

Appendix A



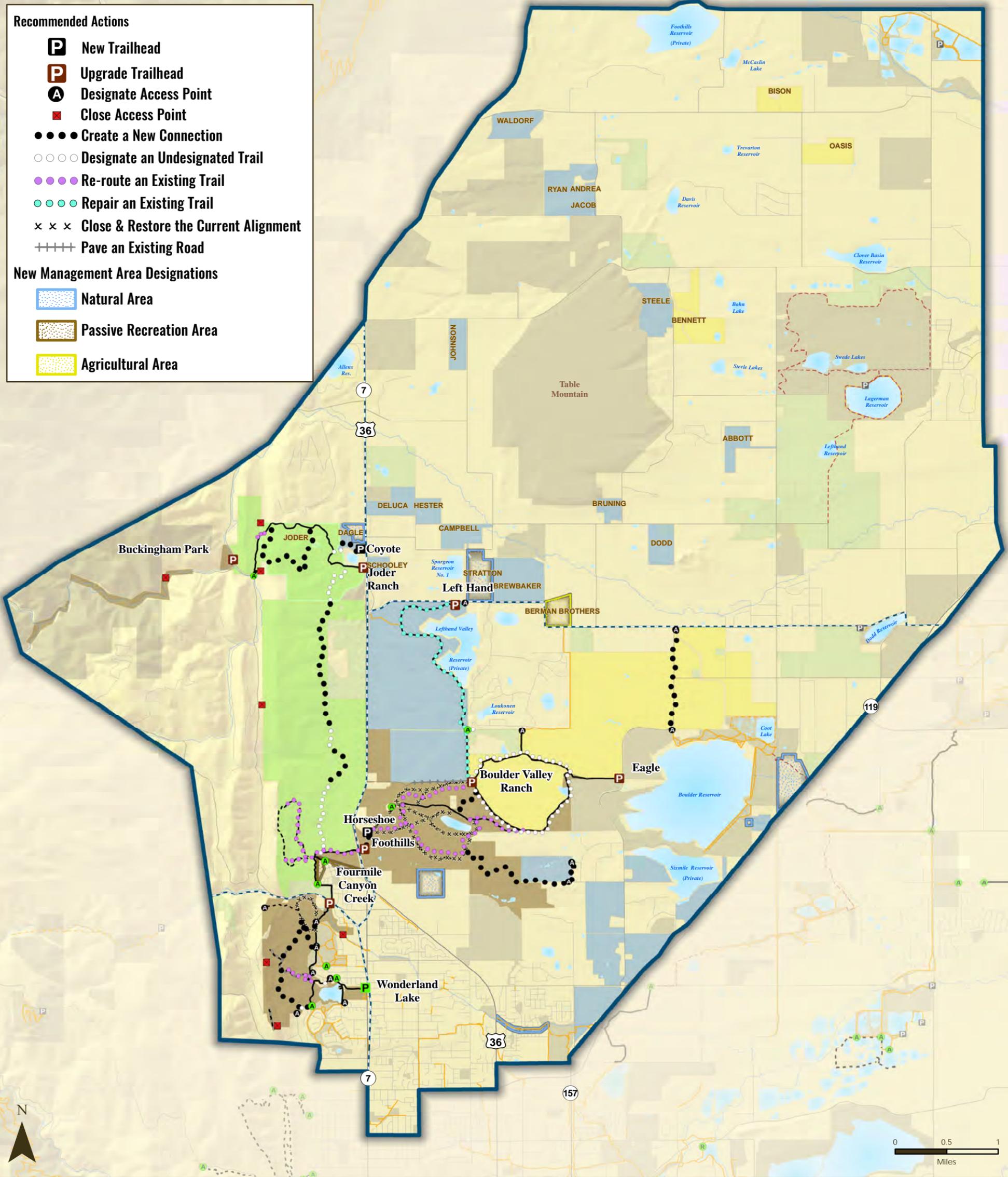
North Trail Study Area Plan

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



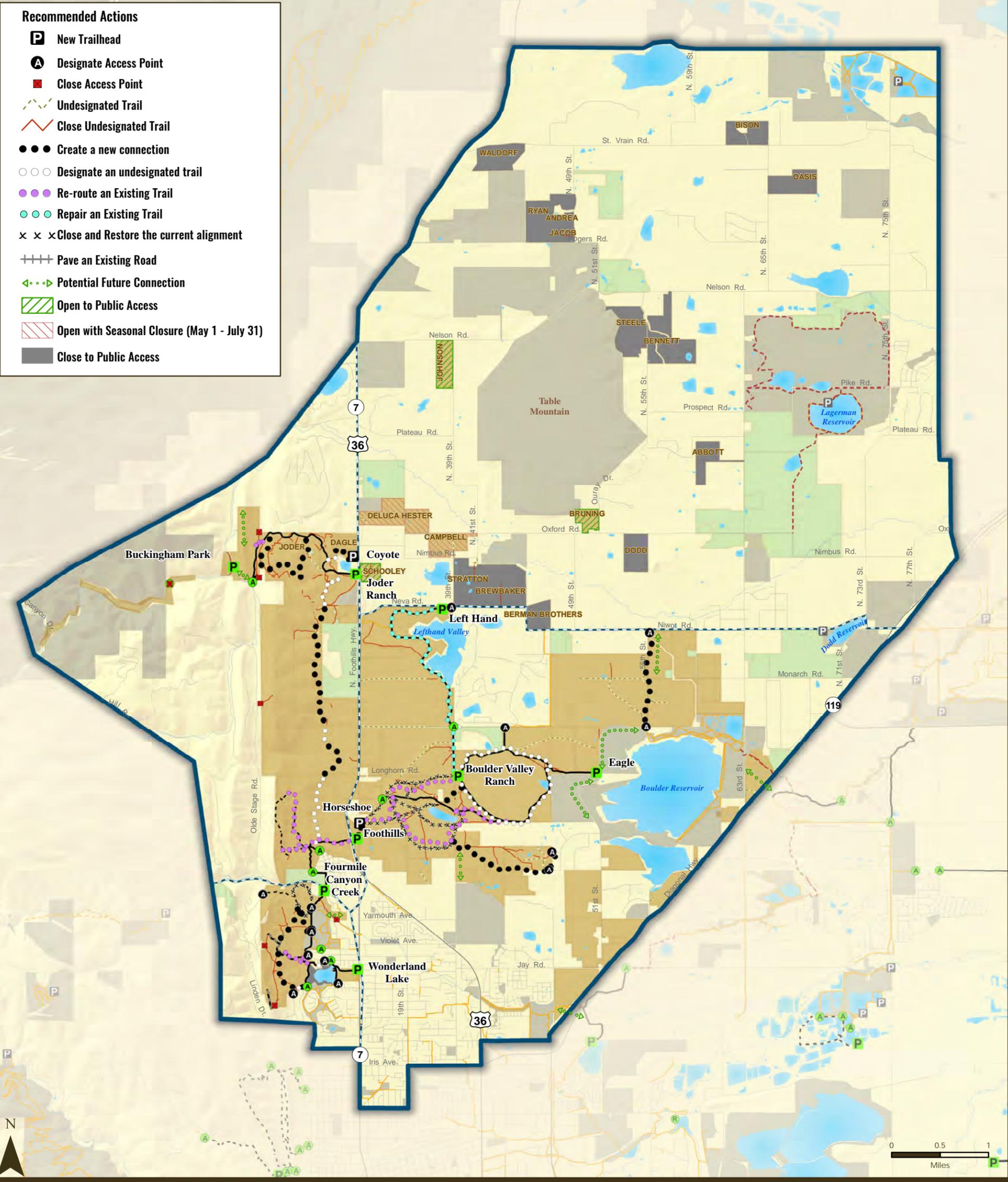
Management Area Designations

- | | | | | | |
|--|----------------------------------|--|----------------------------------|--|---|
| | 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. A-3

North Trail Study Area Plan

- Recommended Actions**
- New 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
 - Pave an Existing Road
 - Potential Future Connection
 - Open to Public Access
 - Open with Seasonal Closure (May 1 - July 31)
 - Close to Public Access

