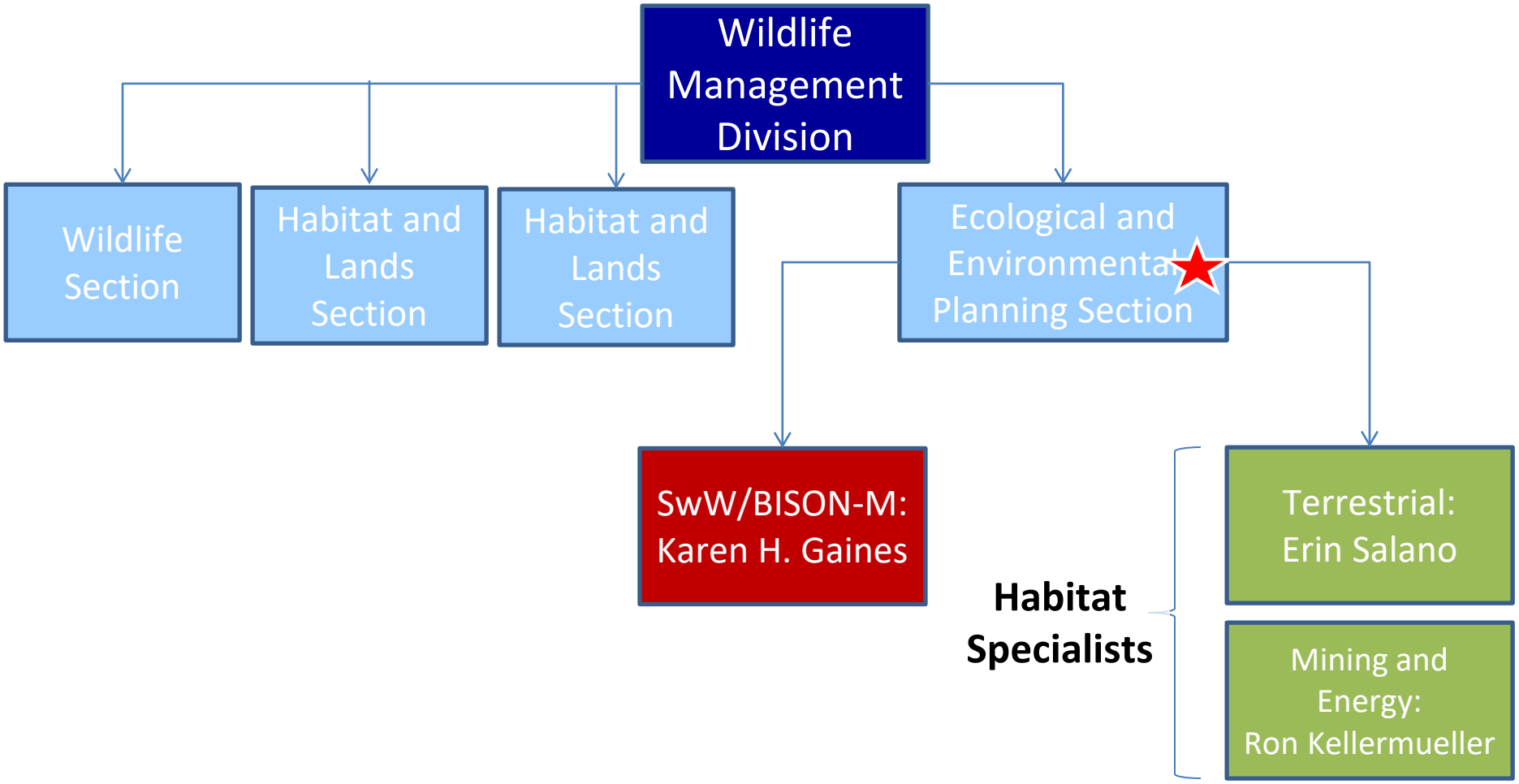
Revising the State Wildlife Action Plan for New Mexico

