



# Land Use

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**BOULDER COUNTY PLANNING COMMISSION  
AGENDA ITEM #6**

**June 18, 2014**  
**Afternoon Session - 1:30 PM**

**Commissioners' Hearing Room, Third Floor,  
County Courthouse**

**DOCKET BCCP-08-0003: Boulder County Comprehensive Plan Update:  
Environmental Resources Element**

Review of additional language addressing county's responsibility for sustaining naturally occurring ecosystems and their dependent species through conservation and recovery planning for prioritized Species of Special Concern.

**Staff Planners:** Peter Fogg - Senior Planner (presenter)  
William Davidson - Land Use; Therese Glowacki, Justin Atherton-Wood,  
and Mac Kobza – Parks and Open Space

**Action Requested:** Approval (*public testimony will not be taken*)

**SUMMARY:** On May 21, 2014 staff presented the Planning Commission with a report on work done by a small group of stakeholders representing both advocates and opponents of adopting rights of nature position into the Environmental Resources Element (ERE) of the Boulder County Comprehensive Plan. Their task was to discover whether some language could be prepared that would be acceptable to them all by consensus or informed consent. While they were unable to reach an agreement, the staff report included the five options that were proposed and discussed at some length, and included a summary of the pros and cons of each option as identified by the stakeholders ([Attachment A](#)). On a 5 – 0 vote Planning Commission directed staff to prepare language similar to Options 2 and/or 5 with modifications that were added by the Commission and to bring that back for action on June 18<sup>th</sup>, 2014.

**DISCUSSION:** The discussions and debates about including rights of nature into the Environmental Resources Element have been thorough and well attended since the spring of 2013. They are not reiterated here. Staff's position has been opposed to incorporating the explicit term "rights of nature" for both legal reasons and for the conundrums that implementation would present given the vagueness in detail and specificity associated with the rights of nature doctrine or principle as it has been presented and described to the county for the past several months. Public opinion, in both written form and verbal testimony before the Planning Commission, has been split over the same period, with a moderate majority against including the language. Planning Commission has been quite clear that it favored adding some stronger statement into the ERE about the county taking a more proactive position in the protection and conservation of species and ecosystems, while at the same time being written in a way that recognized some of the fundamental concerns of both advocates and opponents of rights of nature.

Following are the two options from Attachment A selected by Planning Commission for staff to work with:

**2) Boulder County Audubon's Proposal**

“Acknowledging our responsibility to ensure that all naturally occurring ecosystems and their native species populations continue to exist and flourish in Boulder County, we will develop conservation and recovery plans for all species listed as ‘imperiled’ or ‘extirpated’ in the Environmental Resources Element.”

**5) Ruby Bowman/Michael Thomason's Proposal**

“Acknowledging the rights of naturally occurring ecosystems and their native species populations to exist and flourish, Boulder County will develop conservation and recovery plans for all species listed as ‘imperiled’ or ‘extirpated’ in the Environmental Resources Element.”

Planning Commission also voted to strike the adjective “...all...” from the first line in Option 2 and to replace “...’imperiled’ or extirpated’...” in both Options 2 and 5 with “Species of Special Concern” as used and referenced in the approved Environmental Resources Element (refer to Attachment B.)

**RECOMMENDATION:** Based on the May 21<sup>st</sup> direction and after considering various alternatives, staff proposes and recommends the following language be APPROVED by Planning Commission:

**Acknowledging our responsibility to ensure that naturally occurring ecosystems and their native species populations continue to exist and flourish in Boulder County, Boulder County will develop conservation and recovery plans for priority Species of Special Concern.**

Staff is also of the opinion that this language is more appropriately a policy that complements the goals in the ERE that were approved by Planning Commission in June, 2013 and therefore recommends that it be included as an ADDITION to the **General Policies for Environmental Resources** section of the Element.

# ATTACHMENT A

## Summary of Working Group Options/Alternatives Proposed, Discussed, and Concluding Positions

### 1) No Change from Planning Commission Approved ERE Language

“Boulder County values and strives to preserve, conserve and restore the unique and distinctive natural features, ecosystems and landscapes of the county using sound resource management principles and practices at both a site-specific level and on a broader landscape scale. Boulder County’s important environmental resources include naturally occurring ecosystems and their native species populations.” (*from the Overview section – page 1, paragraph 1*)

“Boulder County shall conserve and preserve environmental resources including its unique or distinctive natural features, biodiversity, and ecosystems through protection and restoration in recognition of the irreplaceable character of such resources and their importance to the quality of life in Boulder County.” (*Goal B.1*)

“Boulder County shall promote the viability and integrity of all naturally occurring ecosystems and their native species populations by applying a variety of environmental resources management strategies in a manner that is consistent with current ecological principles and sustainable conservation practices.” (*Goal B.3*)

ADVOCATES: B.3 is not strong enough, does not provide specific enough guidance for meeting the goals; “promote” is too weak a word (sounds like advertising vs. proactive); doesn’t meet our needs regarding rights.

OPPONENTS: Can live with it (B.3) as is but would prefer to delete “all” in first line; does address standards for meeting the goals, leaving it up to the county to develop specific measures for implementation.

### 2) Boulder County Audubon’s Proposal

“Acknowledging our responsibility to ensure that all naturally occurring ecosystems and their native species populations continue to exist and flourish in Boulder County, we will develop conservation and recovery plans for all species listed as ‘imperiled’ or ‘extirpated’ in the Environmental Resources Element.”

ADVOCATES: Like the specificity of developing plans; “responsibility” maybe not the best word but it is proactive and was a word suggested by a Planning Commissioner; falls short of rights and could be stronger.

OPPONENTS: Do not support and/or have issues with the words “Acknowledging...”, “responsibility”, “ensure”, and “all” (used twice); “responsibility” sounds like/could be interpreted to mean “must do”; “ensure” is an unachievable standard; the “all”s are too vague and broad; who is the “we” in the 2<sup>nd</sup> clause.

### 3) Suzanne Webel’s Proposal to Revise Audubon

~~“Acknowledging our responsibility to ensure that all naturally occurring ecosystems and their native species populations continue to exist and flourish in Boulder County, we Boulder County will develop conservation and recovery plans for all (*certain? selected? high priority?*) species listed as ‘imperiled’ or ‘extirpated’ in the Environmental Resources Element.”~~

ADVOCATES: First clause is necessary because expresses a commitment; mixed opinion on “we” vs. “the county” in second clause; still prefer stronger language re: rights.

OPPONENTS: Could support with the strike-outs and replacement of second “all”

#### 4) **Additional Proposal to Revise Audubon**

“Acknowledging our ~~responsibility~~ **county-wide interest** that all naturally occurring ecosystems and their native species populations continue to exist and flourish in Boulder County, ~~we~~ **the county** will develop conservation and recovery plans for ‘all’ (*caveat: if the county agrees to “all” – if not, drop “all”*) species listed as ‘imperiled’ or ‘extirpated’ in the Environmental Resources Element.”

ADVOCATES: Do not support – “county-wide interest” is not strong or proactive enough.

OPPONENTS: Mixed opinion – if Goal B.3 is modified to include “...*and that reflects protection of naturally occurring ecosystems and their native species population through protection of endangered or extirpated species.*” as the last clause, we may not even need to consider this (#4) alternative; current goals seem to “say it all”.

#### 5) **Ruby Bowman/Michael Thomason’s Proposal**

“Acknowledging the rights of naturally occurring ecosystems and their native species populations to exist and flourish, Boulder County will develop conservation and recovery plans for all species listed as ‘imperiled’ or ‘extirpated’ in the Environmental Resources Element.”

ADVOCATES: “Rights” is key and the correct language.

OPPONENTS: Do not support inclusion of rights in any form.

### **Other Options Discussed at the May 13<sup>th</sup> Meeting:**

#### **Ruby Bowman’s Proposal: Include Following Language in the ERE Overview**

“The overriding principle, which provides the framework for discussion, goals, and policies of the Environmental Resources Element, is acknowledgement of the interconnectedness of humans and the natural world: Humans are a part of, not apart from the earth community. As such, Boulder County recognizes that human-related activities can have a deleterious impact on the environment, resulting in native species extirpation, destruction and degradation of habitat and naturally occurring ecosystems, and water, air, noise and light pollution. As the diminution of the natural world occurs, so does our quality of life and the elements needed to sustain healthy human life.

With this in mind, Boulder County supports the rights of native species populations and naturally occurring ecosystems to exist, persist and thrive. With this statement, we recognize that human existence is inextricably dependent upon the well-being of the natural world. “

ADVOCATES: Basis is some language/discussion heard at Planning Commission and County Commissioner hearings; the Overview section of the ERE is a narrative, not goals and policies, so no legal issues should arise by mentioning rights of nature.

OPPONENTS: Issues with the wording e.g. what is the “earth community”, “human-related activities” listed are all negative which is not accurate or objective, etc. A proposed revision was offered to replace “Humans are a part of...” with “Human beings are a part of nature, and human existence is dependent on the well-being of the natural world”, and to insert this language in the Overview at page 2 paragraph 2 which starts with “To provide a context...”, but only if the Advocates would be willing to “trade” its inclusion in return for dropping the reference to rights.

### **Suzanne Webel’s Proposal: Rewrite of Goal B.3**

“Boulder County shall promote the viability and integrity of all naturally occurring ecosystems and their native species populations by applying a variety of environmental resources management strategies, **including development of conservation and recovery plans for certain species listed as ‘imperiled’ or ‘extirpated’**, in a manner that is consistent with current ecological principles and sustainable conservation practices.”

OPPONENTS: Eliminates the need for making any others changes in the Environmental Resources Element; addresses Advocates’ concerns about wanting more specific proactive wording and gives concessions to more environmental protection in exchange for giving up the “all” in the first clause.

ADVOCATES: Better language than current Goal B. 3 but not strong enough e.g. replace “promote” with “ensure” for a start, still prefer a reference to rights

### **Advocates Proposal: Rewrite Audubon and Include New Language in the Overview with Some Modifications**

- Audubon Rewrite: “Acknowledging our responsibility to ensure that all naturally occurring ecosystems and their native species populations continue to exist and flourish in Boulder County, **we Boulder County** will develop conservation and recovery plans for all species listed as ‘imperiled’ or ‘extirpated’ in the Environmental Resources Element.”
- New Language for the Overview Section: “Boulder County acknowledges the rights of native species populations and naturally occurring ecosystems to flourish and thrive”.

OPPONENTS: Does not work – still includes “acknowledging...”, “responsibility”, “ensure”, “rights”, all of which are of legal concerns re: consequences, liabilities and impacts on landowners, etc; “rights” for nature is neither legally nor philosophically acceptable.

## **CONCLUSION**

No consensus or general agreement/informed consent were reached. The final positions were the OPPONENTS being able to live with the Environmental Resources Element language as approved by Planning Commission in June of 2013, and the ADVOCATES being able to live with the Audubon proposal as modified above along with the inclusion of one new sentence, with the reference to rights, into the Overview section.

# ATTACHMENT B

## Criteria for Designating Wildlife Species of Special Concern

Boulder County maintains a Species of Special Concern (SSC) List for the purpose of conserving and preserving wildlife species and their habitat in the county. A species must meet one of the following criteria to be incorporated into the List:

1. Species with Federal status (listed or proposed threatened or endangered, candidates for listing, or under review for listing) or State status (threatened or endangered);
2. Species considered to be sensitive that appear on the following lists: Colorado Parks & Wildlife – Species of Concern, U.S. Forest Service Region 2 – Sensitive Species, U.S. Bureau of Land Management – Sensitive Species, U.S Fish & Wildlife Service – Birds of Conservation Concern;
3. Species that have undergone a documented long-term noncyclical population decline, or whose abundance is critically low relative to their expected abundance in a given habitat type or quality;
4. Species occurring in Boulder County that are naturally rare <sup>1</sup>;
5. Species that are dependent upon isolated or restricted<sup>2</sup> habitat for at least a portion of their life cycle;
6. Species that have a disproportionately large effect on the structure and function of the ecosystem(s) they inhabit, and thus promote species diversity, ecosystem function and natural processes;
7. Extirpated species that historically occupied and are native to Boulder County;
8. Species of global or continental concern whose populations are stable in Boulder County (e.g. Colorado Natural Heritage Program - G1S4);
9. Species whose populations in the County may be currently secure, but are vulnerable to imminent threats affecting their populations either directly or indirectly<sup>3</sup>.
10. Species of undetermined status which require further research and/or monitoring.

The Boulder County SSC list is a compilation of special status species identified by federal, state, and local governmental agencies, as well as non-governmental conservation organizations and conservation experts, as species that warrant protection in order to prevent the loss of habitat or populations.

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<sup>1</sup> Species which are “naturally rare” normally occur in low abundance throughout their range. While their populations may be stable, species that are rare on the landscape are more vulnerable to extirpation or extinction compared to species with large populations.

<sup>2</sup> “Isolated or restricted” habitat is defined as a discrete area that is distinguished from surrounding habitat by its unique features (biotic or abiotic). Such habitat is typically rare and patchily distributed on the landscape. Species that rely on “isolated or restricted” habitat are more vulnerable to extirpation than those that are widely distributed or are habitat generalists.

<sup>3</sup> Direct threats to populations include loss of individuals from overexploitation or other means of direct mortality. Indirect threats include habitat degradation, competition with invasive species, increased prevalence of disease and pollution, and climate change.

