



Land Use

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BOULDER COUNTY PLANNING COMMISSION AGENDA ITEM #3

December 18, 2013 – 3:00 PM

**Hearing Room, Third Floor
Boulder County Courthouse**

Docket BCCP-08-003: BOULDER COUNTY COMPREHENSIVE PLAN UPDATE: Environmental Resources Element Map Update

Planning Commission review and action on the updated maps for the Environmental Resources Element.

Action requested – Approval

Public Testimony Will Be Taken

(Staff Planners: Peter Fogg and William Davidson – Land Use; Justin Atherton-Wood – Parks and Open Space)

Introduction

Planning Commission discussed the updated Environmental Resources Element maps at the November 20, 2013 meeting. At that time, staff gave an extensive presentation explaining the changes made to the maps and the background involved in preparing the updates.

This docket is a continuation of the November hearing for your further discussion, questions, and comments. Staff is requesting approval of the map component at the December meeting of Planning Commission.

The updated Environmental Resources Element (ERE) Narrative, Goals, and Policies were approved by Planning Commission on June 19, 2013.

Environmental Resources Element Update Process

The Environmental Resources Element is made up of two parts: the text of the Element, containing narratives, goals, and policies, and the associated maps. For purposes of the updating of this Element, staff separated the update process into these two sections to address the two parts. When the text was approved in June of this year, the process of updating the maps was in progress. The detailed work involved in updating the maps made it desirable to wait for the new maps to be completed, a step that was due to be finished by the end of 2013. The map updates were completed in October and at that time staff began the process of public review and Planning Commission consideration. The December Planning Commission meeting is anticipated to complete that review, and staff is requesting approval.

The Planning Commission action in June approved the text portion of the Element. Approval of the maps is the next step to be taken. Please note that both actions will only constitute approval by the Planning Commission, as distinguished from adoption, the point at which the Element would

officially become part of the Comprehensive Plan. If approved in December, staff will return to Planning Commission at an upcoming meeting in the first quarter of 2014 to formally seek adoption of the entire Element.

The Updated ERE Maps

There are two maps that are currently included in the BCCP. They are the Environmental Conservation Areas, Natural Landmarks & Natural Areas map, and the Natural Communities, Rare Plants, Riparian Corridors, and Critical Wildlife Habitats map (Attachment B). Please note that in the updated map package, the six subject areas which appear on the current ERE maps are all represented in the seven new maps (Attachment A). Separating the information onto more discrete and specific maps during the updating process has resulted in maps which are clearer and easier to read. Staff has again included the summary of changes to the maps for your reference (Attachment C).

In addition to the Summary of Changes included as Attachment C, there have been minor changes to the seven proposed ERE maps which have been made since the November Planning Commission meeting. These changes are:

- The legend has been revised on each map and placed on the right-hand side to increase legibility. A summary definition of each designation has been included with each designation.
- Some additional work has been done on the graphic conventions to improve legibility at the 11/17 scale (font size increased, color adjustments, annotations).
- Number annotations have been added to many of the labels to improve cross-referencing with other support materials
- Wetland/Riparian map change: at Prince Lake No. 1 (wetland adjacent to lake was shown as riparian; it's now shown as wetland)
- On the CWH list/map: CWH number 93 and 96 were swapped in order to get all the Wildlife Migration Corridors at the end of the list (the two updated CWH summaries will be attached)

Supplemental Materials

At the previous meeting, Planning Commission was presented with a volume of supplemental materials intended to provide detailed information that supports the updated maps. Those materials included: a context for updated maps, historical information from previous BCCP maps, criteria and methods used, and specific descriptive information.

These supplemental materials are slated to be placed in an appendix to the Element. The materials are too detailed and extensive to be placed in the body of the Element, and go far beyond the narrative, goals, and policies that constitute the written portion of the Element. Putting such materials in an appendix is desirable since it will allow this information to be updated periodically as better and more specific information becomes available. This allows updates to occur at the staff level; since they are not an integral part of the Element itself updating such information would not require Planning Commission to review and adopt each change as it occurs.

The supplemental materials were included with the November staff memo, but have not been included in this packet. Staff will be available to answer any detailed questions you might have at the December meeting. The materials will also be available on line for review and use by any interested party at <http://www.bouldercounty.org/property/build/pages/bccpupdate.aspx>. Staff will continue to explore options for creating an integrated package of all of the information that could be reviewed in a single file.

Planning Commission Comments from November

At the November meeting, Planning Commission did not request any specific changes to the maps themselves. Commission comments included questions about how the updated maps would be used in development review, what educational strategies will be used, whether the maps will be available online and whether they will be dynamic rather than pdfs, use of the maps by the 2013 flood recovery teams and other staff working on these efforts, and the applicability to specific parcels rather than being used as general representations of the limits of the information shown.

Below are the questions and comments that Planning Commission made at the November 20 meeting, and staff's responses.

Q: There is a disconnect between the Plan and Land Use Codes. Codes need more reflection of the BCCP.

A: There is more information now as to why these lands are important. This will be useful as regulations are refined to better reflect the updated Element.

Q: How and what influence does the County have when a place like Erie decides to develop?

A: This occurs through Intergovernmental Agreements.

Q: What kind of marketing/education is going to the public?

A: Currently, none. Staff will continue to explore ways to best achieve these efforts.

Q: Will these maps have backup metadata in the BCCP?

A: Yes, both in hard copies and in greater detail through web links.

Q: What will give these maps and materials teeth?

A: The updated ERE will be implemented through the County Land Use Code, IGAs, lobbying, and other available methods.

Q: We need to not surprise property owners.

A: The maps are not prescriptions – they are the science. Availability of the information to the public and education about the materials will be among the strategies to keep the public informed.

Q: Hope that the maps are dynamic like the City of Boulder's, where you can pick the layers you want to see.

A: Exactly what form the maps will take on the County website is still being discussed among staff. Land Use staff will be working with GIS staff on the technical aspects of making the maps available online to any interested parties. Details remain to be worked out in regard to the format to be used on the website, line widths for the boundaries of the resource areas, relationship of these designated areas in their representational form to individual properties, and other such details. Staff will keep Planning Commission informed as to the progress in getting the maps put online in their final form.

Q: Are the flood recovery teams using these maps and this data in our current process?

A: Not at this time. As the Flood Recovery efforts progress, the maps will be used as a part of planning and development review in much the same manner as has occurred in the past.

Should the Commission have any additional questions or feels that further response to their comments is needed, staff will be prepared to do so at the December meeting.

Public and Agency Comments

The County received a letter of support from Sylvia Clark, District Ranger for the Boulder County Ranger District of the USFS regarding the updated Environmental Resources Element. The letter demonstrates the level of collaboration with fellow public land managers that staff undertook in developing the update. With the Forest Service being responsible for managing nearly a third of the county's land area, they are a key partner in the management of environmental resources in the county and having their buy-in into the ERE is important to its success (Attachment D).

No written comments from the public regarding the Environmental Resources Map update have been received since the November 20 meeting. Any comments received between the time of preparation of this Planning Commission memo and the December 18 Planning Commission meeting will be compiled and given out at the meeting.

Summary

The year-long, multi-faceted map update process has produced a very valuable inventory and assessment. Please keep in mind that the lists of important environmental resources may not be all-inclusive, but are based on the best information available at the time of this update.

Requested Action

Staff is requesting approval of the updated Environmental Resources Element maps as part of **Docket BCCP 08-003: BOULDER COUNTY COMPREHENSIVE PLAN UPDATE.**

ATTACHMENTS

- A: Proposed ERE maps**
- B: Existing ERE maps**
- C: Summary of Updates to maps**
- D: Agency and public comments received since November 20, 2013**

ATTACHMENT A
Proposed ERE Maps

Critical Wildlife Habitat and Migration Corridors

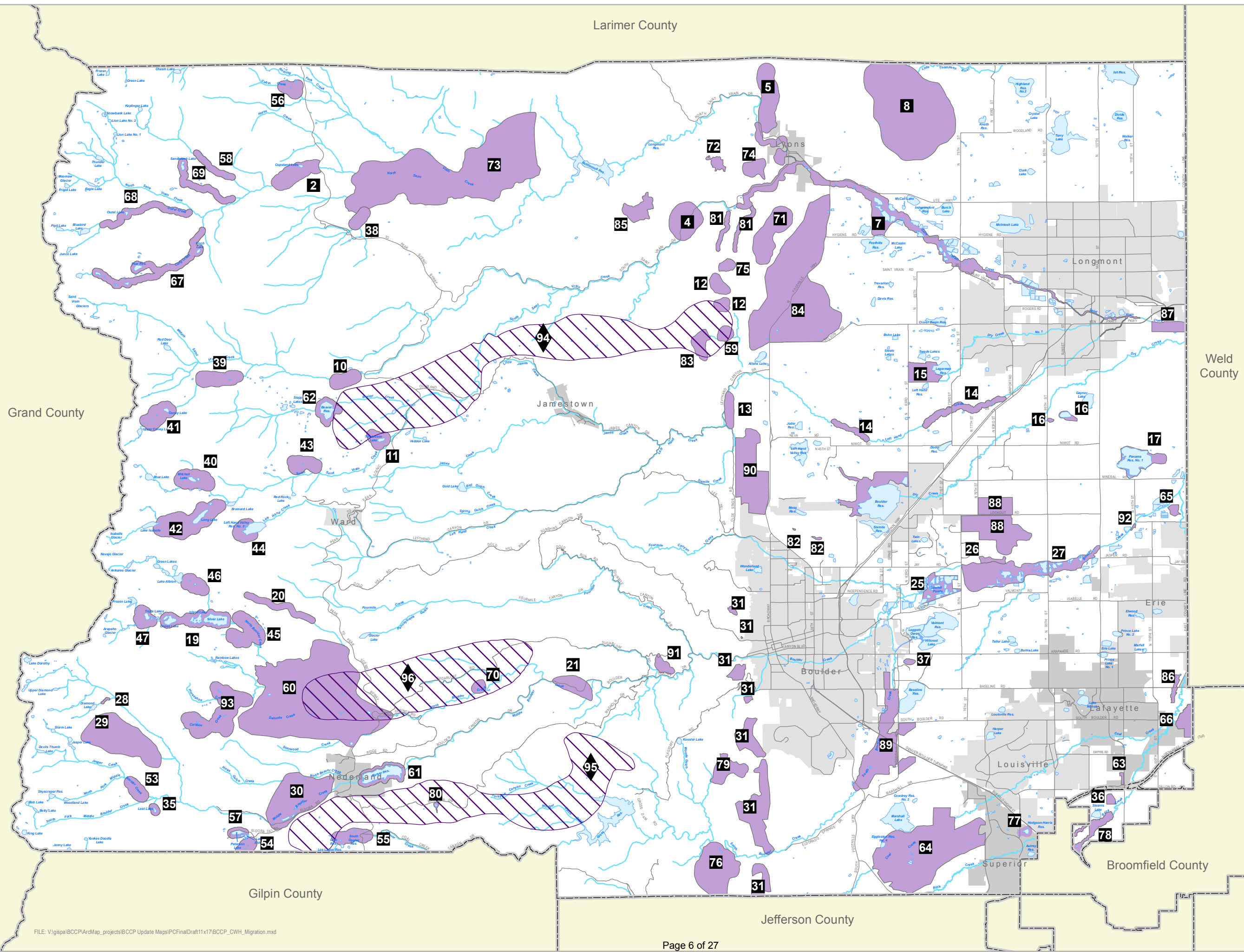
Boulder County
Comprehensive Plan
2013 Update

