



# **North TSA Plan Appendices**

**APPENDIX A: TSA-Wide and Subarea Maps**

**APPENDIX B: Open Space Board of Trustees Meetings  
and Summary of Community Engagement**

**APPENDIX C: Existing Infrastructure and  
Recommended Improvements for Trailheads**

**APPENDIX D: Recommended Actions,  
Interests and Costs Table**

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# Appendix A

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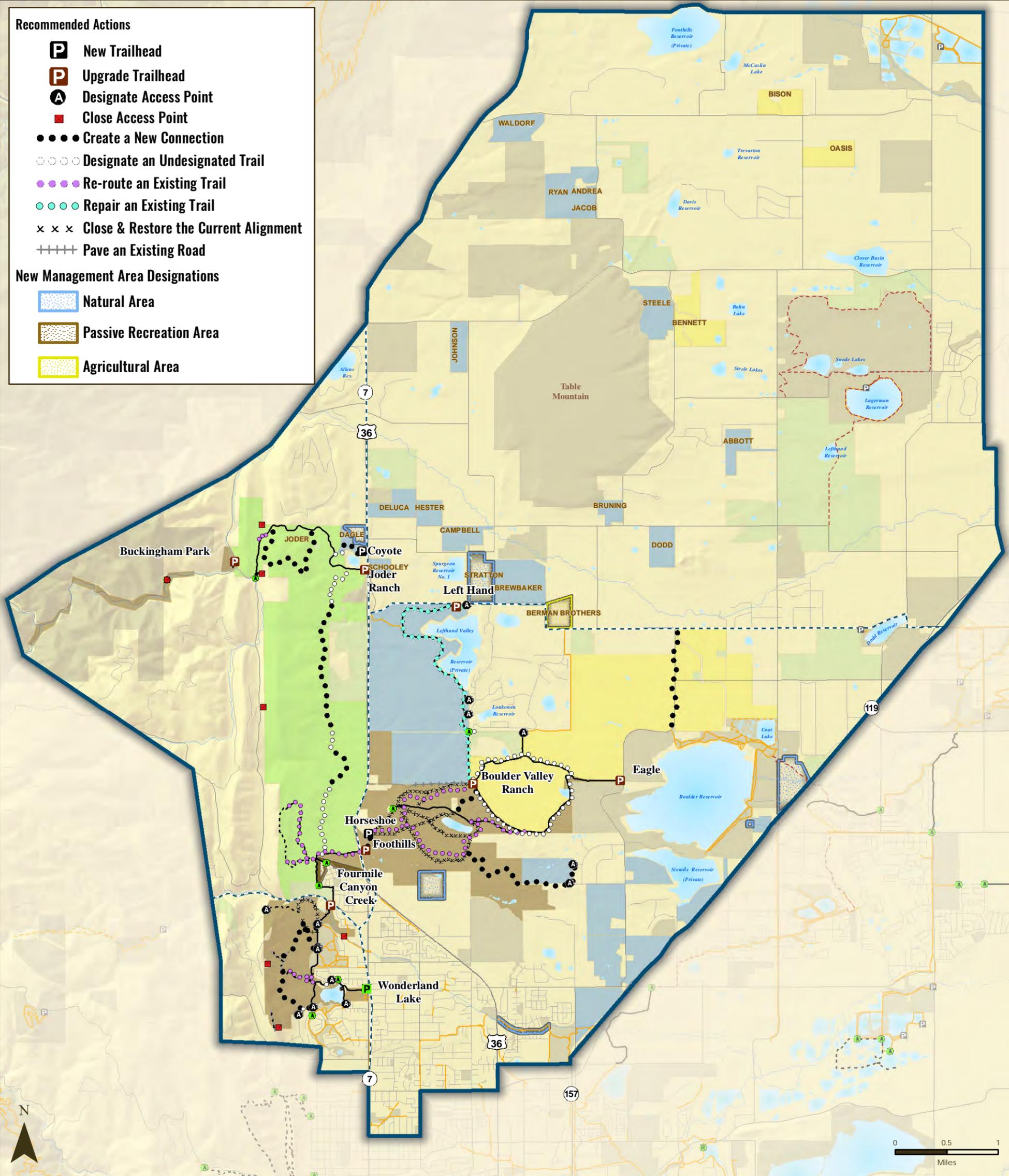
# North Trail Study Area Plan

## Recommended Actions

- P** New Trailhead
- P** Upgrade Trailhead
- A** Designate Access Point
- Close Access Point
- Create a New Connection
- ○ ○ ○ Designate an Undesignated Trail
- Re-route an Existing Trail
- Repair an Existing Trail
- × × × Close & Restore the Current Alignment
- ++++ Pave an Existing Road

## New Management Area Designations

- Natural Area
- Passive Recreation Area
- Agricultural Area



## Management Area Designations

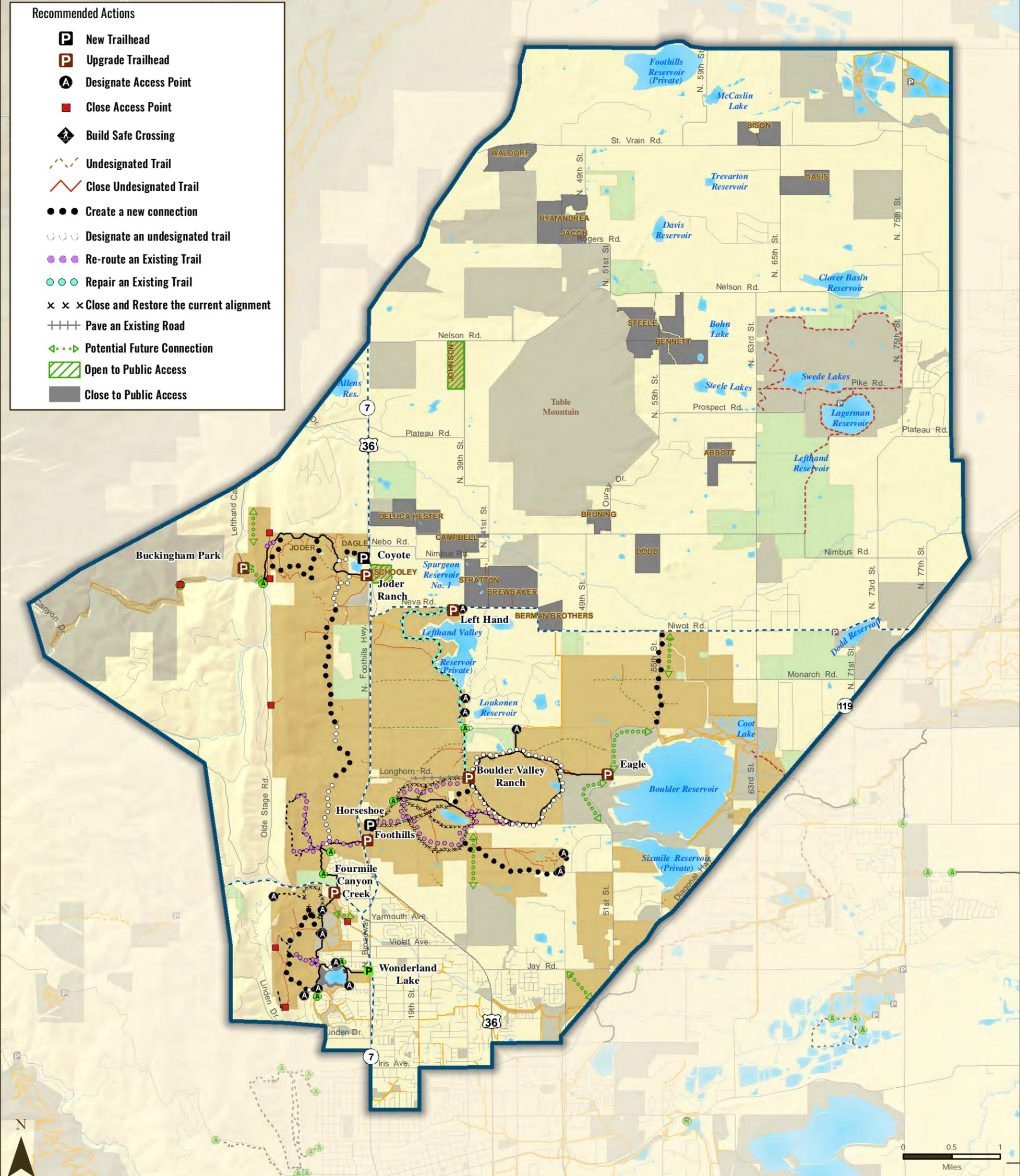
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|--|----------------------------------|--|----------------------------------|--|---|
|  | North Trail Study Planning Area  |  | OSMP Hiking/Equestrian Trail     |  | Agricultural Area                                   |
|  | North Trail Study Subareas       |  | OSMP Multi-Use Trail             |  | Habitat Conservation Area                           |
|  | OSMP Trailhead                   |  | OSMP Gliding Access              |  | Natural Area  |
|  | OSMP Access Point                |  | Non-OSMP Managed Hiking Trail    |  | Passive Recreation Area                             |
|  | OSMP Recreational Feature Access |  | Non-OSMP Managed Multi-Use Trail |  | OSMP Easement or Jointly Owned, County-Managed Land |
|  | Boulder County Trailhead         |  | Non-OSMP Planned Trail           |  | Other Government Land                               |

Trail changes are depicted conceptually. Actual trail alignments will differ.