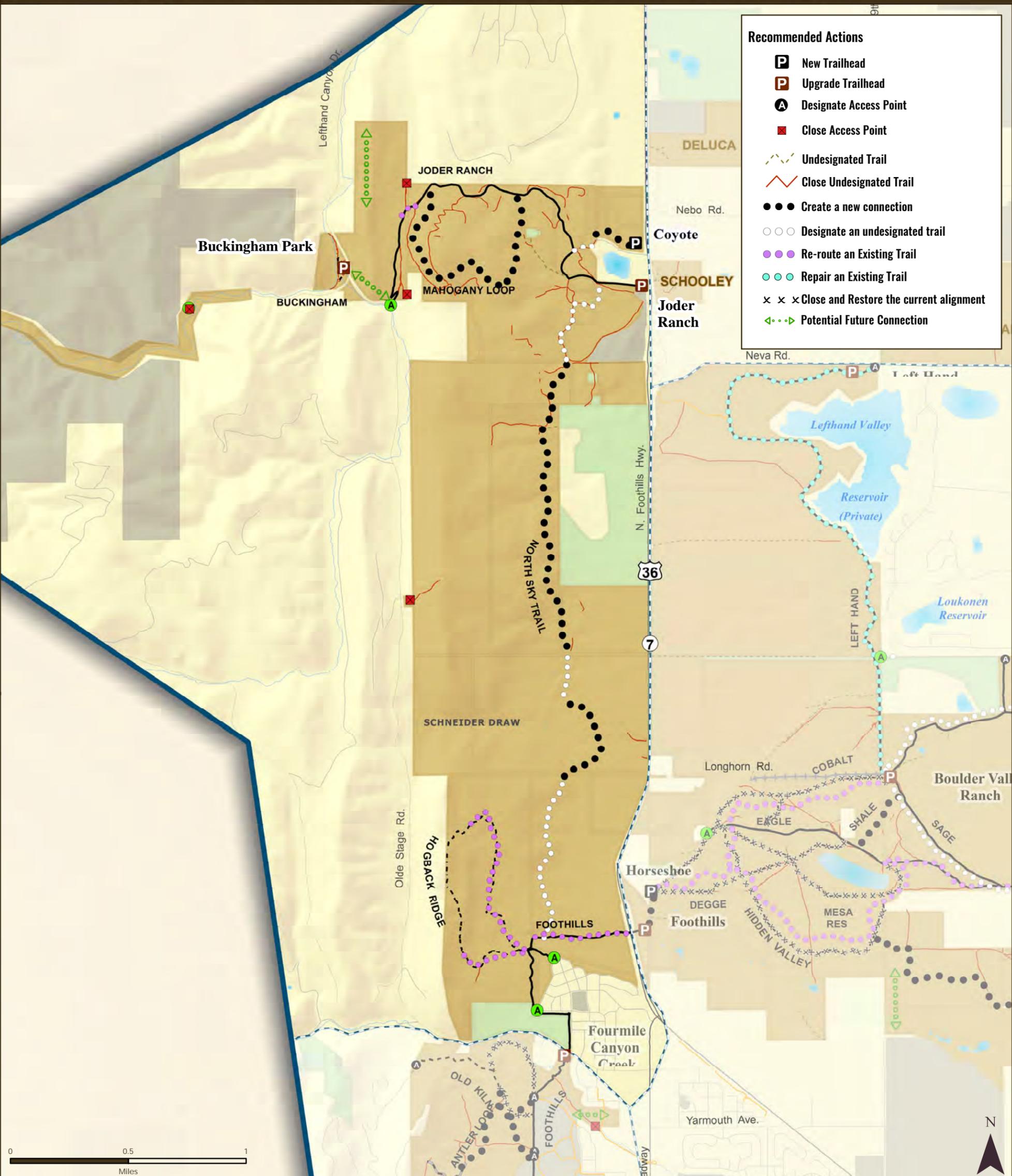


North Trail Study Area Draft Plan Recommendations

- | | | | | | |
|--|----------------------------------|--|----------------------------------|--|---|
| | 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. A-4

North Trail Study Area Plan



Recommended Actions

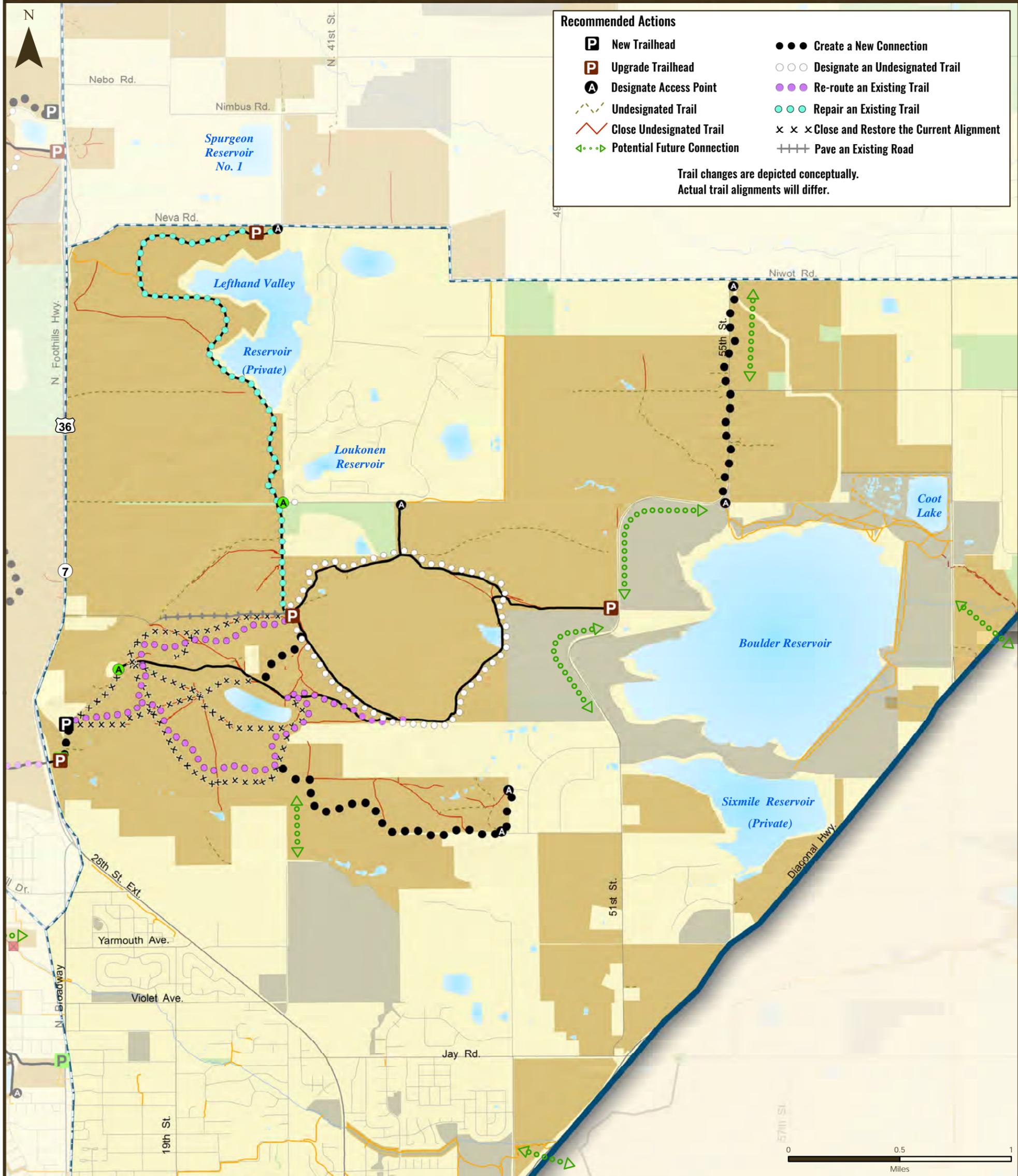
- P** New Trailhead
- P** Upgrade Trailhead
- A** Designate Access Point
- X** Close Access Point
- Undesignated Trail
- Close Undesignated Trail
- Create a new connection
- Designate an undesignated trail
- Re-route an Existing Trail
- Repair an Existing Trail
- Close and Restore the current alignment
- 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. A-5

North Trail Study Area Plan



Recommended Actions

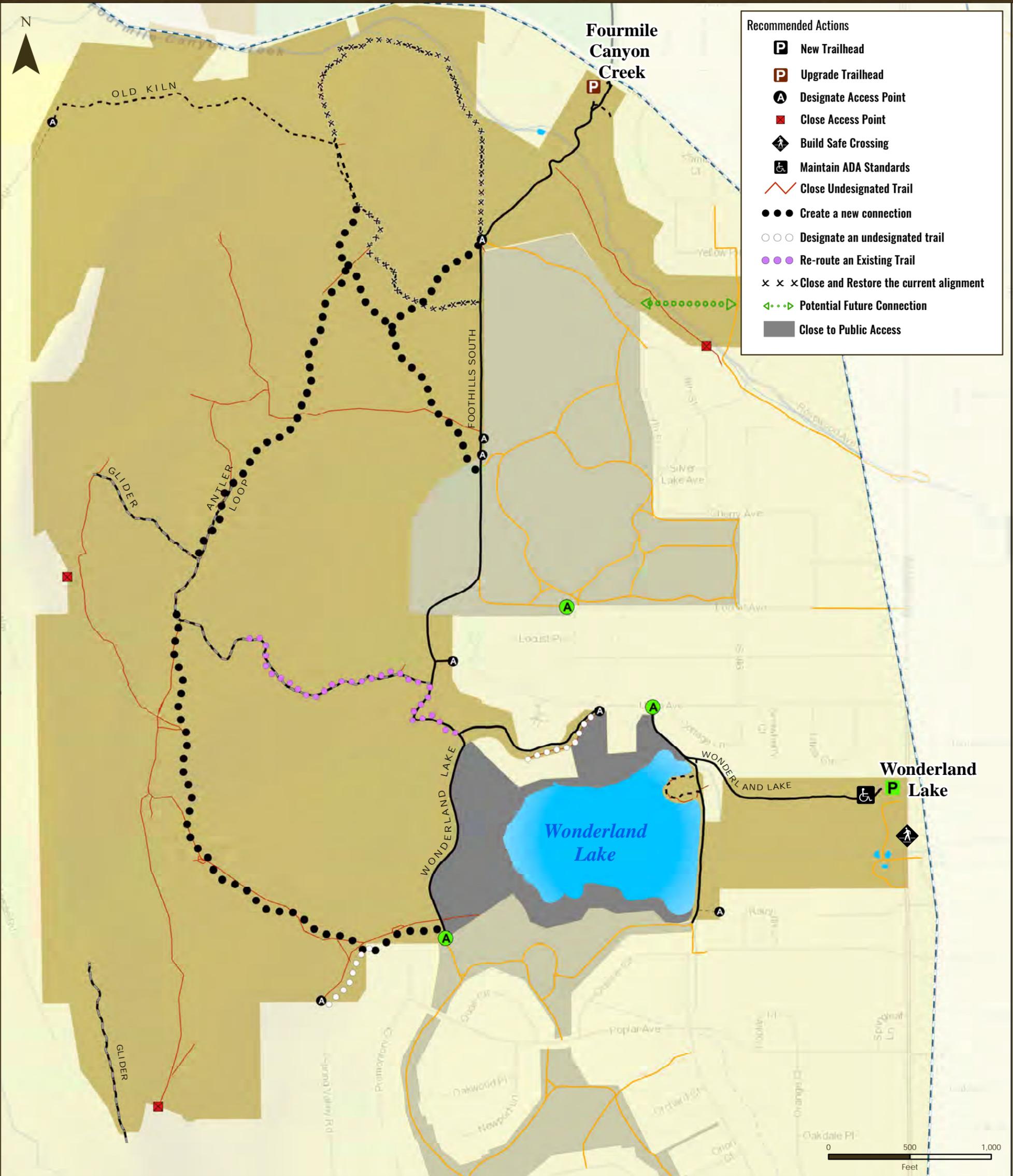
P New Trailhead	●●● Create a New Connection
P Upgrade Trailhead	○ ○ ○ Designate an Undesignated Trail
A Designate Access Point	●●● Re-route an Existing Trail
--- Undesignated Trail	●●● Repair an Existing Trail
--- Close Undesignated Trail	× × × Close and Restore the Current Alignment
--- Potential Future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