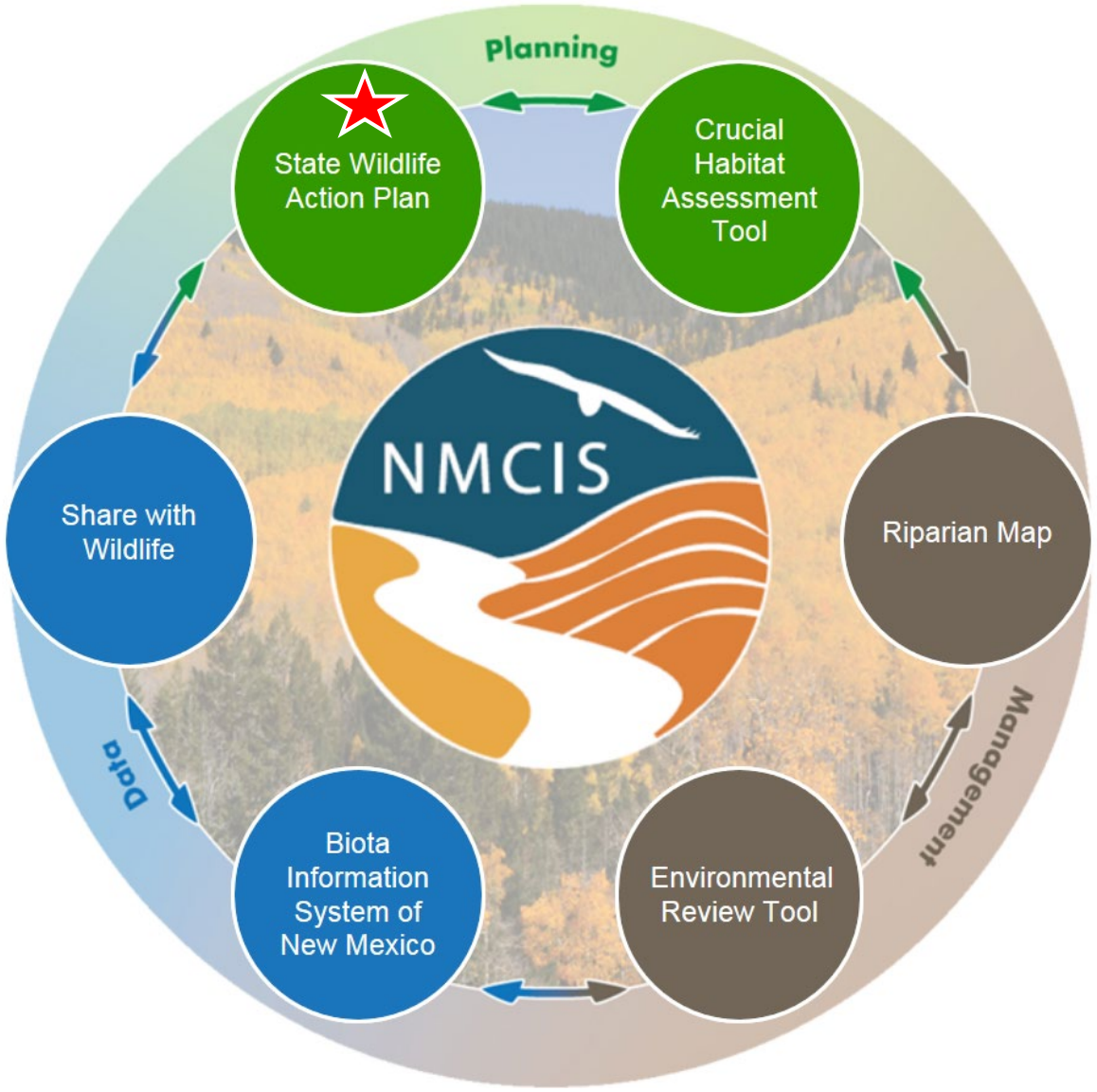
Ginny Seamster

New Mexico Department of Game and Fish

Division Structure

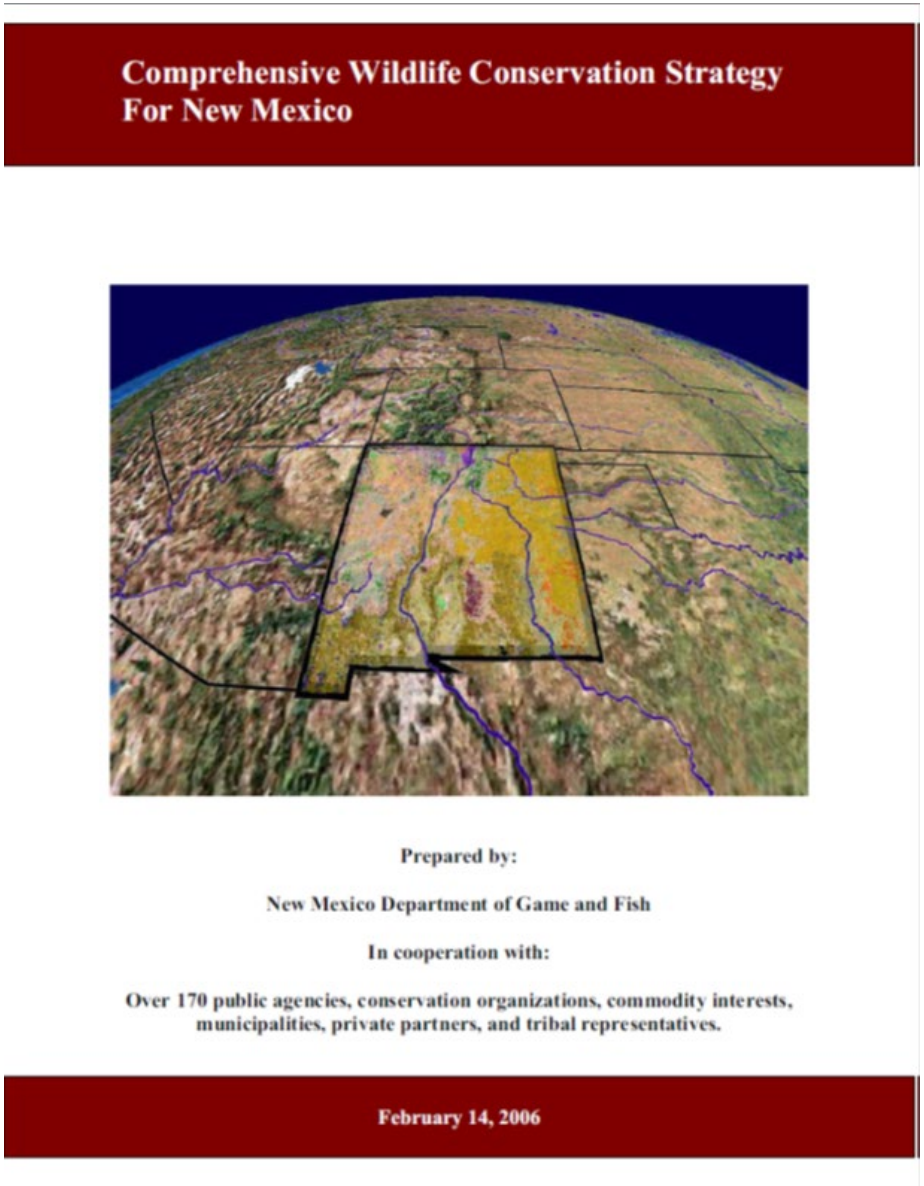


Context



- Conservation Information System
- Tools to inform conservation planning and technical guidance