# North Trail Study Area Plan

**Recommended Actions**

- New Trailhead
- Upgrade Trailhead
- Designate Access Point
- Close Access Point
- Build Safe Crossing
- Undesignated Trail
- Close Undesignated Trail
- Create a new connection
- Designate an undesignated trail
- Re-route an Existing Trail
- Repair an Existing Trail
- Close and Restore the current alignment
- Pave an Existing Road
- Potential Future Connection
- Open to Public Access
- Close to Public Access

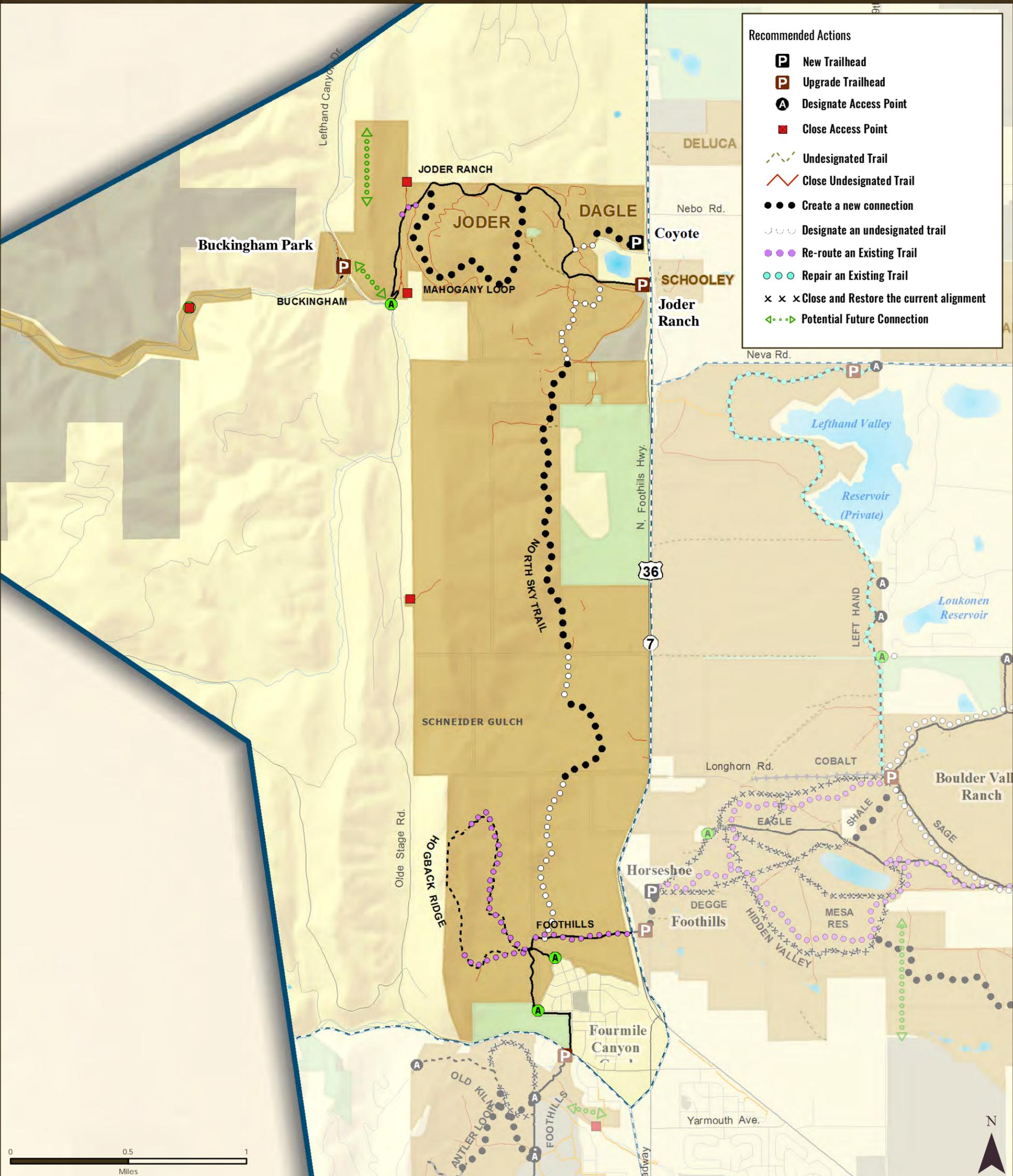


## North Trail Study Area Recommendations

- |  |                                  |  |                                  |  |   |
|--|----------------------------------|--|----------------------------------|--|---|
|  | North Trail Study Planning Area  |  | OSMP Hiking/Equestrian Trail     |  | OSMP Fee & Managed Property in the North TSA        |
|  | North Trail Study Subareas       |  | OSMP Multi-Use Trail             |  | OSMP Easement or Jointly Owned, County-Managed Land |
|  | OSMP Trailhead                   |  | OSMP Gliding Access              |  | Other Government Land                               |
|  | OSMP Access Point                |  | Non-OSMP Managed Hiking Trail    |  |   |
|  | OSMP Recreational Feature Access |  | Non-OSMP Managed Multi-Use Trail |  |   |
|  | Boulder County Trailhead         |  | Non-OSMP Planned Trail           |  |   |

Trail changes are depicted conceptually. Actual trail alignments will differ.

# North Trail Study Area Plan



**Recommended Actions**

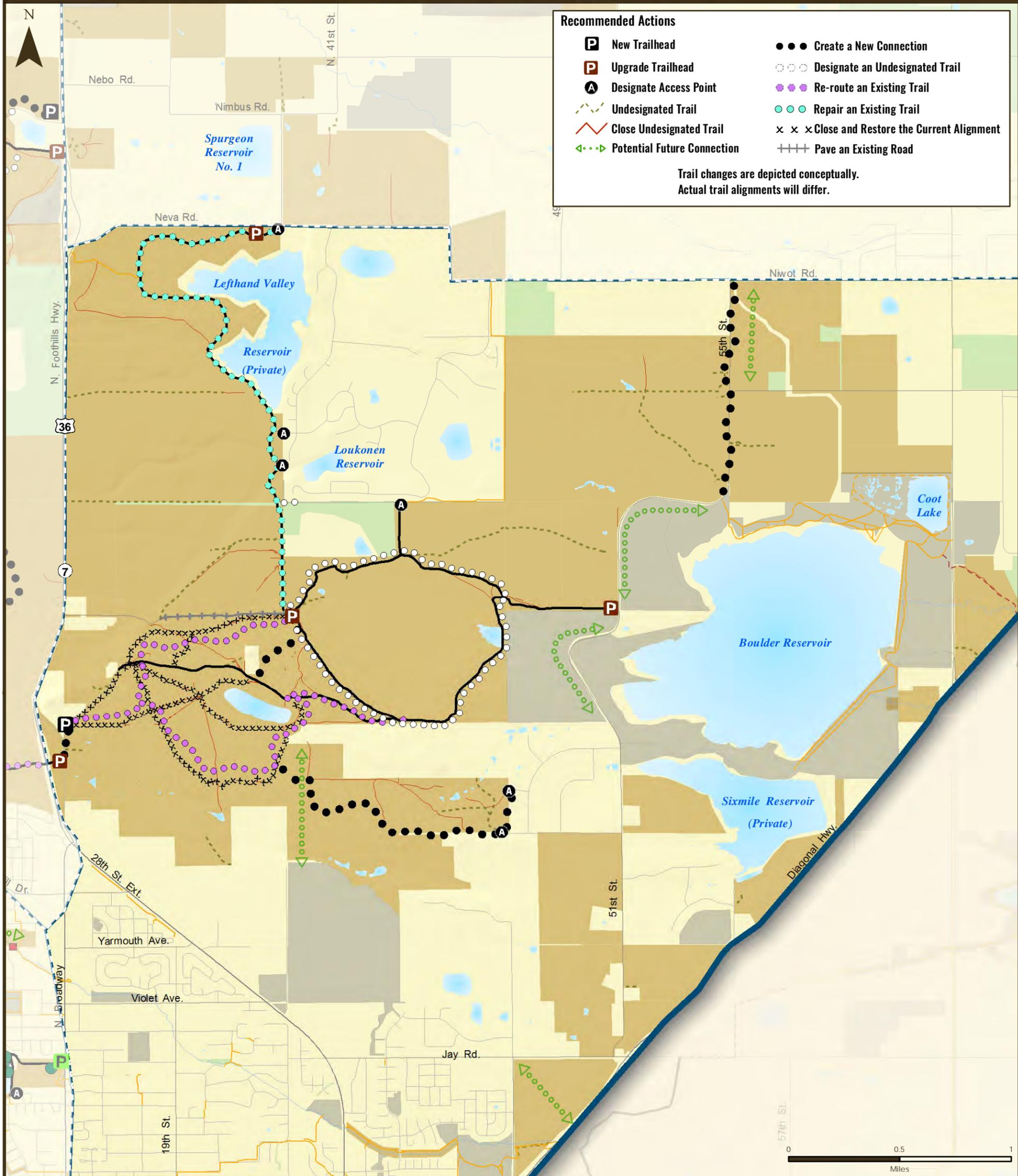
- P** New Trailhead
- P** Upgrade Trailhead
- A** Designate Access Point
- Close Access Point
- Undesignated Trail
- Close Undesignated Trail
- Create a new connection
- Designate an undesignated trail
- Re-route an Existing Trail
- Repair an Existing Trail
- Close and Restore the current alignment
- Potential Future Connection

## North Foothills Subarea Recommendations

North Trail Study Planning Area	OSMP Hiking/Equestrian Trail	OSMP Fee & Managed Property in the North TSA
North Trail Study Subareas	OSMP Multi-Use Trail	OSMP Easement or Jointly Owned, County-Managed Land
OSMP Trailhead	OSMP Gliding Access	Other Government Land
OSMP Access Point	Non-OSMP Managed Hiking Trail	
OSMP Recreational Feature Access	Non-OSMP Managed Multi-Use Trail	
Boulder County Trailhead	Non-OSMP Planned Trail	

Trail changes are depicted conceptually. Actual trail alignments will differ.