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

Boulder Valley Ranch Subarea Recommendations

North Trail Study Planning Area	OSMP Hiking/Equestrian Trail	North Trail Study Area Lands
North Trail Study Subareas	OSMP Multi-Use Trail	OSMP Fee & Managed Property in the North TSA
OSMP Trailhead	OSMP Gliding Access	Lands Not Included in the North Trail Study Area
OSMP Access Point	Non-OSMP Managed Hiking Trail	OSMP Easement or Jointly Owned, County-Managed Land
OSMP Recreational Feature Access	Non-OSMP Managed Multi-Use Trail	Other Government Land
Boulder County Trailhead	Non-OSMP Planned Trail	

North Trail Study Area Plan



Wonderland Lake Subarea Recommendations

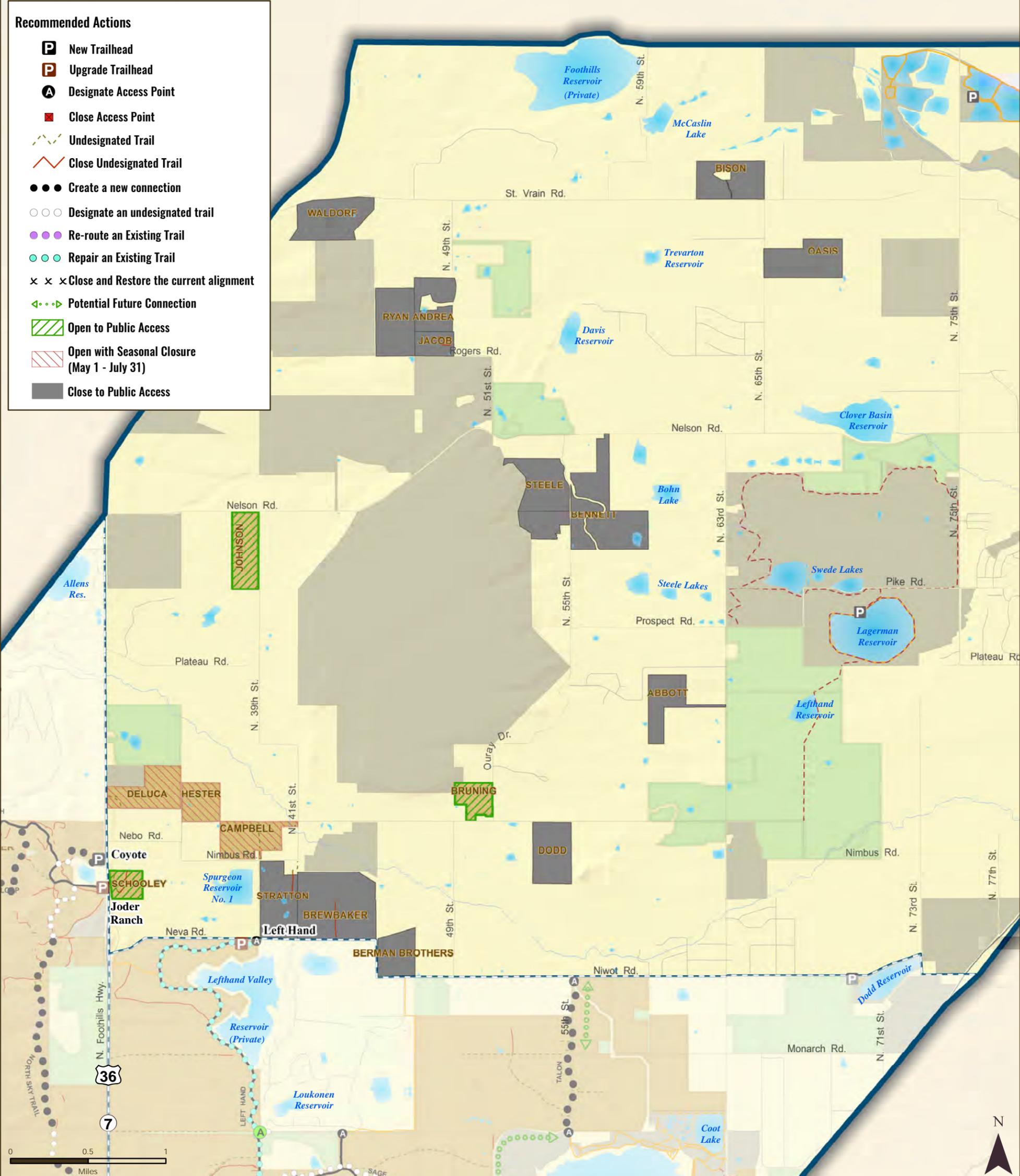
- | | | |
|----------------------------------|----------------------------------|---|
| North Trail Study Planning Area | OSMP Hiking/Equestrian Trail | OSMP Fee & Managed Property in the North TSA |
| North Trail Study Subareas | OSMP Multi-Use Trail | OSMP Easement or Jointly Owned, County-Managed 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
- Open with Seasonal Closure (May 1 - July 31)
- Close to Public Access



Northern Properties Subarea Recommendations

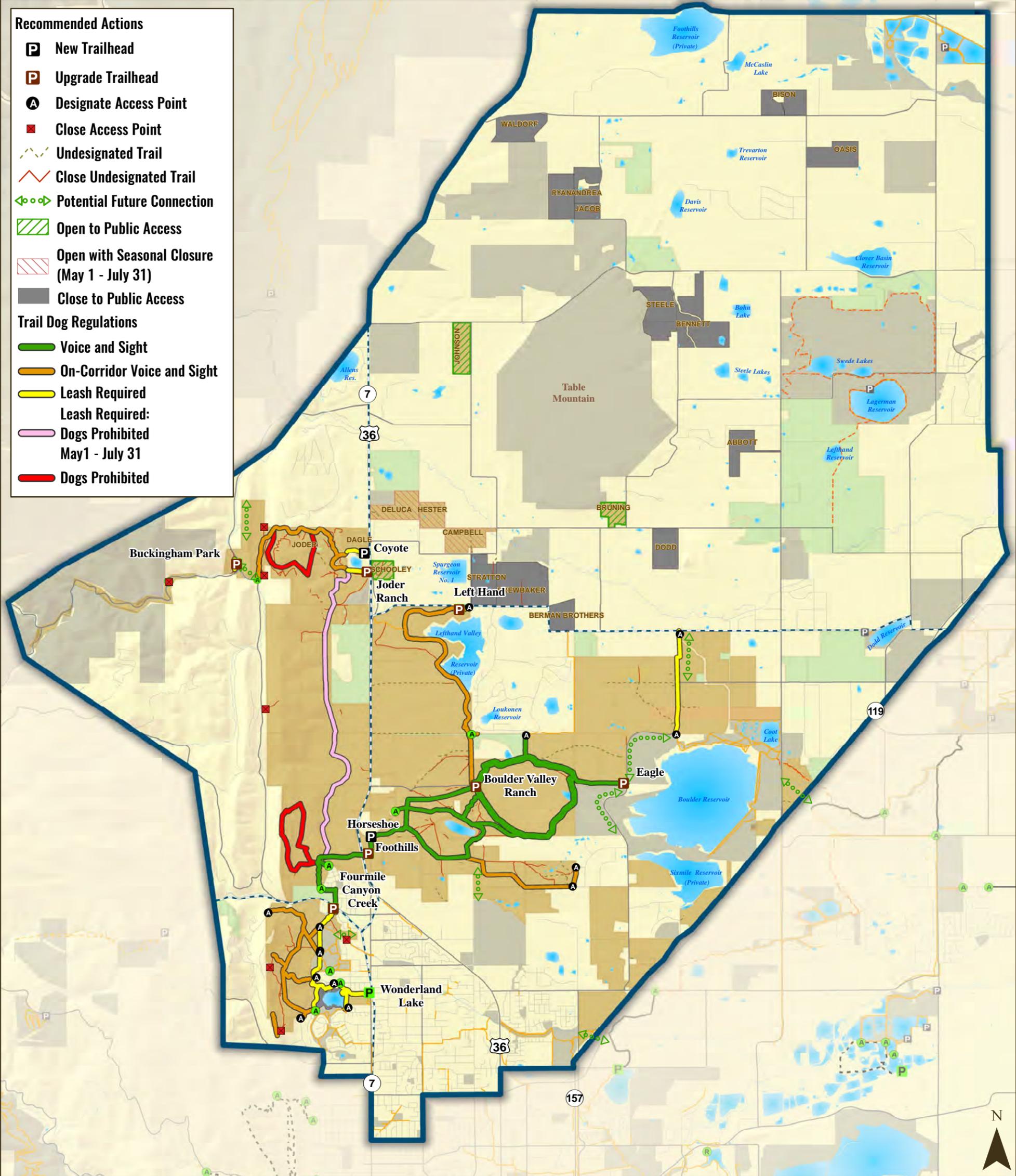
- | | | | | | |
|--|----------------------------------|--|----------------------------------|--|---|
| | North Trail Study Planning Area | | OSMP Hiking/Equestrian Trail | | OSMP Fee & Managed Property in the North TSA |
| | North Trail Study Subareas | | OSMP Multi-Use Trail | | OSMP Easement or Jointly 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
 - Potential Future Connection
 - Open to Public Access
 - Open with Seasonal Closure (May 1 - July 31)
 - Close to Public Access
- Trail Dog Regulations**
- Voice and Sight
 - On-Corridor Voice and Sight
 - Leash Required
 - Leash Required: May 1 - July 31
 - Dogs Prohibited May 1 - July 31
 - Dogs Prohibited



North Trail Study Area Dog Recommendations

- | | | |
|----------------------------------|----------------------------------|---|
| North Trail Study Planning Area | Non-OSMP Managed Hiking Trail | North Trail Study Area Lands |
| North Trail Study Subareas | Non-OSMP Managed Multi-Use Trail | OSMP Fee & Managed Property in the North TSA |
| OSMP Trailhead | Non-OSMP Planned Trail | Lands Not Included in the North Trail Study Area |
| OSMP Access Point | | OSMP Easement or Jointly Owned, County-Managed Land |
| OSMP Recreational Feature Access | | Other Government Land |
| Boulder County Trailhead | | |