Critical Wildlife Habitats

1
An area of unique habitat which has a crucial role in sustaining populations of native wildlife and in perpetuating and encouraging a diversity of native species in the county. The area may be significantly productive habitat or particularly vital to the life requirements of species that are critically imperiled or vulnerable to extirpation.

Wildlife Migration Corridors

1
A specific, delineated area of known elk migration movement for a major elk herd in Boulder County.



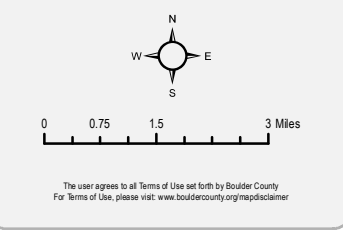
Weld County

Grand County

Gilpin County

Jefferson County

Broomfield County



Critical Wildlife Habiats

2	Copeland Willow Carr	58	Hunters Creek
4	Deadman Gulch and South St. Vrain	59	Geer Canyon
5	Steamboat Mountain	60	Caribou Ranch Montane Parkland
7	St. Vrain Corridor	61	Barker Reservoir
8	Rabbit Mountain	62	Beaver Reservoir
10	Middle St. Vrain Willow Carr	63	Goose Pond
11	Tumblesom Lake	64	Southern Grasslands
12	Marietta Canyon	65	Kenosha Wetlands
13	Lefthand Palisades	66	Two Creeks
14	Lefthand Creek Cottonwood Groves	67	Cony Creek
15	Lagerman Reservoir	68	Ouzel Creek
16	Gaynor Lakes	69	Sandbeach Creek
17	Panama Reservoir	70	Peewink Mountain
19	City of Boulder Watershed	71	Red Hill Gulch
20	Como Creek	72	Antelope Park
21	Boulder Falls Area	73	North Saint Vrain Canyon
23	Boulder Reservoir	74	Hat Rock
25	Walden and Sawhill Ponds	75	Ingersoll Quarry
26	White Rocks	76	South Draw
27	Lower Boulder Creek Riparian Area	77	Hodgson-Harris Reservoir
28	Diamond Lake Outlet	78	Buffalo Gulch and Rock Creek
29	Chittenden Meadows	79	Bear and Aspen Canyons
30	Arapaho Ranch - Tucker Homestead	80	Giggey Lake
31	Boulder Mountain Parks Eldorado Mountain	81	Hall 2
35	Lost Lake	82	B.L.I.P. Ponds and Lapin Pond
36	Carolyn Holmberg Preserve at Rock Creek Farm	83	Geer Meadows
37	Sombrero Marsh	84	Red Hill
38	Lazy H. Ranch Willow Carr	85	Coffin Top Mountain
39	Coney Flats Willow Carr	86	Powers March
40	Mitchell Lake Willow Carr	87	Quicksilver
41	Coney Lake Willow Carr	88	Gunbarrel Hill
42	Long Lake Willow Carr	89	South Boulder Creek Floodplain and Terrace
43	South St. Vrain Willow Carr	90	North Boulder Grasslands
44	Letthand Reservoir Willow Carr	91	Bummer's Gulch
45	Boulder Watershed Willow Carr	92	Kenosha Heronry
46	Lake Albion Willow Carr	93	Upper Caribou Park Willow Carr Complex
47	Triple Lakes Willow Carr	94	North Foothills Elk Herd
53	Woodland Flats Willow Carr	95	Winiger Ridge Elk Herd
54	Buckeye Basin Willow Carr	96	Peewink Mountain Elk Herd
55	Los Lagos Willow Carr		
56	Roaring Fork Willow Carr		
57	Peterson Lake		


High Biodiversity Areas

Boulder County
Comprehensive Plan
2013 Update


High Biodiversity Areas

An area with a concentration of rare environmental resources that represents one of the greatest opportunities for preserving specific aspects of Boulder County's natural heritage. These areas have been identified and ranked by the CSU Natural Heritage Program.


B1: Outstanding Biodiversity Significance (Irreplaceable)

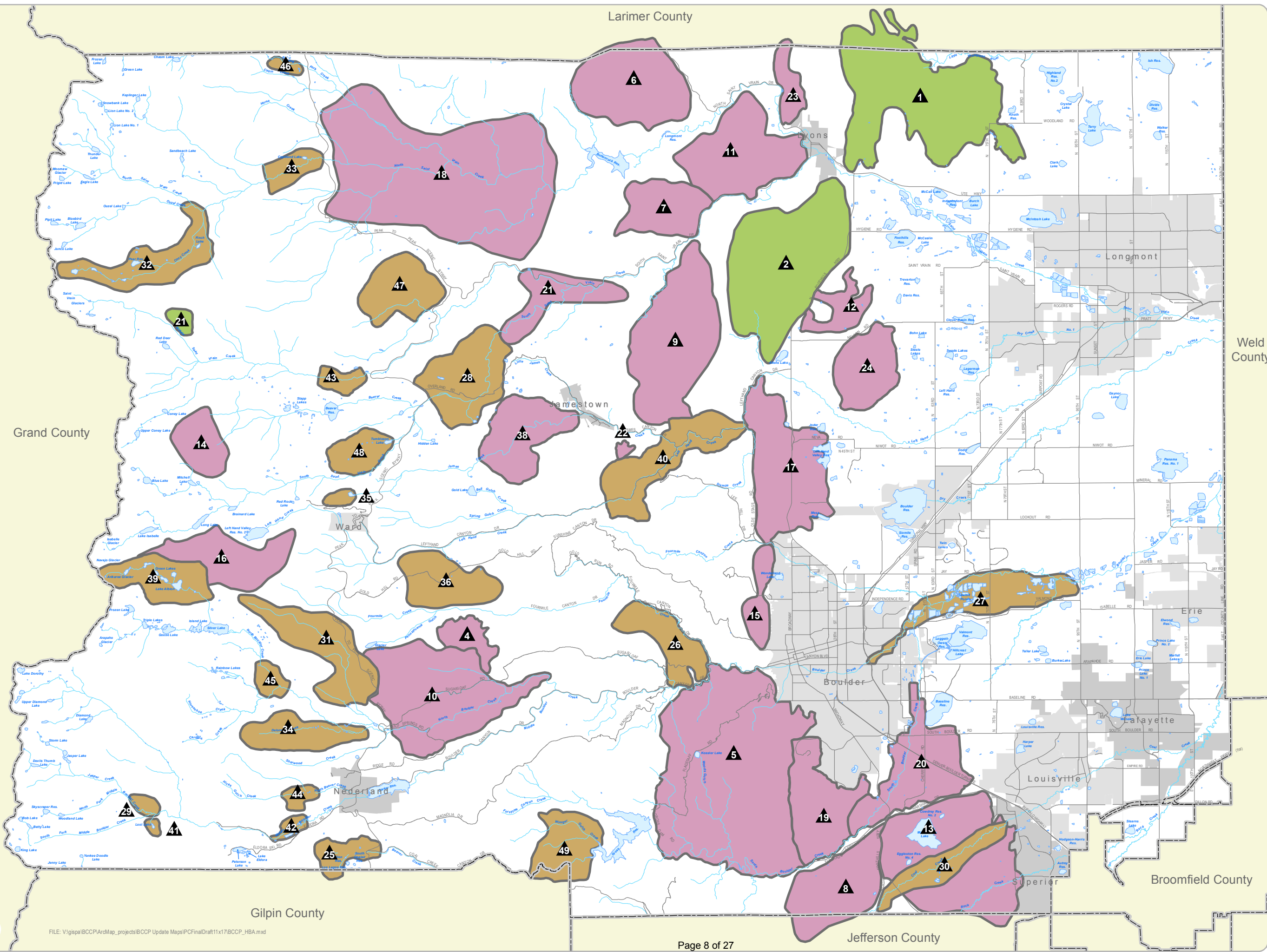
 An area that on a global scale is irreplaceable. The area has a concentration of four or more globally critically imperiled to globally imperiled (G1-G2) element occurrences that are in excellent or good (A- or B-ranked) condition.

B2: Very High Biodiversity Significance (Nearly Irreplaceable)

 An area that on a global scale is nearly irreplaceable and significance on a national scale. An area has a concentration of several biodiversity elements that are globally rare (G3) and/or species that are common globally (G4 or G5) but rare within Colorado.