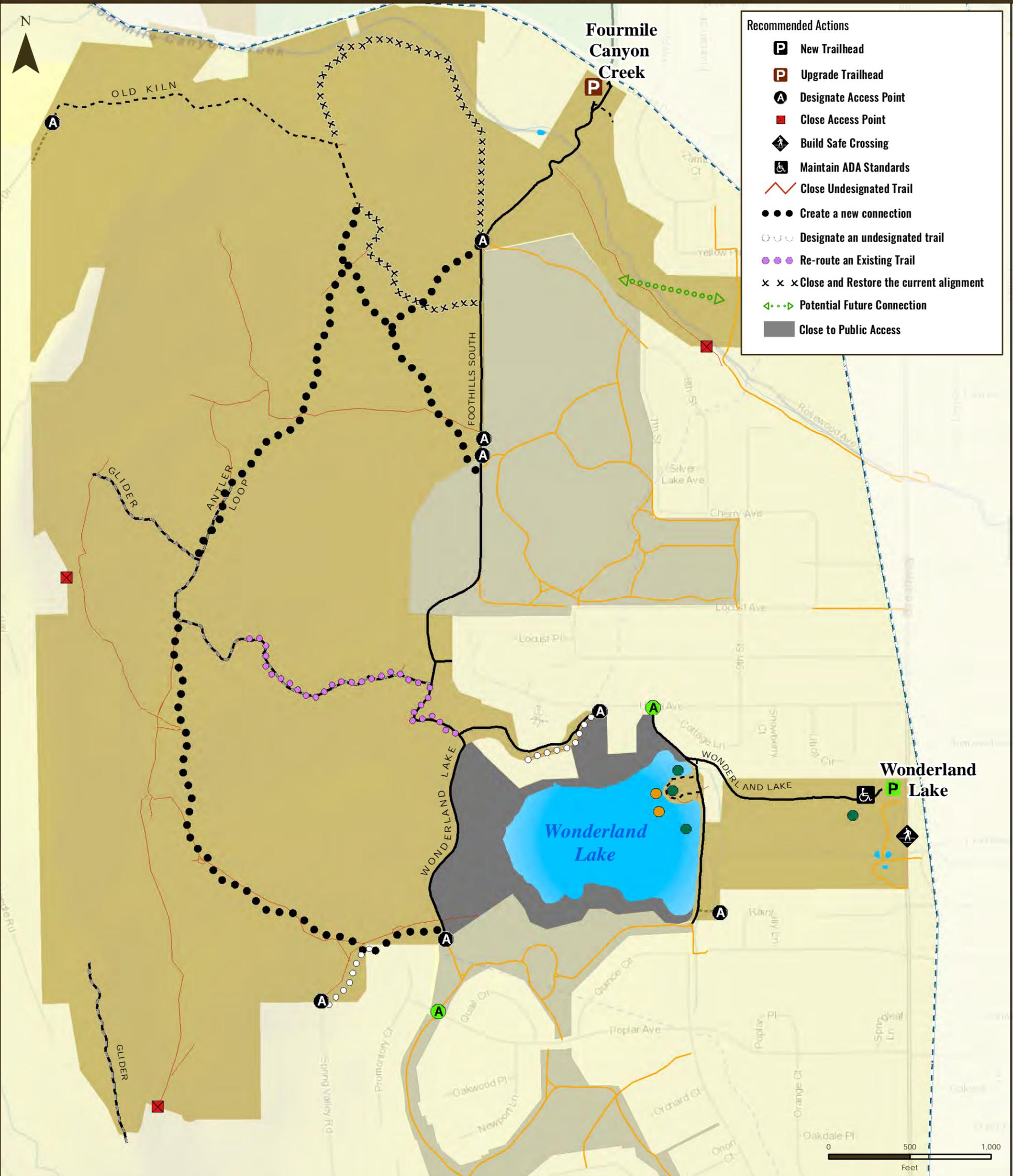
# North Trail Study Area Plan



## Boulder Valley Ranch Subarea Recommendations



# North Trail Study Area Plan



## Wonderland Lake Subarea Recommendations

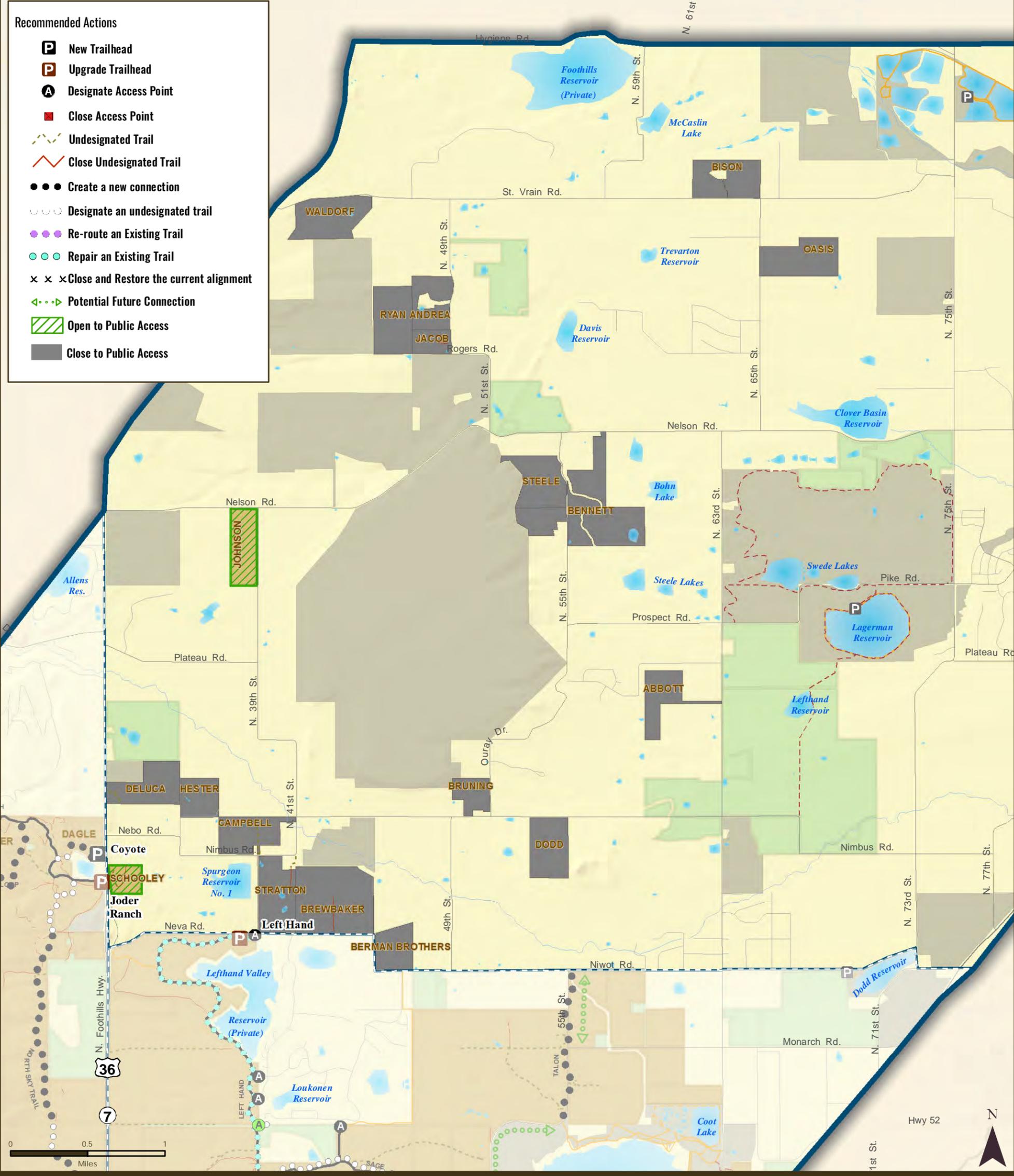
- |                                  |                                  |   |
|----------------------------------|----------------------------------|---|
| North Trail Study Planning Area  | OSMP Hiking/Equestrian Trail     | OSMP Fee & Managed Property in the North TSA        |
| North Trail Study Subareas       | OSMP Multi-Use Trail             | OSMP Easement or Jointly Owned, County-Managed Land |
| OSMP Trailhead                   | OSMP Gliding Access              | Other Government Land                               |
| OSMP Access Point                | Non-OSMP Managed Hiking Trail    |   |
| OSMP Recreational Feature Access | Non-OSMP Managed Multi-Use Trail |   |
| Boulder County Trailhead         | Non-OSMP Planned Trail           |   |

Trail changes are depicted conceptually. Actual trail alignments will differ.

# North Trail Study Area Plan

Recommended Actions

- New Trailhead
- Upgrade Trailhead
- Designate Access Point
- Close Access Point
- Undesignated Trail
- Close Undesignated Trail
- Create a new connection
- Designate an undesignated trail
- Re-route an Existing Trail
- Repair an Existing Trail
- Close and Restore the current alignment
- Potential Future Connection
- Open to Public Access
- Close to Public Access