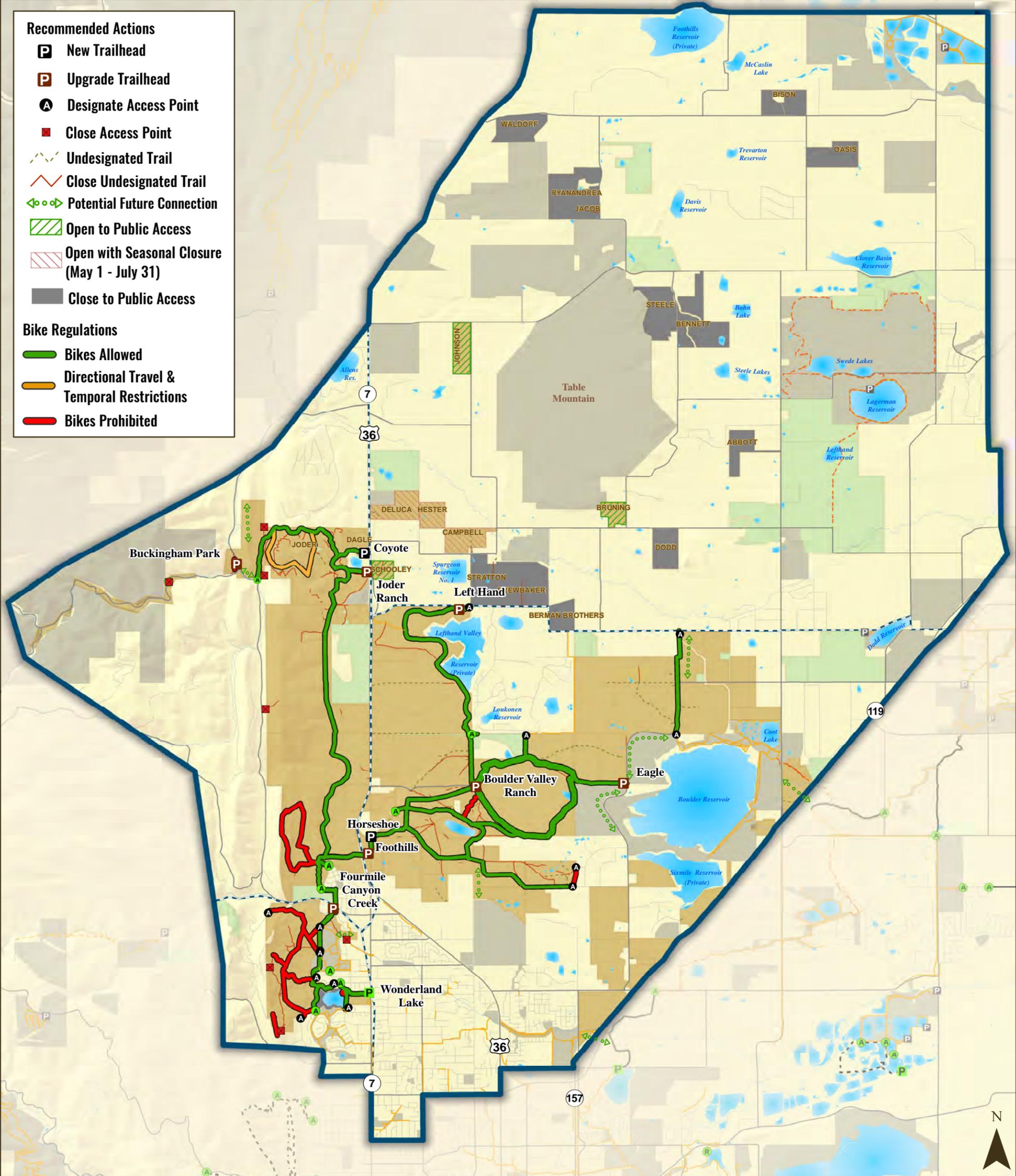
North Trail Study Area Plan

Recommended Actions

- New Trailhead
- Upgrade Trailhead
- Designate Access Point
- Close Access Point
- Undesignated Trail
- Close Undesignated Trail
- Potential Future Connection
- Open to Public Access
- Open with Seasonal Closure (May 1 - July 31)
- Close to Public Access

Bike Regulations

- Bikes Allowed
- Directional Travel & Temporal Restrictions
- Bikes Prohibited



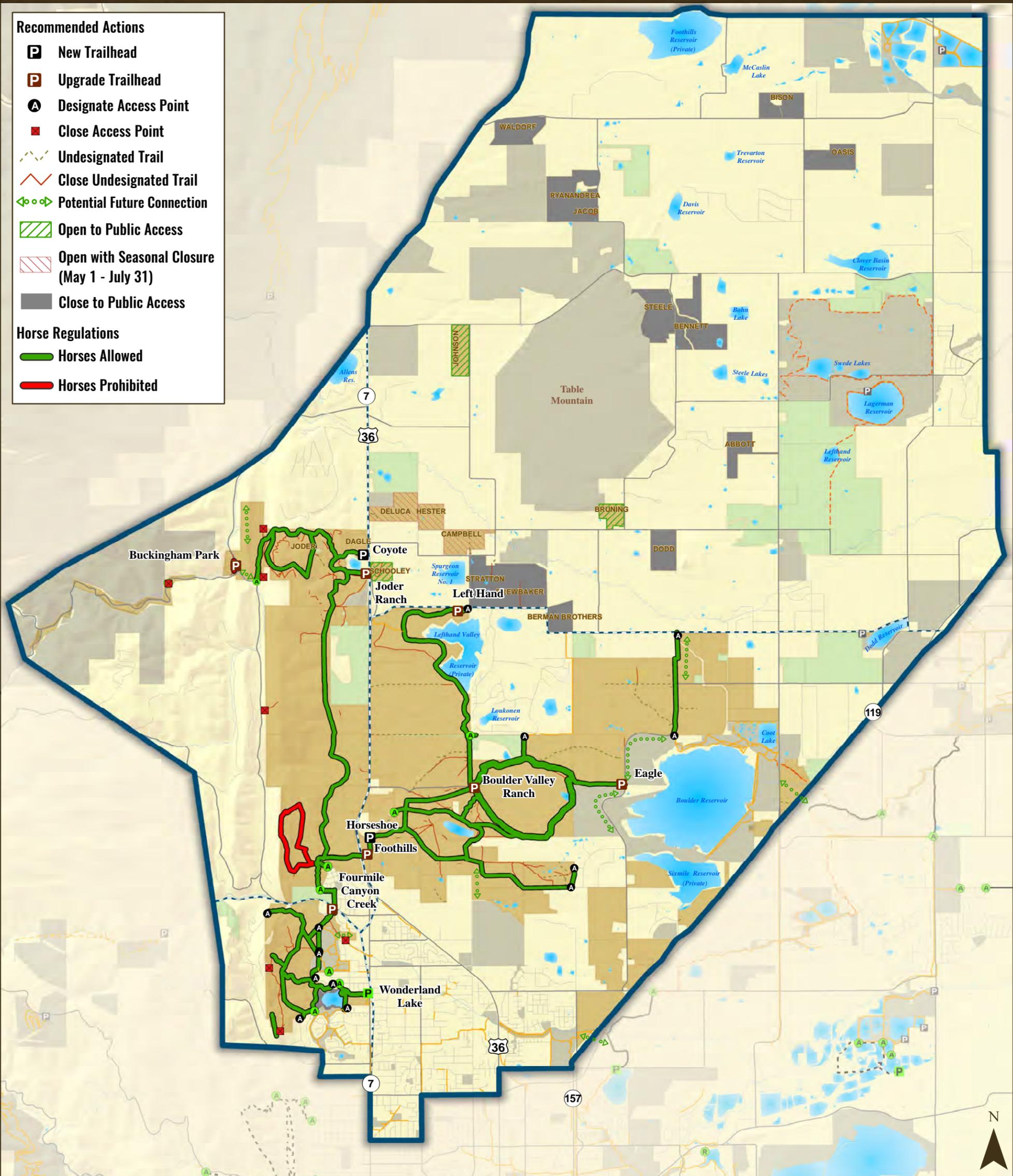
North Trail Study Area Bike Recommendations

- | | | |
|----------------------------------|----------------------------------|---|
| North Trail Study Planning Area | Non-OSMP Managed Hiking Trail | North Trail Study Area Lands |
| North Trail Study Subareas | Non-OSMP Managed Multi-Use Trail | OSMP Fee & Managed Property in the North TSA |
| OSMP Trailhead | Non-OSMP Planned Trail | Lands Not Included in the North Trail Study Area |
| OSMP Access Point | | OSMP Easement or Jointly Owned, County-Managed Land |
| OSMP Recreational Feature Access | | Other Government Land |
| Boulder County Trailhead | | |



North Trail Study Area Plan

- Recommended Actions**
- New Trailhead
 - Upgrade Trailhead
 - Designate Access Point
 - Close Access Point
 - Undesignated Trail
 - Close Undesignated Trail
 - Potential Future Connection
 - Open to Public Access
 - Open with Seasonal Closure (May 1 - July 31)
 - Close to Public Access
- Horse Regulations**
- Horses Allowed
 - Horses Prohibited