B3: High Biodiversity Significance

 An area that has state-wide importance. The area has a concentration of several biodiversity elements that are more common globally but are excellent or good for this ecoregion.



Weld County

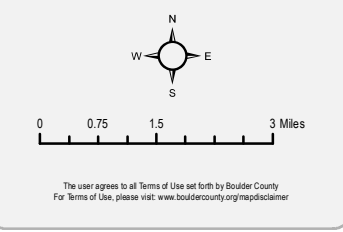
Grand County

Erie

Louisville

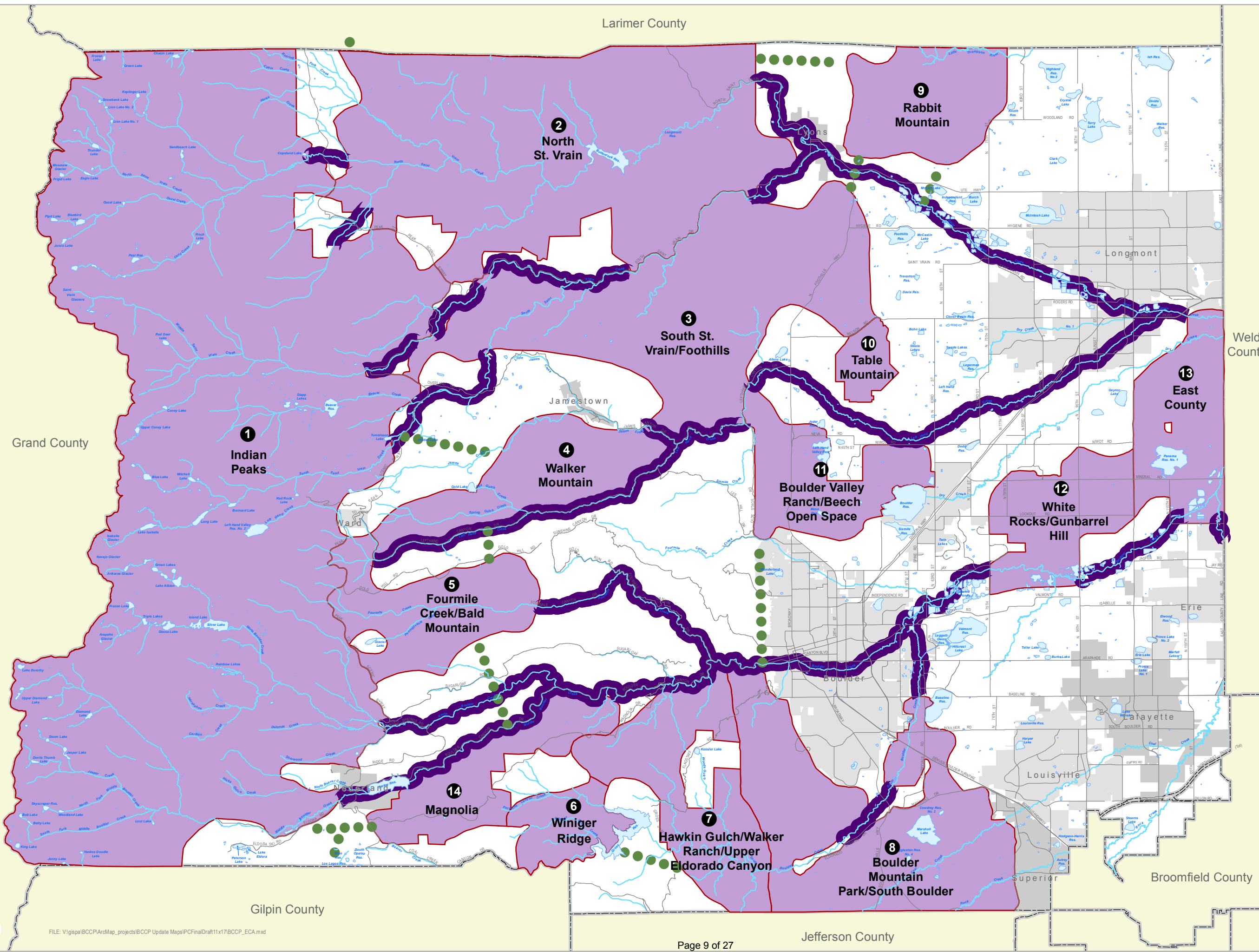
Superior

Broomfield County



0 0.75 1.5 3 Miles

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Environmental Conservation Areas

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Environmental Conservation Areas

1
Areas of the County that possess a relatively low amount of fragmentation, contain high quality natural resources or habitats, are designated at a sufficient size to provide ecological benefit, and/or have significant potential for restoration

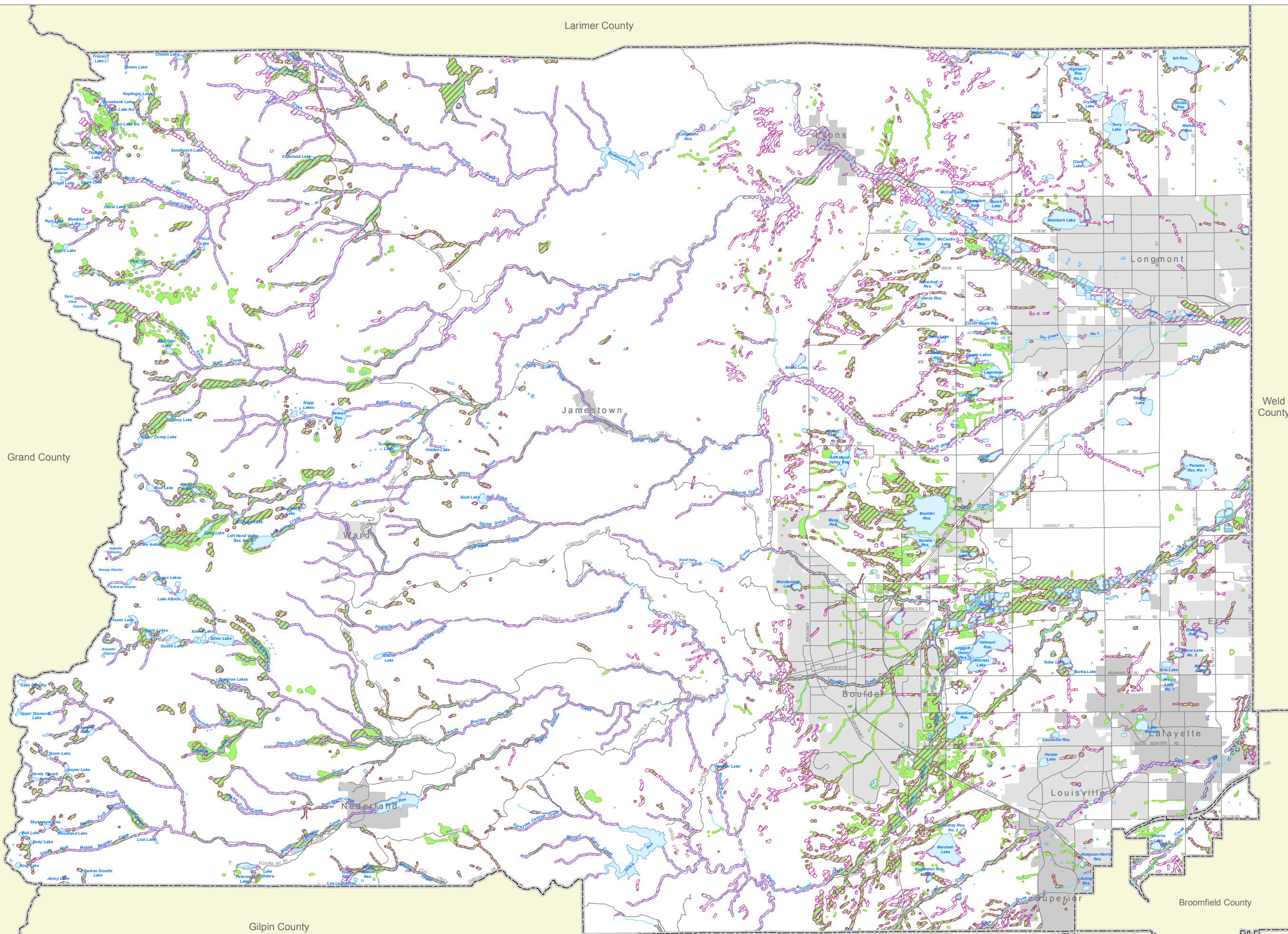
Overland Habitat Connectors

●●●
Areas of wildlife movement across relatively unfragmented landscapes which provides connectivity among Environmental Conservation Areas

Riparian Habitat Connectors

▬
Areas of wildlife movement adjacent to relative unfragmented waterways which provides connectivity among Environmental Conservation Areas


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Wetlands and Riparian Areas

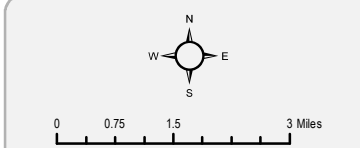
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Riparian Areas

 An area recognized by the presence of linear bands of trees, shrubs, and herbaceous vegetation along a waterway where plant communities and soil moisture differ from surrounding upland vegetation and soils


Wetlands

 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 with 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).