## Northern Properties Subarea Recommendations

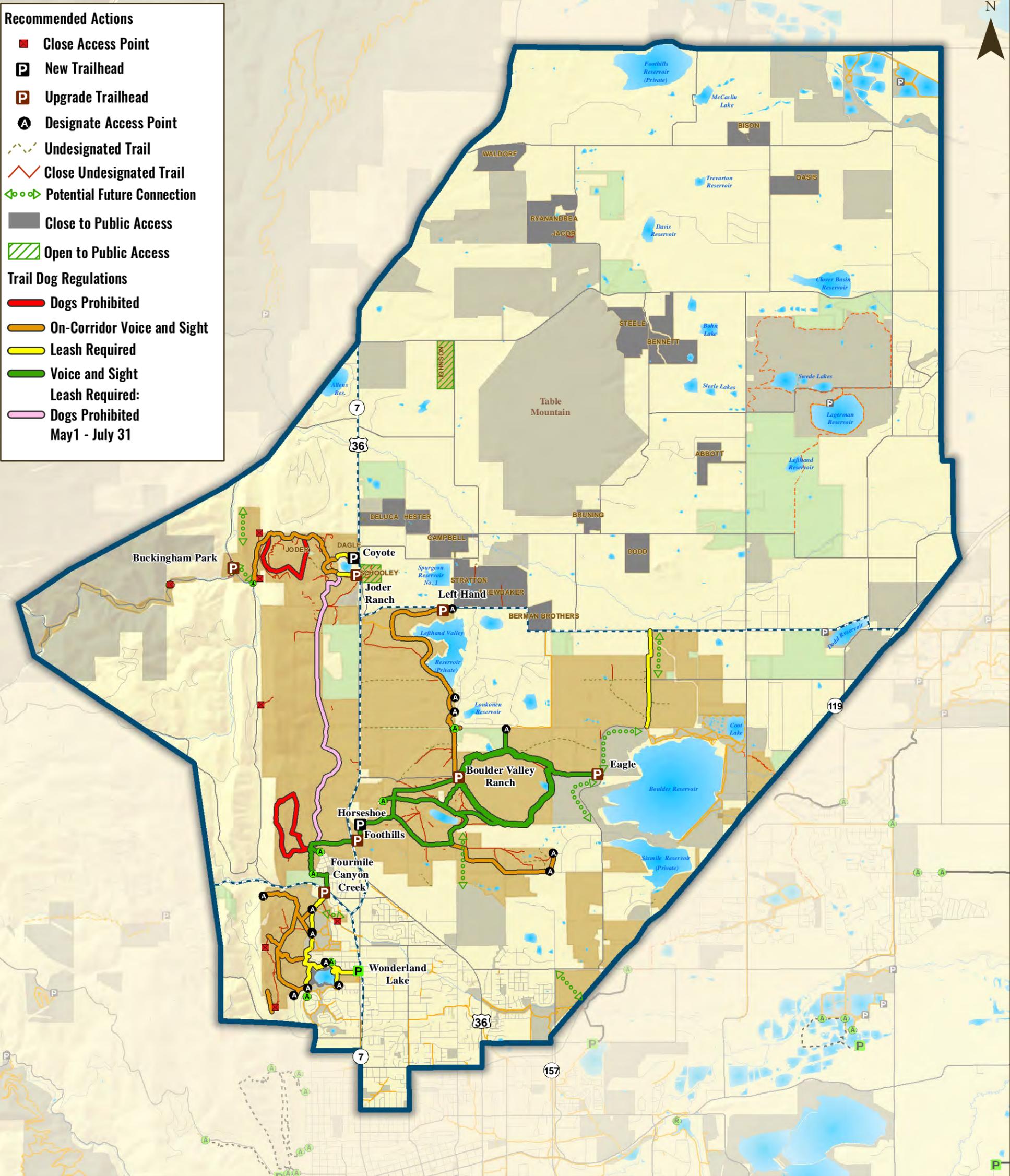
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|--|----------------------------------|--|----------------------------------|--|---|
|  | North Trail Study Planning Area  |  | OSMP Hiking/Equestrian Trail     |  | OSMP Fee & Managed Property in the North TSA        |
|  | North Trail Study Subareas       |  | OSMP Multi-Use Trail             |  | OSMP Easement or Jointly Owned, County-Managed Land |
|  | OSMP Trailhead                   |  | OSMP Gliding Access              |  | Other Government Land                               |
|  | OSMP Access Point                |  | Non-OSMP Managed Hiking Trail    |  |   |
|  | OSMP Recreational Feature Access |  | Non-OSMP Managed Multi-Use Trail |  |   |
|  | Boulder County Trailhead         |  | Non-OSMP Planned Trail           |  |   |

Trail changes are depicted conceptually. Actual trail alignments will differ.



# North Trail Study Area Plan

- Recommended Actions**
- Close Access Point
  - Ⓟ New Trailhead
  - Ⓟ Upgrade Trailhead
  - Ⓐ Designate Access Point
  - Undesignated Trail
  - Close Undesignated Trail
  - ◀▶▶ Potential Future Connection
  - Close to Public Access
  - ▨ Open to Public Access
- Trail Dog Regulations**
- Dogs Prohibited
  - On-Corridor Voice and Sight
  - Leash Required
  - Voice and Sight
  - Leash Required: May 1 - July 31



## North Trail Study Area Dog Recommendations

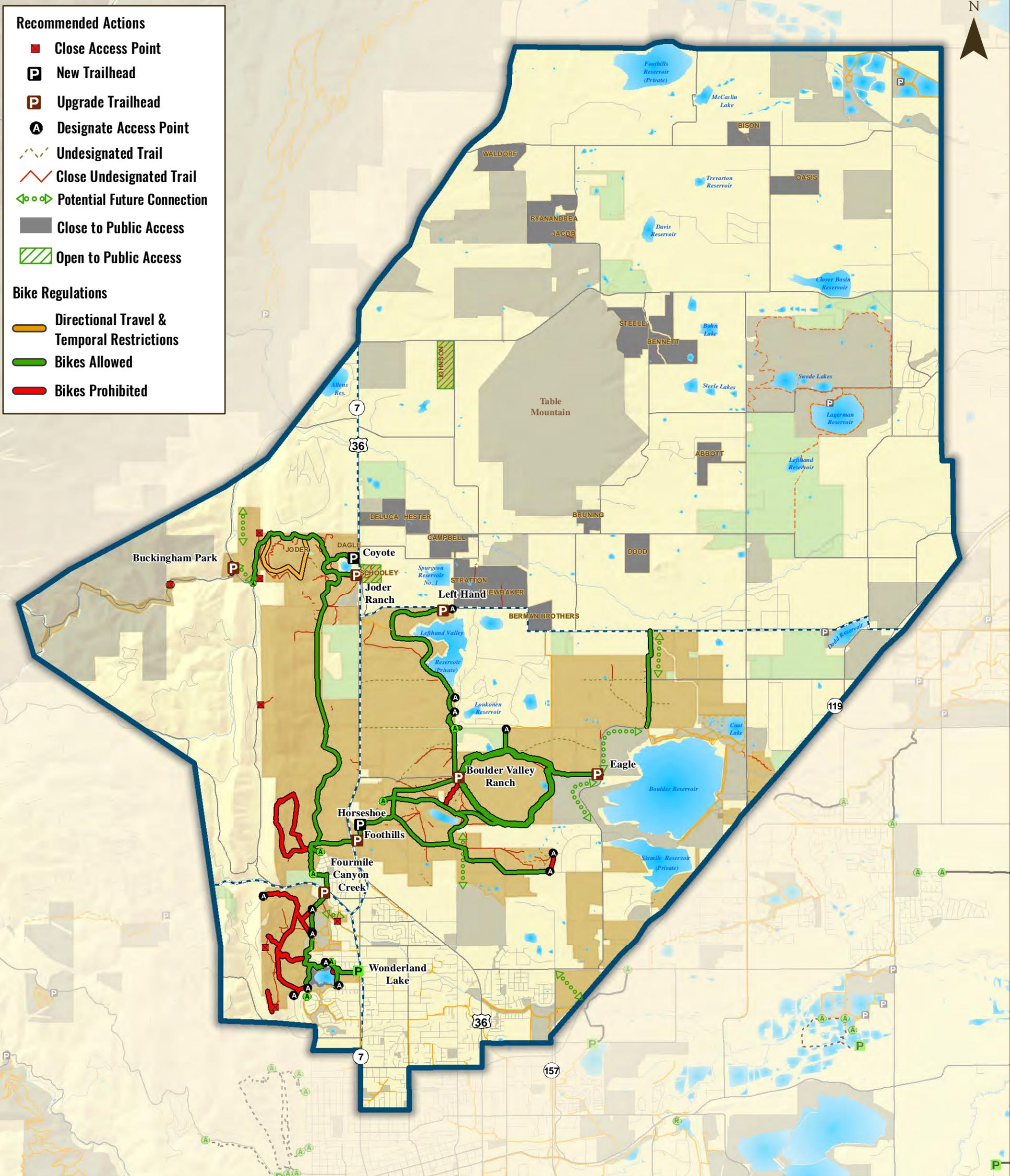
- |  |   |   |
|--|---|---|
| <ul style="list-style-type: none"> <li>▭ North Trail Study Planning Area</li> <li>▭ North Trail Study Subareas</li> <li>Ⓟ OSMP Trailhead</li> <li>Ⓐ OSMP Access Point</li> <li>Ⓡ OSMP Recreational Feature Access</li> <li>Ⓟ Boulder County Trailhead</li> </ul> | <ul style="list-style-type: none"> <li>--- Non-OSMP Managed Hiking Trail</li> <li>--- Non-OSMP Managed Multi-Use Trail</li> <li>--- Non-OSMP Planned Trail</li> </ul> | <p><b>North Trail Study Area Lands</b></p> <ul style="list-style-type: none"> <li>■ OSMP Fee &amp; Managed Property in the North TSA</li> </ul> <p><b>Lands Not Included in the North Trail Study Area</b></p> <ul style="list-style-type: none"> <li>▨ OSMP Easement or Jointly Owned, County-Managed Land</li> <li>■ Other Government Land</li> </ul> |
|--|---|---|





# North Trail Study Area Plan

- Recommended Actions**
- Close Access Point
  - Ⓟ New Trailhead
  - Ⓟ Upgrade Trailhead
  - Ⓐ Designate Access Point
  - Undesignated Trail
  - Close Undesignated Trail
  - ◀◦◦▶ Potential Future Connection
  - Close to Public Access
  - ▨ Open to Public Access
- Bike Regulations**
- Directional Travel & Temporal Restrictions
  - ▨ Bikes Allowed
  - ▨ Bikes Prohibited