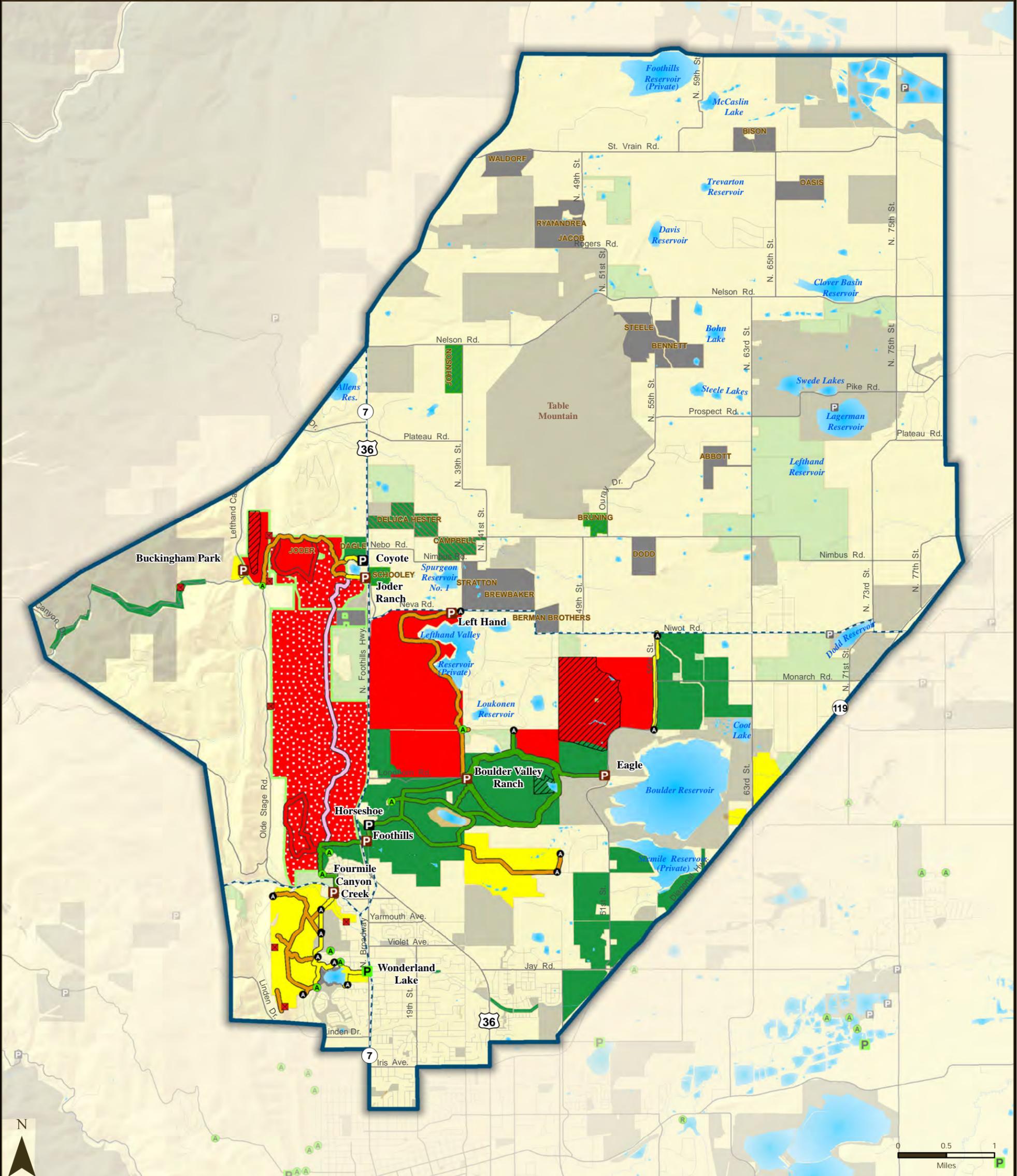
North Trail Study Area Horse Recommendations

- | | | |
|----------------------------------|----------------------------------|---|
| North Trail Study Planning Area | Non-OSMP Managed Hiking Trail | North Trail Study Area Lands |
| North Trail Study Subareas | Non-OSMP Managed Multi-Use Trail | OSMP Fee & Managed Property in the North TSA |
| OSMP Trailhead | Non-OSMP Planned Trail | Lands Not Included in the North Trail Study Area |
| OSMP Access Point | | OSMP Easement or Jointly Owned, County-Managed Land |
| OSMP Recreational Feature Access | | Other Government Land |
| Boulder County Trailhead | | |





North Trail Study Area Plan



North Trail Study Area Regulatory Settings

- | | | |
|---|--|--|
| <ul style="list-style-type: none"> North Trail Study Planning Area North Trail Study Subareas HCA Boundary OSMP Access Point Visitor Access Regulations New Trailhead New Access Point Close Access Point | <ul style="list-style-type: none"> Trail Dog Regulations Voice and Sight On-Corridor Voice and Sight Leash Required Leash Required; Seasonal Closure May 1 - July 31 Dogs Prohibited OSMP Easement or Jointly Owned, County-Managed Land Other Government Land | <ul style="list-style-type: none"> Dog Regulation Areas Voice and Sight Control Leash Required Dogs Prohibited Seasonal Raptor Closure Open with Seasonal Closure (May 1 - July 31) Closed to Off-Trail Public Access Closed to Public Access A-12 |
|---|--|--|

Appendix B

This page is intentionally left blank.

Appendix B: City Council Meetings, Open Space Board of Trustees Meetings and Summary of Community Engagement

The City Council held one study session and one public hearing to review and ultimately accept the North TSA Plan.

City Council Meetings and Study Sessions		
Date	Type of Meeting Discussion	Topic
June 7, 2016	Public Hearing	North TSA Plan
May 24, 2016	Study Session	North TSA Draft Plan

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, to determine which scenario to use as the basis for the draft plan and to review and recommend the draft plan for Boulder City Council acceptance.

OSBT Meetings and Study Sessions		
Date	Type of Meeting Discussion	Topic
March 9, 2016	Public Hearing	North TSA Draft Plan
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

This page is intentionally left blank.

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: 1-9,999 visits per year were classified as very low, 10-24,999 as low, 25,000-74,999 as medium and $\geq 75,000$ as high.

Types of Trailheads		
Class	Description	Estimated Use
TH1	Simple/Minor Developed Trailhead	Very Low to Low Use
TH2	Developed/Improved Trailhead	Medium Use
TH3	Fully Developed Trailhead	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	T2	Kiosk	Replace Outhouse

Trailhead Name	Class	Existing Infrastructure	What is Needed
		Dog Station Dog Compost Station Fencing Outhouse (ADA toilet is not up to standards) Bike Rack Trash Can Parking Spaces (18) ADA Parking Space (1)	Parking Bollard Reflectors on Fence Parking No Parking Along Longhorn Road
Eagle	T2	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 Horse Trailer Parking
Foothills	T2	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 Horse Trailer Parking
Fourmile Canyon Creek	T3	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 New Kiosk and Entrance Sign
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)	Replace Outhouse Parking Bollard Reflectors on Fence Parking

Trailhead Name	Class	Existing Infrastructure	What is Needed
		Picnic Tables (3) Bike Rack Trash Cans (2 sets of 2; 1 recycle) Grills (1) Parking Spaces (35) ADA Parking Space (1)	Reflector Sticks Near Large Rocks and Other Hazards Dog Station Dog Compost Station

Appendix D

This page is intentionally left blank.

Appendix D: Recommended Actions and Interests Table

North TSA Interests			
Improved Visitor Experience		Improved Connectivity	
Conservation of Resources (Natural/Agricultural/Cultural)		Balance of Recreation and Resource Conservation	
Improved Access and Accessibility		Increased Safety	
Honoring Community Values and Commitments		Decreased Visitor Conflict	
Increased Education and Understanding		Effective Planning Process and Plan Implementation	

Reference Number(s) and Action Title	Action	Interests
TSA-Wide		
T1 to T9 Provide management area designations for properties without designations to guide management actions.	<ul style="list-style-type: none"> • Retain the Joder and Cox property designation (T1) as a Habitat Conservation Area (HCA) and implement as part of the North Foothills HCA. • Designate Dagle II (T2), Stratton (T5), Lappin (T6), IBM open space easement (T7), Hart-Jones Exchange (T8) and Palo Park (T9) properties as Natural Areas. • Limit public access to on trail travel on IBM open space easement property. • Designate Dakota Ridge Village (T3) property as a Passive Recreation Area. • Designate Berman Brothers (T4) as an Agricultural Area. 	
T10 to T15 Collaborate with partner agencies to create regional connections.	<p>As opportunities arise, collaborate with partner agencies to create the following regional trail connections in a way that minimizes natural resource impacts.</p> <ul style="list-style-type: none"> • (T10) 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. • (T11) North TSA to Boulder County Parks and Open Space's Lagerman/Imel/AHI Open Space Complex. • (T12) A Boulder-to-Lyons trail connection including the efforts of the Rocky Mountain Greenway Project. • (T13) IBM Connector Trail underpass and trail (<i>construction pending</i>). • (T14) Fourmile Canyon Creek Trail underpass to Cottonwood Trail (<i>construction pending</i>). 	

Reference Number(s) and Action Title	Action	Interests
T16 to T20 Collaborate with partner agencies to create local trail connections.	<ul style="list-style-type: none"> • (T15) Eagle Trail to the planned Boulder Reservoir Trail. <p>As opportunities arise, collaborate with partner agencies to create the following local trail connections in a way that minimizes natural resource impacts.</p> <ul style="list-style-type: none"> • (T16) Joder Trail to Buckingham Park via Olde Stage Road (<i>in progress</i>). • (T17) 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. • (T18) City of Boulder's Area III park site to the North TSA. • (T19) Boulder Reservoir to Niwot Road. • (T20) Fourmile Canyon Creek Greenway path to Foothills Community Park. 	
T21 Designate undesignated access points that connect with new or existing designated trails.		
T22 Bring all trails up to standards.	Conduct maintenance activities to bring trails up to OSMP sustainable trail guidelines.	
T23 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.	
T24 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.	
T25 Allow natural revegetation or restore all undesignated trails not integrated into designated trail connections.		

Reference Number(s) and Action Title	Action	Interests
		 
T26 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.	 
T27 Create interpretive information and messages about unique, rare and sensitive resources.		 
North Foothills Subarea		
NF1 Retain the Joder property as a Habitat Conservation Area (HCA).	Retain the management area designation and include as part of the North Foothills HCA.	   
NF2 Designate Dagle II property as a Natural Area.		 
NF3 Designate Dakota Ridge Village property as a Passive Recreation Area.		 
NF4 Collaborate to create a trail connection from North TSA to Boulder County Parks and Open Space's Heil Valley Ranch.	<p>As opportunities arise, collaborate with partner agencies to create regional trail connections in a way that minimizes natural resource impacts.</p> <p>The North TSA Plan does not preclude future public planning processes to assess a regional trail connection to Heil Ranch on the Buckingham property.</p>	  
NF5 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 in a way that minimizes natural resource impacts.	  
NF6 Collaborate to create a connection between Joder Ranch and Boulder County's Six-Mile Fold property.	<p>As opportunities arise, collaborate with partner agencies to create local trail connections in a way that minimizes natural resource impacts.</p> <p>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</p>	  

Reference Number(s) and Action Title	Action	Interests
	this area and minimize natural resource impacts.	
NF7 Close Cottonwood Recreation Area.		 
NF8 Realign western section of the Interim Joder Trail near the Buckingham property. (Joder Ranch Trail)		   
NF9 Construct one loop trail on the northwest section of the Joder property. (Mahogany Loop)		   
NF10 Construct a new trailhead for passenger vehicle parking on the Dagle/Wright properties. (Coyote Trailhead)		   
NF11 Construct a connector trail from the new trailhead (Coyote Trailhead) on the Dagle property to the Joder Ranch Trail.		    
NF12 Retain Interim Joder Trailhead. (Joder Ranch Trailhead)		   
NF13 Construct a north-south connector trail from Foothills Trail to the Joder Ranch Trail west of U.S. 36. (North Sky Trail)	<p>Construct a trail from the southern section of the Railroad Grade, west of Foothills Business Park, connecting to the Joder Ranch Trail.</p> <p>Use best efforts to locate connector trail through the conservation easement.</p>	   