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
Rare Plant Areas and Significant Natural Communities

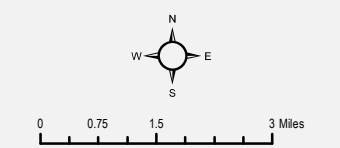
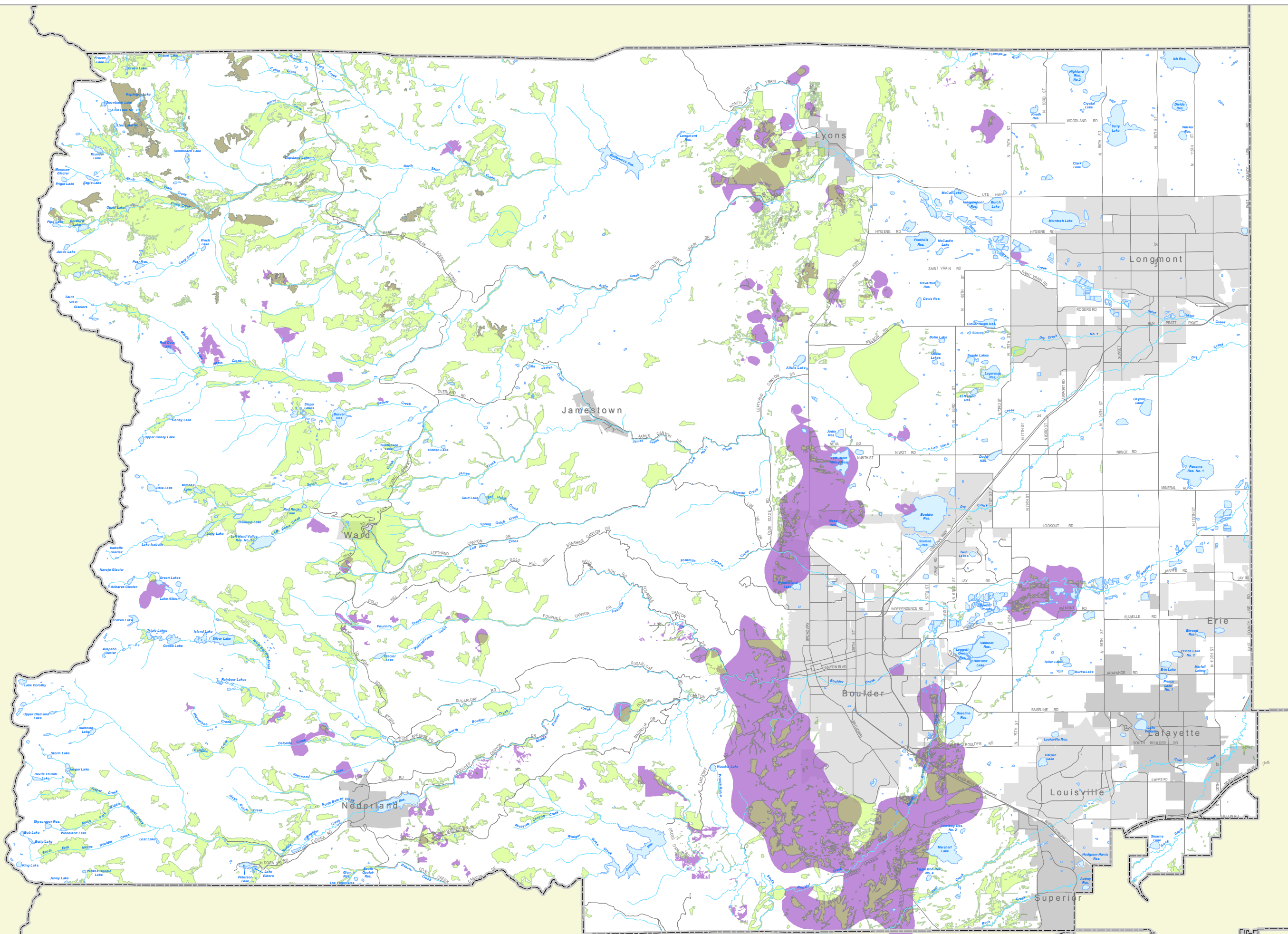
 **Boulder County**
Comprehensive Plan
2013 Update

Rare Plant Areas

 An area known to have or have a high likelihood of having occurrences of Plant Species of Special Concern.

Significant Natural Communities

 An area where a combination of plant species (a plant association) that is critically imperiled or vulnerable to extirpation is present.



Habitat Conservation Areas for Prebles Meadow Jumping Mouse

Boulder County
Comprehensive Plan
2013 Update

Habitat Conservation Areas Descriptions

Habitat Conservation Areas are adapted from the "Possible Conservation Zones" of the PMJM Conservation Handbook. The designations guide conservation of PMJM habitat with the overarching goal of aiding in the recovery of this Threatened species.

Zone 1 Mouse Management Area (MMA)

Areas in which PMJM is known to occur, including adjacent habitat patches that are likely to be occupied. Management should emphasize maintaining higher quality riparian habitat and higher numbers of mice. Areas of poor quality are priorities for restoration with high expectations for success.

Zone 2 Possible Linkages

Linkages are designated for populations that once occurred as a single unit, but are now fragmented. Linkages provide adequate structure for a few mice to "make it to the other side", facilitating dispersal, population maintenance, and genetic exchange.

Zone 3 Suitable Contiguous Habitat

Areas of suitable habitat that are contiguous to a known population and are not known to be occupied by PMJM (i.e. PMJM either have not been captured or no trapping has occurred).

Zone 4 Potential Restoration, Contiguous

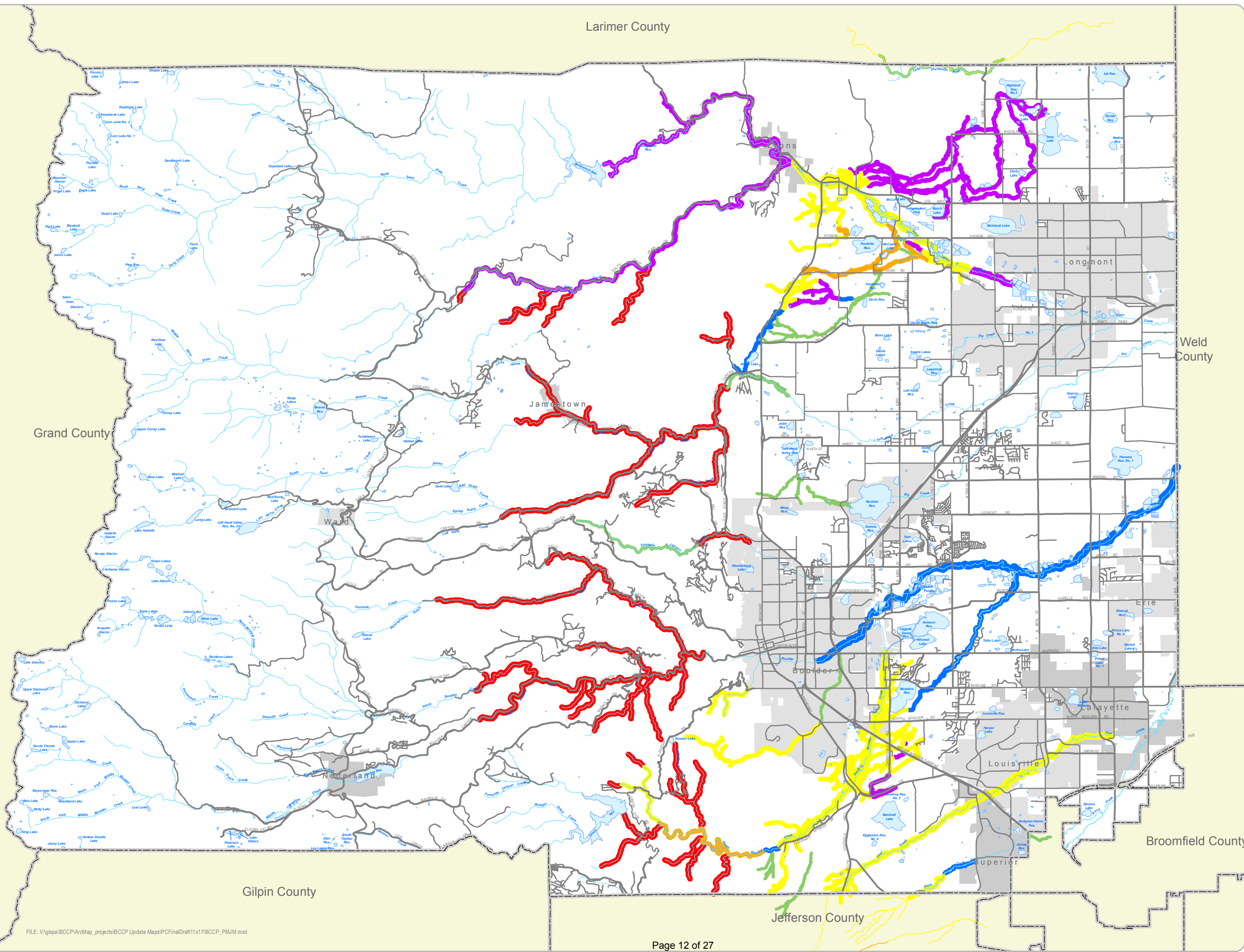
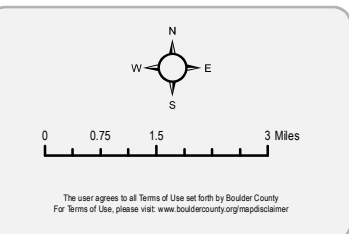
Areas not known to be occupied but contiguous with known populations where restoration of unsuitable or degraded habitat could result in a significant increase in a PMJM population.

Zone 5 Suitable, Noncontiguous Habitat

Areas of suitable habitat that are NOT contiguous to a known population and are not known to be occupied by PMJM.

Foothills Perennial Stream Habitat

Areas of suitable PMJM habitat along foothills perennial streams up to 7,600 ft. in elevation not covered under one of the other designations. PMJM are known to occupy riparian habitat up to this elevation (USFWS 2004).