# Boulder County Wildlife Species of Special Concern

11/12/2013

## Boulder County Species of Special Concern

Species Name	Class	Criteria	Imperiled
1 Frog, Chorus <i>Pseudacris triseriata</i>	Amphibian	9	
2 Frog, Northern Leopard <i>Rana pipiens</i>	Amphibian	2	*
3 Salamander, Tiger <i>Ambystoma tigrinum</i>	Amphibian	9	
4 Toad, Boreal <i>Anaxyrus boreas</i>	Amphibian	1,2	*
5 Toad, Plains Spadefoot <i>Spea bombifrons</i>	Amphibian	9	
6 Avocet, American <i>Recurvirostra americana</i>	Bird	5	
7 Blttern, American <i>Botaurus lentiginosus</i>	Bird	2,5	
8 Blttern, Least <i>Ixobrychus exilis</i>	Bird	4,5	
9 Blackbird, Yellow-headed <i>Xanthocephalus xanthocephalus</i>	Bird	3,5	
10 Bobolink <i>Dolichonyx oryzivorus</i>	Bird	3,5	
11 Bunting, Indigo <i>Passerina cyenea</i>	Bird	3	
12 Bunting, Lark <i>Calamospiza melanocorys</i>	Bird	2,3	
13 Bunting, Lazuli <i>Passerina amoena</i>	Bird	3	
14 Bushltit <i>Psatiriparus minimus</i>	Bird	5	
15 Cormorant, Double-crested <i>Phalacrocorax auritus</i>	Bird	5	
16 Crossbill, White-winged <i>Loxia leucoptera</i>	Bird	4,9	
17 Dllpper, American <i>Cinclus mexicanus</i>	Bird	5	
18 Duck, Ring-necked <i>Aythya collaris</i>	Bird	4,5	
19 Duck, Wood <i>Aix sponsa</i>	Bird	5	
20 Eagle, Bald <i>Haliaeetus leucocephalus</i>	Bird	1,2,5	
21 Eagle, Golden <i>Aquila chrysaetos</i>	Bird	2,5	
22 Egret, Great <i>Ardea alba</i>	Bird	4,5	
23 Falcon, Peregrine <i>Falco peregrinus</i>	Bird	2,4,5	
24 Falcon, Prairie <i>Falco mexicanus</i>	Bird	2,5	
25 Flicker, Northern <i>Colaptes auratus</i>	Bird	3	
26 Flycatcher, Olive-sided <i>Contopus cooperi</i>	Bird	2,5	
27 Flycatcher, Willow <i>Empidonax traillii</i>	Bird	1,2,3,5	*
28 Goshawk, Northern <i>Accipter gentilis</i>	Bird	2,5	
29 Grebe, Eared <i>Podiceps nigricollis</i>	Bird	3,4	
30 Harrier, Northern <i>Circus cyaneus</i>	Bird	2,3,4,5	*
31 Hawk, Ferruginous <i>Buteo regalis</i>	Bird	2,3,5	
32 Hawk, Rough-legged <i>Buteo lagopus</i>	Bird	5	
33 Heron, Black-crowned Night <i>Nycticorax nycticorax</i>	Bird	5	
34 Heron, Great Blue <i>Ardea herodias</i>	Bird	5	
35 Kingfisher, Belted <i>Megaceryle alcyon</i>	Bird	3	

Species Name	Class	Criteria	Imperiled
36 Kinglet, Golden-crowned <i>Regulus satrapa</i>	Bird	5	
37 Lark, Horned <i>Eremophila alpestris</i>	Bird	3	
38 Mockingbird, Northern <i>Mimus polyglottos</i>	Bird	4,5	
39 Ovenbird <i>Seiurus aurocapilla</i>	Bird	4	
40 Owl, Boreal <i>Aegolius funereus</i>	Bird	2,5,10	
41 Owl, Burrowing <i>Athene cucularia</i>	Bird	1,2,3,5	*
42 Owl, Flammulated <i>Otus flammeolus</i>	Bird	2,5	
43 Owl, Long-eared <i>Asio otus</i>	Bird	3	
44 Owl, Short-eared <i>Asio flammeus</i>	Bird	2,4,5	
45 Pigeon, Band-tailed <i>Patagioenas fasciata</i>	Bird	10	
46 Ptarmigan, White-tailed <i>Lagopus leucura</i>	Bird	2,5,9	
47 Redstart, American <i>Setophaga ruticilla</i>	Bird	4	
48 Rosy-Finch, Brown-capped <i>Leucosticte australis</i>	Bird	2,5	
49 Scrub-Jay, Western <i>Aphelocoma californica</i>	Bird	5	
50 Shrike, Loggerhead <i>Lanius ludovicianus</i>	Bird	2,3,5	*
51 Siskin, Pine <i>Spinus pinus</i>	Bird	3	
52 Sparrow, Brewer's <i>Spizella breweri</i>	Bird	2,3,5	
53 Sparrow, Cassin's <i>Peucaea cassinii</i>	Bird	2,3	
54 Sparrow, Fox <i>Passerella iliaca</i>	Bird	5	
55 Sparrow, Grasshopper <i>Ammodramus savannarum</i>	Bird	2,3,5	
56 Swallow, Bank <i>Riparia riparia</i>	Bird	3	
57 Swift, Black <i>Cypseloides niger</i>	Bird	2,4,5	
58 Thrasher, Sage <i>Oreoscoptes montanus</i>	Bird	4,5	
59 Veery <i>Catharus fuscescens</i>	Bird	2,4,5	
60 Vireo, Plumbeous <i>Vireo plumbeus</i>	Bird	3,5	
61 Warbler, Virginia's <i>Oreothlypis virginiae</i>	Bird	8	
62 Warbler, Wilson's <i>Cardellina pusilla</i>	Bird	3,5	
63 Waxwing, Cedar <i>Bombycilla cedrorum</i>	Bird	4,5	
64 Woodpecker, American Three-toed <i>Picoides dorsalis</i>	Bird	2,5	
65 Woodpecker, Lewis's <i>Melanerpes lewis</i>	Bird	2,3,5	
66 Woodpecker, Red-headed <i>Melanerpes erythrocephalus</i>	Bird	3,5,10	
67 Wren, Rock <i>Salpinctes obsoletus</i>	Bird	3	
68 Chub, Lake <i>Couesius plumbeus</i>	Fish	1,5	*
69 Darter, Iowa <i>Etheostoma exile</i>	Fish	2,4,5	
70 Darter, Johnny <i>Etheostoma nigrum</i>	Fish	3,5	

# Boulder County Wildlife Species of Special Concern

11/12/2013

## Boulder County Species of Special Concern (continued)

	Species Name	Class	Criteria	Imperiled
71	<b>Minnow, Brassy</b> <i>Hybognathus hankinsoni</i>	Fish	1,5	*
72	<b>Shiner, Bigmouth</b> <i>Notropis dorsalis</i>	Fish	3,5	
73	<b>Shiner, Common</b> <i>Notropis cornutus</i>	Fish	1,5	*
74	<b>Stonecat</b> <i>Noturus flavus</i>	Fish	2,4,5	*
75	<b>Topminnow, Plains</b> <i>Fundulus sciadicus</i>	Fish	3	*
76	<b>Trout, Greenback Cutthroat</b> <i>Oncorhynchus clarki</i>	Fish	1,3,9	*
77	<b>Capshell, Rocky Mountain</b> <i>Acroloxus coloradensis</i>	Gastropod	2,3	*
78	<b>Floater, Giant</b> <i>Anodonta grandis</i>	Gastropod	3	
79	<b>Papershell, Cylindrical</b> <i>Anodontoides ferussacianus</i>	Gastropod	2,3	*
80	<b>Physa, Banded</b> <i>Physa utahensis</i>	Gastropod	3	*
81	<b>Sprite, Umbilicate</b> <i>Promenetus umbilicatellus</i>	Gastropod	3	
82	<b>(A miner bee)</b> <i>Macrotera opuntiae</i>	Insect	5,10	
83	<b>Alpine, Theano</b> <i>Erebia pawlowskii</i>	Insect	4	
84	<b>Azure, Hops Feeding</b> <i>Celastrina humulus</i>	Insect	4,5,9	
85	<b>Bee, American Bumble</b> <i>Bombus pennsylvanicus</i>	Insect	3	
86	<b>Bee, Black and Gold Bumble</b> <i>Bombus auricomus</i>	Insect	4,5	
87	<b>Bee, Variable Cuckoo Bumble</b> <i>Bombus variabilis</i>	Insect	4,10	
88	<b>Bee, Western Bumble</b> <i>Bombus occidentalis</i>	Insect	3,6	*
89	<b>Beetle, Prairie Tiger</b> <i>Cicindela nebraskana</i>	Insect	5,9,10	
90	<b>Blue, Colorado</b> <i>Euphilotes rita coloradensis</i>	Insect	4,10	
91	<b>Dancer, Blue-Ringed</b> <i>Argia sedula</i>	Insect	3,10	
92	<b>Darner, Lake</b> <i>Aeshna eremita</i>	Insect	5,10	*
93	<b>Dragonfly, Hudsonian Emerald</b> <i>Somatochlora hudsonica</i>	Insect	2,5,10	
94	<b>Duskywing, Mottled</b> <i>Erynnis martialis</i>	Insect	4,5	
95	<b>Elfin, Moss's</b> <i>Callophrys mossii</i>	Insect	4,5	
96	<b>Emerald, American</b> <i>Cordulia shurtleffi</i>	Insect	5	
97	<b>Fritillary, Regal</b> <i>Speyeria idalia</i>	Insect	2,3,5	*
98	<b>Jutta, Rocky Mountain Arctic</b> <i>Oeneis jutta</i>	Insect	3,9	
99	<b>Skipper, Arogos</b> <i>Atrytone arogos</i>	Insect	4,5	
100	<b>Skipper, Cross-line</b> <i>Polites origenes</i>	Insect	4,5	
101	<b>Skipper, Dusted</b> <i>Atrytonopsis hianna</i>	Insect	4,5	
102	<b>Skipper, Ottoo</b> <i>Hesperia ottoo</i>	Insect	2,4,5	
103	<b>Skipper, Rhesus</b> <i>Polites rhesus</i>	Insect	3,4	
104	<b>Skipper, Simius Roadside</b> <i>Amblyscirtes simius</i>	Insect	3,5	
105	<b>Skipper, Snow's</b> <i>Paratrytone snowi</i>	Insect	3,5	

	Species Name	Class	Criteria	Imperiled
106	<b>Skipper, Two-spotted</b> <i>Euphyes bimaculata</i>	Insect	4	
107	<b>Badger, American</b> <i>Taxidea taxus</i>	Mammal	3	
108	<b>Bat, Big Brown</b> <i>Eptesicus fuscus</i>	Mammal	9	
109	<b>Bat, Brazilian Free-tailed</b> <i>Tadarida brasiliensis</i>	Mammal	4,8,9	
110	<b>Bat, Eastern Red</b> <i>Lasiurus borealis</i>	Mammal	4,8	
111	<b>Bat, Hoary</b> <i>Lasiurus cinereus</i>	Mammal	4,8	
112	<b>Bat, Silver-haired</b> <i>Lasionycteris noctivagans</i>	Mammal	5	
113	<b>Bat, Townsend's Big-eared</b> <i>Corynorhinus townsendii</i>	Mammal	2,3,4,9	
114	<b>Bat, Tricolored</b> <i>Perimyotis subflavus</i>	Mammal	9	
115	<b>Beaver, North American</b> <i>Castor canadensis</i>	Mammal	5,6	
116	<b>Fox, Gray</b> <i>Urocyon cinereoargenteus</i>	Mammal	5,10	
117	<b>Jackrabbit, White-tailed</b> <i>Lepus townsendii</i>	Mammal	3,10	*
118	<b>Lynx, Canada</b> <i>Lynx canadensis</i>	Mammal	1,2,3	
119	<b>Marten, American</b> <i>Martes americana</i>	Mammal	2,5	
120	<b>Mouse, Northern Rock</b> <i>Peromyscus nasutus</i>	Mammal	5	
169	<b>Chipmunk, Uinta</b> <i>Neotamias umbrinus</i>	Mammal	10	
170	<b>Gopher, Northern Pocket</b> <i>Thomomys talpoides</i>	Mammal	10	
171	<b>Mink, American</b> <i>Neovison vison</i>	Mammal	10	
172	<b>Mouse, Northern Grasshopper</b> <i>Onychomys leucogaster</i>	Mammal	10	
173	<b>Mouse, Olive-back Pocket</b> <i>Perognathus fasciatus</i>	Mammal	5,10	
174	<b>Mouse, Plains Harvest</b> <i>Reithrodontomys montanus</i>	Mammal	4,10	
175	<b>Mouse, Plains Pocket</b> <i>Perognathus flavescens</i>	Mammal	5,10	
176	<b>Mouse, Silky Pocket</b> <i>Perognathus flavus</i>	Mammal	4,5,10	
177	<b>Shrew, Dwarf</b> <i>Sorex nanus</i>	Mammal	10	
178	<b>Shrew, Merriam's</b> <i>Sorex merriami</i>	Mammal	5,10	
179	<b>Vole, Heather</b> <i>Phenacomys intermedius</i>	Mammal	5,10	
180	<b>Snake, Lined</b> <i>Tropidoclonion lineatum</i>	Reptile	9,10	*
121	<b>Mouse, Prebles Meadow Jumping</b> <i>Zapus hudsonius</i>	Mammal	1,2,5	
122	<b>Myotis, Fringed</b> <i>Myotis thysanodes</i>	Mammal	2,4,5,8,9	
123	<b>Myotis, Little Brown</b> <i>Myotis lucifugus</i>	Mammal	5,9	
124	<b>Myotis, Long-eared</b> <i>Myotis evotis</i>	Mammal	4	
125	<b>Myotis, Long-legged</b> <i>Myotis volans</i>	Mammal	5,8	
126	<b>Myotis, Western Small-footed</b> <i>Myotis ciliolabrum</i>	Mammal	5	
127	<b>Otter, River</b> <i>Lontra canadensis</i>	Mammal	1,2,4	
128	<b>Pika</b> <i>Ochotona princeps</i>	Mammal	5,9	

# Boulder County Wildlife Species of Special Concern

11/12/2013

## Boulder County Species of Special Concern (continued)

Species Name	Class	Criteria	Imperiled
129 Porcupine, North American <i>Erethizon dorsatum</i>	Mammal	3	
130 Prairie Dog, Black-tailed <i>Cynomys ludovicianus</i>	Mammal	2,3,6,9	
131 Rat, Ord's Kangaroo <i>Dipodomys ordii</i>	Mammal	5,10	
132 Ringtail <i>Bassariscus astutus</i>	Mammal	4,10	
133 Sheep, Rocky Mountain Bighorn <i>Ovis canadensis canadensis</i>	Mammal	2,9	
134 Shrew, American Water <i>Sorex palustris</i>	Mammal	5	
135 Shrew, Least <i>Cryptotis parva</i>	Mammal	5	
136 Squirrel, Spotted Ground <i>Xerospermophilus spilosoma</i>	Mammal	4,5,9,10	
137 Squirrel, Thirteen-lined Ground <i>Ictidomys tridecemlineatus</i>	Mammal	5	
138 Vole, Meadow <i>Microtus pennsylvanicus</i>	Mammal	5	
139 Lizard, Short-Horned <i>Phrynosoma hernandesi</i>	Reptile	4,5,10	*
140 Snake, Common Garter <i>Thamnophis sirtalis</i>	Reptile	2,3	
141 Snake, Milk <i>Lampropeltis triangulum</i>	Reptile	4,9	
142 Turtle, Spiny Softshell <i>Apalone spinifera</i>	Reptile	4,10	

## Extirpated Species

Species Name	Class	Criteria	Imperiled
143 Toad, Great Plains <i>Bufo cognatus</i>	Amphibian	7	
144 Curlew, Long-billed <i>Numenius americanus</i>	Bird	2,7	
145 Goldeneye, Barrow's <i>Bucephala islandica</i>	Bird	7	
146 Grouse, Plains Sharp-tailed <i>Tympanuchus phasianellus jamesi</i>	Bird	7	
147 Plover, Mountain <i>Charadrius montanus</i>	Bird	2,7	
148 Chub, Hornyhead <i>Nocomis biguttatus</i>	Fish	1,7	
149 Dace, Northern Redbelly <i>Phoxinus eos</i>	Fish	1	
150 Shiner, Blacknose <i>Notropis heterolepis</i>	Fish	7	
151 Jewelwing, River <i>Calopteryx aequabilis</i>	Insect	3	
152 Moth, Lost Ethmid <i>Ethmia monachella</i>	Insect	7,10	
153 Bear, Grizzly <i>Ursus arctos</i>	Mammal	1,2,7	
154 Bison <i>Bison bison</i>	Mammal	7	
155 Ferret, Black-footed <i>Mustela nigripes</i>	Mammal	7	
156 Fox, Swift <i>Vulpes velox</i>	Mammal	7	
157 Pronghorn <i>Antilocarpa americana</i>	Mammal	7	
158 Wolf, Gray <i>Canis lupus</i>	Mammal	1,7	
159 Wolverine <i>Gulo gulo</i>	Mammal	1,2,7	

## Species of Undetermined Status

Species Name	Class	Criteria	Imperiled
160 Owl, Mexican Spotted <i>Strix occidentalis</i>	Bird	1,10	
161 Owl, Northern Pygmy <i>Glaucidium gnoma</i>	Bird	10	
162 Sprite, Sharp <i>Prometetus exacuus</i>	gastropod	2,3,10	*
163 (an Ant) <i>Aphaenogaster huachucana</i>	Insect	10	
164 (an Ant) <i>Formica laeviceps</i>	Insect	10	
165 (an Ant) <i>Stigmatomma pallipes</i>	Insect	10	
166 (an Ant) <i>Pheidole eleebra</i>	Insect	10	*
167 Skipper, Two-banded Checkered <i>Pyrgus ruralis</i>	Insect	7	
168 Chipmunk, Colorado <i>Neotamias quadrivittatus</i>	Mammal	10	
169 Chipmunk, Uinta <i>Neotamias umbrinus</i>	Mammal	10	
170 Gopher, Northern Pocket <i>Thomomys talpoides</i>	Mammal	10	
171 Mink, American <i>Neovison vison</i>	Mammal	10	
172 Mouse, Northern Grasshopper <i>Onychomys leucogaster</i>	Mammal	10	
173 Mouse, Olive-back Pocket <i>Perognathus fasciatus</i>	Mammal	5,10	
174 Mouse, Plains Harvest <i>Reithrodontomys montanus</i>	Mammal	4,10	
175 Mouse, Plains Pocket <i>Perognathus flavescens</i>	Mammal	5,10	
176 Mouse, Silky Pocket <i>Perognathus flavus</i>	Mammal	4,5,10	
177 Shrew, Dwarf <i>Sorex nanus</i>	Mammal	10	
178 Shrew, Merriam's <i>Sorex merriami</i>	Mammal	5,10	
179 Vole, Heather <i>Phenacomys intermedius</i>	Mammal	5,10	
180 Snake, Lined <i>Tropidooclonion lineatum</i>	Reptile	9,10	

Summary of changes to the Boulder County Species of Special Concern List from 1999 to 2013.

