

COMPOSITE MAPS CONTENT

CRITICAL WILDLIFE LANDS MAP (Map A-Final):

Critical Wildlife Lands Map = Ranked and Combined Wildlife Habitat

The Critical Wildlife Lands Map identifies areas of habitat that are important to conserve. This map is created by layering species and habitats which were identified by Colorado Parks and Wildlife (CPW).

Rankings for High, Medium and Low are based on previous recommendations from CPW in a study of nearby Elbert County. Other species such as antelope and eagle nest sites received a high score because they were noted by ACOS staff as being significant in Arapahoe County.

CPW SWAP Tier 3 = Modeled distribution of at least one G3 (vulnerable) species, or documented occurrence of at least one G4 (apparently secure) species.

Areas appropriate for wildlife recreation will be added to the map as an overlay once this analysis is refined.

Wildlife Habitat Inputs (<i>Map A1</i>)	Ranking	Source	Notes
	Influence on Map		
WILDLIFE HABITAT COMPOSITE MAP (<i>Map A2</i>)			
Concentration Areas			
		CPW	CPW = Colorado Parks and Wildlife
Mule Deer (Winter)	High 100		
Pronghorn (Year-round)	High 100		
Pronghorn (Winter)	High 100		
Mule Deer (Year-round)	Med 10		
White-Tailed Deer (Year-round)	Med 10		
Nest/Site Production Areas			
Bald and Golden Eagle Nest Sites	High 100	CPW	
Geese Production Areas	Low 1		
Migration Corridors			
Mule Deer	High 100	CPW	
Pronghorn	High 100		
Severe Winter Range			
Pronghorn	Low 1	CPW	
Mule Deer	Low 1		
Winter Range			
Pronghorn	High 100	CPW	

Bald Eagle	Med 10	
Mule Deer	Med 10	
Wild Turkey	Med 10	
Forage Areas		CPW
Great Blue Heron	High 100	
Bald Eagle	Med 10	
Bald Eagle Winter Forage	Med 10	
Overall Range		CPW
Preble's Meadow Jumping Mouse	Med 10	
Ring-necked Pheasant	Med 10	
Swift Fox	Med 10	
Mountain Lion	Low 1	
White-Tailed Deer	Low 1	
Wild Turkey	Low 1	
Resident Population Areas		CPW
Mule-Deer	Low 1	
Peripheral Range		CPW
Mountain Lion	Low 1	
Historic Range		CPW
Greater Prairie Chicken	Low 1	
	High 100	
CPW Tier 3 Habitat	Med 10	CPW SWAP 2016
WILDLIFE RECREATION <i>(Future map overlay)</i>		OVERLAY
Birding Value	Not yet included	How to identify good bird-watching areas?
Hunting Value	Not yet included	
Big Game – Pronghorn, Deer		What game is popular in Arapahoe?
Fowl – Pheasant, Turkey, Quail		Where is Bird-hunting popular in Arapahoe?

Other wildlife species to consider:

Additional species to be reviewed by CPW. Are there any important species significant to Arapahoe county that should be added to the wildlife composite map?

- Big Brown Bat
- Fringed Myotis
- Hoary Bat
- Little Brown Myotis
- Long-Eared Myotis
- Long-Legged Myotis

- Red Bat
- Silver-Haired Bat
- Townsends Big-Eared Bat
- Tri-Colored Bat
- Western Small-Footed Myotis
- American Bittern
- Band-Tailed Pigeon
- Brewer Sparrow
- Brown-Capped Rosy
- Burrowing Owl
- Cassin Sparrow
- Ferruginous Hawk
- Golden Eagle
- Grasshopper Sparrow
- Lark Bunting
- Lazuli Bunting
- Lewis Woodpecker
- Long-Billed Curlew
- McCown Longspur
- Mountain Plover
- Northern Harrier
- Prairie Falcon
- Rufous Hummingbird
- Swainson Hawk
- Veery
- Virginia Warbler
- Black-Tailed Prairie Dog
- Osprey
- Bullsnake
- Common Garter Snake
- Common Lesser Earless Lizard
- Hernandez's Short-Horned Lizard
- Lined Snake
- Milksnake
- North American Racer
- Northern Watersnake
- Ornate Box Turtle
- Painted Turtle
- Plains Black-headed Snake
- Plains Gartersnake
- Plains Hog-nosed snake
- Prairie Lizard
- Plateau Fence Lizard
- Prairie Rattlesnake
- Western Rattlesnake
- Six-lined Racerunner
- Snapping Turtle
- Spiny Softshell
- Terrestrial Gartersnake
- Variable Skink
- Many-Lined Skink

LANDSCAPE CHARACTERISTICS MAP (Map B-Final):

Landscape Characteristics Map = 40% Hydrology Composite Map + 30% Landcover Composite Map + 30% Landform Composite Map

The Landscape Characteristics Composite map identifies areas rich in landscape features. These features are valued by people and animals as they provide unique habitat, scenic resources, and recreation opportunities. This map was created by combining values from the Hydrology Composite Map, the Landcover Composite Map, and the Landforms Composite Map.