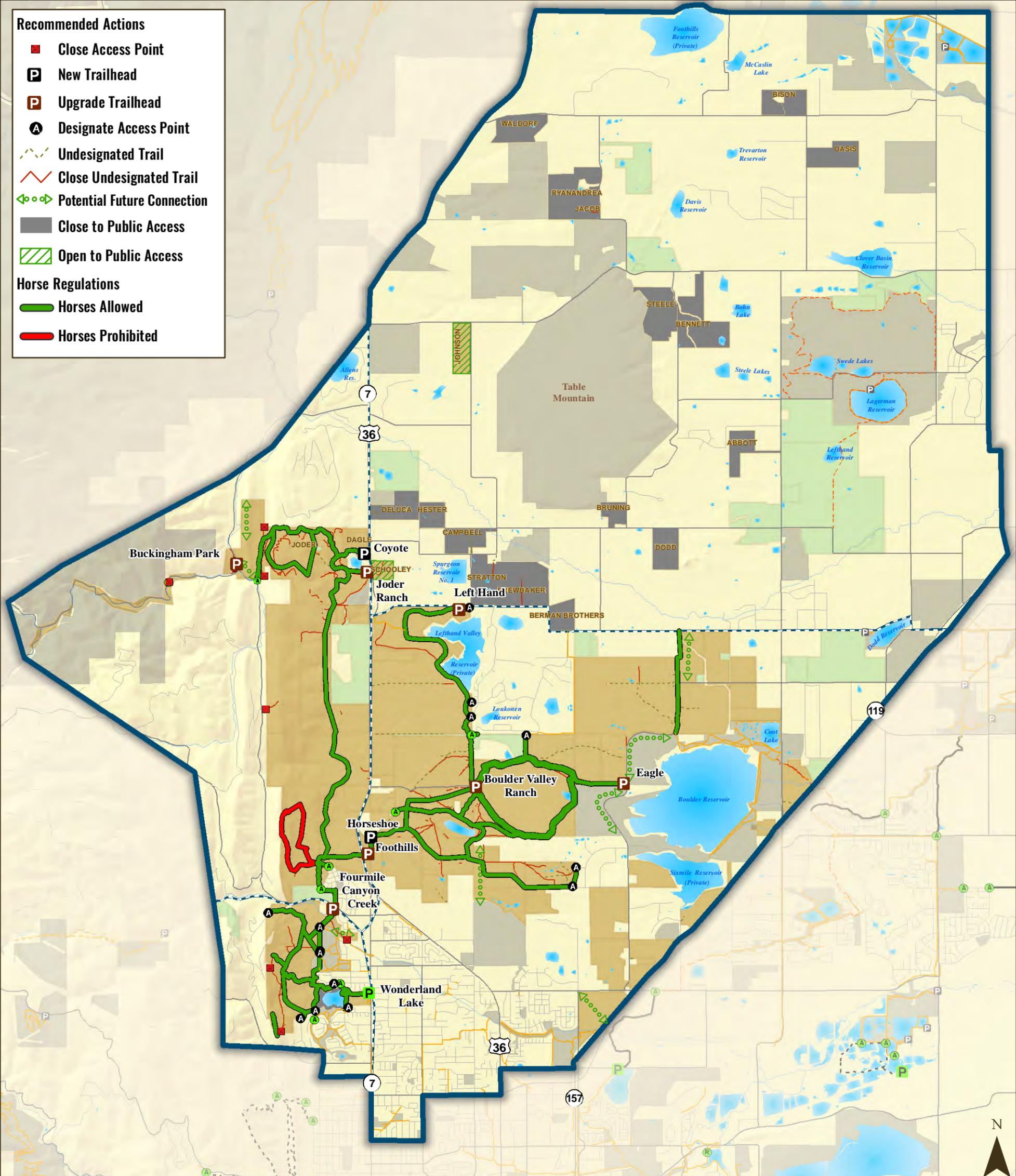
## North Trail Study Area Bike Recommendations

- |  |   |   |
|--|---|---|
| <ul style="list-style-type: none"> <li>▭ North Trail Study Planning Area</li> <li>▭ North Trail Study Subareas</li> <li>Ⓟ OSMP Trailhead</li> <li>Ⓐ OSMP Access Point</li> <li>Ⓡ OSMP Recreational Feature Access</li> <li>Ⓟ Boulder County Trailhead</li> </ul> | <ul style="list-style-type: none"> <li>--- Non-OSMP Managed Hiking Trail</li> <li>--- Non-OSMP Managed Multi-Use Trail</li> <li>--- Non-OSMP Planned Trail</li> </ul> | <p><b>North Trail Study Area Lands</b></p> <ul style="list-style-type: none"> <li>■ OSMP Fee &amp; Managed Property in the North TSA</li> </ul> <p><b>Lands Not Included in the North Trail Study Area</b></p> <ul style="list-style-type: none"> <li>▨ OSMP Easement or Jointly Owned, County-Managed Land</li> <li>■ Other Government Land</li> </ul> |
|--|---|---|
- 0 0.5 1 Miles **A-10**



# North Trail Study Area Plan

- Recommended Actions**
- Close Access Point
  - Ⓟ New Trailhead
  - Ⓟ Upgrade Trailhead
  - Ⓐ Designate Access Point
  - Undesignated Trail
  - Close Undesignated Trail
  - ◀◀▶▶ Potential Future Connection
  - Close to Public Access
  - ▨ Open to Public Access
- Horse Regulations**
- Horses Allowed
  - Horses Prohibited



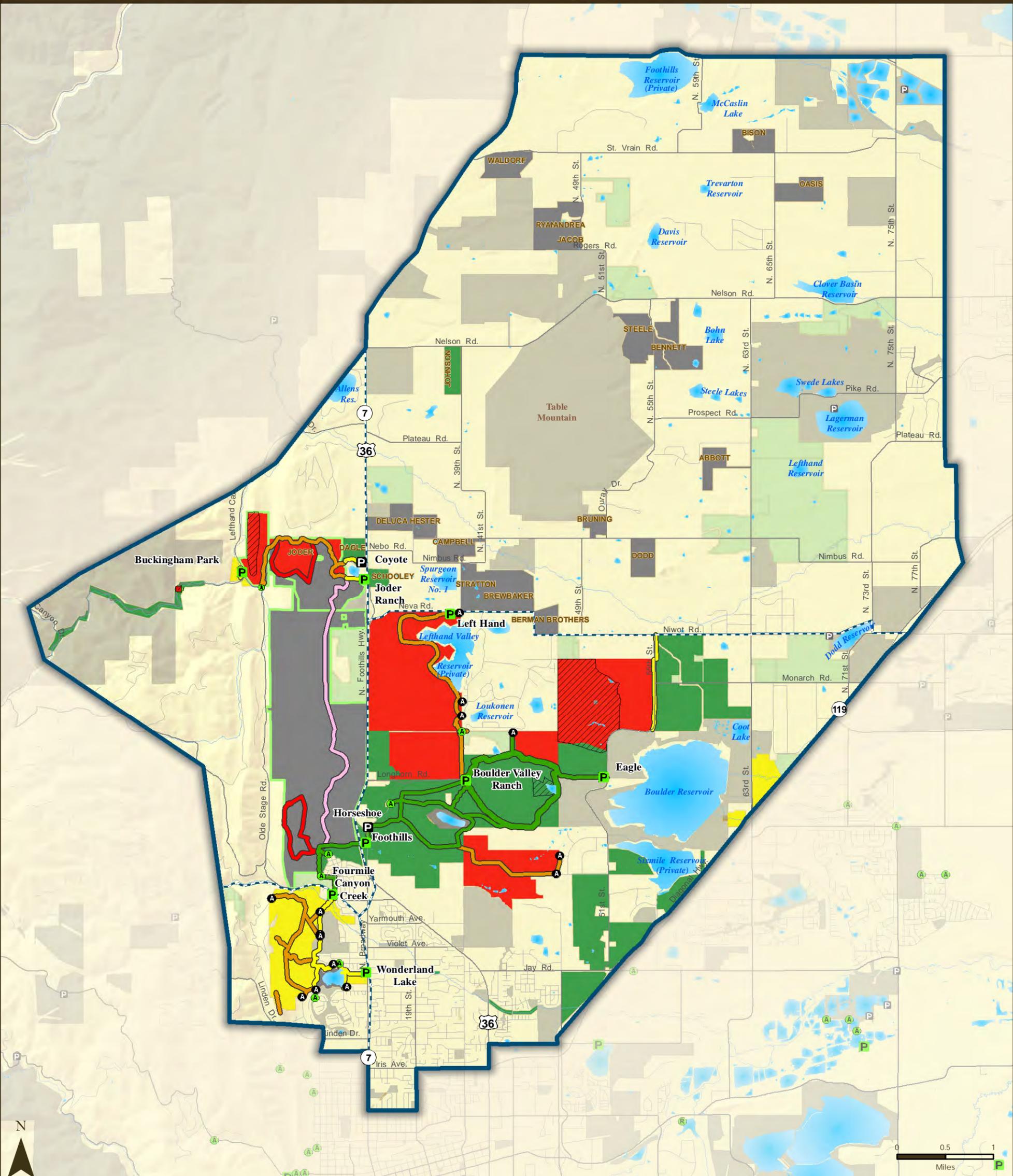
## North Trail Study Area Horse Recommendations

- |  |   |   |
|--|---|---|
| <ul style="list-style-type: none"> <li>▭ North Trail Study Planning Area</li> <li>▭ North Trail Study Subareas</li> <li>Ⓟ OSMP Trailhead</li> <li>Ⓐ OSMP Access Point</li> <li>Ⓡ OSMP Recreational Feature Access</li> <li>Ⓟ Boulder County Trailhead</li> </ul> | <ul style="list-style-type: none"> <li>--- Non-OSMP Managed Hiking Trail</li> <li>--- Non-OSMP Managed Multi-Use Trail</li> <li>--- Non-OSMP Planned Trail</li> </ul> | <p><b>North Trail Study Area Lands</b></p> <ul style="list-style-type: none"> <li>■ OSMP Fee &amp; Managed Property in the North TSA</li> </ul> <p><b>Lands Not Included in the North Trail Study Area</b></p> <ul style="list-style-type: none"> <li>▨ OSMP Easement or Jointly Owned, County-Managed Land</li> <li>■ Other Government Land</li> </ul> |
|--|---|---|