	Year	
	1994	2013
Total Species	153	180
New		64
Deleted		37

The Boulder County Species of Special Concern (SSC) list was updated from the current County list using the best and most current resources available. We compiled current and historical lists of special status species provided by various resource management agencies and conservation organizations. Many of these sources have been utilized in past Boulder County SSC lists and some are new resources for this update.

## Criteria for Designating Critical Wildlife Habitat

A premise of the goals and policies applying to this section of the Environmental Resources Element is to conserve and preserve native wildlife populations occurring in Boulder County by protecting habitat that is vital to the life requirements of each species. It is also a goal to promote biodiversity by conservation and preservation of significantly productive habitat. Areas designated as Critical Wildlife Habitat<sup>1</sup> are considered rare, irreplaceable or difficult to replace, and are essential to the conservation and preservation of wildlife in Boulder County.

### Critical Wildlife Habitat Criteria:

1. Habitat which supports a high degree of biodiversity of wildlife species native to Boulder County.
2. A discrete, identifiable location that supports a significant concentration of one or more native wildlife species during vulnerable life-history stages which is necessary for self-sustaining populations<sup>2</sup> (e.g. breeding or nesting sites, calving and wintering grounds).
3. Provides physical and biological habitat features which are vital to the maintenance, successful recovery or reintroduction of one or more wildlife Species of Special Concern (see Appendix X, SSC Criteria).

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<sup>1</sup> The definition of Critical Wildlife Habitat in the Boulder County Comprehensive Plan does not connote any specific state or federal legal meaning. The term “critical” is distinct and does not convey the same regulations as used in the Federal Endangered Species Act. It is a goal of the Environmental Resource Element to identify and preserve these critical areas without the use of regulatory limits on land uses, but can guide the County land use decision process.

<sup>2</sup> For the purposes of defining Critical Wildlife Habitat in the Boulder County Comprehensive Plan, the County adopts the definition of a “self-sustaining” population as defined in the State of Colorado Department of Natural Resources Division of Wildlife, Administrative Directive W-7 (April 1, 2007): “Self-sustaining: a species whose abundance and/or distribution throughout the state are maintained by natural recruitment at a level sufficient that the species would be expected to persist in perpetuity.”

# Critical Wildlife Habitat

Status	CWH #	Name	SSC Habitat	Sig. Conc. Area	High Biodiv	Known Wildlife Species Occurrence	Habitat Description (Physical Habitat Features)
UPDATED	2	Copeland Willow Carr	X		X	Avian and Small Mammal biodiversity; American Beaver ( <i>Castor canadensis</i> ).	Glaciated valley of Wild Basin within Rocky Mountain National Park. Wetland and riparian areas dominated by willows, alder, birch, sedges and grasses mixed with ponded water from beaver dams. Scattered conifers are present. North St. Vrain Creek flows through site.
UPDATED	4	Deadman Gulch and South St. Vrain	X			Golden Eagle ( <i>Aquila chrysaetos</i> )	Rock cliffs and ledges on granite walls of South St. Vrain Canyon. Rocky spires and steep, rolling terrain with ponderosa pine forest and riparian small riparian systems.
UPDATED	5	Steamboat Mountain	X			Prairie Falcon ( <i>Falco mexicanus</i> ); Peregrine Falcon ( <i>Falco peregrinus</i> ); Golden Eagle ( <i>Aquila chrysaetos</i> )	Rocky cliffs and surrounding shrublands, adjacent to the North Saint Vrain Creek.
UPDATED	7	St. Vrain Corridor	X	X	X	Golden Eagle ( <i>Aquila chrysaetos</i> ); Bald Eagle ( <i>Haliaeetus leucocephalus</i> ); Plains Topminnow ( <i>Fundulus sciadicus</i> ; ESA Rev.); Common Shiner ( <i>Notropis cornutus</i> ; CPW Threatened); Iowa Darter ( <i>Etheostoma exile</i> ; CPW SSC); Stonecat ( <i>Noturus flavus</i> ; CPW SSC); Great Blue Heron ( <i>Ardea herodias</i> ); Black Tailed Prairie Dog ( <i>Cynomys ludovicianus</i> ); American Beaver ( <i>Castor canadensis</i> ); Preble's Meadow Jumping Mouse ( <i>Zapus hudsonius preblei</i> )*	St. Vrain Creek stream corridor, cliff faces, cottonwood-willow riparian groves, adjacent reclaimed gravel ponds and grassland habitats.
UPDATED	8	Rabbit Mountain	X	X	X	Golden Eagle ( <i>Aquila chrysaetos</i> ); Elk ( <i>Cervus elaphus</i> ) concentration; Avian biodiversity; Short-eared owl ( <i>Asio flammeus</i> ); Black Tailed Prairie Dog ( <i>Cynomys ludovicianus</i> )	Ponderosa pine woodlands, shrublands, and grasslands; Hogback formations; grassland habitat; riparian corridor.
UPDATED	10	Middle St. Vrain Willow Carr	X		X	Avian and Small Mammal biodiversity; American Beaver ( <i>Castor canadensis</i> ); River Otter ( <i>Lontra canadensis</i> ) core habitat	Willow carr vegetation dominated by willow shrubs, alder, birch, sedges and grasses. Middle St. Vrain Creek flows through the site with associated beaver ponds.
UPDATED	11	Tumblesom Lake	X			Lake Chub ( <i>Couesius plumbeus</i> ); River Otter ( <i>Lontra canadensis</i> ) core habitat; American Beaver ( <i>Castor canadensis</i> ); Avian and Small Mammal biodiversity	Willow carr adjacent to Tumblesom Lake. Vegetation is dominated by willow shrubs, alder, birch, sedges and grasses. Active beaver ponds.
UPDATED	12	Marietta Canyon	X	X		Golden Eagle ( <i>Aquila chrysaetos</i> ); Rare Butterfly concentration; Hops Feeding Azure ( <i>Clestina humulus</i> ); Dusted Skipper ( <i>Atrytonopsis hianna</i> ); Moss's Elfin ( <i>Callophrys mossii</i> ); Prairie Falcon ( <i>Falco mexicanus</i> )	Rock cliffs and ledges; grasslands.
UPDATED	13	Lefthand Palisades	X			Golden Eagle ( <i>Aquila chrysaetos</i> )	West facing sandstone ledge on cliffs.

# Critical Wildlife Habitat

Status	CWH #	Name	SSC Habitat	Sig. Conc. Area	High Biodiv	Known Wildlife Species Occurrence	Habitat Description (Physical Habitat Features)
UPDATED	14	Lefthand Creek Cottonwood Groves			X	Johnny Darter ( <i>Etheostoma exile</i> ); Plains Topminnow ( <i>Fundulus sciadicus</i> ); Avian and Small Mammal biodiversity; Red-headed Woodpecker ( <i>Melanerpes erythrocephalus</i> )	Lefthand Creek and adjacent riparian habitat of cottonwoods and willows and associated shrubs
UPDATED	15	Lagerman Reservoir	X			Burrowing Owl ( <i>Athene cunicularia</i> ); Northern Harrier ( <i>Circus cyaneus</i> ); Bald Eagle ( <i>Haliaeetus leucocephalus</i> ); American Bittern ( <i>Botaurus lentiginosus</i> ); Bobolink ( <i>Dolichonyx aryzivorus</i> ); Black Tailed Prairie Dog ( <i>Cynomys ludovicianus</i> ); Short-eared owl ( <i>Asio flammeus</i> ); Horned Lark ( <i>Eremophila alpestris</i> ).	Lagerman Reservoir and wetlands, wet meadow, salt meadows, creek and grassland.
UPDATED	16	Gaynor Lakes	X		X	Burrowing Owl ( <i>Athene cunicularia</i> ); Black Tailed Prairie Dog ( <i>Cynomys ludovicianus</i> ); American Bittern ( <i>Botaurus lentiginosus</i> ); Avian biodiversity	Little Gaynor Lake is one of two naturally occurring playas in Boulder County (shallow with no outflow and fed primarily by drainage and groundwater); Includes wetland vegetation around perimeter. Second wetland 1/2 mile west of Little Gaynor Lake. Grasslands near lake
UPDATED	17	Panama Reservoir	X	X		Great Blue Heron ( <i>Ardea herodias</i> ); Bald Eagle ( <i>Haliaeetus leucocephalus</i> ); Double-crested Cormorant ( <i>Phalacrocorax auritus</i> ); Great Egret ( <i>Ardea alba</i> ); Black Crowned Night Heron ( <i>Nycticorax nycticorax</i> )	Reservoir with surrounding riparian habitat of cottonwood trees, willow trees and shrubs.
UPDATED	19	City of Boulder Watershed (Special Consideration)	X			Greenback Cutthroat Trout ( <i>Oncorhynchus clarki</i> )	Alpine lakes, reservoirs, streams, riparian areas and associated forest.
UPDATED	20	Como Creek (Special Consideration)	X			Greenback Cutthroat Trout ( <i>Oncorhynchus clarki</i> )	Subalpine stream and riparian habitat.
UPDATED	21	Boulder Falls Area	X			Golden Eagle ( <i>Aquila chrysaetos</i> )	Steep west and southwest facing rock cliffs.
UPDATED	23	Boulder Reservoir	X			Burrowing Owl ( <i>Athene cunicularia</i> ); Northern Harrier ( <i>Circus cyaneus</i> ); American Bittern ( <i>Botaurus lentiginosus</i> ); Great Blue Heron ( <i>Ardea herodias</i> ); Black Tailed Prairie Dog ( <i>Cynomys ludovicianus</i> )	Cattail marshes, emergent wetlands and grasslands; Isolated ponds.

# Critical Wildlife Habitat

Status	CWH #	Name	SSC Habitat	Sig. Conc. Area	High Biodiv	Known Wildlife Species Occurrence	Habitat Description (Physical Habitat Features)
UPDATED	25	Walden and Sawhill Ponds	X			Great Blue Heron ( <i>Ardea herodias</i> ); Least Bittern ( <i>Ixobrychus exilis</i> ); Black-Crowned Night Heron ( <i>Nycticorax nycticorax</i> ); Wood Duck ( <i>Aix sponsa</i> ); American Avocet ( <i>Recurvirostra americana</i> ); Yellow-headed Black Bird ( <i>Xanthocephalus xanthocephalus</i> )	Reclaimed gravel ponds mixed with wetlands of emergent and shrub vegetation with scattered cottonwood trees.
UPDATED	26	White Rocks	X			Prairie Falcon ( <i>Falco mexicanus</i> ); Ants ( <i>Aphaenogaster huachucanum</i> , <i>Formica laeviceps</i> , <i>Stigmatomma pallipes</i> , <i>Pheidole eleebra</i> ); a Miner Bee ( <i>Macrotera opuntiae</i> )	Outcropping of Fox Hills Sandstone geologic formation (a.k.a. turtleback sandstone formation), surrounded by shortgrass prairie habitat and adjacent to Boulder Creek riparian corridor.
UPDATED	27	Lower Boulder Creek Riparian Area	X	X		Great Blue Heron ( <i>Ardea herodias</i> ); Great Egret ( <i>Ardea alba</i> ); Bald Eagle ( <i>Haliaeetus leucocephalus</i> ); Northern Leopard Frog ( <i>Rana pipiens</i> ); River Otter ( <i>Lontra canadensis</i> ); Tiger Salamander ( <i>Ambystoma tigrinum</i> ); Northern Harrier ( <i>Circus cyaneus</i> ); Common Garter Snake ( <i>Thamnophis sirtalis</i> ); Yellow-headed Blackbird ( <i>Xanthocephalus xanthocephalus</i> ); Black Tailed Prairie Dog ( <i>Cynomys ludovicianus</i> ).	Creek and adjacent riparian area with cottonwoods; grasslands.
UPDATED	28	Diamond Lake Outlet	X			<b>Black Swift (<i>Cypseloides niger</i>)</b>	High-elevation waterfall and adjacent granite rock ledges.
UPDATED	29	Chittenden Meadows		X	X	Rare Butterfly concentration; Avian and Small Mammal biodiversity; Elk ( <i>Cervus elaphus</i> ) concentration; White-tailed Ptarmigan ( <i>Lagopus leucura</i> ); White-winged Crossbill ( <i>Loxia leucoptera</i> ); Boreal Owl ( <i>Aegolius funereus</i> ); Brewer's Sparrow ( <i>Spizella breweri</i> ); Northern Flicker ( <i>Colaptes auratus</i> ); Northern Goshawk ( <i>Accipiter gentilis</i> ); Golden-crowned Kinglet ( <i>Regulus satrapa</i> ); Fox Sparrow ( <i>Passerella iliaca</i> ); Wilson's Warbler ( <i>Cardellina pusilla</i> ); American Three-toed Woodpecker ( <i>Picoides dorsalis</i> ); Rock Wren ( <i>Salpinctes obsoletus</i> ); Pika ( <i>Ochotona princeps</i> ); Uinta Chipmunk ( <i>Neotamias umbrinus</i> ); Northern Pocket Gopher ( <i>Thomomys talpoides</i> )	Old-growth Engelmann spruce, subalpine fir forests and subalpine willow carr along with krummholz and alpine tundra.