Landscape Inputs (<i>Maps B1, B2, B3</i>)	Ranking	Influence on Map	Source	Notes
HYDROLOGY COMPOSITE MAP (Map B4)				
		40%	USGS NHD and AC	AC = Arapahoe County GIS Website or GIS dept.
100 yr Floodplain	Very High			1000' Buffer
Perennial Streams and Setbacks	Very High			1000' Buffer
Riparian	Very High			1000' Buffer
Lakes and Setbacks	High	100		1000' Buffer
Wetland Ponds	High	100		1000' Buffer
Intermittent Streams and Setbacks	High	100		
Wetlands Emergent	Med	10		1000' Buffer
Ditches and Canals	Low	1		500' Buffer
Wetlands Potential	Low	1		500' Buffer
LANDCOVER COMPOSITE MAP (Map B5)				
		30%	NLCD Landcover	
Woodland/Shrubland/Grassland	Very High			This includes floodplain wetlands
Agricultural Vegetation	High	100		
Semi-Desert	High	100		
Non-Native	Med- Low	10		
Non-Vascular/Rock	Med- Low	10		
Recently Disturbed/Modified	Med- Low	10		
Developed/Urban	Low	1		
LANDFORM COMPOSITE MAP (Map B6)				
		30%	CO View and USGS	
Cliffbands (Slopes > 30%)	High	100		
Ridgelines	High	100		
Rock Outcroppings	High	100		
Steep Slopes (20-30%)	High	100		
Hillsides and Foothills (10-20%)	Med	10		
Shallow Slopes (0-10%)	Low	1		

Hydrology Rationale:

Very High Values 1000 – The 100 year floodplain, riparian areas, perennial streams and wetland ponds each have 1,000’ buffers, as noted in the Arapahoe County Comprehensive Plan. These areas have a significant impact on water quality and are valued as stormwater and ecological assets in the Comprehensive Plan.

High Values 100 – Wetland ponds, intermittent streams and lakes have 1000’ buffers as noted in the Comprehensive Plan. These areas are important to ecological functions.

Med Values 10 – Emergent wetlands are ranked as medium because they are not consistently present throughout the year.

Low Values 1 - Canals and ditches have a low ranking as they serve less ecological functions than natural waterways. This layer was extracted by identifying the names of the features in the rivers shapefile. Potential wetlands are areas that were wetlands prior to agricultural modifications and would return to this state if naturalized. These were given a low score since they currently do not serve an ecological function but could be reclaimed.

Vegetation Rationale:

Very High Values 1000 - Forested areas and floodplain woodlands are important to wildlife habitat as well as being a more unique feature in the county. Grasslands are becoming a rare ecosystem worldwide and are threatened by agriculture and development.

High Values 100 - Agricultural vegetation is an important resource but does not contribute to a diverse ecosystem. Semi-Desert areas are valuable natural areas but do not provide as many ecosystem services.

Med Values 10 – Non-vascular areas do not have vegetative value, but can still be landscapes of some value. Disturbed lands or lands with non-native vegetation are of less value but could potentially be reclaimed.

Low Values 1 – Developed areas have many areas with impervious surfaces and vegetation of lower ecological quality.

Landforms Rationale:

High Values 100 – Cliffbands, ridgelines, steep slopes and rock outcroppings are unique landscape features that are beneficial for many types of recreation including hiking, ATV/OHV activity and equestrian activity. The Comprehensive Plan also suggests creating guidelines for development near ridgelines.

Medium Values 10 – Hillside and foothills are more common, but also provide interest and landform in the context of the plains landscape.

Low Values 1 – Shallow slopes can sometimes read as somewhat significant in the context of the plains landscape.

WORKING LANDS COMPOSITE MAP (Map C-Final):

Working Lands Composite Map = Ranked and Combined Working Lands Inputs

The Agriculture/ Working Lands Map identifies areas that are currently being used for agriculture and grazing, as well as identifying lands that could be suitable for agricultural uses. This includes both leased and private land.