History



- Required to qualify for State Wildlife Grant funding
- Approximately 1 million a year
- First strategy approved in 2006
- Second plan approved in 2017
- Next revision due October 1, 2025

8 Required Elements

1. Species of Greatest Conservation Need (SGCN)
2. Key habitats
3. Threats to SGCN or their habitats
4. Actions to conserve SGCN and their habitats
5. Plan to monitor SGCN and their habitats
6. Schedule review of SWAP at least every ten years
7. Coordinate with agencies and tribes that manage significant land areas
8. Public participation

2017 State Wildlife Action Plan (SWAP)

Invasive and Problematic Species:

- Determine the current distribution and impact on SGCN and disturbance regimes of invasive and problematic species and diseases. Potential collaborators: BLM, NRCS, USFS, SLO, private landowners.
- Design and implement protocols for early detection of invasive and problematic species and diseases. Quickly respond to detection. Potential collaborators: BLM, BOR, ACOE, USFWS, USFS, NRCS, NMDA, Soil and Water Conservation Districts, SFD, SLO, private landowners.
- Eradicate or control existing non-native and invasive species before they become established. Potential collaborators: BLM, BOR, ACOE, USFWS, USFS, NRCS, NMDA, Soil and Water Conservation Districts, SFD, SLO, private landowners.
- Determine historic and current SGCN habitats that have been infested with cheatgrass (*Bromus tectorum*) and restore them to native species. Promote land management strategies that will inhibit the further spread of cheatgrass. Potential collaborators: BLM, SLO, tribal resource management entities.
- Determine relationships between non-native and native riparian plant species. Potential collaborators: USFWS, USFS, USGS, universities.
- Inform anglers about the damage of invasive species. Enforce baitfish regulations to prevent introduction of non-native species. Potential collaborators: USFS, anglers.
- Restore native riparian plants (e.g., cottonwood and willow) and natural riparian ecosystem processes and functions following tamarisk removal or biocontrol, and ensure maintenance of adequate water supply for native plants. At sites with low water availability, restoration of native xeric plants may be more appropriate than wetland plants. Potential collaborators: BLM, BOR, ACOE, USFS, SLO, NMED, universities, private land managers, non-profit organizations.
- Stage and balance tamarisk removal and native habitat restoration over time, to avoid rapid loss of exotic woody riparian habitats for wildlife until native habitats can be developed (Sogge et al. 2013). Potential collaborators: BLM, BOR, ACOE, USFS, SLO, NMED, universities, private land managers, non-profit organizations.
- Protect sustain, and proactively restore existing stands of native riparian vegetation that may serve as important refugia in areas currently or likely to be affected by the tamarisk beetle,

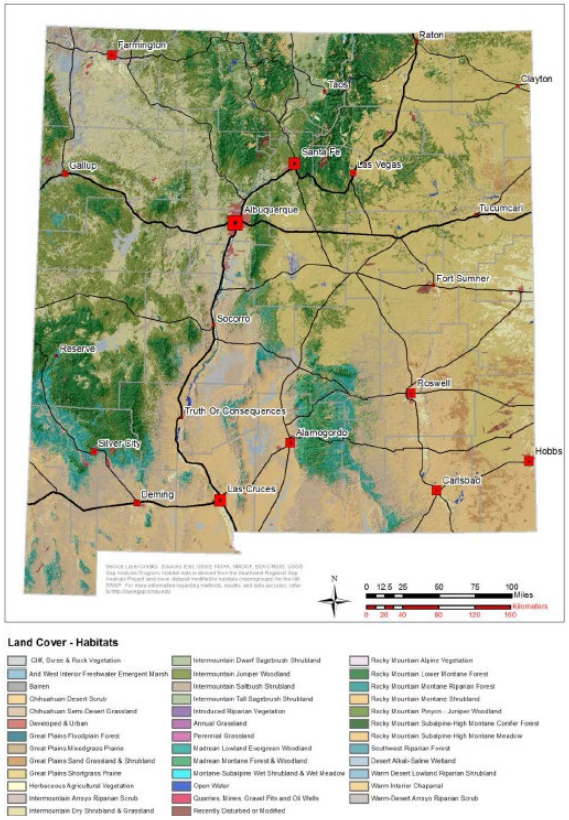


Figure 4. Terrestrial habitat map.

Table 11. Species of Greatest Conservation Need (SGCN) in the Colorado Plateaus ecoregion.

Common Name	Scientific Name	Taxon	Category	Reason to Include[12]	Habitats[13]
Boreal Chorus Frog	*Pseudacris maculata*	Amphibians	S	V	M051, M053, M087, M171
Northern Leopard Frog	*Lithobates pipiens*	Amphibians	S	De, V	M011, M022, M026, M027, M034, M049, M171, M887
Chiricahua Leopard Frog	*Lithobates chiricahuensis*	Amphibians	F	De, V, Di	M010, M011, M020, M022, M026, M027, M034, M049, M075, M086, M091, M171, M887
Flammulated Owl	*Psiloscops flammeolus*	Birds	I	V	M010, M011, M020, M022, M026, M027, M028, M034, M049, M075, M091
Mexican Whip-poor-will	*Antrostomus arizonae*	Birds	I	De, V	M010, M026, M027, M091
Gray Vireo	*Vireo vicinior*	Birds	I	V	M051, M053, M086, M087, M170, M171
Pinyon Jay	*Gymnorhinus cyanocephalus*	Birds	I	De, V	M888, EC, PCWR, PLCP, PMCSS, PWWR, PWWS
Juniper Titmouse	*Baeolophus ridgwayi*	Birds	I	De, V	M010, M011, M020, M022, M026, M027, M028, M034, M049, M051, M053, M082, M086, M087, M091, M093, M168, M169, M170, M171, M887
Bendire's Thrasher	*Toxostoma bendirei*	Birds	I	De, V	M010, M022, M026, M082, M086, M087, M887