# Critical Wildlife Habitat

Status	CWH #	Name	SSC Habitat	Sig. Conc. Area	High Biodiv	Known Wildlife Species Occurrence	Habitat Description (Physical Habitat Features)
UPDATED	30	Arapaho Ranch - Tucker Homestead		X	X	Elk ( <i>Cervus elaphus</i> ) concentration area; Brewer's Sparrow ( <i>Spizella breweri</i> ); White-tailed Ptarmigan ( <i>Lagopus leucura</i> ); White-winged Crossbill ( <i>Loxia leucoptera</i> ); Band-tailed Pigeon ( <i>Patagioenas fasciata</i> ); Northern Goshawk ( <i>Accipter gentilis</i> ); Northern Harrier ( <i>Circus cyaneus</i> ); Pine Siskin ( <i>Spinus pinus</i> ); Rocky Mountain Arctic Jutta ( <i>Oeneis jutta</i> ); Ring-Necked Duck ( <i>Aythya collaris</i> ); Golden-crowned Kinglet ( <i>Regulus satrapa</i> ); Fox Sparrow ( <i>Passerella iliaca</i> ); Avian and Small Mammal biodiversity	Montane parkland of glacial origin with mixed old-growth forest, sub-alpine willow carr, meadows, riparian woodlands and extensive wetlands. Middle Boulder Creek and North Beaver Creek run through the site.
UPDATED	31	Boulder Mountain Parks Eldorado Mountain	X			Peregrine Falcon ( <i>Falco peregrinus</i> ); Prairie Falcon ( <i>Falco mexicanus</i> ); Golden Eagle ( <i>Aquila chrysaetos</i> ); Flammulated Owl ( <i>Otus flammeus</i> ); Townsend's Big Eared Bat ( <i>Corynorhinus townsendii</i> ); Fringed Myotis ( <i>Myotis thysanodes</i> ); Big Brown Bat ( <i>Eptesicus fuscus</i> ); Little Brown Myotis ( <i>Myotis lucifugas</i> ); Hops Feeding Azure ( <i>Clestina humulus</i> ); Three-toed Woodpecker ( <i>Picoides dorsalis</i> ); Ringtail ( <i>Bassariscus astutus</i> ); Virginia's Warbler ( <i>Oreothlypis virginiae</i> ); Plumbeous Vireo ( <i>Vireo plumbeus</i> ); Pine Siskin ( <i>Spinus pinus</i> )	Tilted sandstone cliffs and rock outcrops, commonly called the Flatirons that provide suitable ledges and crevices for nesting raptors.
UPDATED	35	Lost Lake	X			Rocky Mountain Capshell ( <i>Acroloxus coloradensis</i> )	Subalpine lake with perimeter wetlands and bordered by subalpine forests.
UPDATED	36	Carolyn Holmberg Preserve at Rock Creek Farm	X			Burrowing Owl ( <i>Athene cunicularia</i> ); Black Tailed Prairie Dog ( <i>Cynomys ludovicianus</i> ); Ord's Kangaroo Rat ( <i>Dipodomys ordii</i> )	Prairie Dog colony and associated grassland.
UPDATED	37	Sombrero Marsh			X	Black-Crowned Night Heron ( <i>Nycticorax nycticorax</i> ); Great Blue Heron ( <i>Ardea herodias</i> ); Chorus Frog ( <i>Pseudacris triseriata</i> ); Yellow-headed Black Bird ( <i>Xanthocephalus xanthocephalus</i> )	Sombrero Marsh is one of two naturally occurring playas in Boulder County (shallow with no outflow and fed primarily by drainage and groundwater); Includes wetland vegetation around perimeter.
UPDATED	38	Lazy H. Ranch Willow Carr	X		X	Avian and Small Mammal biodiversity; American Beaver ( <i>Castor canadensis</i> )	Montane willow carr. Vegetation is dominated by willow shrubs, alder, birch, sedges and grasses. Rock Creek flows through site. <u>Active beaver colony and associated ponds.</u>

# Critical Wildlife Habitat

Status	CWH #	Name	SSC Habitat	Sig. Conc. Area	High Biodiv	Known Wildlife Species Occurrence	Habitat Description (Physical Habitat Features)
UPDATED	39	Coney Flats Willow Carr			X	Avian and Small Mammal biodiversity	Subalpine willow carr. Vegetation is dominated by willow and birch shrubs along with sedges and grasses. Coney Creek flows through site.
UPDATED	40	Mitchell Lake Willow Carr			X	Avian and Small Mammal biodiversity	Subalpine willow carr. Vegetation is dominated by willow and birch shrubs along with sedges and grasses.
UPDATED	41	Coney Lake Willow Carr			X	Avian and Small Mammal biodiversity	Subalpine willow carr. Vegetation is dominated by willow and birch shrubs along with sedges and grasses. This willow carr is situated between 2 lakes - Coney Lake and Upper Coney Lake.
UPDATED	42	Long Lake Willow Carr			X	Avian and Small Mammal biodiversity	Subalpine willow carr. Vegetation is dominated by willow and birch shrubs along with sedges and grasses. The willow carr are situated between Long Lake and Lake Isabelle and northeast of Long Lake.
UPDATED	43	South St. Vrain Willow Carr			X	Avian and Small Mammal biodiversity	Subalpine willow carr. Vegetation is dominated by willow and birch shrubs along with sedges and grasses.
UPDATED	44	Letthand Reservoir Willow Carr			X	Avian and Small Mammal biodiversity	Subalpine willow carr. Vegetation is dominated by willow and birch shrubs along with sedges and grasses. Willow carr is on southwest border of Left Hand Park Reservoir.
UPDATED	45	Boulder Watershed Willow Carr			X	Avian and Small Mammal biodiversity	Subalpine willow carr. Vegetation is dominated by willow and birch shrubs along with sedges and grasses. North Boulder Creek flows through area.
UPDATED	46	Lake Albion Willow Carr			X	Avian and Small Mammal biodiversity	Subalpine willow carr. Vegetation is dominated by willow and birch shrubs along with sedges and grasses. Small ponds exists within willow carr and North Boulder Creek flows through.
UPDATED	47	Triple Lakes Willow Carr			X	Avian and Small Mammal biodiversity	Subalpine willow carr. Vegetation is dominated by willow and birch shrubs along with sedges and grasses. Willow carr is on north, west and south sides of Triple Lakes.
UPDATED	53	Woodland Flats Willow Carr	X		X	Avian and Small Mammal biodiversity; American Beaver ( <i>Castor canadensis</i> )	Subalpine willow carr. Vegetation is dominated by willow and birch shrubs along with sedges and grasses. Site contains active beaver colony and associated ponds. Jasper Creek flows through site.
UPDATED	54	Buckeye Basin Willow Carr	X		X	Avian and Small Mammal biodiversity; American Beaver ( <i>Castor canadensis</i> )	Subalpine willow carr. Vegetation is dominated by willow and birch shrubs along with reedgrass, sedges and grass. Site contains active beaver colony and associated ponds.
UPDATED	55	Los Lagos Willow Carr	X		X	Avian and Small Mammal biodiversity; American Beaver ( <i>Castor canadensis</i> )	Montane willow carr. Vegetation is dominated by willow, birch and alder shrubs along with sedges and grasses. Beaver Creek flows through site. Site contains active beaver colony and associated ponds.
UPDATED	56	Roaring Fork Willow Carr	X		X	Avian and Small Mammal biodiversity; American Beaver ( <i>Castor canadensis</i> )	Montane willow carr. Vegetation is dominated by willow, birch and alder shrubs along with sedges and grasses. Roaring Fork Creek flows through the site. Site contains active beaver colony and associated ponds.

# Critical Wildlife Habitat

Status	CWH #	Name	SSC Habitat	Sig. Conc. Area	High Biodiv	Known Wildlife Species Occurrence	Habitat Description (Physical Habitat Features)
UPDATED	57	Peterson Lake	X			Rocky Mountain Capshell ( <i>Acroloxus coloradensis</i> )	Sub-alpine lake with wetland on west end, county road on north side and coniferous forest on south side.
UPDATED	58	Hunters Creek	X			Greenback Cutthroat Trout ( <i>Oncorhynchus clarki</i> )	Sub-alpine stream.
NEW	59	Geer Canyon	X			Prairie Falcon ( <i>Falco mexicanus</i> ); Fringed Myotis ( <i>Myotis thysanodes</i> , maternity and foraging habitat); Western Small-footed Myotis ( <i>Myotis ciliolabrum</i> , maternity habitat)	Cliff faces and Ponderosa pine woodland.
NEW	60	Caribou Ranch Montane Parkland	X	X	X	Elk ( <i>Cervus elaphus</i> ) calving, winter and transitional range; Bat maternity roosts and hibernaculum (multiple species); American Beaver ( <i>Castor canadensis</i> ); White-tailed Ptarmigan ( <i>Lagopus leucura</i> ); Boreal Owl ( <i>Aegolius funereus</i> ); White-winged Crossbill ( <i>Loxia leucoptera</i> ); Band-tailed Pigeon ( <i>Patagioenas fasciata</i> ); Northern Goshawk ( <i>Accipiter gentilis</i> ); Northern Harrier ( <i>Circus cyaneus</i> ); Pine Siskin ( <i>Spinus pinus</i> ); Rocky Mountain Arctic Jutta ( <i>Oeneis jutta</i> ); Avian and Small Mammal biodiversity	Montane willow carr vegetation is dominated by willow, birch and alder shrubs along with sedges and grasses. Montane meadows, Lodgepole pine forest and Ponderosa Pine woodland, Spruce-Fir Forest and woodlands. North Boulder, Delonde and Como Creeks flow through the site with associated riparian shrubland. Several montane lakes. Site contains active beaver colony and associated ponds.
NEW	61	Barker Reservoir	X			Lake Chub ( <i>Couesius plumbeus</i> )	High elevation, montane reservoir and small, intermittent tributaries. North Beaver Creek and Middle Boulder Creek flow through the site.
NEW	62	Beaver Reservoir	X			Lake Chub ( <i>Couesius plumbeus</i> ); River Otter ( <i>Lontra canadensis</i> ) core habitat; American Beaver ( <i>Castor canadensis</i> )	High elevation, sub-alpine reservoir. Beaver Creek flows through site.
NEW	63	Goose Pond	X			Northern Leopard Frog ( <i>Rana pipiens</i> )	Ponds, associated wetlands and drainages, as well adjacent agricultural areas.

# Critical Wildlife Habitat

Status	CWH #	Name	SSC Habitat	Sig. Conc. Area	High Biodiv	Known Wildlife Species Occurrence	Habitat Description (Physical Habitat Features)
NEW	64	Southern Grasslands	X	X		Bald Eagle ( <i>Haliaeetus leucocephalus</i> ); Northern Leopard Frog ( <i>Rana pipiens</i> ); Chorus Frog ( <i>Pseudacris triseriata</i> ); Burrowing Owl ( <i>Athene cunicularia</i> ); Black Tailed Prairie Dog ( <i>Cynomys ludovicianus</i> ); Regal Fritillary ( <i>Speyeria idalia</i> ); Grasshopper Sparrow ( <i>Ammodramus savannarum</i> ); American Badger ( <i>Taxidea taxus</i> ); Golden Eagle ( <i>Aquila chrysaetos</i> ); Ferruginous Hawk ( <i>Buteo regalis</i> ); Tiger Salamander ( <i>Ambystoma tigrinum</i> ); American Badger ( <i>Taxidea taxus</i> ); Short-horned lizard ( <i>Phrynosoma hernandesi</i> )	Mixedgrass prairie. Coal Creek and associated riparian corridor flows through site. Several ponds and intermittent streams.
NEW	65	Kenosha Wetlands			X	Yellow-headed Black Bird ( <i>Xanthocephalus xanthocephalus</i> ); American Avocet ( <i>Recurvirostra americana</i> ); American Bittern ( <i>Botaurus lentiginosus</i> ); Bald Eagle ( <i>Haliaeetus leucocephalus</i> ); Black-Crowned Night Heron ( <i>Nycticorax nycticorax</i> ); Double-crested Cormorant ( <i>Phalacrocorax auritus</i> ); Golden Eagle ( <i>Aquila chrysaetos</i> ); Great Blue Heron ( <i>Ardea herodias</i> ); Northern Harrier ( <i>Circus cyaneus</i> ); Ring-Necked Duck ( <i>Aythya collaris</i> ); Wood Duck ( <i>Aix sponsa</i> ); Avian biodiversity.	Rare, large, man-made wetland in eastern County, including riparian and shoreline habitats.
NEW	66	Two Creeks	X			Burrowing Owl ( <i>Athene cunicularia</i> ); Black Tailed Prairie Dog ( <i>Cynomys ludovicianus</i> )	Shortgrass and mixed grass prairie habitat and several intermittent streams.
NEW	67	Cony Creek	X			Greenback Cutthroat Trout ( <i>Oncorhynchus clarki</i> ); Rocky Mountain Capshell ( <i>Acroloxus coloradensis</i> )	Alpine Cony Creek, and associated lakes and reservoirs.
NEW	68	Ouzel Creek	X			Greenback Cutthroat Trout ( <i>Oncorhynchus clarki</i> ); Black Swift ( <i>Cypseloides niger</i> )	Alpine creek and associated lake and pond.
NEW	69	Sandbeach Creek	X			Greenback Cutthroat Trout ( <i>Oncorhynchus clarki</i> )	High-elevation mountain stream flowing through mixed conifer forests of subalpine and upper montane. Old-growth Limber pine.
NEW	70	Peewink Mountain	X			Townsend's Big-eared Bat ( <i>Corynorhinus townsendii</i> ) maternity roost	Accessible mine shafts, Ponderosa pine woodland and Lodgepole pine forest.