# North Trail Study Area Plan



## North Trail Study Area Regulatory Settings

<p><b>North Trail Study Planning Area</b></p> <p><b>North Trail Study Subareas</b></p> <p><b>HCA Boundary</b></p> <p><b>OSMP Access Point</b></p> <p><b>Visitor Access Regulations</b></p> <p><b>New Trailhead</b></p> <p><b>New Access Point</b></p> <p><b>Close Access Point</b></p>	<p><b>Trail Dog Regulations</b></p> <p><b>Dogs Prohibited</b></p> <p><b>On-Corridor Voice and Sight</b></p> <p><b>Leash Required</b></p> <p><b>Voice and Sight</b></p> <p><b>Leash Required; Dogs Prohibited May 1 - July 31</b></p>	<p><b>Dog Regulation Areas</b></p> <p><b>Voice and Sight Control</b></p> <p><b>Leash Required</b></p> <p><b>Dogs Prohibited</b></p> <p><b>Closed to Off-trail Public Access</b></p> <p><b>Seasonal Raptor Closure</b></p> <p><b>OSMP Easement or Jointly Owned, County-Managed Land</b></p> <p><b>Other Government Land</b></p>
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# Appendix B

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## Appendix B: Open Space Board of Trustees Meetings and Summary of Community Engagement

The OSBT hosted the North TSA process and with Open Space and Mountain Parks (OSMP) staff held nine public meetings, four study sessions and three public hearings to gather public input and comment, to provide feedback to staff on the planning process, to evolve plan scenarios, to approve plan sideboards and to determine which scenario to use as the basis for the draft plan.

OSBT Meetings and Study Sessions		
Date	Type of Meeting Discussion	Topic
February 10, 2016	Public Hearing	North TSA Updated Refined Scenarios
January 13 and 14, 2016	Study Session	North TSA Refined Scenarios
December 9, 2015	Update	North TSA Update
November 16, 2015	Study Session	North TSA Preliminary Scenarios
October 14, 2015	Update	North TSA Update
September 9, 2015	Update	North TSA Update
August 12, 2015	Study Session	North TSA Interests
July 8, 2015	Update	North TSA and Youth Engagement Update
June 15, 2015	Public Hearing and Update	North TSA Sideboards and Update on North TSA Planning Process and Inventory and Assessment Report
May 15, 2015	Update	North TSA Update
April 8, 2015	Matters	Draft Board Editorial for the North TSA Plan
March 11, 2015	Update	North TSA Update
February 18, 2015	Study Session	North TSA Scope, Goals, Process and Public Engagement Strategy

### How the public engaged in the North TSA Plan

- Nine community workshops
- On-site, local store-front, neighborhood and Latino community engagement
- Inspire Boulder, the city's internet-based participatory platform

- Email and social media submissions
- Youth engagement

### Community Workshops

Four community workshops were held during which the community shared their thoughts on important resources within the North TSA, the proposed plan sideboards and their interests in the North TSA. Two informational panels were held where experts informed the community about visitor and natural resource management strategies. Two workshops were held to unveil and refine preliminary scenarios and a final workshop was held to unveil and continue to the revise the refined scenarios.

Community Workshops	
Date	Topic
December 10, 2015	Community Information Session and Workshop for Refined Scenarios for the North TSA
October 19, 2015	Community Workshop to Refine Preliminary Scenarios for the North TSA
October 5, 2015	Community Workshop to Learn About and Provide Feedback on Preliminary Scenarios for the North TSA
September 2, 2015	Expert Panel on Natural Resources
August 26, 2015	Expert Panel on Trail Sustainability and Visitor Experience
June 27, 2015	Community Workshop to Discuss Interests in the North TSA
June 24, 2015	Community Workshop to Discuss Interests in the North TSA
May 6, 2015	Community Workshop to Kick Off Development of the North TSA Plan
May 2, 2015	Community Workshop to Kick Off Development of the North TSA Plan

### On-site, local store-front, neighborhood and Latino community engagement

OSMP staff conducted on-site engagement in the North TSA and went into the community to collect information from community members at trailheads and local coffee shops. Community members shared what they thought needed to be improved, changed or preserved within the North TSA and why. OSMP staff also engaged with the Latino community by attending an event at Holiday Park.

### Written and Electronic Communications

OSMP received close to 1,000 separate comments during the development of the North TSA Plan from the NorthTSA.org web page, e-mails, comments submitted through Inspire Boulder, social media submissions and written letters. OSMP created several compendia of public input containing the individual comments submitted as part of the North TSA planning process.

## Youth Engagement

Open Space and Mountain Parks partnered with Growing Up Boulder to engage children and youth in the North TSA planning process through the following events.

Youth Engagement	
Date	Event/Topic
July 11, 2015	Family Day at Wonderland Lake was an opportunity for children and families to provide feedback on what they'd like to see in the North TSA and why.
June - July, 2015	Five OSMP Junior Ranger crews provided feedback on what they do and don't like about the conditions in the North TSA.
June 2015	Boulder Journey School pre-schoolers shared what they value about open space during a fieldtrip to Wonderland Lake.
May 1, 2015	Youth Advisory Board high school students provided input on effective ways to involve youth in the North TSA planning process.

# Appendix C

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## Appendix C: Existing Infrastructure and Recommended Improvements for Trailheads

In 2008, OSMP classified all trailheads based on visitation levels. Information from the 2004-05 Visitor Survey and staff knowledge was used to estimate the visitation levels. The following table displays types of trailheads. The estimated visitation for each category breaks down as follows: 1-10,000 visits per year were classified as very low, 10-25,000 as low, 25-50,000 as medium, 50-90,000 as high and 90-110,000 as very high.

Types of Trailheads		
Class	Description	Estimated Use
TH1	Simple/Minor Developed Trailhead	Very Low Use
TH2	Developed/Improved Trailhead	Medium Use
TH3	Fully Developed Trailhead	High to Very High Use

Each class has associated amenities that must be present to comply with the standard. OSMP inventoried all the trailheads in the North TSA and identified the improvements needed to bring sites up to standards. The following table lists what is currently present at the sites and what is needed.

Trailhead Name	Class	Existing Infrastructure	What is Needed
Joder Interim	T1	Kiosk Dog Station Dog Compost Station Parking Bollard (wooden) Bike Rack Trash Can Parking Spaces (5) Horse Trailer Parking Spaces (2)	Reflector Sticks Near Large Rocks and Other Hazards Fencing
Lefthand	T1	Kiosk Fencing Bike Rack Trash Can Parking Bollard (wooden) Parking Spaces (36)	Reflectors on Fence Parking ADA Parking Space (1) Vehicle Gate at Entry Dog Station Dog Compost Station
Sage/Boulder Valley Ranch	T1	Kiosk Dog Station Dog Compost Station	Replace Outhouse Parking Bollard Reflectors on Fence Parking

Trailhead Name	Class	Existing Infrastructure	What is Needed
		Fencing Outhouse (ADA toilet is not up to standards) Bike Rack Trash Can Parking Spaces (18) ADA Parking Space (1)	No Parking Along Longhorn Road
Eagle	T1	Kiosk Dog Station Dog Compost Station Fencing Bike Rack Trash Can Parking Spaces (24)	ADA Parking Space Parking Bollard Vehicle Gate at Entry Reflectors on Fence Parking
Foothills	T1	Kiosk Dog Station Fencing Bike Rack Trash Can Parking Spaces (17)	ADA parking space Parking Bollard Reflectors on Fence Parking Larger/wider vehicle entrance Widen Trailhead to the South Dog Compost Station
Fourmile Creek	T1	Kiosk Dog Station Fencing Bike Rack Trash Can Parking Spaces (37) ADA Parking Spaces (4)	Resurface Trailhead Parking Bollard Reflector Sticks Near Large Rocks and Other Hazards Reflectors on Fence Parking Larger/wider vehicle entrance Re-align kiosk/dog station Dog Compost Station
Wonderland Lake	T2	Kiosk Dog Station Fencing Picnic Tables Bike Rack Trash Can Parking Spaces (20) ADA Parking Spaces (2)	To be determined with Foothills Nature Center site planning.
Buckingham Park	T3	Kiosk Fencing Outhouse (ADA toilet) Picnic Tables (3) Bike Rack Trash Cans (2 sets of 2; 1 recycle)	Replace Outhouse Parking Bollard Reflectors on Fence Parking Reflector Sticks Near Large Rocks and Other Hazards Dog Station Dog Compost Station

Trailhead Name	Class	Existing Infrastructure	What is Needed
		Grills (1) Parking Spaces (35) ADA Parking Space (1)	

# Appendix D

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Appendix D: Recommended Actions, Interests and Costs Table

\*Staffing and fieldwork related costs to determine final trail alignments are not included in cost estimates. Cost estimates do include permitting, engineering, materials, contractor and staffing related costs to construct trails.

