

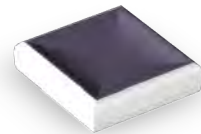
Evaluation of E-biking on Open Space

OPEN SPACE BOARD OF TRUSTEES
NOV. 9, 2022

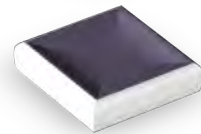


MARNI RATZEL
OSMP PRINCIPAL PLANNER

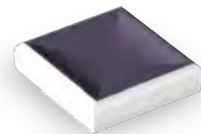
Presentation Overview



Background



Community Input

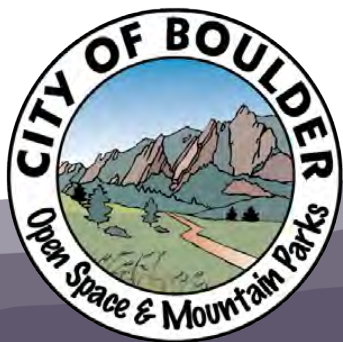


Additional Staff analysis

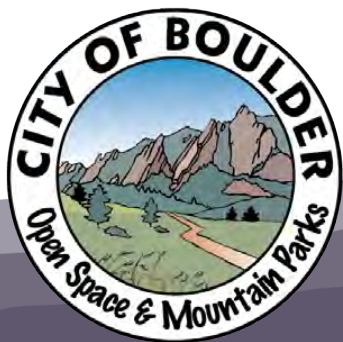
- Approach for authorizing e-biking
- Proposed management approach
- Preliminary Staff Recommendation



Next steps



Background



MASTER PLAN STRATEGIES

EHR.1	<input type="checkbox"/>	Preserve and restore important habitat blocks and corridors
EHR.2	<input type="checkbox"/>	Update and continue implementing system plans guiding ecosystem management
EHR.3	<input type="checkbox"/>	Address the global climate crisis here and now
ATT.1	<input type="checkbox"/>	Reduce maintenance backlog for agriculture & water infrastructure
ATT.2	<input type="checkbox"/>	Increase soil health & resilience
ATT.3	<input type="checkbox"/>	Address conflicts between agriculture and prairie dogs
RRSE.1	<input checked="" type="checkbox"/>	Assess and manage increasing visitation
RRSE.2	<input type="checkbox"/>	Reduce trail maintenance backlog
CCEI.1	<input type="checkbox"/>	Welcome diverse backgrounds and abilities
CCEI.2	<input type="checkbox"/>	Enhance communication w/visitors

TIER 1

EHR.4	<input type="checkbox"/>	Reduce undesignated trails
EHR.5	<input type="checkbox"/>	Extend on-trail requirements
EHR.6	<input type="checkbox"/>	Control invasive species
EHR.7	<input type="checkbox"/>	Develop a learning laboratory approach to conservation
ATT.4	<input type="checkbox"/>	Protect water resources in a warmer future
ATT.5	<input type="checkbox"/>	Encourage diverse and innovative agricultural operations
RRSE.3	<input type="checkbox"/>	Update guidelines and standards for quality trail design and construction
RRSE.4	<input checked="" type="checkbox"/>	Encourage multimodal access to trailheads
RRSE.5	<input type="checkbox"/>	Manage passive recreation activities requiring a permit
CCEI.3	<input type="checkbox"/>	Connect youth to the outdoors
CCEI.4	<input type="checkbox"/>	Support city-wide engagement with federally recognized American Indian Tribes and Indigenous Peoples