Working Lands Inputs (Map C1)	Ranking	Influence on Map	Source	Notes
WORKING LANDS COMPOSITE MAP (Map C-Final)		100%		
Prime Farmland if Irrigated	High 100		NLCD	
Ag lease SLB (Grazing/Cons Reserve)	High 100			
Ag lease (Conserved Lands)	High 100			
Agriculture (Parcels)	Med 10		AC	
Ag lease SLB (Agriculture)	Med 10			
Ranch land (Ranch Homes/Farms)	Med 10			
Ag Parcels (Other)	Med 10			
Prim Farm if irrigated and reclaimed	Low 1			
Not Prime Farmland	Low 0			

Working Lands Rationale:

High Values 100 – Prime Farmland if irrigated is given a high ranking because it contains valuable soils but is not necessarily existing farmland. State Land Board lands and other conserved lands that are utilized for grazing or agriculture or that are part of the Conservation Reserve Program received high values as they are existing reserved lands which can contribute to a network of open space.

Medium Values 10 - Existing agricultural parcels and ranch lands received medium values as they contain valuable lands and soils but are not necessarily compatible with open space programming or ecological benefits. Owners of these lands could potentially form partnerships for conservation.

Low Values 1 – Prime farmland if irrigated and reclaimed is given a low score as these lands would need to be reclaimed before serving recreational or ecological benefits.

SCENIC RESOURCES MAP (Map D-Final):

Scenic Resources Map = Views from Selected Roads and Conserved Lands in Arapahoe County.

Viewshed Inputs (<i>Maps D1 and D2</i>)	Ranking	Influence on Map	Source	Notes
Views of the surrounding area from Selected Roads in Arapahoe County	High 100	50%		Quincy, I-70, Kiowa-Bennett, Bradbury, Strasburg, Exmoor, Price, Jolly, East, 4 Mile, Knudtson, Hwy 36, Hwy 40, 1 st , University, Parker, Arapahoe, Littleton, Main, Broadway, Belevue, Federal, Gun Club, Havana, 6 th , Watkins, E-470
Views from Conserved Lands in Arapahoe County	High 100	50%		Conserved lands = Parks, opens space, easements, state and federal lands

EASE FOR OPEN SPACE ASSIMILATION MAP (Map E-Final):

Ease for Open Space Assimilation Map = 40% Parcel Size by Landowner Composite Map + 60% Parcel Proximity Composite Map

The Parcel Size Map shows groups of parcels that are large in size and/or are next to existing conserved lands. The goal of this map is to identify lands that could add contiguously to existing open space, buffer open space or create new open spaces of significant size.

If parcels had a municipality associated with their address, they were put into an urban parcel category.

Parcels > 50 acres are grouped in size by landowner. This does not necessarily mean these properties are contiguous parcels. However, in most cases the groupings of parcels were either contiguous or in close proximity to a grouping of the same landowner.

Parcel Inputs (<i>Maps E1 and E2</i>)	Ranking	Influence on Map	Source	Notes
PARCEL SIZE BY LANDOWNER COMPOSITE MAP (Map E3)		40%	AC	(50 plus = rural)
Parcels >1,000 acres	Very High 1000			
Parcels 100-1,000 acres	High 100			
Parcels 50-100 acres	Med 10			
Urban 20-50 acres	High 100			
Urban Area Parcels 8-20 acres	Med 10		AC	
Urban Area Parcels 1-7 acres	Low 1			

**PARCEL PROXIMITY COMPOSITE
MAP (Map E4)**

Floodplains
1 mile to Existing Conserved Land

½ mile to Existing and Proposed Trails
1 mile to Trailheads
1 mile to Floodplain
.25 mile to Grasslands/Forest
1 mile to State Land Board Lands
1 mile to Ranching, Agriculture

	60%	AC and COMaP
	High 1000	
	Med 100	Conserved lands = Parks, opens space, easements, state and federal lands
	Med 100	
	Med 100	
	Med 100	
	Low 10	
	Low 10	
	Low 10	

Parcel Size Rationale:

Very High Values 1000 – Aggregated parcels above 1,000 acres that have the same landowner have the highest value.

High Values 100 – Aggregated parcels with the same landowner between 100 and 1,000 acres have a high value because they can contribute to less fragmentation of the landscape. Urban parcels between 20-50 acres have a high value because though they are significantly smaller than the large rural parcels, they are near larger portions of the population. Also, larger tracts of urban land can be unique opportunities.