# Critical Wildlife Habitat

Status	CWH #	Name	SSC Habitat	Sig. Conc. Area	High Biodiv	Known Wildlife Species Occurrence	Habitat Description (Physical Habitat Features)
NEW	71	Red Hill Gulch	X	X	X	Golden Eagle ( <i>Aquila chrysaetos</i> ); Long-eared Owl ( <i>Asia otus</i> ); Northern Goshawk ( <i>Accipter gentilis</i> ); Rare Butterfly concentration; Avian <u>biodiversity</u>	Cliff faces, shrublands, wet meadow, intermittent streams and grasslands.
NEW	72	Antelope Park	X			Black Tailed Prairie Dog ( <i>Cynomys ludovicianus</i> ; highest elevation colony and <u>critical raptor foraging area</u> )	Grasslands.
NEW	73	North Saint Vrain Canyon	X	X	X	Rocky Mountain Bighorn Sheep ( <i>Ovis canadensis canadensis</i> ) concentration area; Golden Eagle ( <i>Aquila chrysaetos</i> ); Lake Chub ( <i>Couesius plumbeus</i> ; CO re-discovery); Bald Eagle ( <i>Haliaeetus leucocephalus</i> ); Prairie Falcon ( <i>Falco mexicanus</i> ); Olive-sided Flycatcher ( <i>Contopus cooperi</i> ); Northern Goshawk ( <i>Accipter gentilis</i> ); Northern Harrier ( <i>Circus cyaneus</i> ); Flammulated Owl ( <i>Otus flammeolus</i> ); American Three-toed Woodpecker ( <i>Picoides dorsalis</i> ); North American Porcupine ( <i>Erethizon dorsatum</i> ); Golden-crowned Kinglet ( <i>Regulus satrapa</i> ); American Beaver ( <i>Castor canadensis</i> ); Lazuli Bunting ( <i>Passerina amoena</i> ); American Dipper ( <i>Cinclus mexicanus</i> ); Belted Kingfisher ( <i>Megaceryle alycon</i> ); Virginia's Warbler ( <i>Oreothlypis virginiae</i> ); Wilson's Warbler ( <i>Cardellina pusilla</i> ); Northern Pocket Gopher ( <i>Thomomys talpoides</i> )	Varied, rugged terrain with multiple cliff faces and other rocky habitat features. Expansive, functional Foothills watershed. Rock Creek, North Saint Vrain Creek, Coulson Gulch and several other perennial and intermittent streams flow through the site, with associated riparian, wet meadow and shrubland habitat. Active beaver ponds. Endemic shrubland including bitterbrush, mountain muhly and old growth ponderosa pine. Large, unfragmented expanses of Ponderosa pine woodlands, Lodgepole pine forest and other mixed conifer forest.
NEW	74	Hat Rock	X			Prairie Falcon ( <i>Falco mexicanus</i> )	Rocky cliff faces.
NEW	75	Ingersoll Quarry	X			Long-legged Myotis ( <i>Myotis volans</i> , critical water source); Tiger Salamander ( <i>Ambystoma tigrinum</i> ); Northern Goshawk ( <i>Accipter gentilis</i> ); Long-eared Myotis ( <i>Myotis evotis</i> , critical water source, maternity colonies); Tiger Salamander ( <i>Ambystoma tigrinum</i> ); Townsend's Big-eared Bat ( <i>Corynorhinus townsendii</i> ); Fringed Myotis ( <i>Myotis thysanodes</i> ), Western Small-footed Myotis ( <i>Myotis ciliolabrum</i> ), Hoary Bat ( <i>Lasiurus cinereus</i> ); Silver-haired bat ( <i>Lasionycteris noctivagans</i> )	Montane quarry pond.

# Critical Wildlife Habitat

Status	CWH #	Name	SSC Habitat	Sig. Conc. Area	High Biodiv	Known Wildlife Species Occurrence	Habitat Description (Physical Habitat Features)
NEW	76	South Draw	X	X		Golden Eagle ( <i>Aquila chrysaetos</i> ); Northern Goshawk ( <i>Accipiter gentilis</i> ); Flammulated Owl ( <i>Otus flammeus</i> ); Mottled Duskywing ( <i>Erynnis martialis</i> )	Juxtaposition of several productive habitat types, unfragmented and wilderness-like region. Rocky cliff faces and old growth forest covered with Ponderosa Pine woodland and mixed conifer forest. Includes portions of South Boulder Creek, as well as perennial Johnson Gulch and South Draw streams.
NEW	77	Hodgson-Harris Reservoir	X			Northern Leopard Frog ( <i>Rana pipiens</i> ); American Avocet ( <i>Recurvirostra americana</i> )	Small reservoir with mudflats and adjacent low-emergent vegetation.
NEW	78	Buffalo Gulch and Rock Creek	X			Northern Leopard Frog ( <i>Rana pipiens</i> )	Perennial Rock Creek and Buffalo Gulch Creek and adjacent riparian habitat containing dispersed areas of low emergent vegetation and shrubs, as well as grassland areas around creeks.
NEW	79	Bear and Aspen Canyons	X			Flammulated Owl ( <i>Otus flammeus</i> ); Plumbeous Vireo ( <i>Vireo plumbeus</i> ); Pine Siskin ( <i>Spinus pinus</i> ); Virginia's Warbler ( <i>Oreothlypis virginiae</i> ); Rock Wren ( <i>Salpinctes obsoletus</i> )	Foothills drainage adjacent to Bear Canyon Creek containing mixed conifer forest and woodland.
NEW	80	Giggey Lake	X		X	Sharp Sprite ( <i>Promenetus exacuouus</i> ); Umbilicate Sprite ( <i>Promenetus umbilicatellus</i> ); Chorus Frog ( <i>Pseudacris triseriata</i> ); Tiger Salamander ( <i>Ambystoma tigrinum</i> ); Avian biodiversity; Historical occurrence of Boreal Toad ( <i>Anaxyrus boreas</i> )	Montane lake, riparian shrubland and wet meadow.
NEW	81	Hall 2	X		X	Moss's Elfin ( <i>Callophrys mossii</i> ); Lazuli Bunting ( <i>Passerina amoena</i> ); Northern Flicker ( <i>Colaptes auratus</i> ); Plumbeous Vireo ( <i>Vireo plumbeus</i> ); Rock Wren ( <i>Salpinctes obsoletus</i> ); Virginia's Warbler ( <i>Oreothlypis virginiae</i> ); Wilson's Warbler ( <i>Cardellina pusilla</i> ); Northern Leopard Frog ( <i>Rana pipiens</i> ); Tiger Salamander ( <i>Ambystoma tigrinum</i> ); Avian biodiversity; Brewer's Sparrow ( <i>Spizella Breweri</i> ); Small-footed Myotis ( <i>Myotis ciliolabrum</i> ); large mammal biodiversity	Diverse and rugged montane shrub habitat and Ponderosa pine woodland following two drainages containing juniper and several fruiting shrubs.
NEW	82	B.L.I.P. Ponds and Lapin Pond	X			Plains Topminnow ( <i>Fundulus sciadicus</i> )	Two man-made ponds, both fed by separate intermittent streams; includes surrounding riparian and shrubland areas.

# Critical Wildlife Habitat

Status	CWH #	Name	SSC Habitat	Sig. Conc. Area	High Biodiv	Known Wildlife Species Occurrence	Habitat Description (Physical Habitat Features)
NEW	83	Geer Meadows		X		Elk ( <i>Cervus elaphus</i> ) concentration; Dusted Skipper ( <i>Atrytonopsis hianna</i> ); American Marten ( <i>Martes americana</i> ); Butterfly concentration	Ponderosa woodland with open meadows, grassland areas and shrublands.
NEW	84	Red Hill	X	X	X	Elk ( <i>Cervus elaphus</i> ) concentration; Large Mammal biodiversity; High Avian biodiversity; Rare Butterfly concentration; Arogos Skipper ( <i>Atrytone arogos</i> ); Dusted Skipper ( <i>Atrytonopsis hianna</i> ); Horned Lark ( <i>Eremophila alpestris</i> ); Western Scrub-Jay ( <i>Aphelocoma californica</i> ); Lazuli Bunting ( <i>Passerina amoena</i> )	Large, contiguous shrub communities, shortgrass prairie, and Ponderosa pine woodlands. Several intermittent streams and riparian corridors.
NEW	85	Coffin Top Mountain	X			Townsend's Big Eared Bat ( <i>Corynorhinus townsendii</i> , maternity site)	Ponderosa pine woodlands and rocky outcroppings.
NEW	86	Powers March	X			Northern Harrier ( <i>Circus cyaneus</i> ); Least Bittern ( <i>Ixobrychus exilis</i> )	Large wetland embedded in agricultural area. Water source (apparently) via un-named channel connecting to Coal Creek.
NEW	87	Quicksilver	X			Bald Eagle ( <i>Haliaeetus leucocephalus</i> ); Black Tailed Prairie Dog ( <i>Cynomys ludovicianus</i> )	Riparian zone along St. Vrain Creek consisting of large cottonwoods; grassland and horse pasture.
NEW	88	Gunbarrel Hill	X		X	Grasshopper Sparrow ( <i>Ammodramus savannarum</i> ); Burrowing Owl ( <i>Athene cunicularia</i> ); Black Tailed Prairie Dog ( <i>Cynomys ludovicianus</i> ); Ferruginous Hawk ( <i>Buteo regalis</i> ); Golden Eagle ( <i>Aquila chrysaetos</i> )	Restored shortgrass prairie intermixed with agriculture.
NEW	89	South Boulder Creek Floodplain and Terrace	X			Bobolink ( <i>Dolichonyx oryzivorus</i> ); Northern Leopard Frog ( <i>Rana pipiens</i> ); Chorus frog ( <i>Pseudacris triseriata</i> ); Tiger Salamander ( <i>Ambystoma tigrinum</i> ); Two-spotted Skipper ( <i>Euphyes bimacula</i> ); Plains Topminnow ( <i>Fundulus sciadicus</i> ); Northern Harrier ( <i>Circus cyaneus</i> ); Preble's Meadow Jumping Mouse ( <i>Zapus hudsonius preblei</i> )*	South Boulder Creek, including riparian habitat of cottonwood and willows, adjacent wet meadows, small ponds, irrigated flood terrace hayfields and vegetated ditches.

# Critical Wildlife Habitat

Status	CWH #	Name	SSC Habitat	Sig. Conc. Area	High Biodiv	Known Wildlife Species Occurrence	Habitat Description (Physical Habitat Features)
NEW	90	North Boulder Grasslands	X		X	Grasshopper Sparrow ( <i>Ammodramus savannarum</i> ); Black Tailed Prairie Dog ( <i>Cynomys ludovicianus</i> ); Ottoe Skipper ( <i>Hesperia otteo</i> ); Arogos Skipper ( <i>Atrytone aragos</i> ); Cross-line Skipper ( <i>Polites origenes</i> ); Dusted Skipper ( <i>Atrytonopsis hianna</i> ); Rock Wren ( <i>Salpinctes absoletus</i> ); Indigo Bunting ( <i>Passerina cyenea</i> ); Lazuli Bunting ( <i>Passerina amoena</i> ); Milk Snake ( <i>Lampropeltis triangulum</i> )	Mixedgrass prairie, adjacent hogbacks and intermittent stream drainages.
NEW	91	Bummer's Gulch	X			Fence Lizard ( <i>Sceloporus undulatus</i> ; rare type); Grey Fox ( <i>Urocyon cinereoargenteus</i> ) <b>concentration area</b>	South facing aspect interspersed with rocky outcrops, Ponderosa pine and shrublands.
NEW	92	Kenosha Heronry	X	X		<b>Great Blue Heron (<i>Ardea herodias</i>)</b>	Riparian woodland and shrubland along Boulder Creek.
NEW	93	Peewink Mountain Elk Herd		X		Elk ( <i>Cervus elaphus</i> ) and other migratory species	
NEW	94	North Foothills Elk Herd		X		Elk ( <i>Cervus elaphus</i> ) and other migratory species	
NEW	95	Winiger Ridge Elk Herd		X		Elk ( <i>Cervus elaphus</i> ) and other migratory species	
NEW	96	Upper Caribou Park Willow Carr Complex	X		X	Avian and Small Mammal biodiversity; American Beaver ( <i>Castor canadensis</i> )	Subalpine willow carr. Vegetation is dominated by willow and birch shrubs along with sedges and grasses. Site contains active beaver colony and associated ponds. An unnamed perennial stream flows through all willow carrs in this area, and site contains numerous small ponds.

# Critical Wildlife Habitat

**Critical Wildlife Habitats DELETED or SUBSUMED by other CWH's in the 2013 update.**

Status	CWH #	Name	SSC Habitat	Sig. Conc. Area	High Biodiv	Known Wildlife Species Occurrence	Habitat Description (Physical Habitat Features)
SUBSUMED	1	Ouzel Falls	X			Black Swift	Black swift nesting site
SUBSUMED	3	South Sheep Mountain	X			Golden Eagle	Nest site for Golden Eagle. North facing rock ledge on large granite massif.
SUBSUMED	6	St. Vrain Creek (stream channel)	X			American Dipper, Common Shiner, Johnny Darter, Bigmouth Shiner	Important aquatic habitat for native fishes of Colorado Front Range, as well as many other species
DELETED	9	Old Apple Valley	X			American Redstart, Cedar Waxwing	Riparian scrub/shrub habitat.
SUBSUMED	18	B-J Acres	X			Bald Eagle	
DELETED	22	Boulder Valley Ranch	X			Prairie Dog, Burrowing Owl, American Bittern	Prairie dog colony used by Burrowing Owl
DELETED	24	Cottonwood Grove on Boulder Creek	X				Riparian habitat along Boulder Creek
SUBSUMED	32	South Boulder Creek	X		X	Bobolink ( <i>Dolichonyx oryzivorus</i> ); Northern Leopard Frog ( <i>Rana pipiens</i> ); Chorus frog ( <i>Pseudacris triseriata</i> ); Tiger Salamander ( <i>Ambystoma tigrinum</i> ); Two-spotted Skipper ( <i>Euphyes bimaculata</i> ); Plains Topminnow ( <i>Fundulus sciadicus</i> )	Riparian habitat and adjacent wet meadows that provide habitat for several rare and restricted species
SUBSUMED	33	Tallgrass Prairie	X			Bobolink, Northern Leopard Frog, Chorus frog, Tiger Salamander, Two-spotted skipper, Plains Top Minnow	Tallgrass prairie
DELETED	34	Marshall Mesa	X			Grasshopper Sparrow	Native prairie
DELETED	35	Stearn's Lake	X				
SUBSUMED	48	Horseshoe Creek Willow Carr			X	Avian & Small Mammal Biodiversity	Sub-alpine willow carr and Horseshoe Creek.
SUBSUMED	49	Caribou Park Willow Carr	X		X	Avian & Small Mammal Biodiversity; Beaver	Sub-alpine willow carr and Caribou Creek.
SUBSUMED	50	Upper Caribou Park Willow Carr			X	Avian & Small Mammal Biodiversity	Sub-alpine willow carr and Caribou Creek.
SUBSUMED	51	Delonde Creek Willow Carr			X	High Avian Biodiversity	Sub-alpine willow carr and Caribou Creek.
SUBSUMED	52	Caribou Ranch Willow Carr			X	High Avian Biodiversity	Sub-alpine willow carr and Caribou Creek.

\* The Preble's Meadow Jumping Mouse is a Federally THREATENED species, protected under the Endangered Species Act, and is treated as a special case for Boulder County Critical Wildlife Habitat. Please refer to the Preble's Meadow Jumping Mouse - Habitat Conservation Areas Map in the Environmental Resources Element of the Boulder County Comprehensive Plan



## Criteria for Designating Plant Species of Special Concern and Significant Natural Communities

As described in the recently updated Goals and Policies of the Environmental Resources Elements (the ERE) of the Boulder County Comprehensive Plan, Species of Special Concern include the flora and fauna in the county whose populations may be threatened or endangered, locally rare, experiencing long-term non-cyclical population declines, isolated or restricted to distinct local habitat types, or native species which have ceased to exist within Boulder County. As provided for in Goal B.2 of the ERE, the Boulder County Species of Special Concern List (SSC List) includes this compilation of rare plants and significant natural communities of special status that warrant protection in order to prevent population or habitat loss. The list was developed through consultation with botany and plant ecology professionals in federal, state, and local governmental agencies, non-governmental conservation organizations, local universities, and private consultants, as well as Boulder County conservation experts. The majority of species and communities appearing on this list are recognized by the Colorado Natural Heritage Program (CNHP). CNHP is a non-profit organization sponsored by Colorado State University that tracks and ranks Colorado's rare and imperiled species and habitats. The list comprises species CNHP ranks as critically imperiled, imperiled, or vulnerable to extirpation globally (G1-G3) or statewide (S1-S3). Species ranked as more secure or secure (G4-G5, S4-S5) are excluded from the list.