TIER 2

EHR.8	<input type="checkbox"/>	Reduce impacts from noise, light and nearby land uses
EHR.9	<input type="checkbox"/>	Reduce and offset OSMP greenhouse gas emissions
ATT.6	<input type="checkbox"/>	Support the success of ranchers and farmers
ATT.7	<input type="checkbox"/>	Integrate native ecosystems and agriculture
ATT.8	<input type="checkbox"/>	Further reduce or eliminate pesticide use
ATT.9	<input type="checkbox"/>	Enhance enjoyment and protection of working landscapes
RRSE.6	<input checked="" type="checkbox"/>	Support a range of passive recreation experiences
RRSE.7	<input type="checkbox"/>	Build new trails as guided by past and future plans
RRSE.8	<input type="checkbox"/>	Provide welcoming and inspiring visitor facilities and services
RRSE.9	<input type="checkbox"/>	Develop a learning laboratory approach to recreation
CCEI.5	<input type="checkbox"/>	Foster wellness through immersion in the outdoors
CCEI.6	<input type="checkbox"/>	Inspire environmental literacy and new involvement in OSMP
CCEI.7	<input type="checkbox"/>	Cultivate leaders in stewardship
CCEI.8	<input type="checkbox"/>	Heighten community understanding of land management efforts
CCEI.9	<input type="checkbox"/>	Preserve and protect Boulder's cultural heritage

TIER 3

Spring 2022

Evaluation of alternatives and preliminary proposal

Summer 2022

Community Engagement

Fall 2022

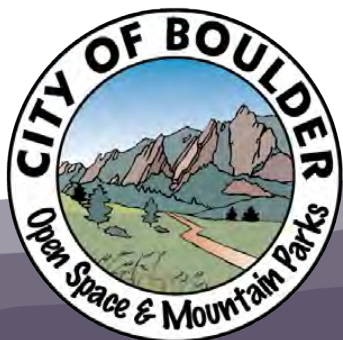
Board Input and Action

- Nov 9:** Present public feedback, additional analysis and preliminary staff recommendation
- Dec 14:** Public Hearing on Final Staff Recommendation
- Jan 13:** OSBT consideration and recommendation to City Council

Winter 2023

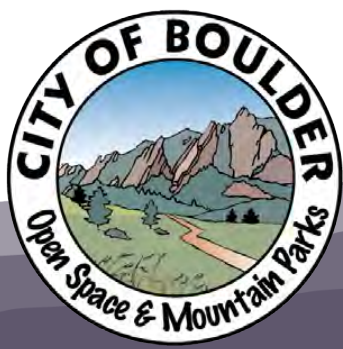
Council Consideration

We are
Here



Board & Council Consideration

Project Interdisciplinary Team



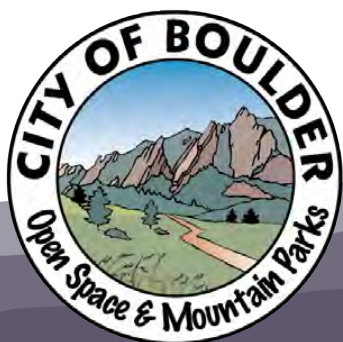
Status Quo / Existing Conditions



- E-bikes are not allowed on OSMP trails
- Disposal of open space required

ADA exception

People experiencing disabilities allowed to use Other Power- Driven Mobility Devices (OPDMDs)