Reference Number(s) and Action Title	Action	Interests
NF14 Include the North Sky Trail in the muddy closure program.		
NF15 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.	
NF16 Re-route Hogback Trail.		
NF17 Re-route Foothills Trail where it connects to Hogback Trail and eastward to U.S. 36.		
NF18 Do not allow off-trail permits for the area inside the Joder loop trail for two years following the trail's construction. (Mahogany Loop)		
NF19 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.	
NF20 After City Council approval of the North TSA Plan, staff will return to the		

Reference Number(s) and Action Title	Action	Interests
OSBT with monitoring recommendations for the North Foothills HCA, the North Sky Trail and the Joder property.		 
No Reference Number: Regulation Change: Leash required with seasonal closure from May 1 – July 31 on Joder connector trail. (North Sky Trail)		 
No Reference Number: Regulation Change: Dogs prohibited on the Joder loop trail. (Mahogany Loop)		 
Boulder Valley Ranch Subarea		
B1 to B4 Provide management area designations for properties without designations to guide management actions.	Designate Lappin property (B1), IBM open space easement property (B2), Hart-Jones Exchange property (B3) and Palo Park property (B4) as Natural Areas. Limit public access to on-trail travel on IBM open space easement property.	   
B5 to B9 Collaborate with partner agencies to create regional trail connections.	As opportunities arise, collaborate with partner agencies to create the following regional trail connections in a way that minimizes natural resource impacts. <ul style="list-style-type: none"> • (B5) City of Boulder’s Area III park site to the North TSA. • (B6) A Boulder-to-Lyons trail connection including the efforts of the Rocky Mountain Greenway Project. • (B7) IBM Connector Trail underpass and trail (<i>construction pending</i>). • (B8) Fourmile Canyon Creek Trail underpass to Cottonwood Trail (<i>construction pending</i>). • (B9) Eagle Trail to the planned Boulder Reservoir Trail. 	   
B10 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 in and around ponds on these properties by not allowing public access to the ponds.	 
B11 Designate access point for where Lefthand Trail connects to Neva Road.		   

Reference Number(s) and Action Title	Action	Interests
B12 Bring Lefthand Trailhead up to standards.	Include horse trailer parking at Lefthand Trailhead.	
B13 Improve Lefthand Trail.		
B14 Designate a connector trail from Lefthand Trail to the Lake Valley Estates neighborhood.		
B15 Create a connection via the Boulder Reservoir to Niwot Road. (Talon Trail)	Create a regional trail connection in a way that minimizes natural resource impacts. Work with partner agencies to determine the most feasible trail alignment with a preference for an alignment along 55 th Street.	
B16 Bring Eagle Trailhead up to standards.	Include horse trailer parking at Eagle Trailhead.	

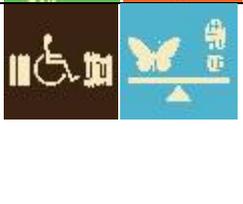
Reference Number(s) and Action Title	Action	Interests
		
B17 Bring Foothills Trailhead up to standards.		     
B18 Add a new trailhead at the Degge Trail access point. (Horseshoe Trailhead)	Provide additional parking capacity and horse trailer parking.	 
B19 Create a trail connection between Foothills and Degge trails, re-route Degge Trail.	Provide a trail connection from Foothills Trail to re-routed west end of Degge Trail.	     
B20 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.	     
B21 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.	   

Reference Number(s) and Action Title	Action	Interests
B22 Provide nature-viewing access at Mesa Reservoir.		
B23 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.	
B24 Pave Longhorn Road.	Pave or resurface Longhorn Road with an alternative permeable surface material.	
B25 Bring Sage (BVR) Trailhead up to standards.	Improve restroom facilities.	
B26 Improve Americans with Disabilities Act (ADA) access on Eagle and Sage trails.		
B27 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.	

Reference Number(s) and Action Title	Action	Interests
B28 Allow fishing access on eastern shore of BVR pond.		
B29 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.	
B30 Continue to follow the terms of the lease regarding public access to the BVR equestrian arena and concurrently develop options for nearby horse trailer parking and/or seek to provide an equivalent and suitable corral option that will be determined in cooperation with stakeholders that will be vetted and approved in a future public process.	The board recommends that staff proactively address any conflict issues resulting from public access in future lease negotiations.	
No Reference Number: Regulation Change: Dogs allowed with On-Corridor Voice and Sight access on Lefthand Trail.		
Wonderland Lake Subarea		
W1 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.	
W2 Assess vision for Foothills Nature Center.	OSMP is assessing and preparing plans for the future vision of the Foothills Nature Center and associated trailhead.	

Reference Number(s) and Action Title	Action	Interests
W3 Construct shade structure near Wonderland Lake Trailhead.		
W4 Improve safety at Broadway crossing.	Support and encourage improvements to crossing between Sumac Avenue, RTD bus stop and the Foothills Nature Center.	
W5 Revegetate the flood damaged northern loop section of Old Kiln Trail.		
W6 Rename Four Mile Trailhead as Fourmile Canyon Creek Trailhead.		
W7 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 in a way that minimizes natural resource impacts.	
W8 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.	
W9 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.	
W10 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.	
W11 Improve Americans with Disabilities Act (ADA) access on Wonderland Lake Trail.		

Reference Number(s) and Action Title	Action	Interests
		
W12 Prohibit boats and belly boats on Wonderland Lake.		
W13 Prohibit ice skating on Wonderland Lake.		
W14 Allow sledding on Wonderland Lake dam.		
W15 Do not provide access to Wonderland Lake's south, west and north shores.		
W16 Provide access to the cattail marsh on north side of peninsula.		
W17 Establish hardened pullout areas on the peninsula for educational programming and a hardened wading access.	Provide increased beach access on the western edge of the peninsula.	
W18 Allow Wonderland Lake wading access from designated areas on the peninsula.		
W19 Create Wonderland Lake fishing pier.		

Reference Number(s) and Action Title	Action	Interests
		
No Reference Number: Regulation Change: Dogs allowed On-Corridor Voice and Sight access on Wonderland Hill loop. (Antler Loop)		
Northern Properties Subarea		
NP1 Designate Berman Brothers property as an Agricultural Area.		
NP2 Designate Stratton property as a Natural Area.		
NP3 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 in a way that minimizes natural resource impacts.	
NP4 Prohibit public access on Waldorf, Ryan, Andrea, Jacob, Bison, Oasis, Steele, Bennett, Stratton, Brewbaker, Berman Brothers, Dodd and Abbott properties.		
NP5 Allow public access on Deluca, Hester and Campbell properties with seasonal closure (May 1 - July 31) for ground nesting bobolinks.		

Reference Number(s) and Action Title	Action	Interests
		
NP6 Allow public access on Johnson, Bruning and Schooley properties.		  

Appendix E

This page is intentionally left blank.

Appendix E: Scheduling and Estimated Costs for North TSA Projects

Plan Implementation Costs

The current total estimated cost of implementing the draft plan, not including the personnel expenses of standard employees, is \$4.3 million. Costs are estimated and may be subject to change as additional evaluation and planning occurs for project implementation.

OSMP would also look for additional opportunities to fund projects in the Draft Plan, including grants and partnerships. Some projects may also be suitable for completion by or with the assistance of volunteers.

Project Phasing

Project scheduling will be subject to change based on the integration of North TSA projects into future departmental budgeting and work planning.

The draft plan recommendations were ranked by considering the benefits of each strategy based on trail sustainability, visitor experience and environmental benefits. A strategy received a higher ranking if there was greater benefit across all three factors and if that strategy had especially widespread or long-lasting benefit.

Additional factors integrated into project phasing include:

- Project cost, staff capacity or other fiscal constraints.
- Specific timing requirements (i.e. completion of flood related projects for FEMA reimbursement).
- Sequencing (i.e., projects that are necessarily precursors or dependents or that can leverage staff and cost efficiencies through sequencing).
- Prior commitments and projects already planned for completion in upcoming years
- Projects with a high level of community support/anticipation are given greater priority than projects which are otherwise the same.
- The need to coordinate partner agency collaboration.

Smaller scale projects and those that have fewer timing or cost constraints (i.e. management area designations, sign projects, regulatory changes) may be included in annual work plans as opportunity allows and accomplished as a part of ongoing core departmental services and infrastructure maintenance as shown in both **Table 1: Ongoing Projects and Actions to Implement North TSA Plan** and **Table 2: Projects that can be Added as Opportunity, Staffing and Funding Allows to 2016-2022 Timeline**.

Projects that require future planning, feasibility studies and coordination with other City departments, Boulder County and other agencies are included in **Table 3: Projects that are Dependent on Collaboration with Other Departments, Boulder County and External Entities**. Cost estimates are not available for these projects.

The recommended scheduling of remaining North TSA projects is included in **Table 4: Recommended Schedule for North TSA Projects and Actions**.