The SSC List is intended to comprehensively document Boulder County species and communities as they exist today. To be listed on the SSC List, a species/community must meet at least one of the required or two or more of the conditional criteria. In some instances, a species has been included on the list even though it does not meet the SSC List criteria. This is based on professional judgment and only occurs with species for which there is presently incomplete or uncertain information available. The list will be updated as more information is learned about individual species or communities including changes to their status. Areas where these resources are known to occur or have a likelihood of occurring are illustrated on the respective maps of the Environmental Resource Element.

### Required

1. Species/Communities with Federal Status (listed or proposed threatened or endangered -- LT, LE, PT), candidates for listing -- C or under review for listing), e.g. Colorado butterfly plant (*Gaura neomexicana* ssp. *coloradensis*) – LT, G3T2/S1 (U.S. Fish and Wildlife Service 2013, CNHP 2013);
2. All G1-G2 and S1-S2 species that are not also federally listed;
3. Collectable/Harvestable: Species threatened by collection or harvest including showy varieties of orchids, lilies, penstemon, and cacti.

### Conditional

4. Species/communities with U.S. Forest Service Region 2 (USFS R2) sensitive species<sup>1</sup>, National Park Service (NPS) sensitive species within Rocky Mountain National Park (RMNP)<sup>2</sup>, or City of Boulder Open Space and Mountain Parks sensitive status;

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<sup>1</sup> This criterion acknowledges that USFS R2 boundaries extend beyond Boulder County and encompass habitats that do not occur within the county, thus not all USFS R2 sensitive species appear on the SSC List.

5. Species/communities that could occur within Boulder County and that CNHP ranks as critically imperiled, imperiled, or vulnerable to extirpation either globally (G1 – G3) or statewide (S1 – S3), e.g., autumn willow (*Salix serissima*) – G4/S1 and narrowleaf grapefern (*Botrychium neolunaria*) – G5/S3;
6. Relictual species/communities having undergone a documented long-term decline or having a critically low population size relative to their historic presence and/or relative abundance in a given ecosystem, e.g., American groundnut (*Apios americana*) – G5/S1 and big bluestem – prairie dropseed (*Andropogon gerardii* – *Sporobolus heterolepis*) – G2/S1S2;
7. Species/communities endemic to Boulder County or region<sup>3</sup>, e.g., Colorado aletes (*Aletes humilis*) – G2G3/S2S3;
8. Species/communities known or thought to be extinct or extirpated in Boulder County, i.e., species that historically occupied and are native to Boulder County, that may exist in surrounding regions, and that may be able to repopulate Boulder County, e.g., pale moonwort (*Botrychium pallidum*).
9. Species/communities whose populations in the County that are vulnerable to threats<sup>4</sup> affecting their populations either directly or indirectly, e.g. limber pine (*Pinus flexilis*);
10. Species/communities that have a disproportionately large effect on the diversity within the ecosystem(s) they inhabit e.g., montane riparian forests such as quaking aspen/thinleaf alder (*Populus tremuloides* / *Alnus incana*) forest – G3/S3;
11. Species/communities that are either naturally rare<sup>5</sup>, at the edge of their range in Boulder County, or are isolated or imperiled, e.g., black spleenwort (*Asplenium adiantum-nigrum*) – G5/S1, montane willow carrs such as *Salix bebbiana* shrubland – G3?/S2, and alkali wetlands such as *Suaeda calceoliformis* herbaceous vegetation – GU/S2;
12. Species/communities that support sensitive wildlife, e.g., Western Great Plains herbaceous vegetation (*Andropogon gerardii* – *Schizachyrium scoparium*) dominated by big and little bluestem, two native host plants for Arogos skipper (*Atrytone arogos*) – G3G4/S2.

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<sup>2</sup> This criterion acknowledges that that NPS RMNP boundaries extend beyond Boulder County and encompass habitats that do not occur within the county, thus not all NPS RMNP sensitive species appear on the SSC List.

<sup>3</sup> Species/communities endemic to Boulder County region indicates a species occurring only in Boulder County and in an adjacent county or counties.

<sup>4</sup> Direct or indirect threats to the stability of species populations or communities include disturbances such as climate change, disease, residential or commercial development, fire suppression, mechanical forest thinning, prescribed fire, etc.

<sup>5</sup> Species or communities that are “naturally rare” normally occur in low abundance throughout their range. While their populations may be stable, species that are rare on the landscape are more vulnerable to extirpation compared to species with large populations.

Boulder County Rare Plant Species and Significant Natural Communities SSC List

No.	State Scientific Name	State Common Name	CNHP Global Rank	CNHP State Rank	Federal Status (ESA)
<b>GYMNOSPERMS</b>					
1	<i>Pinus aristata</i>	bristlecone pine		SNR	
2	<i>Pinus flexilis</i>	limber pine			
<b>FERNS &amp; FERN ALLIES</b>					
1	<i>Argyrochosma fendleri</i>	Fendler's false cloak-fern	G3	S3	
2	<i>Asplenium adiantum-nigrum (A. andrewsii )</i>	black spleenwort	G5	S1	
3	<i>Botrychium campestre</i>	prairie moonwort	G3G4	S1	
4	<i>Botrychium echo</i>	reflected moonwort	G3	S3	
5	<i>Botrychium furcatum</i>	forkleaved moonwort	G1G2	S1S2	
6	<i>Botrychium furculatum</i>	redbank moonwort	G2G3	S3	
7	<i>Botrychium hesperium</i>	western moonwort	G4	S2	
8	<i>Botrychium lanceolatum var. lanceolatum</i>	lanceleaf moonwort	G5T4	S3	
9	<i>Botrychium lineare</i>	narrowleaf moonwort	G2?	S1	
10	<i>Botrychium neolunaria</i>	common moonwort	G5	S3	
11	<i>Botrychium minganense</i>	Mingan moonwort	G4	S2	
12	<i>Botrychium pallidum</i>	pale moonwort	G3	S2	
13	<i>Botrychium pinnatum</i>	northern moonwort	G4?	S1	
14	<i>Botrychium simplex</i>	least moonwort	G5	S2	
15	<i>Botrychium virginianum (Botrypus virginianus ssp. europaeus )</i>	rattlesnake fern	G5	S1	
16	<i>Dryopteris expansa</i>	spreading woodfern	G5	S1	
17	<i>Equisetum variegatum (Hippochaete variegata)</i>	variegated scouringrush	G5	S1	
18	<i>Gymnocarpium dryopteris</i>	western oakfern	G5	S2S3	
19	<i>Isoetes occidentalis</i>	western quillwort	G4G5	S1S2	
20	<i>Isoetes tenella (I.echiniospora)</i>	spiny-spore quillwort	G5?T5?	S2	
21	<i>Pellaea wrightiana</i>	Wright's cliffbrake	G5	S2	
22	<i>Polypodium saximontanum</i>	Rocky Mountain polypody	G3?	S2	
23	<i>Selaginella weatherbiana</i>	Weatherby's Spike-moss	G3G4	S3S4	
<b>NONVASCULAR</b>					
1	<i>Anacolia laevisphaera</i>	anacolia moss	G5?	S1S3	
2	<i>Anacolia menziesii</i>	Menzies' anacolia moss	G4	S1S3	
3	<i>Andreaea rupestris</i>	andreaea moss	G5	S1S3	
4	<i>Anoetangium hallii</i>				
5	<i>Aulacomnium palustre var. imbricatum</i>	aulacomnium moss	G5TNR	S1S3	
6	<i>Brachythecium hyalotapetum</i>	brachythecium moss			
7	<i>Bryoerythrophyllum ferruginascens</i>	bryoerythrophyllum moss	G3G4	S1S3	
8	<i>Bryum alpinum (Imbribryum alpinum )</i>	alpine bryum moss	G4G5	S1S3	
9	<i>Campylopus schimperi</i>	Schimper's campylopus moss	G3G4	S1S3	
10	<i>Didymodon anserinocapitatus</i>		G1	S1	
11	<i>Grimmia mollis (Hydrogrimmia mollis)</i>	grimmia dry rock moss	G3G5	S1S3	
12	<i>Grimmia teretinervis</i>	grimmia dry rock moss	G3G5	S1S3	
13	<i>Gymnomitrium corallioides</i>		G4G5	S1S3	
14	<i>Hylacomiastrum pyrenaicum</i>	hylacomiastrum moss	G4G5	S1S3	
15	<i>Hylacomium alaskanum</i>	splendid feather moss	G5	S1S3	

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16	<i>Leptopterigynandrum austro-alpinum</i>	alpine leptopterigynandrum moss	G3G5	S1S3	
17	<i>Mnium blyttii</i>	Blytt's calcareous moss	G5	S1S3	
18	<i>Nardia geoscyphus</i>		G5	S1S3	
19	<i>Oreas martiana</i>	oreas moss	G5?	S1S3	
20	<i>Plagiothecium cavifolium</i>	plagiothecium moss	G5	S1S3	
21	<i>Pleurozium schreberi</i>	Schreber's big red stem moss, feathermoss	G5	S1S3	
22	<i>Pohila tundrae</i>	Tundra pohlia moss	G2G3	S1S3	
23	<i>Ptilium crista-castrensis</i>	knights plume moss	G5	S1S3	
24	<i>Rhytidiopsis robusta</i>	robust rhytidiopsis moss			
25	<i>Rhytidiadelphus triquetrus</i>	rough goose neck moss			
26	<i>Roellia roellii</i>	Roell's moss	G4	S1S3	
27	<i>Sphagnum angustifolium</i>	sphagnum	G5	S2	
28	<i>Sphagnum contortum</i>	contorted sphagnum	G5	S1S3	
<b>MONOCOTS</b>					
1	<i>Aristida basiramea</i>	forked threeawn	G5	S1	
2	<i>Calypso bulbosa</i>	fairy slipper orchid	G5		
3	<i>Carex capitata</i> ssp. <i>arctogena</i>	capitate sedge	G5T4?	S1	
4	<i>Carex conoidea</i>	openfield sedge	G5	S1	
5	<i>Carex crawei</i>	Crawe's sedge	G5	S1	
6	<i>Carex diandra</i>	lesser paniced sedge	G5	S1	
7	<i>Carex lasiocarpa</i>	whollyfruit sedge	G5	S1	
8	<i>Carex limosa</i>	mud sedge	G5	S2	
9	<i>Carex livida</i>	livid sedge	G5	S1	
10	<i>Carex sartwellii</i>	Sartwell's sedge	G4G5	S1	
11	<i>Carex saximontana</i>	Rocky Mountain sedge	G5	S1	
12	<i>Carex sprengeii</i>	Sprengel's sedge	G5?	S2	
13	<i>Carex torreyi</i>	Torrey sedge	G4	S1	
14	<i>Cypripedium parviflorum</i> ( <i>C. calceolus</i> ssp. <i>parviflorum</i> )	lesser yellow lady's slipper	G5	S2	
15	<i>Cypripedium fasciculatum</i>	clustered lady's slipper	G4	S3S4	
16	<i>Cypripedium parviflorum</i> var. <i>pubescens</i>	greater yellow lady's slipper	G5	S2	
17	<i>Dichanthelium acuminatum</i> var. <i>sericeum</i>	Pacific panicgrass	G5TNR	S1	
18	<i>Eriophorum gracile</i>	slender cottongrass	G5	S1	
19	<i>Juncus biglumis</i>	twoflowered rush	G5	S3	
20	<i>Juncus brachycephalus</i>	smallhead rush	G5	S1	
21	<i>Juncus tweedyi</i> ( <i>J. brevicaudatus</i> )	Tweedy's rush	G3Q	S1	
22	<i>Juncus vaseyi</i>	Vasey's rush	G5?	S1	
23	<i>Kobresia simpliciuscula</i>	simple bog sedge	G5	S2	
24	<i>Lilium philadelphicum</i>	wood lily	G5	S3S4	
25	<i>Listera borealis</i>	northern twayblade	G4	S2	
26	<i>Listera convallarioides</i>	broadlipped twayblade	G5	S2	
27	<i>Luzula subcapitata</i>	Colorado wood-rush	G3?	S3	
28	<i>Malaxis brachypoda</i> ( <i>M. monophyllos</i> ssp. <i>brachypoda</i> )	white adder's-mouth orchid	G4Q	S1	

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29	<i>Phippsia algida</i>	icegrass	G5	S2	
30	<i>Potamogeton praelongus</i>	whitestem pondweed	G5	SNR	
31	<i>Ruppia cirrhosa</i>	spiral ditchgrass	G5	SNR	
32	<i>Schizachne purpurascens</i>	false melic, purple oat	G5	SNR	
33	<i>Sisyrinchium pallidum</i>	pale blue-eyed grass	G2G3	S2	
34	<i>Smilax lasioneu ra</i>	Blue Ridge carrionflower	G5	S3S4	
35	<i>Spiranthes diluvialis</i>	Ute ladies'-tresses	G2G3	S2	LT
<b>DICOTS</b>					
1	<i>Aletes humilis</i>	Colorado aletes	G2G3	S2S3	
2	<i>Amorpha nana</i>	dwarf leadplant	G5	S1S2	
3	<i>Apios americana</i>	American groundnut	G5	S1	
4	<i>Aquilegia saximontana</i>	Rocky Mountain blue columbine	G3	S3	
5	<i>Artemisia pattersonii</i>	Patterson's wormwood	G3G4	S1S2	
6	<i>Artemisia tridentata</i> ssp. <i>vaseyana</i> ( <i>Seriphidium vaseyanum</i> )	Mountain sagebrush	G5	SNR	
7	<i>Asclepias stenophylla</i>	narrow-leaved milkweed	G4G5	S2	
8	<i>Astragalus sparsiflorus</i>	Front Range milkvetch	G3?	S3?	
9	<i>Castilleja puberula</i>	shortflower Indian paintbrush, downy indian-paintbrush	G2G3	S2S3	
10	<i>Crataegus chrysocarpa</i>	fireberry, yellow hawthorn	G5	S1	
11	<i>Draba crassa</i>	thickleaf draba	G3	S3	
12	<i>Draba exungiculata</i>	clawless draba	G2	S2	
13	<i>Draba fladnizensis</i>	Austrian draba, arctic draba	G4	S2S3	
14	<i>Draba grayana</i>	Gray's draba	G2	S2	
15	<i>Draba porsildii</i>	Porsild's draba	G3G4	S1	
16	<i>Draba streptobrachia</i>	alpine tundra draba	G3	S3	
17	<i>Drymaria effusa</i> var. <i>depressa</i>	pinewoods drymary, spreading drymaria	G4T4	S1	
18	<i>Eustoma exaltatum</i> ssp. <i>russellianum</i> ( <i>Eustoma grandiflorum</i> )	showy prairie gentian	G5	S3S4	
19	<i>Gaura neomexicana</i> ssp. <i>coloradensis</i>	Colorado butterfly plant	G3T2	S1	LT
20	<i>Liatris ligulistylis</i>	Rocky Mountain blazing star, gay-feather	G5?	S1	
21	<i>Machaeranthera coloradoensis</i>	Colorado tansyaster	G3	S3	
22	<i>Mentzelia sinuata</i> ( <i>Nuttallia sinuata</i> ), ( <i>Nuttallia multiflora</i> )	leechleaf blazingstar, wavy-leaf stickleaf	G3	S3	
23	<i>Mimulus gemmiparus</i>	Rocky Mountain monkeyflower, budding monkeyflower	G1	S1	C
24	<i>Packera debilis</i>	weak groundsel	G4	S1	
25	<i>Papaver radicum</i> ssp. <i>kluanense</i> ( <i>P. kluanense</i> , <i>P. lapponicum</i> ssp. <i>occidentale</i> )	rooted poppy, alpine poppy	G5T3T4	S3S4	
26	<i>Parnassia kotzebuei</i>	Kotzebue's grass of parnassus	G5	S2	
27	<i>Pediocactus simpsonii</i>	mountain ball cactus	G4		
28	<i>Penstemon harbourii</i>	Harbour's beardtongue	G3G4	S3S4	
29	<i>Phacelia denticulata</i>	Rocky Mountain phacelia	G3	SNR	
30	<i>Physaria bellii</i>	Bell's twinpod	G2G3	S2S3	
31	<i>Physaria bellii</i> x <i>vitulifera</i>	twinpod hybrid	G1Q	S1	