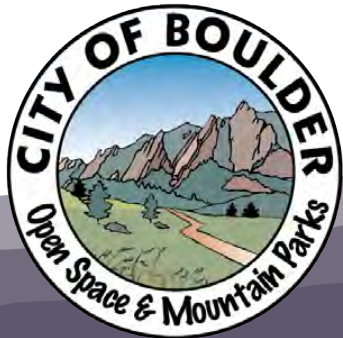


OSMP Existing Conditions

Peer Community Regulations

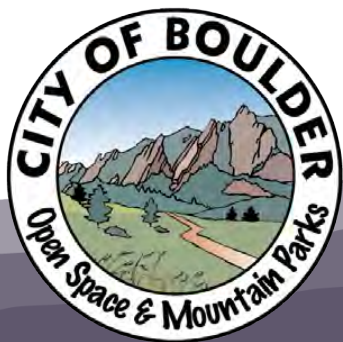
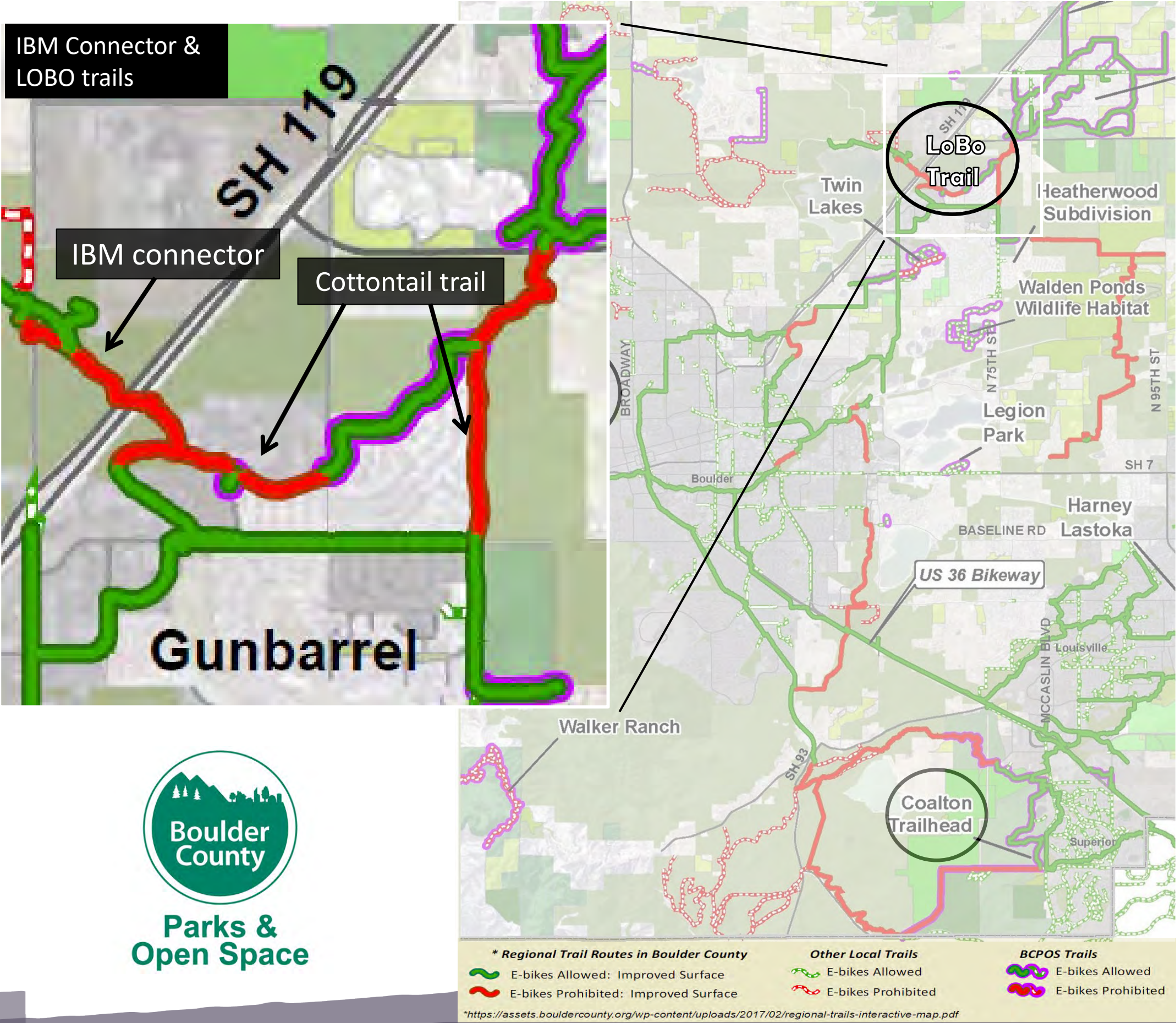
	<div>CLASS 1</div> <div>Pedal Assist Only</div> <div>Max. Assisted Speed of 20mph</div>	<div>CLASS 2</div> <div>Pedal & Throttle Assist</div> <div>Max. Assisted Speed of 20mph</div>
COB-Transportation/Greenways	✓	✓
Boulder County – Plains Trails	✓	✓
Colorado Parks & Wildlife	✓	✓
Jefferson County	✓	✗
US Fish & Wildlife Service	✓	✗
Other Boulder County municipalities*	✓	✓
City & County of Denver	✓	✓