Natural Landmarks and Natural Areas

Boulder County
Comprehensive Plan
2013 Update

Natural Landmarks

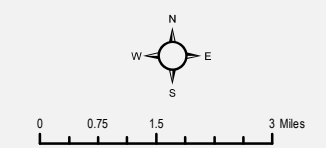
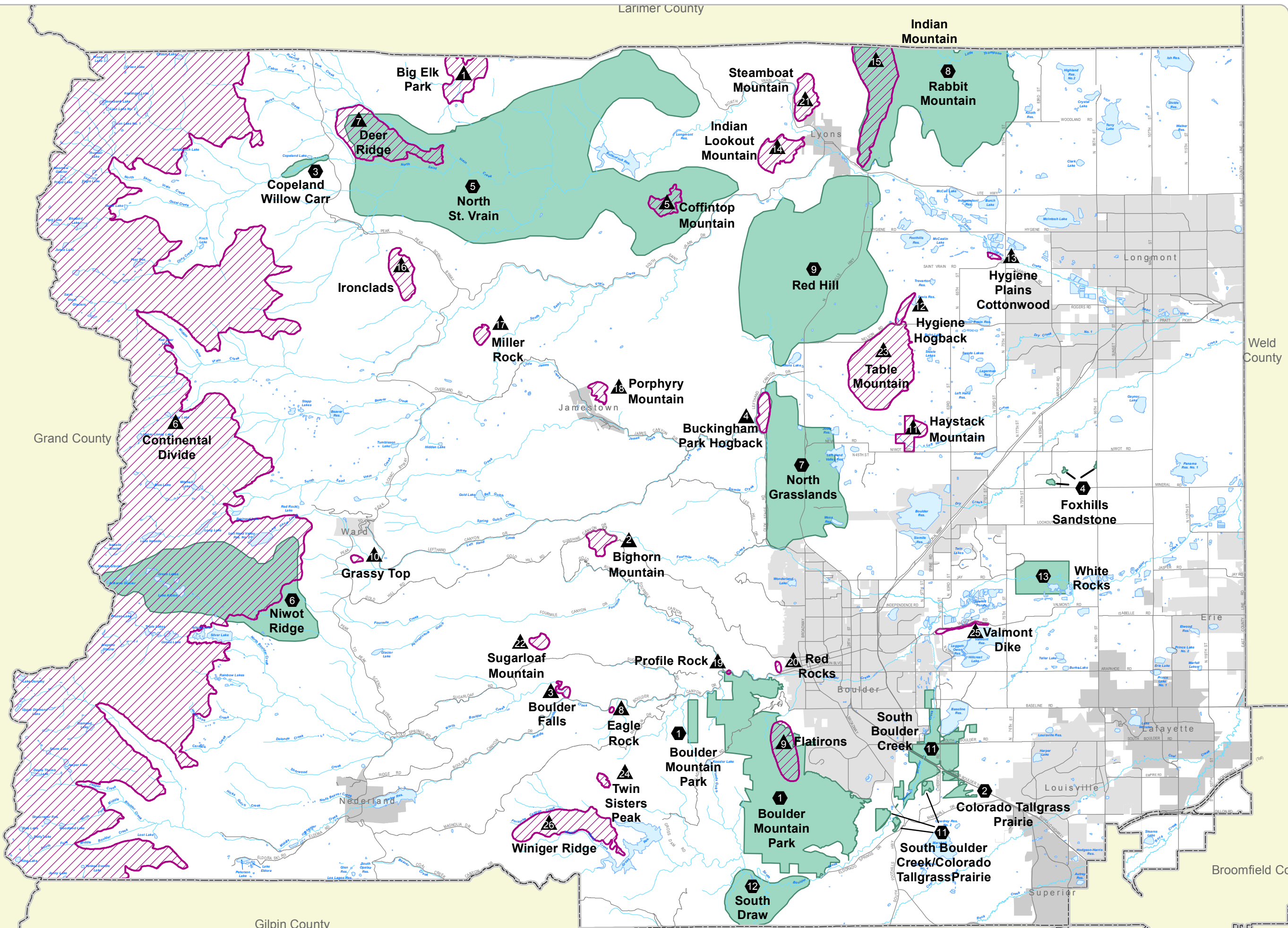


A landscape feature designated solely for its visual and scenic prominence that distinguishes a specific locality in Boulder County.

Natural Areas



An area especially unique and important to the natural heritage of the county that typifies native vegetation and associated biological and geological features and provides habitat for rare or endangered animal or plant species; or includes geologic or other natural features of scientific or educational value.

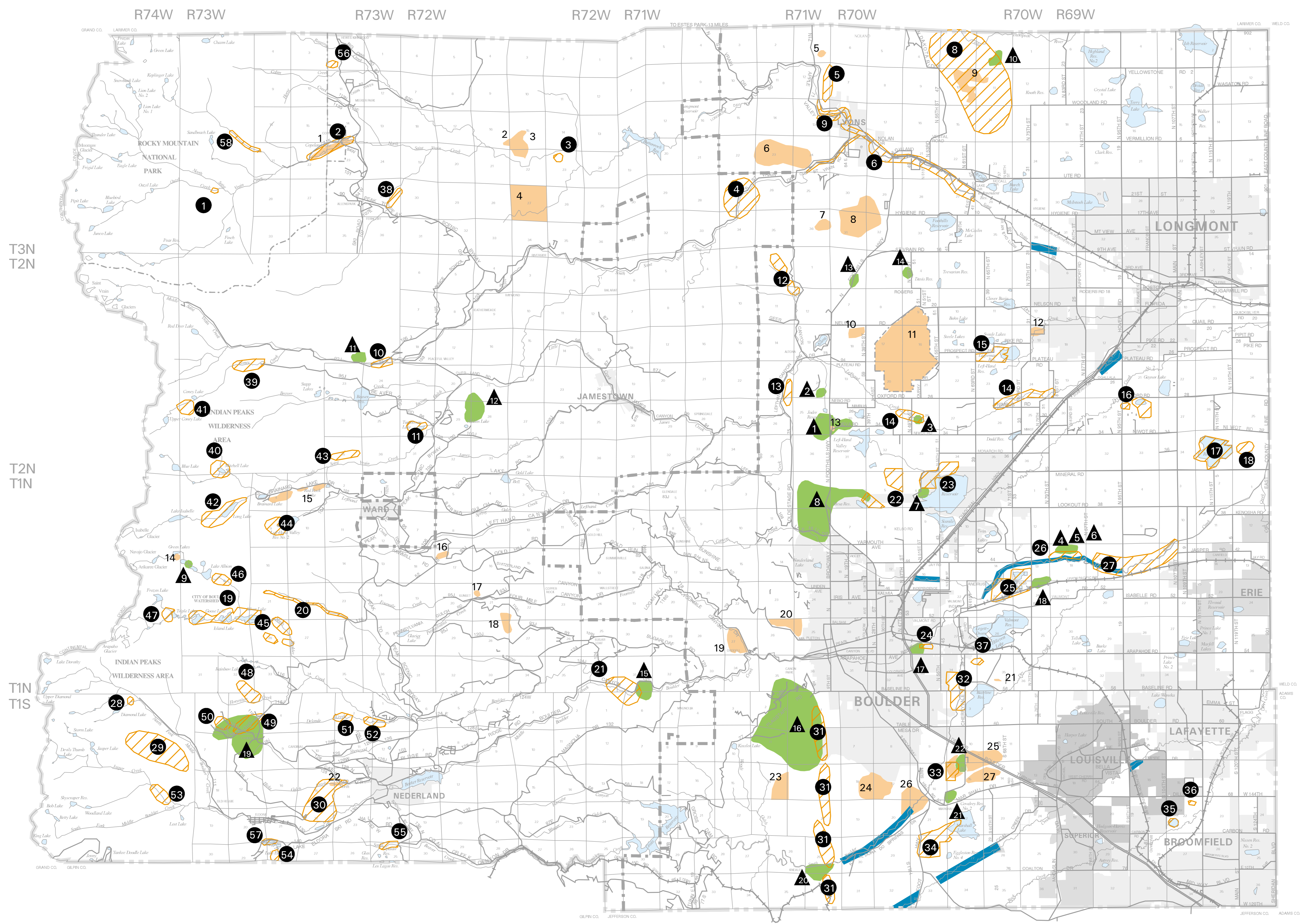


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ATTACHMENT B

The Two Existing ERE Maps

Natural Communities, Rare Plants, Riparian Corridors, and Critical Wildlife Habitats
Environmental Resources



Legend

-  Significant Natural Communities
- 0 (See Back for Descriptions)
-  Rare Plant Areas
-  (See Back for Descriptions)
-  Critical Wildlife Habitats
- 0 (See Back for Descriptions)
-  * Significant Riparian Corridors
-  Incorporated Areas
(As of April 20, 1999)


Notes
Map scale and reproduction method limit precision in physical features and boundary locations.
PRINTED - APRIL 22, 1999

Revisions
Adopted - Planning Commission - March 22, 1995

0 1 2 3 4 5
MILES



COMPREHENSIVE PLAN MAP



Natural Communities, Rare Plants, Riparian Corridors, and Critical Wildlife Habitats

Significant Natural Communities

- 1 Montane Willow Carr
- 2 Foothills Ponderosa Pine Scrub Woodland (Purshia)
- 3 Mixed Foothills Shrubland (Purshia)
- 4 Foothills Ponderosa Pine Savanna
- 5 Mixed Foothills Shrubland (Cercocarpus)
- 6 Xeric Tallgrass Prairie
- 7 Foothills Ponderosa Pine Scrub Woodland (Cercocarpus)
- 8 Foothills Ponderosa Pine Scrub Woodland (Cercocarpus)
- 9 Foothills Ponderosa Pine Scrub Woodland (Cercocarpus)
- 10 Great Plains Mixed Grass Prairie (Stipa comata)
- 11 Great Plains Mixed Grass Prairie (Stipa neomexicana)
- 12 Great Plains Salt Meadow
- 13 Great Plains Mixed Grass Prairie (Stipa comata)
- 14 Alpine Wetlands
- 15 Montane Wet Willow Carr
- 16 Montane Grasslands
- 17 Foothills Ponderosa Pine Savanna
- 18 Montane Grasslands
- 19 Foothills Ponderosa Pine Savanna
- 20 Xeric Tallgrass Prairie
- 21 Great Plains Mixed Grass Prairie
- 22 Montane Willow Carr
- 23 Montane Grasslands
- 24 Wet Prairie
- 25 Wet Prairie
- 26 Wet Prairie
- 27 Xeric Tallgrass Prairie