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32	<i>Potentilla ambigens</i>	silkyleaf cinquefoil	G3	S1S2	
33	<i>Potentilla rupincola</i> ( <i>P. effusa</i> var. <i>rupincola</i> )	rock cinquefoil	G2	S2	
34	<i>Pyrola picta</i>	whiteveined wintergreen, pictureleaf wintergreen	G4G5	S3S4	
35	<i>Ranunculus gelidus</i> ssp. <i>grayi</i> ( <i>R. karelinii</i> )	ice cold buttercup, tundra buttercup	G4G5	S2	
36	<i>Salix candida</i>	sageleaf willow	G5	S2	
37	<i>Salix serissima</i>	autumn willow	G4	S1	
38	<i>Telesonix jamesii</i>	James' telesonix	G2	S2	
39	<i>Thelypodium sagittatum</i>	arrow thelypody	G4	S1	
40	<i>Tonestus lyallii</i>	Lyall's goldenweed	G5	S1?	
41	<i>Utricularia minor</i>	lesser bladderwort	G5	S2	
42	<i>Utricularia ochroleuca</i>	yellowishwhite bladderwort	G4?	S1?	
43	<i>Viola pedatifida</i>	prairie violet	G5	S1	
44	<i>Viola selkirkii</i>	Selkirk's violet	G5?	S1	
<b>SIGNIFICANT NATURAL COMMUNITIES</b>					
1	<i>Abies lasiocarpa</i> Moss Forest	Subalpine Forest	G4	S2?	
2	<i>Achnatherum hymenoides</i> Shale Barren Herbaceous Vegetation	Western Slope Grassland	G2	S2	
3	<i>Alnus incana</i> / <i>Equisetum arvense</i> Shrubland	Montane Riparian Shrubland	G3	S3	
4	<i>Alnus incana</i> / Mesic Forbs Shrubland	Thinleaf Alder/Mesic Forb Riparian Shrubland	G3	S3	
5	<i>Alnus incana</i> / Mesic Graminoids	Montane Riparian Shrubland	G3	S3	
6	<i>Alnus incana</i> - <i>Salix</i> ( <i>monticola</i> , <i>lucida</i> , <i>ligulifolia</i> ) Shrubland	Thinleaf Alder-Mixed Willow Species	G3	S3	
7	<i>Alnus incana</i> - <i>Salix drummondiana</i> Shrubland	Montane Riparian Shrubland	G3	S3	
8	<i>Andropogon gerardii</i> - <i>Schizachyrium scoparium</i> Western Great Plains Herbaceous Vegetation	Xeric Tallgrass Prairie	G2?	S2	
9	<i>Andropogon gerardii</i> - <i>Sorghastrum nutans</i> Western Great Plains Herbaceous Vegetation	Mesic Tallgrass Prairie, Forest Openings	G2	S1S2	
10	<i>Andropogon gerardii</i> - <i>Sporobolus heterolepis</i> Western Foothills Herbaceous Vegetation	Xeric Tallgrass Prairie, Forest Openings	G2	S1S2	
11	<i>Betula occidentalis</i> / <i>Maianthemum stellatum</i> Shrubland	Foothills Riparian Shrubland	G4?	S2	
12	<i>Betula occidentalis</i> / Mesic Graminoids Shrubland	Lower Montane Riparian Shrubland	G3	S2	
13	<i>Bouteloua gracilis</i> - <i>Buchloe dactyloides</i> Herbaceous Vegetation	Shortgrass Prairie	G4	S2?	
14	<i>Bouteloua gracilis</i> - <i>Bouteloua hirsuta</i> Herbaceous Vegetation	Shortgrass Prairie	G3G4	SU	
15	<i>Calamagrostis stricta</i> Herbaceous Vegetation [Provisional]	Slimstem Reedgrass	GU	S1?	
16	<i>Caltha leptosepala</i> / <i>Deschampsia cespitosa</i> Herbaceous Vegetation		G3	S3	
17	<i>Caltha leptosepala</i> / <i>Polygonum bistortoides</i> Herbaceous Vegetation		G2	S?	

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18	<i>Carex aquatilis</i> / <i>Sphagnum</i> spp.	Montane Fen	G2G3	S2?	
19	<i>Carex diandra</i> Wet Meadow Herbaceous Vegetation	Quaking Fen	GNR	SU	
20	<i>Carex lasiocarpa</i> Herbaceous Vegetation	Montane Wetland	G4?	S1	
21	<i>Carex praegracilis</i> Herbaceous Vegetation	Clustered Sedge Wetland	G3G4	S2	
22	<i>Carex rupestris</i> - <i>Trifolium dasyphyllum</i> Herbaceous Vegetation	Alpine Meadows	G3G4	S3S4	
23	<i>Carex saxatilis</i> Herbaceous Vegetation	Wet Meadow	G3	S2	
24	<i>Celtis laevigata</i> var. <i>reticulata</i> / <i>Pseudoroegneria spicata</i> Woodland	Hackberry	G2G3	S1S2	
25	<i>Cercocarpus montanus</i> / <i>Achnatherum scribneri</i> Shrubland	Foothills Shrubland	G3	S3	
26	<i>Cercocarpus montanus</i> / <i>Hesperostipa comata</i> Shrubland	Mixed Foothill Shrublands, Foest Openings	G2	S2	
27	<i>Cercocarpus montanus</i> / <i>Hesperostipa neomexicana</i> Shrubland	Foothills Shrubland	G2G3	S2S3	
28	<i>Cercocarpus montanus</i> - <i>Rhus trilobata</i> / <i>Andropogon gerardii</i> Shrubland	Mountain Mahogany - Skunkbush / Big Bluestem Shrubland	G2G3	S2S3	
29	<i>Corylus cornuta</i> Shrubland [Provisional]	Lower Montane Forests	G3	S1	
30	<i>Danthonia parryi</i> Herbaceous Vegetation	Montane Grasslands, Forest Openings	G3	S3	
31	<i>Deschampsia cespitosa</i> - <i>Phleum alpinum</i> Herbaceous Vegetation	Tufted Hairgrass - Mountain Timothy	G3?	S3?	
32	<i>Distichlis spicata</i> Herbaceous Vegetation	Salt Meadows	G5	S3	
33	<i>Eleocharis quinqueflora</i> Herbaceous Vegetation	Alpine Wetlands	G4	S3S4	
34	<i>Eleocharis rostellata</i> Herbaceous Vegetation	Emergent Wetland	G3	S2	
35	<i>Festuca thurberi</i> Subalpine Grassland Herbaceous Vegetation		G3	S3	
36	<i>Geum rossii</i> - <i>Trifolium</i> ssp. Herbaceous Vegetation	Alpine Meadows	G3	S3	
37	<i>Glyceria grandis</i> Herbaceous Vegetation	American Mannagrass Herbaceous Vegetation	G2?	S2	
38	<i>Hesperostipa comata</i> - <i>Achnatherum hymenoides</i>		G2?	S1	
39	<i>Hesperostipa comata</i> - <i>Bouteloua gracilis</i> Colorado Front Range Herbaceous Vegetation		G1G2	S2	
40	<i>Hesperostipa comata</i> Colorado Front Range Herbaceous Vegetation	Great Plains Mixed Grass Prairie	G1G2	S1S2	
41	<i>Hesperostipa neomexicana</i> Herbaceous Vegetation	Great Plains Mixed Grass Prairie	G3	S3	
42	<i>Juncus parryi</i> / <i>Sibbaldia procumbens</i> Herbaceous Vegetation		G3G4	SNR	
43	<i>Kobresia myosuroides</i> - <i>Carex rupestris</i> var. <i>drummondiana</i> Herbaceous Vegetation	Dry Alpine Meadows	G3	S3?	
44	<i>Muhlenbergia montana</i> Herbaceous Vegetation	Mountain Muhly Herbaceous Vegetation, Forest Openings	G3G4	S2?	
45	<i>Muhlenbergia montana</i> - <i>Danthonia parryi</i> Herbaceous Vegetation	Montane Grasslands	G3G4	S2?	

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46	<i>Muhlenbergia montana</i> - <i>Hesperostipa comata</i> Herbaceous Vegetation	Montane Grasslands, Forest Openings	G1G2	S1S2	
47	<i>Pascopyrum smithii</i> - <i>Eleocharis</i> spp. Herbaceous Vegetation	Playa Grassland	G1	S1	
48	( <i>Picea engelmannii</i> ) / <i>Betula nana</i> / <i>Carex aquatilis</i> - <i>Sphagnum angustifolium</i> Woodland	Iron Fen	G2	S2	
49	<i>Picea engelmannii</i> / <i>Trifolium dasyphyllum</i> Forest	Timberline Forests	G2?	S2	
50	<i>Picea pungens</i> / <i>Alnus incana</i> Woodland	Montane Riparian Forests	G3	S3	
51	<i>Picea pungens</i> / <i>Betula occidentalis</i> Woodland	Montane Riparian Woodland	G2	S2	
52	<i>Picea pungens</i> / <i>Linnaea borealis</i> Forest	Mixed Montane Forest	G4	S1	
53	<i>Pinus flexilis</i> / <i>Arctostaphylos uva-ursi</i> Woodland	Lower Montane Woodlands	G4	S2?	
54	<i>Pinus flexilis</i> / <i>Juniperus communis</i> Woodland	Lower Montane Woodlands	G5	S3	
55	<i>Pinus ponderosa</i> / <i>Artemisia tridentata</i> ssp. <i>vaseyana</i> Woodland		GNR	SNR	
56	<i>Pinus ponderosa</i> / <i>Carex inops</i> ssp. <i>heliophila</i> Woodland	Foothills Ponderosa Pine Savannas	G3G4	S2	
57	<i>Pinus ponderosa</i> / <i>Cercocarpus montanus</i> / <i>Andropogon gerardii</i> Wooded Herbaceous Vegetation	Foothills Ponderosa Pine Scrub Woodlands	G2	S2?	
58	<i>Pinus ponderosa</i> / <i>Leucopoa kingii</i> Woodland	Foothills Ponderosa Pine Savannas	G3	S3	
59	<i>Pinus ponderosa</i> / <i>Muhlenbergia montana</i> Woodland	Foothills Ponderosa Pine Savannas	G4G5	S2S3	
60	<i>Pinus ponderosa</i> / <i>Purshia tridentata</i> Woodland	Foothills Ponderosa Pine Scrub Woodlands	G3G5	S3?	
61	<i>Pinus ponderosa</i> / <i>Schizachyrium scoparium</i> Woodland	Ponderosa Pine / Little Bluestem Woodland	G3G4	S1	
62	<i>Populus angustifolia</i> / <i>Alnus incana</i> Woodland	Montane Riparian Forest	G3	S3	
63	<i>Populus angustifolia</i> / <i>Betula occidentalis</i> Woodland	Montane Riparian Forest	G3	S3	
64	<i>Populus angustifolia</i> / <i>Salix irrorata</i> Woodland	Foothills Riparian Woodland	G2	S2	
65	<i>Populus balsamifera</i> Woodland	Montane Riparian Woodland	GU	S2	
66	<i>Populus deltoides</i> - ( <i>Salix amygdaloides</i> ) / <i>Salix (exigua, interior)</i> Woodland	Plains Cottonwood Riparian Woodland	G3G4	S3	
67	<i>Populus tremuloides</i> / <i>Acer glabrum</i> Forest	Montane Riparian Forests	G2	S2	
68	<i>Populus tremuloides</i> / <i>Alnus incana</i> Forest	Montane Riparian Forests	G3	S3	
69	<i>Populus tremuloides</i> / <i>Betula occidentalis</i> Forest	Quaking Aspen / Water Birch Forest, Riparian	G3	S2	
70	<i>Populus tremuloides</i> / <i>Calamagrostis canadensis</i> Forest	Aspen / Blue Joint Reed Grass	G3	S3	
71	<i>Populus tremuloides</i> / <i>Corylus cornuta</i> Forest	Montane Riparian Forests	G3	S1	
72	<i>Populus tremuloides</i> / <i>Lonicera involucrata</i> ( <i>L. distigia</i> ) Forest	Montane Riparian Forests	G3	S3	
73	<i>Populus tremuloides</i> / <i>Ribes montigenum</i> Forest	Montane Riparian Forests	G2	S2	
74	<i>Populus tremuloides</i> / <i>Vaccinium myrtillus</i> Forest	Aspen Forests	G3	S3	

