah
- Coordinate with Federal action agency and USFWS to insure survey will be adequate and will not overlap other surveys.



MSO Habitat

More Information

Endangered Species Act of 1973

- <http://caselaw.lp.findlaw.com/cascode/uscodes/16/chapters/35/toc.html>

50 CFR 402

- <http://www.access.gpo.gov/cgi-bin/cfrassemble.cgi?title=200450>

The Section 7 Consultation Handbook

- <http://endangered.fws.gov/consultations/s7hndbk/s7hndbk.htm>

Additional species information

- http://ecos.fws.gov/species_profile/SpeciesProfile?sPCODE=B074

Permit Application from the Fish and Wildlife Service

- <http://forms.fws.gov/3-200-55.pdf>

Utah Ecological Services ESA MSO Training Page

- <http://www.fws.gov/utahfieldoffice/MexicanSpottedOwl.html>