Cost Equivalents	\$ Less than \$10,000	\$\$ \$10,000 to \$49,999	\$\$\$ \$50,000 to \$250,000	\$\$\$\$ More than \$250,000
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Action Title	Action	Action Reference #	Interests	Cost	Cost Notes
<b>TSA-Wide</b>					
Provide management area designations for properties without designations to guide management actions.	<ul style="list-style-type: none"> <li>Retain the Joder and Cox property designation as a Habitat Conservation Area (HCA) and implement as part of the North Foothills HCA.</li> <li>Designate Dagle II, Stratton, Lappin, IBM open space easement, Hart-Jones Exchange and Palo Park properties as Natural Areas.</li> <li>Limit public access to on trail travel on IBM open space easement property.</li> <li>Designate Dakota Ridge Village property as a Passive Recreation Area.</li> <li>Designate Berman Brothers as an Agricultural Area.</li> </ul>	T1 = Joder T2 = Dagle T3 =Dakota Ridge T4 =Berman Brothers T5=Stratton T6 =Lappin T7 =IBM T8 =Hart-Jones T9 = Palo Park		Core Service	
Collaborate with partner agencies to create regional connections.	As opportunities arise, collaborate with partner agencies to create the following regional trail connections that minimize natural resource impacts. <ul style="list-style-type: none"> <li>North TSA to Boulder County Parks and Open Space's Heil Valley Ranch. The North TSA Plan does not preclude future public planning processes to assess a regional connector trail connection to Heil Ranch on the Buckingham property.</li> <li>North TSA to Boulder County Parks and Open Space's Lagerman/Imel/AHI Open Space Complex.</li> <li>A Boulder-to-Lyons trail connection including the efforts of the Rocky Mountain Greenway Project.</li> <li>IBM Connector Trail (<i>construction pending</i>).</li> <li>Fourmile Canyon Creek Trail underpass to Cottonwood Trail (<i>construction pending</i>).</li> <li>Eagle Trail to the planned Boulder Reservoir Trail.</li> </ul>	T10 = NTSA to Heil Valley T11=NTSA to Lagerman T12= Boulder to Lyons T13 = IBM Connector T14 = Fourmile Canyon Creek T15 = Eagle Trail to Boulder Reservoir Trail		Core Service	
Collaborate with partner agencies to create local trail connections.	As opportunities arise, collaborate with partner agencies to create the following local trail connections that minimize natural resource impacts. <ul style="list-style-type: none"> <li>Joder Trail to Buckingham Park via Olde Stage Road (<i>in progress</i>).</li> <li>Joder Ranch and Boulder County's Six-Mile Fold. Boulder County will conduct its own public planning process to determine access and management of visitors on Six Mile Fold. OSMP will coordinate with the county's planning efforts to determine if and where trails could be located in this area.</li> <li>City of Boulder's Area III park site to the North TSA.</li> </ul>	T16 = Joder to Buckingham via Olde Stage Rd T17 = Joder Ranch and Six-Mile Fold T18 = Boulder's Area III T19 = Boulder Reservoir to Niwot Rd T20 = Fourmile Canyon Creek Greenway		Core Service	

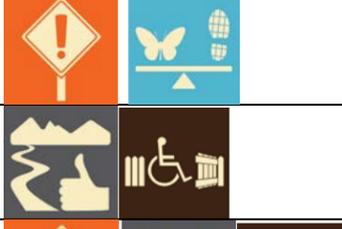
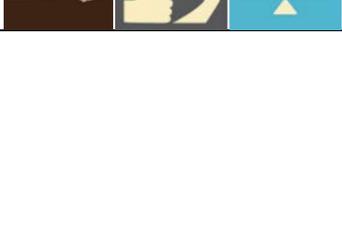
Action Title	Action	Action Reference #	Interests	Cost	Cost Notes
	<ul style="list-style-type: none"> <li>Boulder Reservoir to Niwot Road.</li> <li>Fourmile Canyon Creek Greenway path to Foothills Community Park.</li> </ul>				
Designate undesignated access points that connect with new or existing designated trails.		T21		\$\$	This will be time intensive for the sign group. New infrastructure and maps, regulatory information, and way finding signs will need to be installed.
Bring all trails up to standards.	Conduct maintenance activities to bring trails up to OSMP sustainable trail guidelines.	T22		\$\$\$	One time contracted cost to surface Foothills South (part not included in reroute). All other major trails are covered by a reroute.
Bring all trailheads and access points up to standards.	Update, replace and install infrastructure to bring existing trailheads and access points up to OSMP standards.	T23		\$\$\$	Fourmile Canyon Creek Trailhead: Includes costs for asphalt replacement, fixing drainage and infrastructure. Buckingham: Costs for infrastructure upgrades and for outhouse replacement.
Remove unnecessary fencing and use wildlife friendly fencing.	Remove fencing that is no longer serving a function and when modifying or installing fencing in implementation of the North TSA, ensure fencing is wildlife friendly.	T24		\$\$	
Allow natural revegetation or restore all undesignated trails not integrated into designated trail connections.		T25		\$\$\$	Some restoration of undesignated trails could be accomplished by the Trails staff as part of adjacent trail re-routes or construction.
Assess and prevent the introduction and spread of priority invasive plants.	Assess and prevent the introduction and spread of priority invasive plants along new trail connections and decommissioned or undesignated trail sections under restoration.	T26		\$	Costs for invasive plant species management associated with trail work can't fully be assessed until the vegetation responds to trail related disturbances and until exact alignments for new trails/connectors are established.
Create interpretive information and messages about unique, rare and sensitive resources.		T27		\$\$	Design, fabrication and installation of three interpretive panels.
<b>North Foothills Subarea</b>					
Retain the Joder property as a Habitat Conservation Area (HCA).	Retain the management area designation and include as part of the North Foothills HCA.	NF1		\$	One time costs include new signs and administrative costs. Enforcement costs are not included and are on-going.

Action Title	Action	Action Reference #	Interests	Cost	Cost Notes
					
Designate Dagle II property as a Natural Area.		NF2	 	Core Service	
Designate Dakota Ridge Village property as a Passive Recreation Area.		NF3	 	Core Service	
Collaborate to create a trail connection from North TSA to Boulder County Parks and Open Space's Heil Valley Ranch.	As opportunities arise, collaborate with partner agencies to create regional trail connections that minimize natural resource impacts.  The North TSA Plan does not preclude future public planning processes to assess a regional trail connection to Heil Ranch on the Buckingham property.	NF4	  	Core Service	
Collaborate to create a connection from Joder Ranch Trail to Buckingham Park via Olde Stage Road (in progress).	As opportunities arise, collaborate with partner agencies to create local trail connections that minimize natural resource impacts.	NF5	  	\$	Cost estimate mainly covers traffic control.
Collaborate to create a connection between Joder Ranch and Boulder County's Six-Mile Fold property.	As opportunities arise, collaborate with partner agencies to create local trail connections that minimize natural resource impacts.  Boulder County will conduct its own public planning process to determine access and management of visitors onto Six-Mile Fold. OSMP will coordinate with the county's planning efforts to determine if and where trails could be located to provide access to this area and minimize natural resource impacts.	NF6	  	Core Service	
Close Cottonwood Recreation Area.		NF7	 	\$	Cost estimate includes removal of flood damaged infrastructure.
Realign western section of the Interim Joder Trail near the Buckingham property. (Joder Ranch Trail)		NF8	   	\$\$	Cost estimate includes labor only. Cost of materials is not included.
Construct one loop trail on the northwest section of the Joder property. (Mahogany Loop)		NF9	   	\$\$\$	
Construct a new trailhead for passenger vehicle parking on the Dagle/Wright properties. (Coyote Trailhead)		NF10	  	\$\$\$	Cost estimate does not include an outhouse.

Action Title	Action	Action Reference #	Interests	Cost	Cost Notes
					
Construct a connector trail from the new trailhead (Coyote Trailhead) on the Dagle property to the Joder Ranch Trail.		NF11		\$	The existing road is sufficient for a trail. Some trail infrastructure, signs, fencing may be needed to delineate trail corridor.
Retain Interim Joder Trailhead. (Joder Ranch Trailhead)		NF12		\$	Make minor adjustments and update signs.
Construct a north-south connector trail from Foothills Trail to the Joder Ranch Trail west of U.S. 36. (North Sky Trail)	Construct a trail from the southern section of the Railroad Grade, west of Foothills Business Park, connecting to the Joder Ranch Trail.  Use best efforts to locate connector trail through the conservation easement.	NF13		\$\$\$\$	Includes construction, permits, mitigation.
Include the connector trail in the muddy closure program.		NF14		Core Service	
Post educational signs about the North Foothills HCA.	Include information about the area's important natural resources as well as safety concerns such as rattlesnakes.	NF15		\$\$	Design, fabricate and install two interpretive signs.
Re-route Hogback Trail.		NF16		\$\$\$	
Re-route Foothills Trail where it connects to Hogback Trail and eastward to U.S. 36.		NF17		\$\$\$	Cost includes surfacing all of Foothills North.

Action Title	Action	Action Reference #	Interests	Cost	Cost Notes
Do not allow off-trail permits for the area inside the Joder loop trail for two years following the trail's construction. (Mahogany Loop)		NF18		\$	Cost estimate includes cost of signs and administrating changes to the off-trail permit program.
Do not allow off-trail permits within the North Foothills HCA.	Off-trail permits not allowed in the North Foothills HCA except for areas west and north of Joder Ranch Trail and inside the Mahogany Loop.	NF19		\$	Cost estimate includes cost of signs and administrating changes to the off-trail permit program.
Leash required with seasonal closure from May 1 – July 31 on Joder connector trail. (North Sky Trail)		N/A		\$	One time costs include new signs and administrative costs. Does not include enforcement costs which are on-going.
Dogs prohibited on the Joder loop trail. (Mahogany Loop)		N/A		\$	One time costs include new signs and administrative costs. Does not include enforcement costs which are on-going.
<b>Boulder Valley Ranch Subarea</b>					
Provide management area designations for properties without designations to guide management actions.	Designate Lappin property, IBM open space easement property, Hart-Jones Exchange property and Palo Park property as Natural Areas. Limit public access to on-trail travel on IBM open space easement property.	B1 = Lappin B2 = IBM open space easement B3 = Hart Jones Exchange B4 = Palo Park		Core Service	
Collaborate with partner agencies to create regional trail connections.	As opportunities arise, collaborate with partner agencies to create the following regional trail connections that minimize natural resource impacts. <ul style="list-style-type: none"> <li>• City of Boulder's Area III park site to the North TSA.</li> <li>• A Boulder-to-Lyons trail connection including the efforts of the Rocky Mountain Greenway Project.</li> <li>• IBM Connector Trail (<i>construction pending</i>).</li> <li>• Fourmile Canyon Creek Trail underpass to Cottonwood Trail (<i>construction pending</i>).</li> <li>• Eagle Trail to the planned Boulder Reservoir Trail.</li> </ul>	B5 = Area III properties B6 = Boulder-to-Lyons trail B7= IBM connector trail B8 =Fourmile Canyon Creek trail underpass B9 = Eagle to Boulder Reservoir trail		Core Service	
Provide public access to portions of Lappin, Lousberg, Papini and B.L.I.P. properties while protecting sensitive natural resources.	Protect aquatic and wetland resources around ponds on these properties by not allowing public access to the ponds.	B10		\$\$	Cost estimate includes the cost of signs and fencing.
Designate access point for where Lefthand Trail connects to Neva Road.		B11		Core Service	