Rare Plant Areas

- ▲ 1 *Physaria bellii*
- ▲ 2 *Physaria bellii*
- ▲ 3 *Physaria bellii*
- ▲ 4 *Aristida basiramea*
- ▲ 5 *Apios americana*
- ▲ 6 *Asplenium adiantum-rigrum*
- ▲ 7 *Physaria bellii*
- ▲ 8 *Physaria bellii*
- ▲ 9 *Phippsia algida*
- ▲ 10 *Physaria bellii*
- ▲ 11 *Listera convallarioides*
- ▲ 12 *Eustoma grandiflorum*
- ▲ 13 *Physaria bellii*
- ▲ 14 *Physaria bellii*
- ▲ 15 *Selaginella weatherbiana*
- ▲ 16 *Amorpha nana*,
Betula papyrifera,
Carex saximontana,
Listera convallarioides,
Malaxis brachypoda,
Pyrola picta,
Selaginella weatherbiana
- ▲ 17 *Sensitive species*
- ▲ 18 *Eustoma grandiflorum*
- ▲ 19 *Botrychium echo*,
Botrychium hesperium,
Botrychium lanceolatum,
Botrychium pallidum,
Listera convallarioides,
Botrychium minganense
- ▲ 20 *Selaginella weatherbiana*
- ▲ 21 *Amorpha nana*
- ▲ 22 *Amorpha nana*



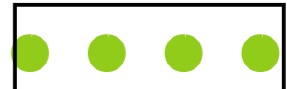

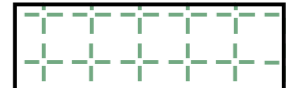



Critical Wildlife Habitats

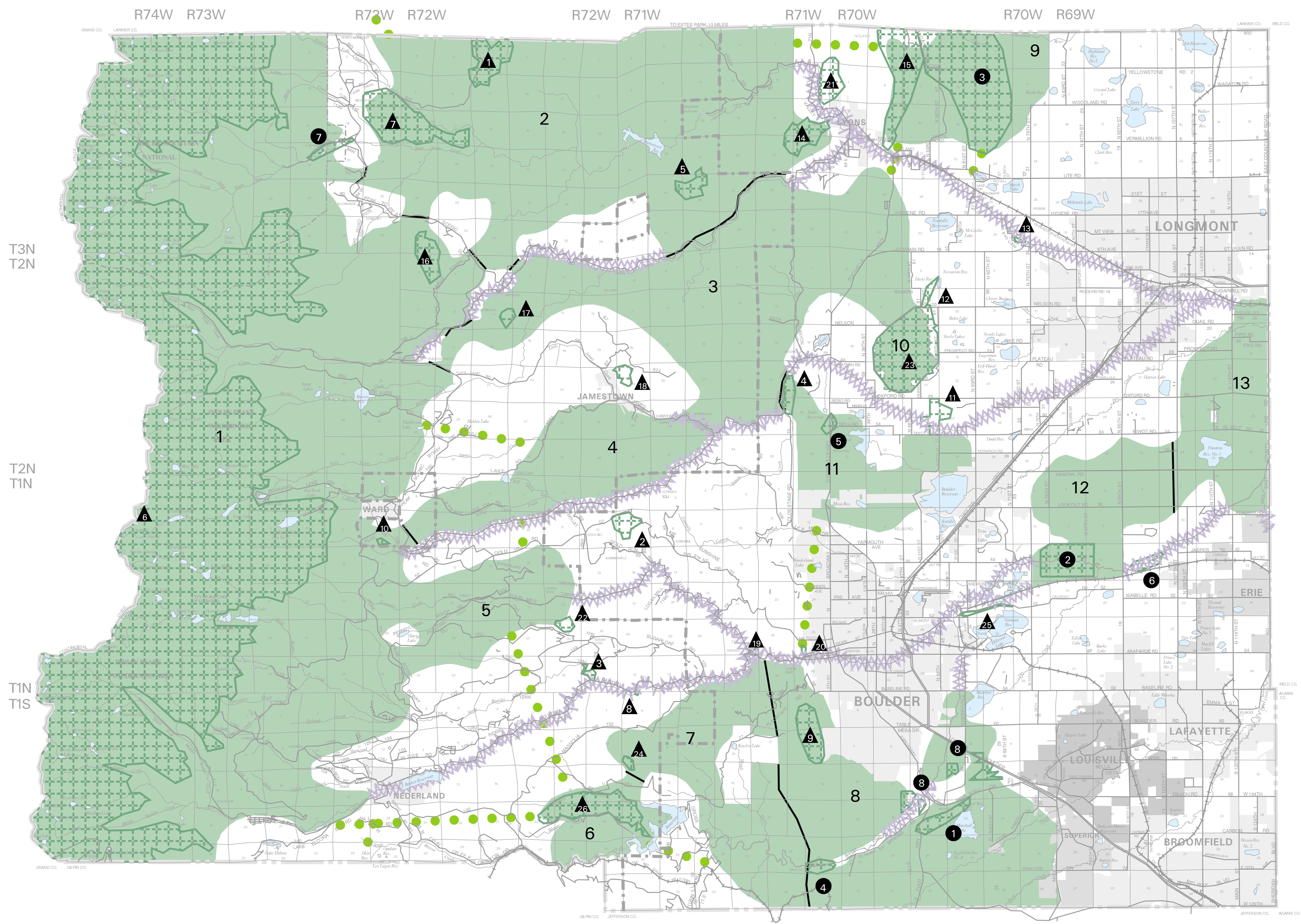
- 1 Ouzel Falls
- 2 Copeland Willow Carr (+ wetlands)
- 3 South Sheep Mountain
- 4 Deadman Gulch and South St. Vrain
- 5 Steamboat Mountain
- 6 St. Vrain Creek (+ wetlands)
- 7 St. Vrain Corridor (+ wetlands)
- 8 Rabbit Mountain
- 9 Old Apple Valley
- 10 Middle St. Vrain Willow Carr (+ wetlands)
- 11 Tumbleson Lake (+ wetlands)
- 12 Marietta Canyon
- 13 Lefthand Palisades
- 14 Lefthand Creek Cottonwood Groves (+ wetlands)
- 15 Lagerman Reservoir (+ wetlands)
- 16 Gaynor Lakes (+ wetlands)
- 17 Panama Reservoir (+ wetlands)
- 18 B-J Acres Ranch
- 19 City of Boulder Watershed (Special Consideration)
- 20 Como Creek (Special Consideration)
- 21 Boulder Falls Area
- 22 Boulder Valley Ranch (+ wetlands)
- 23 Boulder Reservoir (+ wetlands)
- 24 Cottonwood Grove on Boulder Creek (+ wetlands)
- 25 Walden and Sawhill Ponds (+ wetlands)
- 26 White Rocks (+ wetlands)
- 27 Cottonwood Grove & Heron Rookery (+ wetlands)
- 28 Diamond Lake Outlet
- 29 Chittenden Meadows (+ wetlands)
- 30 Arapaho Ranch - Tucker Homestead (+ wetlands)
- 31 Boulder Mountain Parks - Eldorado Mountain
- 32 South Boulder Creek (+ wetlands)
- 33 Tallgrass Prairie
- 34 Marshall Mesa
- 35 Stearns Lake (+ wetlands)
- 36 Carolyn Holmberg Preserve at Rock Creek Farm
- 37 Sombrero Marsh (+ wetlands)
- 38 Lazy H. Ranch Willow Carr (+ wetlands)
- 39 Coney Flats Willow Carr (+ wetlands)
- 40 Mitchell Lake Willow Carr (+ wetlands)
- 41 Coney Lake Willow Carr (+ wetlands)
- 42 Long Lake Willow Carr (+ wetlands)
- 43 South St. Vrain Willow Carr (+ wetlands)
- 44 Lefthand Reservoir Willow Carr (+ wetlands)
- 45 Boulder Watershed Willow Carr (+ wetlands)
- 46 Lake Albion Willow Carr (+ wetlands)
- 47 Triple Lakes Willow Carr (+ wetlands)
- 48 Horseshoe Creek Willow Carr (+ wetlands)
- 49 Caribou Park Willow Carr (+ wetlands)
- 50 Upper Caribou Park Willow Carr (+ wetlands)
- 51 Delonde Creek Willow Carr (+ wetlands)
- 52 Caribou Ranch Willow Carr (+ wetlands)
- 53 Woodland Flats Willow Carr (+ wetlands)
- 54 Buckeye Basin Willow Carr (+ wetlands)
- 55 Los Lagos Willow Carr (+ wetlands)
- 56 Roaring Fork Willow Carr (+ wetlands)
- 57 Peterson Lake (+ wetlands)
- 58 Hunterís Creek

**Environmental Conservation Areas
Environmental Resources**

Areas where conservation/preservation is encouraged

Legend


-  Environmental Conservation Areas
-  (See Back for Descriptions)
-  Overland Habitat Connectors
-  Stream Habitat Connectors
-  Natural Landmarks & Natural Areas
- Natural Landmarks**
-  (See Back for Descriptions)
- Natural Areas**
-  (See Back for Descriptions)
-  Incorporated Areas
(As of April 20, 1999)




Notes
Map scale and reproduction method limit precision in physical features and boundary locations.
PRINTED - APRIL 22, 1999