- 400 pages
- 12 chapters
- 73 tables/figures
- 8 appendices

Chapters on SGCN, threats, climate change, monitoring

6 Ecoregions

10 Threats

47 Habitats

90 Conservation Actions

235 SGCN

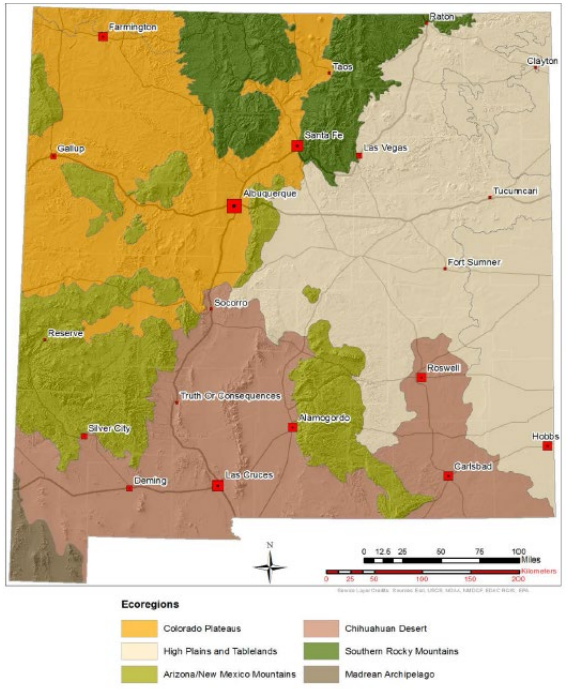


Figure 3. Ecoregions of New Mexico.

These are the main geographic units for the organization of this Plan and are based on Griffith et al. (2006).

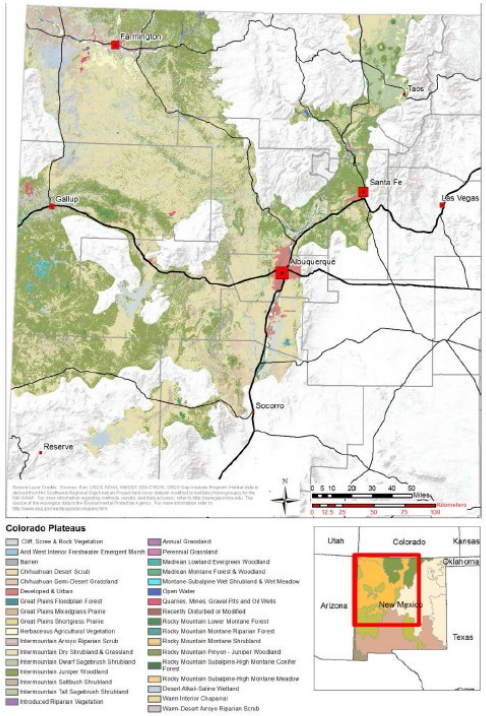
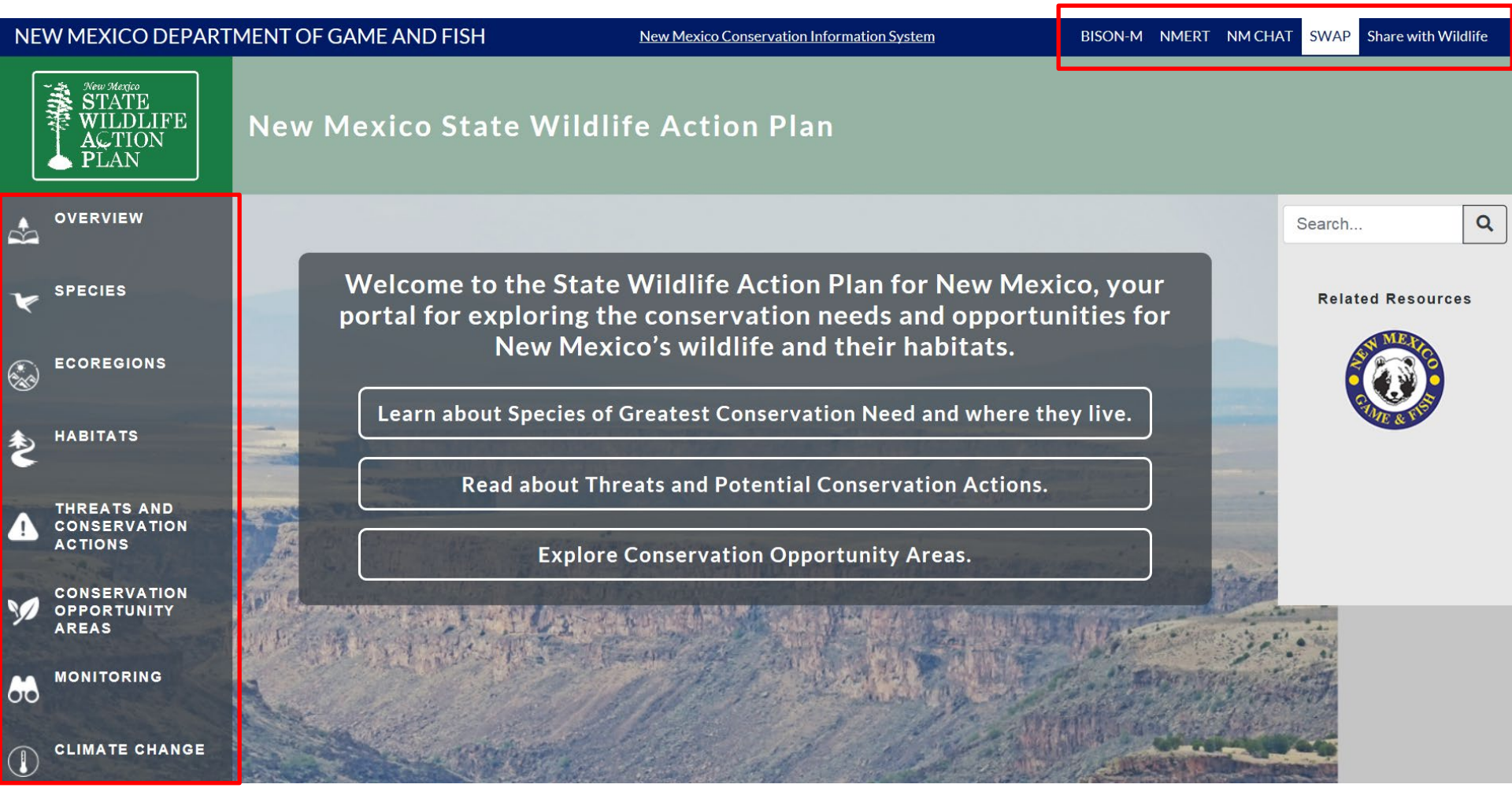