**Follows the state model traffic code*



Peer Agency regulations

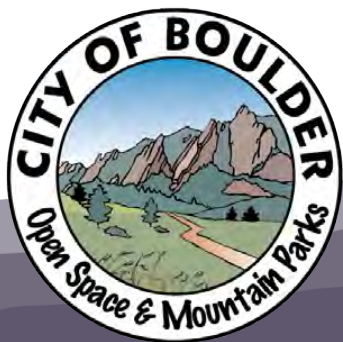
OSMP in the regional context



OSMP Existing Conditions

Alternatives to the Status Quo

- A. All Trails that allow bikes
- B. Plains trails located east of Broadway, and the Boulder Canyon Trail
- C. Inter-Connected Trails that allow bicycling and are part of the regional trail.



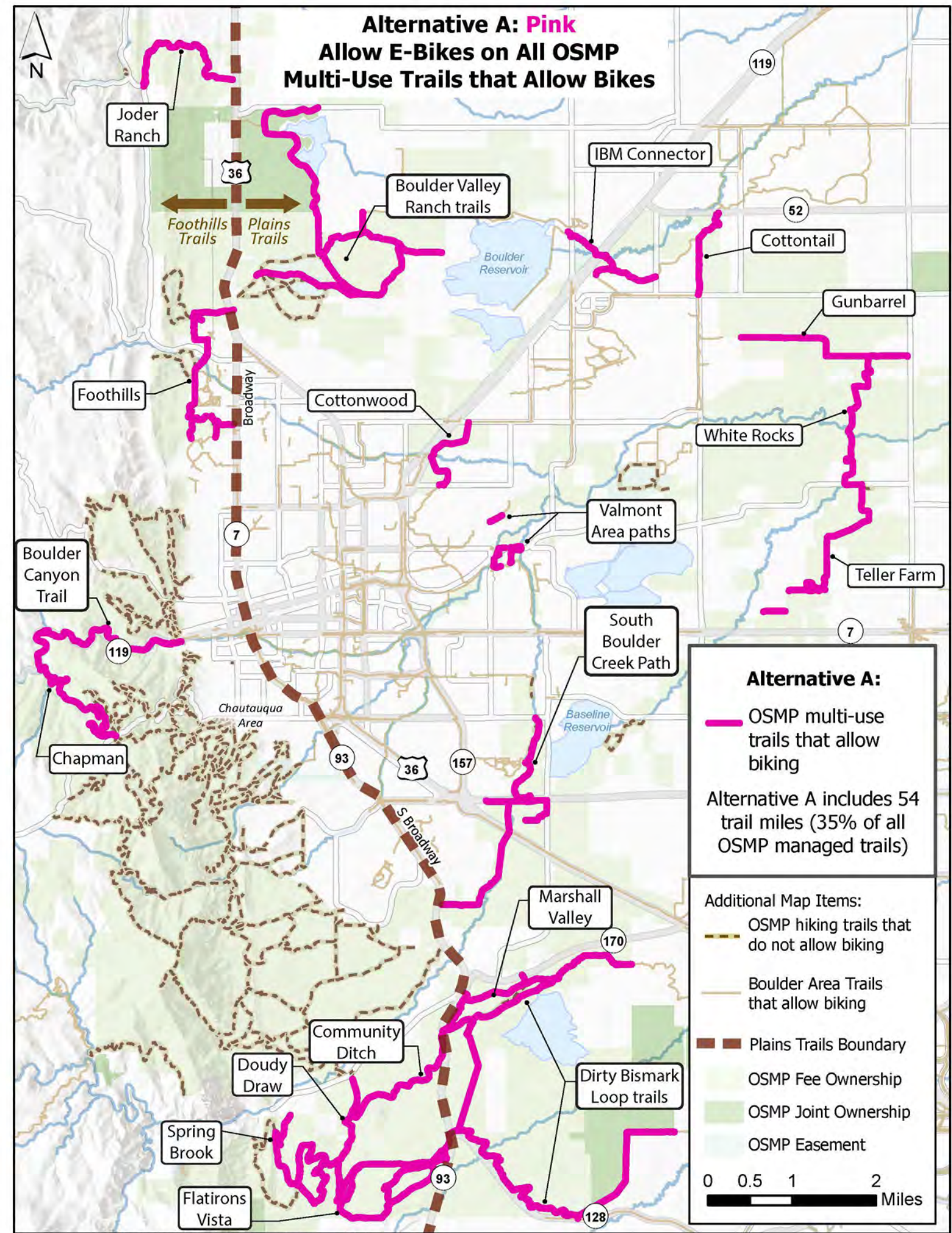
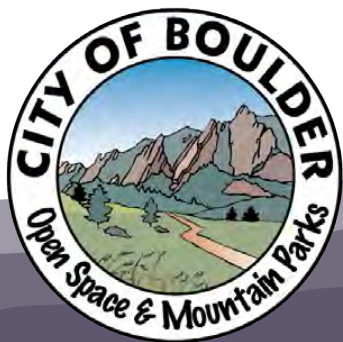
Alternative A