Table 1: Ongoing Projects and Actions to Implement North TSA Plan

Action #	Plan Ref #	Action	Estimated Cost	Benefit Rank 0-1 = Low 2-3 = Medium 4-6 = High
1	T1	Provide management area designations for properties without designations to guide management actions: Retain the Joder and Cox property designation as a Habitat Conservation Area (HCA) and implement as part of the North Foothills HCA.	\$10,000	Medium
20	T21	Designate undesignated access points that connect with new or existing designated trails.	\$12,600	Medium
23	T24	Remove unnecessary fencing and use wildlife friendly fencing.	\$17,800	Medium
24	T25	Allow natural revegetation or restore all undesignated trails not integrated into designated trail connections.	\$25,500	High
25	T26	Assess and prevent the introduction and spread of priority invasive plants along new trail connections and decommissioned or undesignated trail sections under restoration.	\$91,000	High
26	T27	Create interpretive information and messages about unique, rare and sensitive resources.	\$31,000	Medium
65	B30	Continue to follow the terms of the lease regarding public access to the BVR equestrian arena and concurrently develop options for nearby horse trailer parking and/or seek to provide an equivalent and suitable corral option that will be determined in cooperation with stakeholders that will be vetted and approved in a future public process. The board recommends that staff proactively address any conflict issues resulting from public access in future lease negotiations.	\$20,000	Low
79	NF19	Do not allow off-trail permits within the North Foothills HCA.	Costs combined with HCA designation and implementation	Medium
82	REG	Joder HCA designation and off trail permit implementation	Costs combined with HCA designation and implementation	Low
TOTAL ESTIMATED COST			\$207,900	

Table 2: Projects that can be Added as Opportunity, Staffing and Funding Allows to 2016-2022 Timeline

Action #	Plan Ref #	Action	Estimated Cost	Benefit Rank 0-2 = Low 2-3 = Medium 4-6 = High
34	W10	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.	\$95,000	High
66	REG	Lefthand Trail: Dogs Voice and Sight On Corridor	\$500	Low
TOTAL ESTIMATED COST			\$95,500	

Table 3: Projects that are Dependent on Collaboration with Other Departments, Boulder County and External Entities

Action #	Plan Ref #	Action	Estimated Cost	Benefit Rank 0-3 = Low 2-3 = Medium 4-6 = High
10	T10	Collaborate with partner agencies to create regional connections in a way that minimizes natural resource impacts. North TSA to Boulder County Parks and Open Space's Heil Valley Ranch. The North TSA Plan does not preclude future planning processes to assess and recommend a regional connector trail connection to Heil Ranch on the Buckingham property.	Unknown	Medium
11	T11	Regional Connections: North TSA to Boulder County Parks and Open Space's Lagerman/Imel/AHI Open Space Complex.	Unknown	Medium
12	T12	Regional Connections: A Boulder-to-Lyons trail connection including the efforts of the Rocky Mountain Greenway Project	Unknown	Medium
13	T13	Regional Connections: IBM Connector Trail underpass and trail (construction pending)	Boulder County Project	Low
14	T14	Regional Connections: Fourmile Canyon Creek Trail underpass to Cottonwood Trail (construction pending)	Boulder County Project	Low
15	T15	Regional Connections: Eagle Trail to the planned Boulder Reservoir Trail	Unknown	Medium
17	T17	Local Connections: Joder Ranch and Boulder County's Six-Mile Fold. Boulder County will conduct its own 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 in this area.	Unknown	Low
18	T18	Local Connections: City of Boulder's Area III park site to the North TSA	Unknown	Low
19	T20	Local Connections: Fourmile Canyon Creek Greenway path to Foothills Community Park	City of Boulder Greenways Project	Low
27	W1	Collaborate with City of Boulder Parks and Recreation Department to support designed nature play experiences on their property and support appropriate passive recreation aspects of this type of experience on adjacent OSMP land.	Core Service	Low
29	W4	Improve safety at Broadway crossing between Sumac Avenue, RTD bus stop and the Foothills Nature Center.	Core Service	Medium

Table 4: Recommended Schedule for North TSA Projects and Actions

Action #	Plan Ref #	Action	2016	2017	2018	2019	2020	2021	2022	2023 and Later	Benefit Rank 0-1 = Low 2-3 = Medium 4-6 = High
2	T2	Management Area Designation: Designate Dagle II as a Natural Area.	Core Service								Low
3	T3	Management Area Designation: Designate Dakota Ridge Village property as a Passive Recreation Area.	Core Service								Low
4	T4	Management Area Designation: Designate Berman Brothers property as an Agricultural Area.	Core Service								Low
5	T5	Management Area Designation: Designate Stratton as a Natural Area.	Core Service								Low
6	T6	Management Area Designation: Designate Lappin as a Natural Area.	Core Service								Low
7	T7	Management Area Designation: Designate IBM open space easement as a Natural Area. Limit public access to on trail travel on IBM open space easement property.	Core Service								Low
8	T8	Management Area Designation: Designate Hart-Jones Exchange as a Natural Area.	Core Service								Low
9	T9	Management Area Designation: Designate Palo Park as a Natural Area.	Core Service								Low
16	T16	As opportunities arise, collaborate with partner agencies to create local trail connections in a way that minimizes natural resource impacts. Joder Trail to Buckingham Park via Olde Stage Road (in progress)	\$8,500 Underway								Medium
30	W5	Revegetate the flood damaged northern loop section of Old Kiln Trail.	\$3,640 Underway								Medium
56	B21	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.	\$140,000 Design	Build							High
80	NF20	After City Council approval of the North TSA Plan, staff will return to the OSBT with monitoring recommendations for the North Foothills HCA, the North Sky Trail and the Joder property.	Core Service								Low
84	NP4	Prohibit public access on Waldorf, Ryan, Andrea, Jacob, Bison, Oasis, Steele, Bennett, Stratton, Brewbaker, Berman Brothers, Dodd and Abbott properties.	\$3,000								Medium
85	NP5	Allow public access on Deluca, Hester and Campbell properties with seasonal closure (May 1-July 31) for ground nesting bobolinks.	\$1,000								Medium
86	NP6	Allow public access on Johnson, Bruning, and Schooley properties.	\$1,000								Low
21	T22	Bring all trails up to standards. (South Foothills Trail)		\$100,000							Medium
28	W3	Construct a shade structure near Wonderland Lake Trailhead.		\$25,000							Low
35	W11	Improve Americans with Disabilities (ADA) access on Wonderland Lake Trail.		\$9,000							Medium
45	B10	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 in and around ponds on these properties by prohibiting public access to the ponds.		\$9,000							Medium
52	B17	Bring Foothills Trailhead up to standards.		\$12,500							Medium
61	B26	Improve Americans with Disabilities Act (ADA) access on Eagle and Sage trails.		\$130,000							Medium
67	NF7	Close Cottonwood Recreation Area.		\$800							Low
69	NF9	Construct one loop trail on the northwest section of the Joder property. (Mahogany Loop)		\$131,000 Design	Build	Build					Medium
70	NF10	Construct a new trailhead for passenger vehicle parking on the Dagle/Wright properties. (Coyote Trailhead)		\$137,000 Initial Design	Final Design and Permits	Build					Medium
72	NF12	Retain Interim Joder Trailhead. (Joder Ranch Trailhead)		\$7,000 Initial Design	Final Design	Build					Low

Action #	Plan Ref #	Action	2016	2017	2018	2019	2020	2021	2022	2023 and Later	Benefit Rank 0-1 = Low 2-3 = Medium 4-6 = High
73	NF13	Construct a north-south connector trail from Foothills Trail to the Joder Ranch Trail west of US 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.		\$805,000 Initial Design	Final Design and permitting	Build	Build	Build			Medium
76	NF16	Re-route Hogback Trail.		Initial Design				\$146,000 Final Design, Permits	Build		High
77	NF17	Re-route Foothills Trail where it connects to Hogback Trail and eastward to US 36.		Initial Design				\$113,000 Final Design, Permits	Build		High
85	NP5	Allow public access on Deluca, Hester and Campbell properties with seasonal closure (May 1-July 31) for ground nesting bobolinks.		\$1,000							Medium
36	W12	Prohibit boats and belly boats on Wonderland Lake.			\$500						Low
37	W13	Prohibit ice skating on Wonderland Lake.			\$500						Low
38	W14	Allow sledding on Wonderland Lake dam.			\$500						Low
39	W15	Do not provide access to Wonderland Lake's south, west and north shores.			\$3,500						Low
40	W16	Provide access to the cattail marsh on north side of peninsula.			\$8,000						Medium
41	W17	Establish hardened pullout areas on the peninsula for educational programming and a hardened wading access. Provide increased beach access on the western edge of the peninsula.			\$14,000						Medium
42	W18	Allow Wonderland Lake wading access from designated areas on the peninsula.			\$700						Low
43	W19	Create Wonderland Lake fishing pier.			\$45,000						Low
60	B25	Bring Sage (BVR) Trailhead up to standards. Improve restroom facilities.			\$71,500 Amenity Updates	Design and build outhouse					High
68	NF8	Realign western section of the Interim Joder Trail near the Buckingham Property. (Joder Ranch Trail)			\$14,000 Design	Build					Low
53	B18	Add a new trailhead at the Degge Trail access point (Horseshoe Trailhead). Provide additional parking capacity and horse trailer parking.				\$97,500 Design	Build				Medium
54	B19	Create 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.				\$35,000 Design	Build				Medium
55	B20	Replace existing trails north of Mesa Reservoir with new trail connections. Replace Old Mill and Cobalt trails with a single new trail connection and replace western section of Eagle Trail and steep, downhill eastern portion section of Eagle Trail with new re-routed connections.				\$156,000 Initial Design	Final Design and Permits	Build	Build		High
57	B22	Provide nature-viewing access at Mesa Reservoir.				\$2,500 Initial Design	Final Design and Permits	Build	Build		Low
58	B23	Replace southern sections of Mesa Reservoir Trail and the Hidden Valley Trail with a new single trail connection.				\$176,000 Initial Design	Final Design and Permits	Build	Build		High
62	B27	Designate and slightly re-route in some locations one parallel single track tread adjacent to the Eagle and Sage loop at BVR.				\$35,000 Initial Design	Final Design and Permits	Build	Build		Medium
71	NF11	Construct a connector trail from the new trailhead (Coyote Trailhead) on the Dagle property to the Joder Ranch Trail.				Complete with new Coyote Trailhead					Low

Action #	Plan Ref #	Action	2016	2017	2018	2019	2020	2021	2022	2023 and Later	Benefit Rank 0-1 = Low 2-3 = Medium 4-6 = High
78	NF18	Do not allow off-trail permits for the area inside the Joder loop trail for two years following the trail's construction. (Mahogany Loop)				\$3,000					Low
83	REG	Mahogany Loop: Dogs Prohibited				\$1,000					Low
51	B16	Bring Eagle Trailhead up to standards.					\$57,000 Design	Build			High
32	W8	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.						Initial Design	Final Design and Permits	\$131,000 Build	High
47	B12	Bring Lefthand Trailhead up to standards.						\$56,500 Design	Build		Medium
74	NF14	Include the North Sky Trail in the muddy closure program.						Core Service			Medium
75	NF15	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.						\$20,500			Low
81	REG	N/A North Sky Trail: Dogs Leash Required (August 1 – April 30) and Seasonal Prohibited (May 1 – July 31)						\$1,000			Low
46	B11	Designate access point for where Lefthand Trail connects to Neva Road.							\$300		Low
59	B24	Pave Longhorn Road.							\$700,000		Medium
22	T23	Bring all trailheads and access points up to standards.								\$128,000	Medium
31	W6	Rename Four Mile Creek Trailhead as Fourmile Canyon Creek Trailhead.								\$10,100	Low
33	W9	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.								\$10,000	Medium
44	REG	Wonderland Loop (Antler Loop): Voice and Sight On Corridor								\$2,000	Low
48	B13	Improve Lefthand Trail.								\$145,000	High
49	B14	Designate a connector trail from Lefthand Trail to the Lake Valley Estates neighborhood.								\$300	Medium
50	B15	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 55th Street.								\$200,000	Medium
64	B29	Create a new trail connection on the south side of the Papini property (Wrangler Trail). Provide a trail connection along the south side of Papini property connecting Kelso Road to the Mesa Reservoir trail system.								\$75,000	High
TOTALS			\$157,140	\$1,367,300	\$158,200	\$506,000	\$57,000	\$337,000	\$700,300	\$701,400	

Appendix F

This page is intentionally left blank.