Figure 13. Terrestrial habitats in the Colorado Plateaus ecoregion.

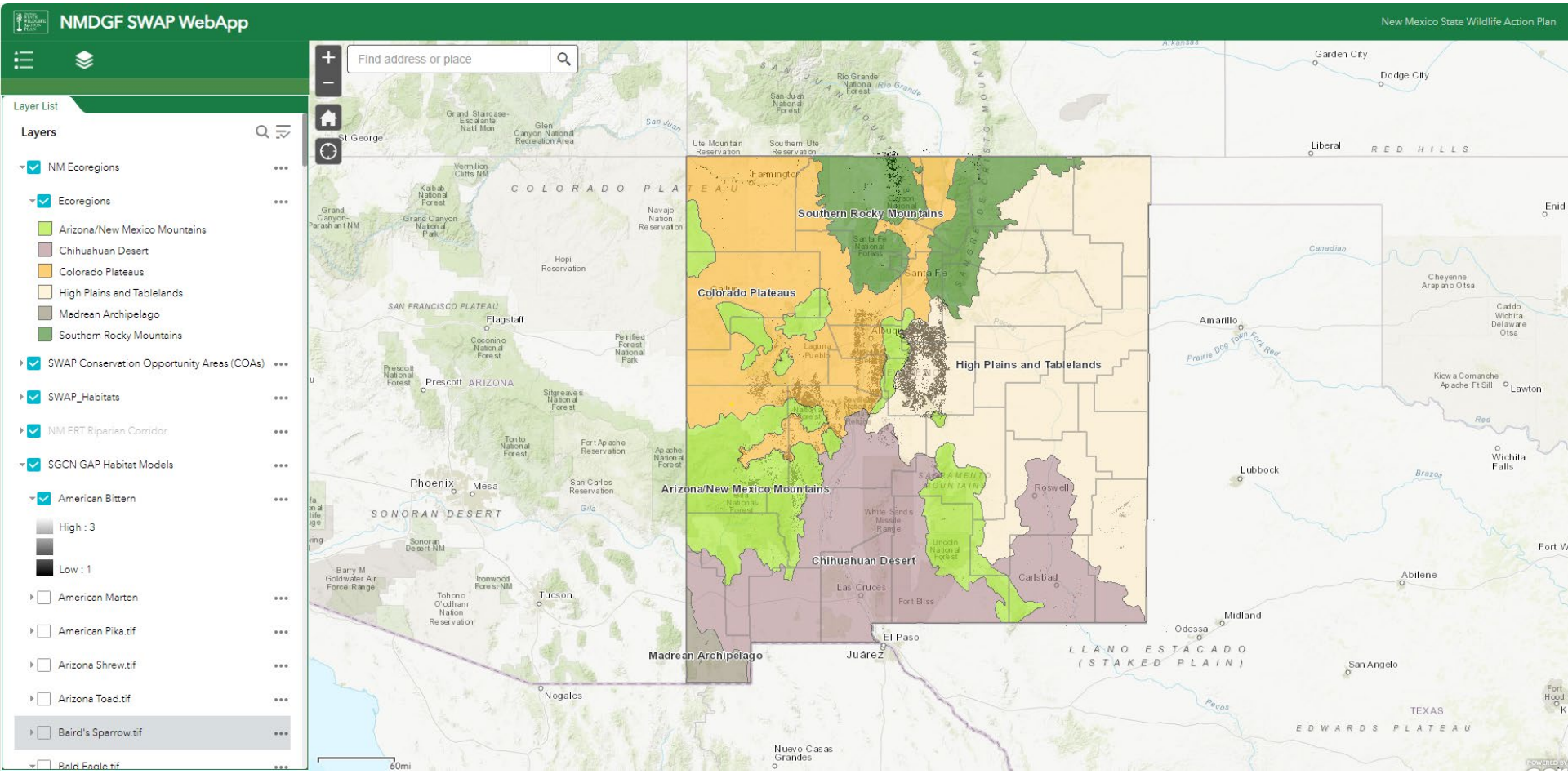
Delineations from US National Vegetation Classification macrogroups and SWReGAP landcover classes.