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75	<i>Potamogeton natans</i> Herbaceous Vegetation	Montane Floating/Submergent Wetland	G5?	S1	
76	<i>Pseudotsuga menziesii</i> / <i>Betula occidentalis</i> Woodland	Montane Riparian Forest	G3?	S3	
77	<i>Pseudotsuga menziesii</i> / <i>Paxistima myrsinites</i> Forest	Lower Montane Forests	G2G3	S2S3	
78	<i>Purshia tridentata</i> / <i>Artemisia frigida</i> / <i>Hesperostipa comata</i> Shrubland	Mixed Foothill Shrublands	G1G2	S1S2	
79	<i>Purshia tridentata</i> / <i>Muhlenbergia montana</i> Shrubland	Mixed Foothill Shrublands	G2	S2	
80	<i>Rhus trilobata</i> Intermittently Flooded Shrubland	Skunkbrush Riparian Shrubland	G2	S2	
81	<i>Salix arctica</i> / <i>Salix nivalis</i> Dwarf Shrubland	Arctic Willow - Net-Veined Willow Shrubland	G2GQ	S2	
82	<i>Salix bebbiana</i> Shrubland	Montane Willow Carrs	G3?	S2	
83	<i>Salix boothii</i> / <i>Calamagrostis canadensis</i> Shrubland	Booth Willow / Canadian Reed Grass Shrubland	G3G4Q	S2	
84	<i>Salix boothii</i> / <i>Carex utriculata</i> Shrubland	Booth's Willow / Beaked Sedge	G4	S3	
85	<i>Salix boothii</i> / <i>Deschampsia caespitosa</i> / <i>Geum rossii</i> Shrubland	Booth's Willow / Harogress [sic]	G4	S3S4	
86	<i>Salix boothii</i> Mesic Forbs Shrubland	Booth's Willow Mesic Forb	G3	S3	
87	<i>Salix boothii</i> Mesic Graminoids Shrubland	Riparian Willow Carr	G3?	S3	
88	<i>Salix brachycarpa</i> / <i>Carex aquatilis</i>	Subalpine Riparian / Wetland Carr	G2G3	S2S3	
89	<i>Salix drummondiana</i> / <i>Calamagrostis canadensis</i> Shrubland	Lower Montane Willow Carrs	G3	S3	
90	<i>Salix geyeriana</i> - <i>Salix monticola</i> / <i>Calamagrostis canadensis</i> Shrubland	Montane Willow Carrs	G3	S3	
91	<i>Salix geyeriana</i> / <i>Calamagrostis canadensis</i> Shrubland	Montane Riparian Willow Carr	G5	S3	
92	<i>Salix geyeriana</i> / <i>Carex aquatilis</i> Shrubland	Montane Willow Carr	G3	S3	
93	<i>Salix monticola</i> / <i>Calamagrostis canadensis</i> Shrubland	Montane Willow Carr	G3	S3	
94	<i>Salix monticola</i> / <i>Carex aquatilis</i> Shrubland	Montane Riparian Willow Carr	G3	S3	
95	<i>Salix monticola</i> / <i>Carex utriculata</i> Shrubland	Montane Riparian Willow Carr	G3	S3	
96	<i>Salix monticola</i> / Mesic Graminoids Shrubland	Montane Riparian Willow Carr	G3	S3	
97	<i>Salix planifolia</i> / <i>Deschampsia caespitosa</i> Shrubland	Subalpine Riparian Willow Carr	G2G3	S2S3	
98	<i>Salix wolfii</i> / Mesic Forbs Shrubland	Subalpine Riparian Willow Carr	G3	S3	
99	<i>Schizachyrium scoparium</i> - <i>Bouteloua curtipendula</i> Western Great Plains Herbaceous Vegetation	Great Plains Mixed Grass Prairies (Sandstone/Gravel Breaks)	G3	S2	
100	<i>Spartina pectinata</i> Western Herbaceous Vegetation	Prairie Slough Grass	G3?	S3	
101	<i>Suaeda calceoliformis</i> Herbaceous Vegetation	Pursh Seepweed	GU	S2	
102	<i>Symphoricarpos occidentalis</i> Shrubland	Western Snowberry Shrubland	G4G5	S3	
<b>UNKNOWN SPECIES</b>					
1	<i>Anagallis minima</i> ( <i>Centunculus minimus</i> )	Chaffweed	G5	S1	
2	<i>Aralia nudicaulis</i>	wild sarsaparilla			
3	<i>Botrychium tunax</i>				

Boulder County Rare Plant Species and Significant Natural Communities SSC List

No.	State Scientific Name	State Common Name	CNHP Global Rank	CNHP State Rank	Federal Status (ESA)
4	<i>Carex oreocharis</i>	grassylope sedge	G3	S1	
5	<i>Carex sychnocephala</i>	manyhead sedge	G4	S1	
6	<i>Chrysosplenium tetrandrum</i>	northern golden saxifrage	G5	S1?	
7	<i>Claytonia rubra</i>	redstem springbeauty	G5	S1	
8	<i>Dryopteris filix-mas</i>	male fern			
9	<i>Heteranthera limosa</i>	blue mudplantain	G5	SNR	
10	<i>Juncus filiformis</i>	thread rush	G5	S2?	
11	<i>Lemna minuta</i>	least duckweed	G4	SNR	
12	<i>Lemna trisulca</i>	star duckweed	G5	SNR	
13	<i>Lipocarpha aristulata (Hemicarpha micrantha )</i>	awned halfchaff sedge	G5?	SNR	
14	<i>Listera cordata</i>	heartleaf twayblade	G5	SNR	
15	<i>Menyanthes trifoliata</i>	buckbean	G5	SNR	
16	<i>Mertensia franciscana</i>	Franciscan bluebells	G3G5	SNR	
17	<i>Minuartia stricta (Alsinanthe stricta)</i>	bog stitchwort, rock sandwort	G5	S1	
18	<i>Mirabilis linearis (Oxybaphus decumbens )</i>	narrowleaf four-o'clock	G5	S1	
19	<i>Myosurus apetalus var. montanus</i>	bristly mousetail	G5T3T5	SNR	
20	<i>Oligoneuron album (Solidago ptarmicoides, Unamia alba)</i>	prairie goldenrod	G5	S2S3	
21	<i>Oxytropis parryi</i>	Parry's oxytrope	G5	S1	
22	<i>Packera pseudoaurea var. flavula</i>	falsegold groundsel	G5T2T4	SNR	
23	<i>Penstemon gracilis</i>	lilac penstemon	G5	SU	
24	<i>Piperia unalascensis</i>	slender-spire orchid			
25	<i>Potamogeton epihydrus</i>	ribbonleaf pondweed	G5	SNR	
26	<i>Psoralidium argophyllum</i>	silverleaf indian breadroot, silver-leaf scurf pea	G5	SNR	
27	<i>Ribes americanum</i>	American black current	G5	S2	
28	<i>Rotala ramosior</i>	toothcup	G5	S1	
29	<i>Sagittaria brevirostra</i>	shortbeak arrowhead	G5	S2?	
30	<i>Sidalcea neomexicana</i>	salt spring checker bloom, checker mallow	G4?	SNR	
31	<i>Stuckenia vaginata</i>	sheathed pondweed	G5	SNR	
32	<i>Triodanis leptocarpa</i>	Slim-pod Venus' Looking-glass	G5?	S1	
<b>UNKNOWN COMMUNITIES</b>					
1	<i>Cercocarpus montanus / Elymus lanceolatus ssp. lanceolatus</i> Shrubland	Mahogany/Griffith's Wheatgrass Shrubland	GU	S3	
2	<i>Hesperostipa neomexicana- Hesperostipa spartea</i>				
3	<i>Phippsia algida</i> Herbaceous Vegetation	Alpine Wetlands	GU	SU	
4	<i>Picea pungens / Alnus incana - Corylus cornuta</i>	Foothills Riparian Forest	GU	SU	

**DEFINITIONS**

**Federal Status**

ESA, United States Endangered Species Act

LE, Listed Endangered

LT, Listed Threatened

C, Candidate for listing

## Boulder County Rare Plant Species and Significant Natural Communities SSC List

No.	State Scientific Name	State Common Name	CNHP Global Rank	CNHP State Rank	Federal Status (ESA)
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**Colorado Natural Heritage Program (CNHP)/NatureServe Imperilment Ranks\***

G-Rank: Global Rank, S-Rank: Colorado Rank

G/S1, Critically Imperiled

G/S2, Imperiled

G/S3, Vulnerable to extirpation, typically between 21-100 occurrences.

G/S?, Unranked. Some evidence that species may be imperiled, but awaiting formal rarity ranking.

G/SU, Unrankable due to lack of information or substantially conflicting information.

GQ, Indicates uncertainty about taxonomic status.

G#?, Indicates uncertainty about an assigned global rank.

G#T#, Trinomial rank (T) is used for subspecies or varieties. These species or subspecies are ranked on the same criteria as G1- G5.

SNR, State not ranked. CNHP has not yet looked at this species.

TNR, Not yet ranked globally due to lack of information.

*\*Note: Where two numbers appear in a global or state rank, e.g., S2S3, the actual rank of the element falls between the two numbers. CNHP experts tend to round up to the more conservative number, e.g., if S2S3, consider the species a 'S2' until further information is available (Jill Handwerk, personal communication).*

**United States Forest Service (USFS) Sensitive Status**

Sensitive, Indicates a sensitive species designated by the USFS Rocky Mountain Regional Forester to occur on USFS managed lands within Boulder County.

**National Park Service, Rocky Mountain National Park (NPS, RMNP) Sensitive Status**

Sensitive, Sensitive species appearing on NPS' 'State Endangered, Threatened or Rare Species for Rocky Mountain National Park' list (NPS 2010) or 'Rare and Imperiled Plant Communities' list (NPS 2004) for Rocky Mountain National Park; only those species occurring on the Boulder County portion of the park.

**City of Boulder OSMP Sensitive Status**

Sensitive, Sensitive Plant Species or Community

**Boulder County Parks and Open Space Sensitive**

Sensitive, Appeared as sensitive on prior versions (1978-1999) of the Comprehensive Plan.

## Criteria for Designating Wetlands and Riparian Areas

Although Boulder County does not have regulatory authority over wetlands and riparian areas, the county recognizes and uses the same features and characteristics used by Federal agencies such as the Army Corps of Engineers (USACE) and the (USFWS 1993) to identify and designate wetland and riparian areas.

Because certain wetlands are regulated by the federal government, federal regulatory agencies such as the Environmental Protection Agency (EPA), the U.S. Army Corps of Engineers (USACE), and the U.S. Fish and Wildlife Service (USFWS) are guided by technically detailed wetland definitions for regulatory purposes. Although wording varies, regulatory definitions generally recognize three wetland elements: wetland vegetation, wetland soil, and wetland hydrology.

Lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. Wetlands must have one or more of the following attributes: (1) at least periodically, the land supports predominantly hydrophytes (wetland plants); (2) the substrate is predominantly un-drained hydric soil; and/or (3) the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year (USFWS 1993).

### ***Wetlands Designation Criteria***

- 1) Areas with federal status, i.e., jurisdictional wetlands as defined by the United States Army Corps of Engineers (USACE).
- 2) Wetlands that are also designated as Critical Wildlife Habitats (CWHs).
- 3) Wetlands that include Significant Natural Communities (SNCs) or support critical plant associations (e.g., fens, willow carrs).
- 4) Wetlands that are within or include a Rare Plant Area (RPA).
- 5) Wetlands created by human activities, such as reservoirs, that function as natural wetland systems.
- 6) Areas with hydrological and/or ecological evidence of past wetlands.

### ***Riparian Areas Designation Criteria***

- 1) Areas directly adjacent to perennial, ephemeral, and intermittent streams.
- 2) Areas that enhance hydrologic functions of waterways (e.g. they recharge ground water through infiltration, filtrate sediments and chemicals, reduce erosion of water flow and dissipate flow energy, stabilize streambanks, and slow evaporation).
- 3) Riparian areas with known federally threatened and endangered (T&E) species, (e.g., Ute's Ladies-tresses (*Spiranthes diluvialis*) and its potential habitat).
- 4) Riparian areas adjacent to stream reaches recognized by Colorado Division of Parks and Wildlife (CPW) as having importance to native aquatic species conservation.
- 5) Riparian areas designated as Critical Wildlife Habitats (CWHs).
- 6) Riparian areas that include Significant Natural Communities (SNCs).
- 7) Riparian areas that include or are within a Rare Plant Area (RPA).
- 8) Man-made areas that function as natural riparian areas (e.g. ditches).
- 9) Areas along streams that show evidence of historically being riparian areas (e.g., oxbows).

## ENVIRONMENTAL CONSERVATION AREAS DESIGNATION CRITERIA

Methods of Identifying Environmental Conservation Areas – Environmental Conservation Areas (ECA's) are large and relatively undeveloped areas of the County that possess a high degree of naturalness, contain high quality or unique landscape features, and/or have significant restoration potential. Their size, quality and geographic location make them an important tool for combating the effects of habitat fragmentation. Following are the primary factors used to evaluate potential environmental conservation areas:

- **Naturalness** - Relatively undeveloped landscapes offer greater opportunities for maintaining natural processes, minimizing landscape fragmentation caused by development and roads;
- **Quality and Uniqueness** - This includes high quality plant communities such as native prairie or old-growth forests, and unique landscape features such as elk winter concentration areas and winter raptor concentration areas;
- **Size** - Bigger is better, more capable of supporting natural disturbance regimes, meeting the needs of wide-ranging animals and protecting a mosaic of landscapes;
- **Restoration Potential** – The ability of a site to be restored to a native plant community and/or good wildlife habitat.

### Criteria for designating Environmental Conservation Areas

- 1) They should be centered on undeveloped landscapes and include high quality and unique landscape components as revealed in the biological and ecological assessment. ECA's should be a minimum of 2,500 acres in size in order to be effective management units.
- 2) They should cover all lifezones and habitat types.
- 3) Boundaries of ECA's are influenced by the following:
  - a. The larger the ECA, the greater probability of meeting the needs of wide-ranging species, allowing natural disturbance regimes and minimizing adverse impacts from development. ECA's should include all contiguous undeveloped land and nodes of high quality or unique landscape features.
  - b. Boundaries should avoid areas with significant existing development.
  - c. The shape should minimize fragmentation and edge effects.
  - d. The shape and geographic location of ECA's should facilitate connectivity within the regional landscape.

Connectivity Between Environmental Conservation Areas – Environmental Conservation Areas need to function as part of an integrated system of wildlife habitat and plant communities. Wide-ranging animals will need to move throughout the landscape of the County. ECA's function as source areas for species that find optimal habitat within undeveloped landscapes. Individuals of these species will generally migrate out of the ECA and occupy suitable, but less than optimal, areas. If a major disturbance or disease eliminates a particular species from an ECA, individuals from other source areas will need a pathway to the vacant habitat for recolonization.

Three types of habitat connectors, or movement corridors, can provide landscape connectivity for Environmental Conservation Areas. Riparian and stream ecosystems provide significant migration routes, hiding cover and wildlife habitat. Large-mammal migration corridors are important habitat connectors particularly for mountain ecosystems. Finally, other undeveloped corridors and land not within ECA's provide a matrix of dispersal and movement options for wildlife.

The County should work to protect riparian ecosystems and large-mammal movement corridors. Development within other parts of the County should be evaluated as to its impact on connectivity between environmental conservation areas.

Buffering Environmental Conservation Areas – Land uses adjacent to ECA's should be low intensity and provide a degree of buffering between the ECA and high intensity land uses that may exist throughout the county. In essence, there should be a gradient of land use intensity that diminishes as one moves toward the core of an ECA. We want to avoid the many problems associated with high intensity development adjacent to relatively natural areas, the problems that plague many of our national parks.

<b>ECA #</b>	<b>Name</b>	<b>Lifezones</b>
1	Indian Peaks	Montane/Subalpine/Alpine
2	North St. Vrain	Montane/Foothills
3	South St. Vrain/Foothills	Montane/Foothills
4	Walker Mountain	Montane
5	Fourmile Creek/Bald Mountain	Montane
6	Winiger Ridge	Montane
7	Hawkin Gulch/Walker Ranch/Upper Eldorado Canyon	Foothills/Plains
8	Boulder Mountain Park/South Boulder	Foothills/Plains
9	Rabbit Mountain	Foothills/Plains
10	Table Mountain	Plains
11	Boulder Valley Ranch/Beech Open Space	Plains
12	White Rocks/Gunbarrel Hill	Plains
13	East County	Plains
14	Magnolia	Montane