Action Title	Action	Action Reference #	Interests	Cost	Cost Notes
Bring Lefthand Trailhead up to standards.	Include horse trailer parking at Lefthand Trailhead.	B12		\$\$\$	Includes design work to add two horse trailer parking spots, fencing and infrastructure. This trailhead upgrade will not include the addition of an outhouse. The Beech Pavilion includes an outhouse.
Improve Lefthand Trail.		B13		\$\$\$	This project cost estimate is evaluated similarly to new trail construction due to the amount of time that will be required to improve trail condition. "Pavers" will be required.
Designate a connector trail from Lefthand Trail to the Lake Valley Estates neighborhood.		B14		\$	Cost estimate includes trail improvements and new sign infrastructure.
Create a connection via the Boulder Reservoir to Niwot Road. (Talon Trail)	Create a regional trail connection that minimizes natural resource impacts. Work with partner agencies to determine the most feasible trail alignment with a preference for an alignment along 55 <sup>th</sup> Street.	B15		\$\$\$	Cost estimate includes working with county transportation on feasibility of trail alignment along roadway easement, driveway and ditch crossings and fencing.
Bring Eagle Trailhead up to standards.	Include horse trailer parking at Eagle Trailhead.	B16		\$\$\$	Includes design work to add two horse trailer parking spots, fencing and infrastructure. This trailhead upgrade will not include addition of an outhouse.
Bring Foothills Trailhead up to standards.		B17		\$\$	Includes updating infrastructure. This trailhead upgrade will not include addition of an outhouse.
Add a new trailhead at the Degge Trail access point. (Horseshoe Trailhead)	Provide additional parking capacity and horse trailer parking.	B18		\$\$\$	Includes design work to add passenger vehicle parking, horse trailer parking, fencing, infrastructure and an outhouse. Permitting costs are also included.

Action Title	Action	Action Reference #	Interests	Cost	Cost Notes
Create a trail connection between Foothills and Degge trails, re-route Degge Trail.	Provide a trail connection from Foothills Trail to re-routed west end of Degge Trail.	B19		\$\$	Trail will be surfaced.
Replace existing trails north of Mesa Reservoir with new trail connections.	Replace Old Mill and Cobalt trails with a single new trail and replace western section of Eagle Trail and steep, downhill section of Eagle Trail with new re-routed connections.	B20		\$\$\$	
Replace undesignated trails through sensitive resources with a single trail. (Shale Trail)	Provide a sustainable connection with Sage Trailhead, by replacing undesignated trails through shale barrens and rare plant habitat with one new designated trail with educational signs for pedestrians and equestrians north of Mesa Reservoir.	B21		\$\$\$	Includes the cost of one interpretive sign.
Provide nature-viewing access at Mesa Reservoir.		B22		\$	Includes the cost of a simple spur trail.
Replace existing trails with a new trail connection south of Mesa Reservoir.	Replace southern sections of Mesa Reservoir Trail and the Hidden Valley Trail with a new single trail connection.	B23		\$\$\$	
Pave Longhorn Road.	Pave or resurface Longhorn Road with an alternative permeable surface material.	B24		\$\$\$\$	
Bring Sage (BVR) Trailhead up to standards.	Improve restroom facilities.	B25		\$\$\$	Includes replacement of outhouse and infrastructure.
Improve Americans with Disabilities Act (ADA) access on Eagle and Sage trails.		B26		\$\$\$	Trail would be surfaced.

Action Title	Action	Action Reference #	Interests	Cost	Cost Notes
					
Provide a parallel single track trail at BVR.	Designate and slightly re-route in some locations one parallel single track tread adjacent to the Eagle and Sage loop at BVR.	B27	  	\$\$	
Allow fishing access on eastern shore of BVR pond.		B28	   	Core Service	
Create new trail connection on the south side of the Papini property. (Wrangler Trail)	Provide a trail connection along the south side of the Papini property connecting Kelso Road to the Mesa Reservoir trail system.	B29	     	\$\$\$	Does not include fencing costs in order to conserve resources.
Dogs allowed with On-Corridor Voice and Sight access on Lefthand Trail.		N/A	 	\$	One time costs include new signs and administrative costs. Enforcement costs are not included and are ongoing.
<b>Wonderland Lake Subarea</b>					
Collaborate with Parks and Recreation to support nature play experiences on their adjacent properties.	Collaborate with Parks and Recreation to support designed nature play experiences on their property and support appropriate passive recreation aspects of this type of experience on adjacent OSMP land.	W1		\$	Includes OSMP staff time to coordinate with Parks and Recreation staff.
Assess vision for Foothills Nature Center.	OSMP is assessing and preparing plans for the future vision of the Foothills Nature Center and associated trailhead.	W2	 	Costs are not part of the North TSA	
Construct shade structure near Wonderland Lake Trailhead.		W3	 	\$\$	
Improve safety at Broadway crossing.	Support and encourage improvements to crossing between Sumac Avenue, RTD bus stop and the Foothills Nature Center.	W4	  	Core Service	
Revegetate the flood damaged northern loop section of Old Kiln Trail.		W5	 	\$	Estimate includes fencing to protect riparian shrub plantings and scarifying non-riparian sections of the northern loop and blocking off at designated trail intersections until old trail revegetates adequately.

Action Title	Action	Action Reference #	Interests	Cost	Cost Notes
Rename Four Mile Trailhead as Fourmile Canyon Creek Trailhead.		W6		\$\$	Replace the entrance sign and replace all maps showing the trailhead with updated maps with new name.
Collaborate to create a connection from Fourmile Canyon Creek Greenway path to Foothills Community Park.	As opportunities arise, collaborate with partner agencies to create local trail connections that minimize natural resource impacts.	W7		Core Service	
Create Wonderland Lake backdrop loop trail connection by re-routing trails. (Antler Loop)	Re-route existing designated and undesignated trails to provide more sustainable connections to the paragliding launch sites and visitors seeking a trail experience on the Wonderland hogback.	W8		\$\$\$	Trail construction costs.
Re-route portion of Wonderland Lake Trail.	Re-route the steep downhill section of trail just north of where it connects into Foothills South Trail.	W9		\$\$	
Create a second, smaller Wonderland Lake backdrop loop trail. (Glider Access Trail)	Create a more sustainable trail connection to replace the existing glider access trail.	W10		\$\$\$	
Improve Americans with Disabilities Act (ADA) access on Wonderland Lake Trail.		W11		\$	Trail will be surfaced.
Prohibit boats and belly boats on Wonderland Lake.		W12		\$	One time costs include new signs and administrative costs. Enforcement costs are not included and are on-going.
Prohibit ice skating on Wonderland Lake.		W13		\$	One time costs include new signs and administrative costs. Enforcement costs are not included and are on-going.
Allow sledding on Wonderland Lake dam.		W14		\$	Includes new signs and administrative costs.
Do not provide access to Wonderland Lake's south, west and north shores.		W15		\$	One time costs include new signs and administrative costs. Enforcement costs are not included and are on-going.
Provide access to the cattail marsh on north side of peninsula.		W16		\$	Includes cost of boardwalk and permitting.

Action Title	Action	Action Reference #	Interests	Cost	Cost Notes
Establish two hardened pullout areas on the peninsula for educational programming.	Provide increased beach access on the western edge of the peninsula.	W17		\$	
Allow Wonderland Lake wading access from designated areas on the peninsula.		W18		\$	Includes new signs.
Create Wonderland Lake fishing pier.		W19		\$\$	Includes cost of pier and permitting.
Dogs allowed On-Corridor Voice and Sight access on Wonderland Hill loop. (Antler Loop)		N/A		\$	One time costs include new signs and administrative costs. Enforcement costs are not included and are on-going.
<b>Northern Properties Subarea</b>					
Designate Berman Brothers property as an Agricultural Area.		NP1		Core Service	
Designate Stratton property as a Natural Area.		NP2		Core Service	
Collaborate to create a connection between the North TSA to Boulder County Parks and Open Space's Lagerman/Imel/AHI Open Space Complex.	As opportunities arise, collaborate with partner agencies to create regional trail connections that minimize natural resource impacts.	NP3		Core Service	
Prohibit public access on Waldorf, Ryan, Andrea and Jacob properties.		NP4		\$	One time costs include new signs and administrative costs. Enforcement costs are not included and are on-going.
Prohibit public access on Bison and Oasis properties.		NP5		\$	One time costs include new signs and administrative costs. Enforcement costs are not included and are on-going.
Prohibit public access on Steele and Bennett properties.		NP6		\$	One time costs include new signs and administrative costs. Enforcement costs are not included and are on-going.

Action Title	Action	Action Reference #	Interests	Cost	Cost Notes
Allow public access on Johnson and Schooley properties.		NP7		\$	Includes new signs and administrative costs.
Prohibit public access on Deluca, Hester and Campbell properties.		NP8		\$	One time costs include new signs and administrative costs. Enforcement costs are not included and are on-going.
Prohibit public access on Stratton, Brewbaker, Berman Brothers, Bruning, Dodd and Abbott properties.		NP9		\$	One time costs include new signs and administrative costs. Enforcement costs are not included and are on-going.