SWAP Website



https://nmswap.org/

Spatial Component



Key Revision Tasks

1. **Species of Greatest Conservation Need (SGCN)**

   A. Review and revise selection criteria (e.g., climate vulnerability, core range)

   B. Update SGCN list and associated SGCN categorization

   C. Add pollinating insect SGCN

   *Criteria and category descriptions and SGCN list posted prior to public meetings

2. **Key habitats**

   A. Update macrogroup descriptions

   B. Update maps

Key Revision Tasks

3. Threats to SGCN or their habitats

A. Emerging threats
B. Stressors with increasing impacts
C. Case studies (including climate refugia)/updated references climate change chapter
D. Updated threats x habitats and threats x SGCN tables/appendices

4. Actions to conserve SGCN and their habitats

A. Include updated best management practices
B. Greater emphasis on climate adaptation

Key Revision Tasks

5. Plan to monitor SGCN and their habitats

A. Update SGCN monitoring table

6. Schedule review of SWAP at least every ten years

A. Likely next 10-year review by October 1, 2035

7. Coordinate with agencies and tribes

A. Kick-off plus 4 full SWAP core team meetings

B. Formal tribal consultation

8. Public participation

A. Two hybrid public meetings

B. Three or four Commission presentations

C. Final SWAP posted prior to the final presentation

Core Team Purpose

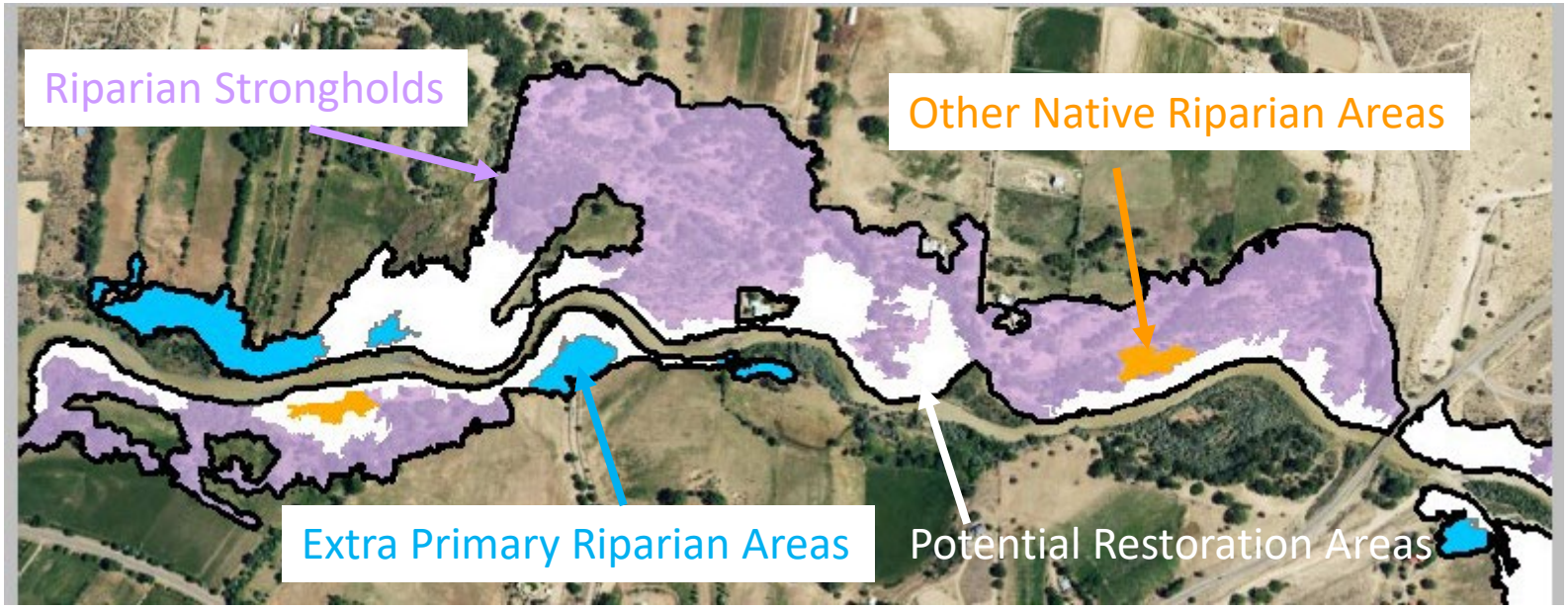
1. Coordination with agencies that manage significant land areas and with the public is required
2. Goal is to have ongoing dialogue with individuals and organizations with relevant expertise and/or an interest in the content of the SWAP
3. Getting input along the way should improve our ability to proactively respond to comments and produce a better document that more individuals and organizations can see themselves in
4. 48 participants from 31 organizations