Allow e-bikes on All multi-use trails that allow bikes

- About 54 miles of trails on OSMP are designated for use by bicyclists.
- These trails would allow e-biking

Alternative A would allow e-bikes on

- 54 miles of open space trails
- 35% of the 154 miles OSMP trail network



Alternative B

Allow e-bikes on Plains trails east of Broadway and Boulder Canyon trail

Plains trails are located east of

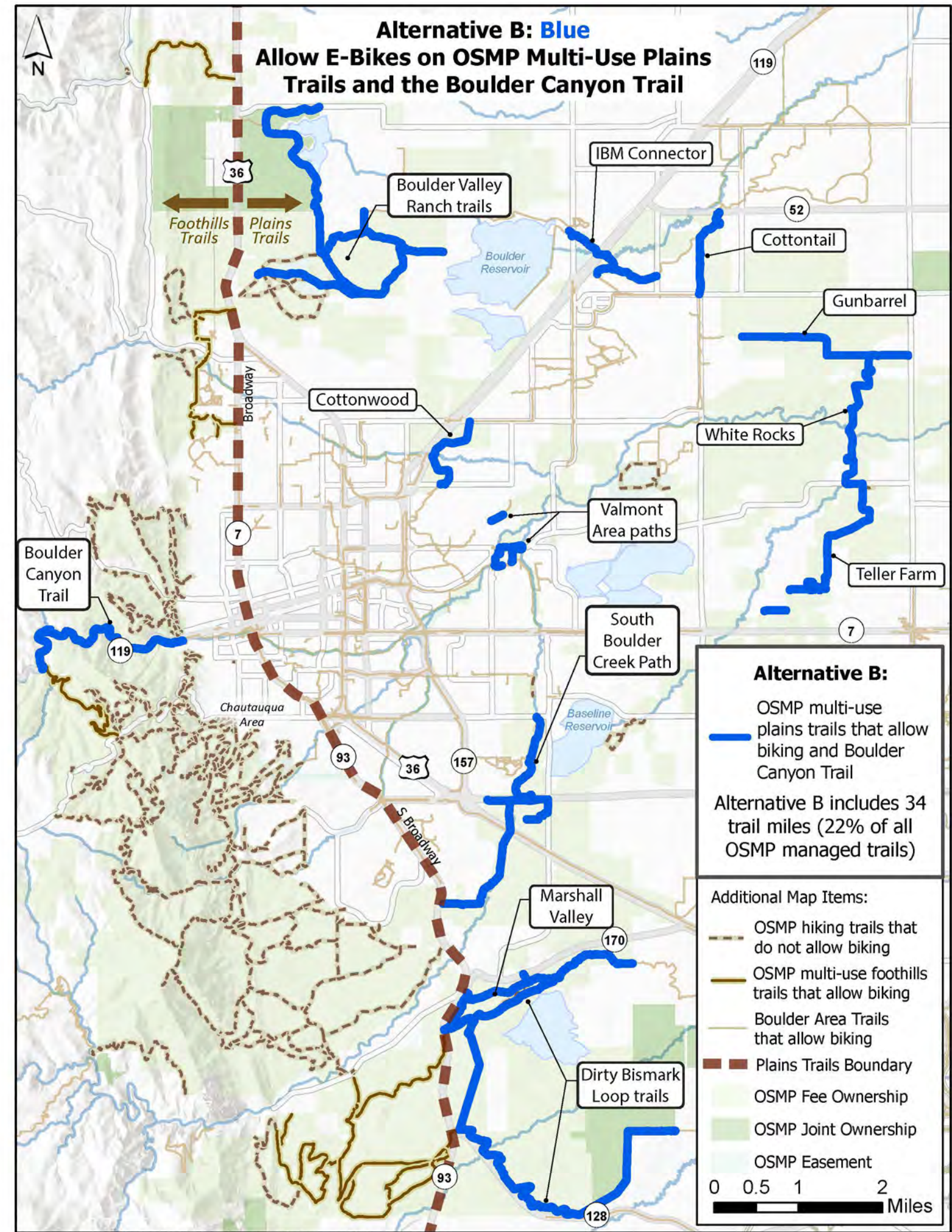
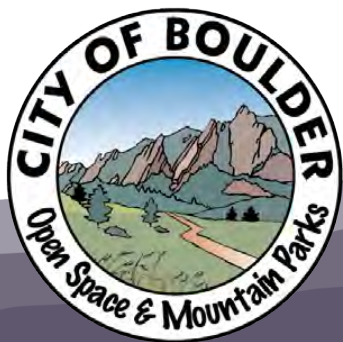
- Broadway within the city of Boulder limits
- North Foothills/US 36 corridor to the north, and
- CO 93 to the south of city limits

Boulder Canyon Trail

- A regional trail west of Broadway with a segment on OSMP lands.
- Maintained by COB Transportation & Mobility within city limits
- Maintained by Boulder County in unincorporated Boulder County.