Revisions
Adopted - Planning Commission - March 22, 1995

0 1 2 3 4 5 MILES



**COMPREHENSIVE
PLAN MAP**



Environmental Conservation Areas, Natural Landmarks & Natural Areas

Environmental Conservation Areas

- 1 Indian Peaks
Size - 1,000,000 Acres
Lifezones - Montane/Subalpine/Alpine
- 2 North St. Vrain
Size - 34,500 Acres
Lifezones - Montane/Foothills
- 3 South St. Vrain/Foothills
Size - 21,800 Acres
Lifezones - Montane/Foothills
- 4 Walker Mountain
Size - 7,500 Acres
Lifezones - Montane
- 5 Fourmile Creek/Bald Mountain
Size - 6,700 Acres
Lifezones - Montane
- 6 Winiger Ridge
Size - 3,000 Acres
Lifezones - Montane
- 7 Hawkin Gulch/Walker Ranch/
Upper Eldorado Canyon
Size - 9,500 Acres
Lifezones - Foothills/Plains
- 8 Boulder Mountain Park/South Boulder
Size - 17,500 Acres
Lifezones - Foothills/Plains
- 9 Rabbit Mountain
Size - 7,500 Acres
Lifezones - Foothills/Plains
- 10 Table Mountain
Size - 7,500 Acres
Lifezones - Plains
- 11 Boulder Valley Ranch/Beech Open Space
Size - 5,500 Acres
Lifezones - Plains
- 12 White Rocks/Gunbarrel Hill
Size - 6,200 Acres
Lifezones - Plains
- 13 East County
Size - 7,300 Acres
Lifezones - Plains

Natural Landmarks

- ▲ 1 Big Elk Park
- ▲ 2 Bighorn Mountain
- ▲ 3 Boulder Falls
- ▲ 4 Buckingham Park Hogback
- ▲ 5 Coffintop Mountain
- ▲ 6 Continental Divide
- ▲ 7 Deer Ridge
- ▲ 8 Eagle Rock
- ▲ 9 Flatirons
- ▲ 10 Grassy Top Mountain
- ▲ 11 Haystack Mountain
- ▲ 12 Hygiene Hogback
- ▲ 13 Hygiene Plains Cottonwood
- ▲ 14 Indian Lookout Mountain
- ▲ 15 Indian Mountain
- ▲ 16 Ironclads
- ▲ 17 Miller Rock
- ▲ 18 Porphyry Mountain
- ▲ 19 Profile Rock
- ▲ 20 Red Rocks
- ▲ 21 Steamboat Mountain
- ▲ 22 Sugarloaf Mountain
- ▲ 23 Table Mountain
- ▲ 24 Twin Sisters Peak
- ▲ 25 Valmont Dike
- ▲ 26 Winiger Ridge

Natural Areas

- 1 Marshall Mesa
- 2 White Rocks
- 3 Rabbit Mountain
- 4 Eldorado Springs Canyon
- 5 Sixmile Fold
- 6 Heron Rookery
- 7 Copeland Willow Carr
- 8 Tallgrass Prairie



Parks and Open Space

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December 10, 2013

ATTACHMENT C: Summary of Proposed Updates

The following information summarizes the updates that are proposed to the Environmental Resource Element map component of the Boulder County Comprehensive Plan. Please refer to Supplemental Materials provided with the November 2013 memo for more detailed information, as well as to the maps themselves. A previous version of this summary was also included as an attachment to the November 2013 memo.

CRITICAL WILDLIFE HABITATS (CWH)

- The criteria for designating Critical Wildlife Habitat (CWH) were modified from the historic version. In developing the update to the Species of Special Concern (SSC) list, it became evident that there were no distinct criteria explicitly for designating SSC. Rather, these criteria were built into the criteria for designating CWH's. We felt that having distinct criteria for designating SSC, apart from those criteria for designating CWH's, was necessary. The reasoning is that not every SSC should have a CWH designated for it. The SSC list is much more comprehensive than that, and there are species on that list for which designating habitat is not warranted. There are also species on the SSC list that are of concern, but protection of habitat may not be the most effective method conservation for that species. Additionally, as you can see from the new CWH criteria, protecting habitat that supports SSC(s) is not the only reason for designating a CWH. Thus, the criteria for designating species and habitats were teased apart and developed into stand-alone criteria for each.
- **UPDATES:** All of the CWH's (as they existed per the 2002 update) were edited or modified in some way during the 2013 update. Five of the existing CWH's were deleted (see "DELETIONS" below). Eleven of the existing CWH's were subsumed by another CWH (typically a new one). That is, these shapes were deleted because the area which they covered was encompassed within a larger shape that was added per this update, or multiple smaller CWH's that overlapped or were within close proximity to each other were grouped together as one large CWH. The boundaries of the remaining 43 existing CWH's were edited to 1) more accurately represent the on-the-ground habitat, taking advantage of more advanced modern mapping technology and improved ecological information, 2) correct mapping errors from the past, 3) provide more adequate protections for the species or habitats within a CWH, based on the most current and best available science.

- **DELETIONS:** In the process of updating the Critical Wildlife Habitats, we deleted five of the existing CWH's outlined below
 - **CWH #9 – Old Apple Valley Road:** The SSC's described in the original CWH description (Cedar Waxwing and American Redstart) are not currently considered high priority species. Additionally, the habitat described for this area is not rare or of uniquely high quality. The higher quality parts of this habitat were riparian and were ultimately subsumed by the new St. Vrain Corridor CWH (#7).
 - **CWH #22 – Boulder Valley Ranch:** The "Key Species" for which this CWH was designated (Burrowing Owl and American Bittern) are not known to occur there currently. It was noted in the 2002 update to CWH's that the last year in which there was an active Burrowing Owl nest site was 1986. This remains true. While the area continues to be occupied by prairie dogs (Species of Special Concern), the habitat effectiveness (quality) of the area has been sufficiently degraded by anthropogenic activity (e.g. increased visitor use and dog use of the trail network).
 - **CWH #24 – Cottonwood Grove on Boulder Creek:** This remnant cottonwood gallery exists as a small isolated patch surrounded by urban development. Although this CWH may provide "stop-over" habitat for migrating birds, its landscape context (i.e. isolated island of questionable quality) is assumed to limit the habitat effectiveness of this small riparian patch.
 - **CWH #34 – Marshall Mesa:** This CWH was replaced with the new CWH # 64 Southern Grasslands. It was decided that the existing CWH was not the best example of native prairie habitat in the area, and that the area adjacent to this CWH (to the south east) was larger and of higher quality.
 - **CWH #35 – Stearn's Lake:** This CWH was actually deleted in the previous update to CWH's (2002). The Lost Lake CWH was added in 2002, taking the number (#35) of Stearn's lake. The CWH description reflected this change, but the change was not reflected in the ERE map. The polygon for the Stearn's Lake CWH remained and a new polygon for the Lost Lake CWH was not added to the map. This was remedied in the 2013 update process. The Stearn's Lake polygon was deleted, and a new polygon for Lost Lake was added to the map.

- **ADDITIONS:** A total of 35 new CWH's (plus three Wildlife Migration Corridors, see below) were added to the map of Critical Wildlife Habitats. These new CWH's were developed using the updated CWH designation criteria and informed using the best available science, expert interviews, and local habitat knowledge. (See CWH descriptions for more information on individual areas).

- **WILDLIFE MIGRATION CORRIDORS:** Specific, delineated areas of known elk migration were mapped using the best available information from Colorado Parks and Wildlife as well as data based on studies and long-documented expert observations by Boulder County staff and local experts from around the county. These shapes are based on specific and reliable information

about the movement patterns of all major elk herds in the County. These areas may also serve as movement corridors for other wildlife species in the County. This designation is a new addition to the Environmental Resources Element (ERE) and a special case of Critical Wildlife Habitat. It was determined by POS staff and other experts that migration corridors are essential to the long-term sustainability of local populations of migratory elk. This decision supports the effort to “keep common species common” and complies with earlier calls to minimize impacts to these areas (see Wildlife Policy ER 4.03.01 BCCP 1999). These areas should be treated with the same, if not more, conservation concern as any other Critical Wildlife Habitat area.

In addition to being vital to sustaining elk populations in county, these corridors have valuable land use planning functions. They serve to identify potential wildlife conflicts zones along roads etc.; and, highlight areas that could provide wildlife viewing. They also identify areas with habitat value that is vulnerable to being compromised and/or fragmented by human uses such as development and recreation.

- Summary of 2013 update to Critical Wildlife Habitats:

Updated	43
Deleted	5
Subsumed	11
New CWH	35
Wildlife Migration Corridors	3
CWH (2013)	81
CWH (2002)	58

CWH Descriptions: In addition, the CWH descriptions included in the Supplemental Materials were expanded from the previous version to include threats to the habitat or the SSC’s occupying it. In addition to SSC’s known to occur at a site, we also included a list of species expected to occur based on the habitat type. We also identified which of the CWH designation criteria each CWH met. Vegetation within a CWH was summarized using the Southwest Regional Gap Analysis Project Landcover types.

Table 1: List of new Critical Wildlife Habitats added to the Environmental Resources Element per the 2013 update. Note: the one marked with an asterisk (*) are Wildlife Migration Corridors.