Key Revision Tasks

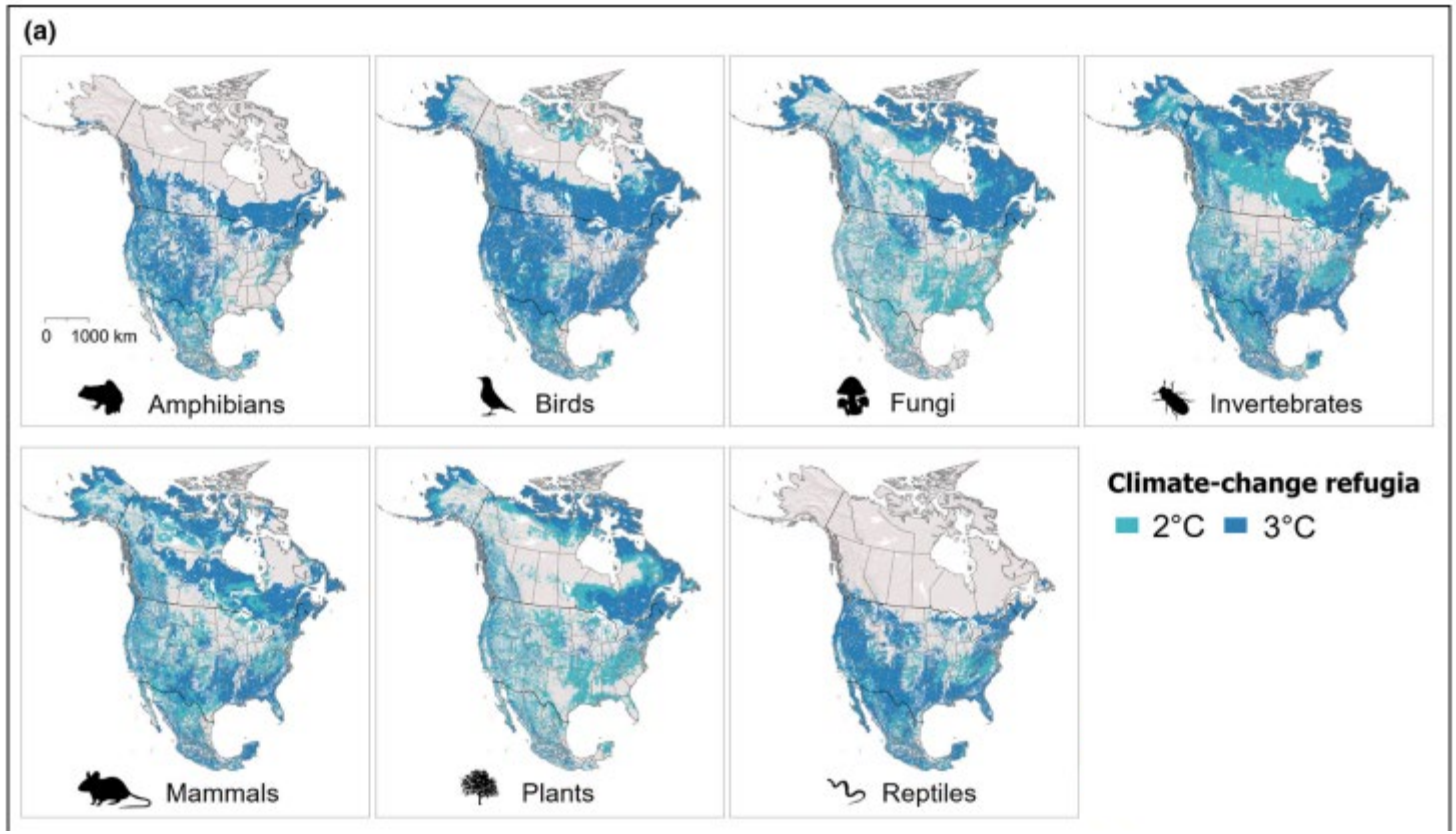
9. Non-key element revisions

A. Riparian Conservation Opportunity Areas (RCOAs)
B. Regional chapter (shared SGCN)
C. Climate change refugia

Riparian Conservation Opportunity Areas



Climate Change Refugia



Saunders et al. 2023

Review and Revision Timeline

2023

Month	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SGCN	X	X	X	X	X	X	X	X
Threats					X	X	X	X
Coordination	X	X	X	X	X	X	X	X
Public				X				
COAs			X	X	X	X	X	X
Refugia	X	X	X	X	X	X	X	X

Review and Revision Timeline

2024

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SGCN	X	X	X	X	X	X	X	X	X	X	X	X
Habitats	X	X	X	X	X	X	X	X	X	X	X	X
Threats	X	X	X	X	X	X	X	X	X	X	X	X
Actions	X	X	X	X	X	X	X	X	X	X		
Coordination	X					X		X	X		X	
Public								X				X
COAs	X	X	X	X	X	X	X	X	X	X	X	X
Refugia	X	X	X	X	X	X	X	X	X	X	X	X
Regional							X	X	X	X	X	X

Review and Revision Timeline

- Due to USFWS October 1, 2025

2025

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Threats	X								
Coordination	X	X							
Public				X			X	X	
COAs	X	X	X						
Refugia	X	X	X						
Regional	X	X	X						
Submission									X

Posted SGCN Files

1. **SGCN selection criteria and categories:** Description of criteria for selecting SGCN for 2025 SWAP and how they were categorized. Includes a list of reasons that species were excluded from consideration for being SGCN and references Biota Information of New Mexico (BISON-M) query.
2. **2025 SGCN list spreadsheet:** Contains species being proposed for inclusion as SGCN for 2025 SWAP.

SGCN Selection Criteria

Selection Criterion	Definition
Climate Change Vulnerability	Species that are less likely to be able to acclimate to changing climate conditions.
Decline	Species that either are currently experiencing or have historically experienced a substantial long-term decline in habitat or numbers.
Disjunct	Species that have populations geographically isolated from other populations of the same species and are thereby disproportionately susceptible to local decline or extirpation.
Endemic	Species that are limited to New Mexico.
Keystone	Species that are of demonstrable importance for ecosystem function. These species may contribute more to the conservation of biological diversity, through their impacts on other species, than expected based on their relative abundance and their removal is likely to lead to a reduction in species diversity or change in community structure or dynamics.
Vulnerable	Species for which some aspect of their life history and ecology makes them disproportionately susceptible to decline within the next 10 years. Factors include, but are not limited to, concentration to small areas during migration or hibernation; low reproductive rates; susceptibility to disease, habitat loss, wildfire, and anthropogenic overexploitation.
Core Range*	New Mexico represents a substantive portion of the species' range (e.g., the species is found in multiple counties in New Mexico or New Mexico represents approximately 10% of more of the species' range).