Appendix F: Feedback Themes Not Included in the Draft North TSA Plan

Area/Topic	Feedback	Why It Wasn't Included in Draft Plan
Changing the Joder property Management Area Designation from a Habitat Conservation Area	Some community support for Joder property to be designated as a Passive Recreation Area or Natural Area.	The Open Space Board of Trustees (Board) supported a review of the Habitat Conservation Area designation as part of the North TSA Plan. Given the sensitive and rare resources on the Joder property and the broader community, board and staff support for maintaining the Habitat Conservation Area (HCA) designation, it was determined the existing Joder HCA designation would be retained.
Joder dog regulations	Some community support for dogs on leash on Joder Interim Trail (Joder Ranch Trail).	Community support and board support for On-Corridor Voice and Sight access on the Interim Trail (Joder Ranch Trail) resulted in its inclusion in the Draft Plan.
Joder bike regulations	Some community support for spatial and temporal separation for bikes on the Joder loop trail (Mahogany Loop), Joder Ranch Trail and Joder connector trail (North Sky Trail).	Community support and board support for both directional and temporal regulations for bikes on the Joder loop (Mahogany Loop) and no temporal bike restrictions on the North Sky Trail due to the importance of this trail as part of a regional connection resulted in these inclusions in the Draft Plan.
West Beech/North Foothills HCA Management Area Designation	Some community support for changing the North Foothills HCA Management Area Designation to a Natural Area Designation.	The North Foothills HCA was designated by the Visitor Master Plan and is outside the scope of the North TSA Plan.
Railroad grade undesignated trail.	Some community support for closing and restoring this undesignated trail.	Sections of the railroad grade will be incorporated into the North Sky Trail.
Create two stacked loop trails using re-routes of Hogback Trail and/or extend a loop down to the railroad grade.	Some community support for an additional Hogback loop or extension of the trail.	Staff assessment and evaluation of this action indicate that the length of additional trail in the North Foothills HCA, terrain and resource impacts make this an action not recommended in the Draft Plan.
Provide trail connection from Boulder Valley Ranch to Niwot Road by connecting North Rim Trail to 55 th Street.	Some community support for providing this trail connection on the Axelson property.	The trail connection across the Axelson property to Niwot Road will not be included in the Draft Plan because this trail would need to be closed eight months out of the year to protect nesting osprey. An alternate connection via 55 th St. to Niwot Road is included in the Draft Plan.
Management of the North Rim Trail	County support for OSMP taking over management of the North Rim Trail.	OSMP will not take on management of the North Rim Trail from the county. The low level of community interest for making improvements does not make this a priority for inclusion in the North

Area/Topic	Feedback	Why It Wasn't Included in Draft Plan
		TSA Plan. OSMP and the county will coordinate on improvements to this trail if the need arises in the future.
Dog regulations for Boulder Valley Ranch.	Some community support for retaining on-leash dog access for Lefthand Trail.	Broad community support and Board support for On-Corridor Voice and Sight access being allowed for Lefthand Trail resulted in its inclusion in the Draft Plan.
Fourmile Trailhead	Some community support for horse trailer parking at Fourmile Trailhead.	Staff assessment of this action indicated space constraints, costs for modifications and complexity of access off of Leehill into trailhead make this an action that staff and the Board didn't recommend in the Draft Plan.
Create trail connection from west end of Old Kiln Trail to the Wonderland Hill loop trail (Antler loop).	Some community support for Old Kiln connector trail.	Further staff assessment and evaluation of this action indicate the level of trail construction required, complexity, safety issues and cost make this an action staff and the Board didn't recommend in the Draft Plan.
Create an out-and-back trail on the eastern section of Old Kiln that ends before the section where the trail was extensively damaged from the flood.	Some community support for out-and-back trail.	Further staff evaluation indicated that due to the extensive flood damage there is no way to build a sustainable trail in this area.
Allow bikes on Old Kiln Trail only Monday through Friday.	Some community support for bike access on Old Kiln Trail.	Broad community concern about visitor conflict and the Board's recommendation against allowing bikes on the Old Kiln Trail resulted in this action not being recommended in the Draft Plan.
Dog regulations in Wonderland Lake.	Some community support for retaining the existing dogs on leash regulations in all of the Wonderland Lake area.	The Board recommended On-Corridor Voice and Sight access be allowed on the Wonderland Hill loop trails west of the Foothills Trail.

Appendix G

This page is intentionally left blank.

Appendix G: Glossary

Boardwalk: An elevated, fixed-planked structure, usually built on pilings in areas of wet soil or water to provide dry crossings.

Braiding: Parallel, redundant trail tread(s) adjacent to an established trail caused by visitors avoiding the established trail and wearing in a new path(s).

Corridor, Trail: The full dimensions of the trail, including the area (2 to 3 feet) on either side of the tread and the space overhead (10 to 12 feet) from which brush and obstacles need to be cleared. The area of passage of the trail, including all cleared and managed parts above, below and adjacent to the tread.

Cultural Resource: A building, structure, district, site or object that is significant in our history, architecture, archaeology or culture.

Designated Trails: Trails which have a way-finding sign with a trail name and are maintained.

Designed Use: Refers to the allowed use (activity) on the trail which dictates how it is designed, built and maintained. All City of Boulder Open Space and Mountain Parks trails fall into one of six designed uses: Official Vehicle, ADA accessible, Equestrian, Biking, Hiking or Climbing Access.

Drainage Structure: A water diversion structure constructed across the trail tread to remove water flowing down the trail tread or to prevent it from entering the tread.

Ecosystem: The dynamic complex of organisms and their environment contained within a specified area during a specified time. Systemic elements include interactions and feedbacks between components.

Ecotones/Ecotonal: A transitional zone between two biological communities containing the characteristics of each.

Erosion: Natural processes (water, wind, ice or other physical processes) by which soil particles are detached from the ground surface and moved down slope, principally by the actions of running water (gully, rill or sheet erosion). The combination of water falling on the trail, running down the trail, and freezing and thawing, and the wear and tear from traffic create significant erosion problems on trails.

Fall Line: Steepest line across a given contour or the direction water flows down a slope (path of least resistance) under most circumstances. Constructing a trail on the fall line encourages water to run down the trail and leads to erosion.

Grade: The vertical distance of ascent or descent of the trail expressed as a percentage of the horizontal distance, commonly measured as a ratio of rise to length or as a percent. For example, a trail that rises 8 vertical feet in 100 horizontal feet has an 8% grade. Grad is different than angle; angle is measured with a straight vertical as 90° and a straight horizontal as 0°. A grade of 100% would have an angle of 45°.

Grade, Sustained: The steepest acceptable grade permitted over the majority of the trail length.

Grade, Trail: The average grade over the length of a trail or long section of trail.

Habitat: The environment where a plant or animal naturally or normally lives and grows.

Habitat Effectiveness: An area that meets a range of required characteristics, including environmental factors and lack of disturbance, and supports all stages of a species lifecycle.

Highly Suitable Habitat: An area in which a species can potentially or does occur due to favorable environmental variables such as vegetation characteristics, slope, aspect, size of habitat patch.

Interpretation: The educational methods by which the history and meaning of historic sites, buildings, objects, districts and structures are explained by use of docents, leaflets, tape recordings, signs, film and other means.

Invasive Species: A species that is non-native (or alien) to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

Resilience: The ability of a community to prepare for and respond effectively to stress.

Riparian Areas: Areas along streams and rivers, including related vegetation community.

Site Classification: All trailheads, access points and recreation sites on OSMP lands are classified based on visitor use levels. Each class identifies a set of required facilities, optional facilities and a maintenance schedule. For current information about OSMP standards, visit osmp.org

Strategy: A systematic long-term plan to deploy a sequence of actions toward achieving one or more goals and associated set of management objectives.

Sustainable, Trails/Infrastructure: Trails that have negligible erosion, minimal braiding and seasonal muddiness and will not require re-routing and major maintenance over long periods of time. Sustainable trails, trailheads and infrastructure support the current and anticipated uses with minimal impacts to the adjoining natural systems and cultural resources.

Switchback: A sustainable sharp turn on a hillside (usually on a slope of more than 15%) to reverse the direction of travel and to gain elevation. The landing is the turning portion of the switchback. The approaches are the trail sections upgrade and downgrade from the landing.

Trail Infrastructure: Any managed or constructed features or components of those features on or associated with a trail. Examples include: walls, steps, bridges, water bars, culverts (this is not an exhaustive list).

Tread (Treadway): The surface portion of a trail upon which visitors travel excluding backslope, ditch and shoulder. Common tread surfaces are native material, gravel, soil cement, asphalt, concrete or shredded, recycled tires.

Undesignated Trails: Trails created or worn into the landscape by visitors repeatedly walking off of designated trails. Sometimes, undesignated trails begin as wildlife or cattle trails that attract the interest of hikers or other visitors. They are not shown on public trail maps and are not maintained.

Unfragmented Habitat: Habitat across the landscape that is uninterrupted by barriers to movement.

Visitor Survey: Exit survey of people leaving OSMP system and typically repeated every five years. The main purpose of the survey is to obtain demographic information, trip characteristics, and experience evaluations.

Wetlands: Where water is present above or near the surface of soil. Wetlands vary depending on soils, topography, climate, water chemistry and vegetation.