Med Values 10 - Aggregated parcels with the same landowner between 50-100 acres have a medium value as they are still valuable, but less valuable than larger tracts of land in the rural area. Urban parcels between 8-20 acres have a medium value, as they can still be significant in contributing to an urban network of open space.

Low Values –Urban Parcels from 1-7 acres are included at a low value because some of these smaller lots may be of value for acquisition due to strategic locations. These lots may be highlighted through the parcel proximity mapping, which has a higher percentage of influence on the final Ease for Open Space Assimilation than the parcel size mapping.

Parcel Proximity Rationale:

High Values 1000 – As ACOS has expressed the importance of preserving the floodplain and river corridors for both ecological and flood control purposes, the river floodplains were given a high value.

Med Values 100 - The next highest values were given to a parcel’s proximity to existing conserved lands and existing and proposed trails and trailheads as parcels could be added on as a buffer or complement to these areas and could be managed in a contiguous block. Proximity to the floodplain was given a medium score as it could be of important conservation value, but not as important as the floodplain itself.

Low Values 10 – Proximity to Forests, Grasslands and Agriculture was given a medium value. While the value of these lands is important to conserve for both open space and ecological functions, nearly all land in the county is within .25 of these places. Therefore, these lands were included in the assessment, but not given as high of a value as conserved lands, trails and floodplains which were a rarer quality. Proximity to State Land Board lands was given a low value. While these lands are utilized for many purposes other than conservation, there is some potential for them to be utilized as open space or conserved land.

OPEN SPACE SUITABILITY (Map F-Final):

Open Space Suitability = 25% Critical Wildlife Lands Map + 25% Landscape Characteristics Map + 15% Working Lands Map + 10% Scenic Resources Map + 25% Ease for Open Space Assimilation Map

Open Space Inputs (Maps A-Final, B-Final, C-Final, D-Final and E-Final)	Ranking	Influence on Map	Source	Notes
CRITICAL WILDLIFE LANDS MAP (Map A-Final)		25%		
LANDSCAPE CHARACTERISTICS MAP (Map B-Final)		25%		
WORKING LANDS MAP (Map C-Final)		15%		
SCENIC RESOURCES MAP (Map D-Final)		10%		
EASE FOR OPEN SPACE ASSIMILATION (Map E-Final)		25%		

Open Space Rationale:

Critical Wildlife Lands, Landscape Characteristics and Ease for Open Space Assimilation were equally ranked as the most important contributors to open space suitability, each contributing 25%. These were ranked as most important as wildlife habitat is critical to a healthy ecosystem, landscape characteristics are important to wildlife and are also create enjoyable recreational experiences for people, and more appropriately sized and located parcels will be important to identify for open space acquisition.

Working lands contributed 15% to the Open Space Suitability Map as they do not contribute as much to wildlife or recreation opportunities as natural settings but can provide opportunities to create easements in partnership with rural landowners.

Scenic Resources contributed 10% to the Open Space Suitability Map as it is important to protect scenic viewsheds. However, selected viewsheds will likely be most important to consider at the edge of urban development areas and should not weigh in as heavily at a county-wide scale.

PROJECTED DEVELOPMENT (Map G-Final):

Projected Development Inputs (Map G-1)	Ranking	Influence on Map	Source	Notes
Urban Reserve	High 100		AC	Development Pressure Area
Sky Ranch Development	High 100		AC	Development Pressure Area
DRCOG Population Projections 2,000+	High 100		DRCOG	By Census Block
DRCOG Population Projections 1,500-2,000	Med 10			By Census Block
DRCOG Rapid Transit 2040	Med 10			½ Mile Buffer
DRCOG Proposed/Expanded Roads	Med 10			½ Mile Buffer
DRCOG Population Projections 1,052-1,500	Low 1			
Lowry Future Dev. Area? Also prop reservoirs, urban dev. etc	Not Included			SB said Lowry files are old. Check w/ACOS to see if still relevant

Projected Development Rationale:

High Values 100 – The Urban Reserve and Sky Ranch Development are areas that are planned for future development. Areas with high population projections from DRCOG also received a high value.

Med Values 10 – Areas projected to have moderate to high population projections received medium values. Roads planned for expansion, proposed future roads, and proposed future transit lines received medium values as this is both an indicator of where the population is expected to grow and development typically follows major arterial roads and transportation.

Low Values 1 – Areas with moderate population projections received low values as they will still be some growth expected in these areas, though at less density than other rapidly developing areas in the county.