*All SGCN must meet this criterion

SGCN Categories

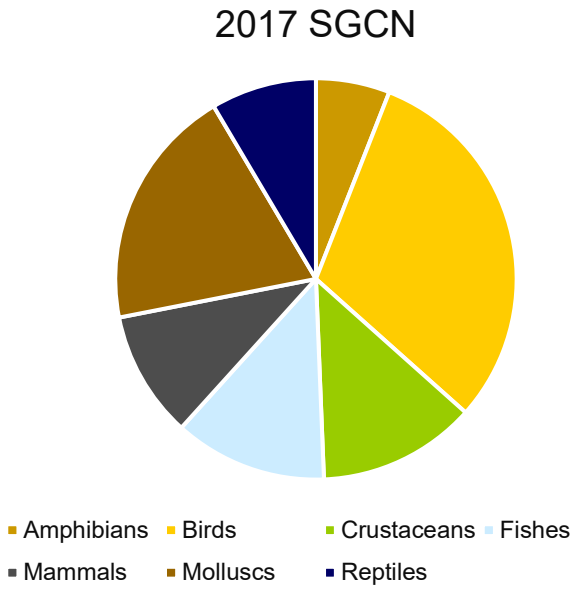
Category	Description (abbreviated)
Current Focal Species (F)	These are species for which, based on their status, population trends, or other factors, the Department is currently either implementing conservation actions (including active monitoring) or anticipating the need for conservation work in the next 10 years. The Department recognizes the importance of species in other SGCN categories and will shift focus to these species as new information and opportunities arise.
Conservation Impact Species (I)	This category includes species where conservation action taken in New Mexico is likely to have a substantive, positive outcome for the species or their associated ecosystems (e.g., actions focused on keystone species). This may include endemic/geographically-restricted species and habitat specialists that utilize specific patches of habitat that are either narrowly-distributed or highly disjunct. This category may also include species that are impacted by threats that can be more readily addressed or resident species, that carry out their full life cycle in New Mexico.
Data Needs Species (D)	This category includes species for which the primary conservation need is to obtain additional biological data and information. More data are needed to understand the current status and ecology of these species within New Mexico and/or rangewide and identify specific conservation needs and actions. Implementing new, or updating outdated, survey or monitoring efforts will be especially beneficial for these species.
Limited Conservation Opportunity Species (L)	These species are of documented conservation need but the potential for conservation actions taken in New Mexico to have a substantive impact on a species' conservation status rangewide is limited. Coordination with other states or countries on regional conservation activities may be the most impactful action to take for these species.

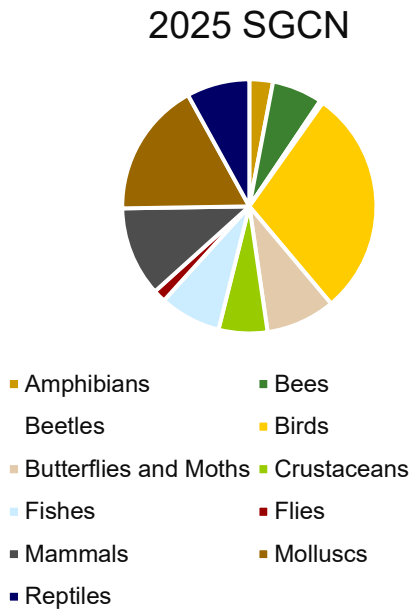
Summary of 2025 SGCN

- 499 total SGCN

Taxonomic Group	2017 SGCN	2025 SGCN
Amphibians	14	15
Bees*	0	32
Beetles*	0	2
Birds	72	145
Butterflies and Moths*	0	44
Crustaceans	30	31
Fishes	29	39
Flies*	0	8
Mammals	24	57
Molluscs	46	86
Reptiles	20	40

*SGCN only include pollinating insects





Summary of 2025 SGCN

Taxonomic Group	Current Focal Species	Conservation Impact Species	Data Needs Species	Limited Conservation Opportunity Species
Amphibians	3	7	2	3
Bees	0	4	26	2
Beetles	0	1	1	0
Birds	16	7	94	28
Butterflies and Moths	0	36	6	2
Crustaceans	2	0	29	0
Fishes	23	7	1	8
Flies	0	1	7	0
Mammals	12	8	33	4
Molluscs	7	3	76	0
Reptiles	4	5	24	7
Totals	**67**	**79**	**299**	**54**

Items to Note

1. Pool of potential SGCN was 1,524 species of vertebrates, crustaceans, molluscs, and pollinating insects known to occur in New Mexico; selected species represent about 1/3 of this pool
2. There are over 5,900 species in BISON-M known to occur in New Mexico, including non-pollinating insects
3. Inclusion of pollinating insects and new data on bird status drove some increases in SGCN numbers, as did greater dependence on BISON-M data and not removing species with similar habitat associations
4. Non-insect species have been thoroughly vetted by Department biologists and the SWAP core team. Insect species were selected by external experts and will be reviewed by SWAP core team this summer.

QUESTIONS?

Ginny Seamster

New Mexico Department of Game and Fish

virginia.seamster@dgf.nm.gov

505-629-7738

SWAP website: https://nmswap.org/