59	Geer Canyon	78	Buffalo Gulch and Rock Creek
60	Caribou Ranch Montane Parkland	79	Bear and Aspen Canyons
61	Barker Reservoir	80	Giggey Lake
62	Beaver Reservoir	81	Hall 2
63	Goose Pond	82	B.L.I.P. and Lappin Pond
64	Southern Grasslands	83	Geer Meadows
65	Kenosha Wetlands	84	Red Hill
66	Two Creeks	85	Coffintop Mountain
67	Cony Creek	86	Powers Marsh
68	Ouzel Creek	87	Quicksilver
69	Sandbeach Creek	88	Gunbarrel Hill
70	Peewink Mountain	89	South Boulder Creek Floodplain and Terrace
71	Red Hill Gulch	90	North Boulder Grasslands
72	Antelope Park	91	Bummer's Gulch
73	North Saint Vrain Canyon	92	Kenosha Heronry
74	Hat Rock	93	Upper Caribou Park Willow Carr Complex
75	Ingersoll Quarry	94	North Foothills Elk Herd*
76	South Draw	95	Winiger Ridge Elk Herd*
77	Hodgson-Harris Reservoir	96	Peewink Mountain Elk Herd*

PREBLE’S MEADOW JUMPING MOUSE (PMJM) HABITAT CONSERVATION AREAS:

PMJM is listed as a Threatened species and is protected under the Endangered Species Act. During the time of the last update to County CWH’s (2002) the County was working with the U.S. Fish and Wildlife Service and the PMJM Science Team (a panel of area experts convened by The Nature Conservancy to guide local PMJM conservation efforts) to develop a PMJM Habitat Conservation Plan for Boulder County. Since a more comprehensive effort to conserve PMJM in the county was being developed, no CWH’s specific to PMJM were included as part of the 2002 update. The Boulder County Habitat Conservation Plan continued to be under development and revision during the early 2000’s, but was never adopted by the County. As a result, there currently exists no official County map to guide land use decisions in the county toward minimizing human impacts to PMJM populations and habitat, although federal regulations are in place. However, the efforts of the Science Team included extensive trapping efforts and habitat evaluation and resulted in the development of a map of PMJM habitat in Boulder

County. This map has since served as the primary reference to land use decision-making concerning impacts to PMJM habitat in the County. The “Science Team” map, as it is known, has been incorporated into a comprehensive map of PMJM Habitat Conservation Areas in Boulder County. The County expanded the original maps to include PMJM locations and habitat that have been documented in the time since the original map was produced (following the guidance of the PMJM “Conservation Handbook” developed by the Science Team). Additionally, all “Foothills Perennial Stream Habitat” was mapped up to 7,600 ft. as potential habitat to guide conservation of PMJM throughout its distribution in the County. (The U.S. Fish & Wildlife Service recommends that sites below 7,600 ft. in Colorado be surveyed, USFWS 2004).

WILDLIFE SPECIES OF SPECIAL CONCERN (SSC):

- Prior to the 2013 update to the BCCP – Environmental Resources Element (ERE), there was not a distinct set of criteria explicitly designed for designating Species of Special Concern. (See discussion under Critical Wildlife Habitat section). We reviewed current literature and listing criteria developed by other agencies and organizations to distill the basic tenants of modern species based conservation biology and compiled a comprehensive set of criteria for listing Species of Special Concern for Boulder County.
- The 1994 Boulder County SSC list was updated. This list is improved in that it incorporates a broader spectrum of taxonomic groups. There is also more abundant information available on species and population trends than during the previous ERE update. Some species populations have recovered, and so have been removed from the SSC list. Seventeen species remain extirpated from the county. Many more species have been determined to be in decline.
- Summary of number of species on the Boulder County SSC list by year of update:

	1994	2013
Total Species	153	180
New		64
Deleted		36

Table 2: Summary of species added and deleted from the Boulder County SSC list during the 2013 ERE update.

ADDED		DELETED
(A miner bee)	Myotis, Western Small-footed	Bass, Small Mouth
Avocet, American	Owl, Mexican Spotted	Blue, Appalachian
Azure, Hops Feeding	Owl, Northern Pygmy	Bobcat
Badger, American	Pigeon, Band-tailed	Bobwhite, Northern
Bat, Big Brown	Porcupine, North American	Bullhead, Black
Bat, Brazilian Free-tailed	Prairie Dog, Black-tailed	Cat, Channel
Bat, Eastern Red	Rosy-Finch, Brown-capped	Catbird, Gray
Bat, Hoary	Scrub-Jay, Western	Dace, Southern Redbelly
Bat, Silver-haired	Sheep, Rocky Mountain Bighorn	Finch, Rosy
Bat, Tricolored	Shrew, American Water	Flycatcher, Least
Bee, American Bumble	Siskin, Pine	Frog, Wood
Bee, Black and Gold Bumble	Skipper, Cross-line	Gopher, Plains Pocket
Bee, Variable Cuckoo Bumble	Skipper, Dusted	Hawk, Swainson's
Bee, Western Bumble	Skipper, Rhesus	Mouse, Hesperid Pocket
Beetle, Prairie Tiger	Skipper, Simius Roadside	Muskrat
Blue, Colorado	Skipper, Snow's	Nuthatch, Pygmy
Bunting, Indigo	Skipper, Two-spotted	Opposum, Virginia
Bunting, Lazuli	Snake, Common Garter	Osprey
Chipmunk, Colorado	Sparrow, Brewer's	Owl, Barn
Dace, Northern Redbelly	Sparrow, Cassin's	Pelican, American White
Dancer, Blue-Ringed	Stonecat	Shad, Gizzard
Dragonfly, Hudsonian Emerald	Toad, Great Plains	Shad, Threadfin
Flicker, Northern	Toad, Plains Spadefoot	Shrew, Pygmy
Frog, Chorus	Turtle, Spiny Softshell	Shrew, Water
Gopher, Northern Pocket	Vireo, Plumbeous	Snake, Smooth Green
Hawk, Ferruginous	Warbler, Virginia's	Sparrow, Savannah
Hawk, Rough-legged	Warbler, Wilson's	Squirrel, Abert's
Jewelwing, River	Wren, Rock	Squirrel, Rock
Kingfisher, Belted		Sunfish, Orange Spotted
Lark, Horned		Swallowtail, Eastern Tiger
Lizard, Short-Horned		Swallowtail, Short-tailed Black
Mink, American		Teal, Green-winged
Moth, Lost Ethmiid		Thrasher, Brown
Myotis, Little Brown		Valvata, Mossy
Myotis, Long-eared		Walleye
Myotis, Long-legged		Warbler, Chestnut-sided

PLANTS SPECIES AND COMMUNITIES OF SPECIAL CONCERN

- Took more regional and global approach to identifying species/communities of concern (Plants SSC List)
 - Utilized CNHP ranking system (G1/S1 etc.)
 - Utilized input from Subject Matter Experts
- Utilized geodatabases of the county's and county partners to identify and map Rare Plant Areas and Significant Natural Communities based on Plants SSC List

Below is a summary of the changes to the Plants SSC List:

BCCP Year	Significant Natural Communities	Rare plants
1995	27	27
1999	20	23
2013	102	132

WETLANDS AND RIPARIAN AREAS

- Developed criteria that were used to identify and map wetlands and riparian areas at the county-wide scale using a variety of geodatabases
- A map of these resources did not previously exist at this scale in the ERE

ENVIRONMENTAL CONSERVATION AREA (ECA) UPDATES:

- The BCCP made big strides in protecting the environmental resources of the county when the adopted the ecosystem management concepts outlined in the "Ecosystem Plan", produced by the Boulder County Nature Association. These concepts, as well as the criteria for designating ECA's, were revisited during the current update and found to be consistent with contemporary conservation biology and landscape ecology theory and concepts. Thus, we found it was not necessary to apply any major changes to the ECA's. Only minor editorial changes were made to the text and existing ECA shapes. One new ECA was added to the map (see below).
- We took advantage of more advanced modern mapping technology and better available information to update the boundaries of the ECA's. These boundaries were modified to correct mapping errors and align shapes to better match features on the ground.

- A number of experts and POS staff felt that the area east of Nederland, along Magnolia road was “missing” from the historic ECA map. We are proposing the addition of the Magnolia ECA (#14). This area bears many of the features of an ECA and fully meets the criteria for designation. The relative impacts of fragmentation in this area are fairly minor and consistent with that of other ECAs. This area is also home to high quality habitat for both flora and fauna of the montane life zone in Boulder County. It provides connectivity on the landscape through a diffuse matrix of relatively undeveloped land and sustains high degree of naturalness, relative to the majority of Boulder County’s mineral belt. This area has undergone some habitat restoration work by both POS and USFS, and some historical efforts have been made to curb development of public land.
- A description was written for each of the individual ECAs summarizing its general characteristics and features. These descriptions are included in the Supplemental Materials.

HIGH BIODIVERSITY AREAS

- Developed this map based on the study completed by Colorado Natural Heritage Program in 2009 identifying areas in the county of high biodiversity

NATURAL AREAS

- Using the criteria already outlined in the BCCP, areas were identified for inclusion under this designation and areas that could be removed were identified based on new information and in collaboration with partners. Here is a summary of the changes.
 - Four areas were revised
 - Three new areas were identified
 - Two areas were removed
 - Five areas have no proposed changes

NATURAL LANDMARKS

There are no proposed updates or changes to Natural Landmarks

ATTACHMENT D



United States
Department of
Agriculture

Forest
Service

Boulder
Ranger District

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Boulder, CO 80301-1615
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File Code: 1560/2610

Date: December 5, 2013

Justin Atherton-Wood
Resource Planner
Boulder County Parks and Open Space
5201 St Vrain Road
Longmont, CO 80503

Dear Justin,

I am writing in support of the update that BCPOS has undertaken to the Boulder County Comprehensive Plan, Environmental Resources Element. BCPOS staff has involved Bev Baker of my staff throughout the process, particularly with Wildlife Species of Special Concern and Critical Wildlife Habitats descriptions and mapping. It is my understanding that the County's process has been thorough and inclusive. BCPOS staff has provided opportunities for the Forest Service and other local resource managers, as well as members of the public and local conservation groups, to participate in the update. Additionally, your staff has spent time in the field and consulted with a variety of species experts.

I believe that the County's process and broad participation will result in a useful document that can serve as a valuable reference for future land management planning and resource conservation in Boulder County.

If you need further information or have questions, feel free to contact Bev Baker at 303-541-2517 or bbaker@fs.fed.us.

Sincerely,

SYLVIA G. CLARK
District Ranger

Cc: Bev Baker



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