Alternative B would allow e-bikes on

- 34 miles of open space trails
- 22% of the 154 miles OSMP trail network



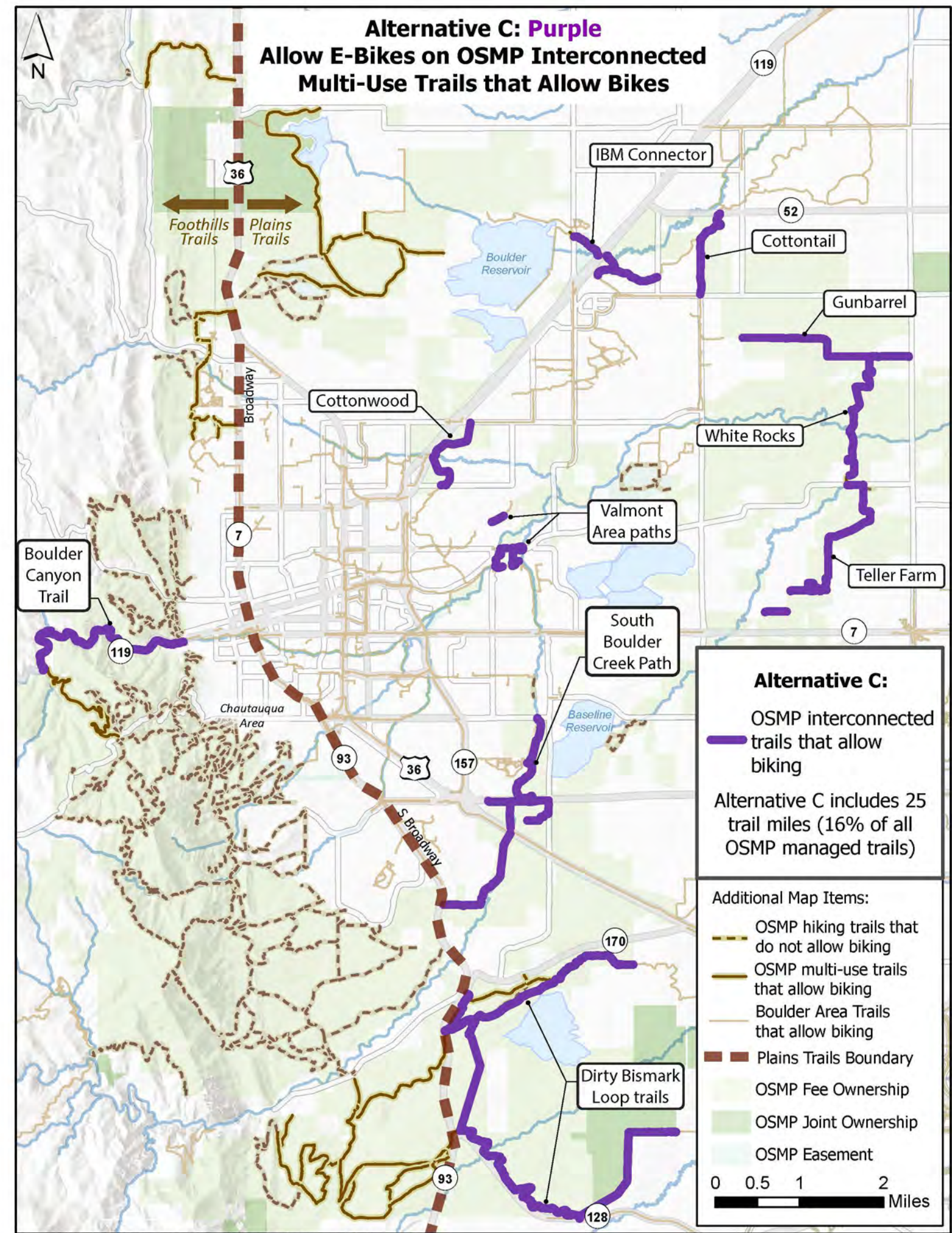
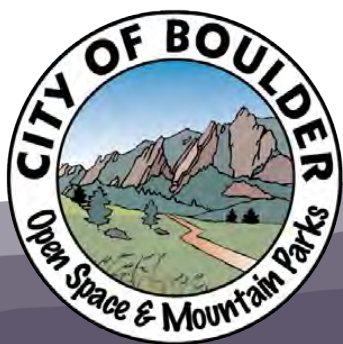
Alternative C

Allow e-bikes on Inter-Conconnected Trails that allow bikes

- OSMP trails that are part of the great Boulder County Regional Trail Network.

Alternative C would allow e-bikes on

- Approximately 25 miles of open space trails
- 16% of the 154 miles OSMP trail network



Criteria

Community support

Equitable access to open space lands

Consistency with Boulder County and other City inter-connected trails

Disposal of open space

Effectiveness of regulations

Safety / Conflict

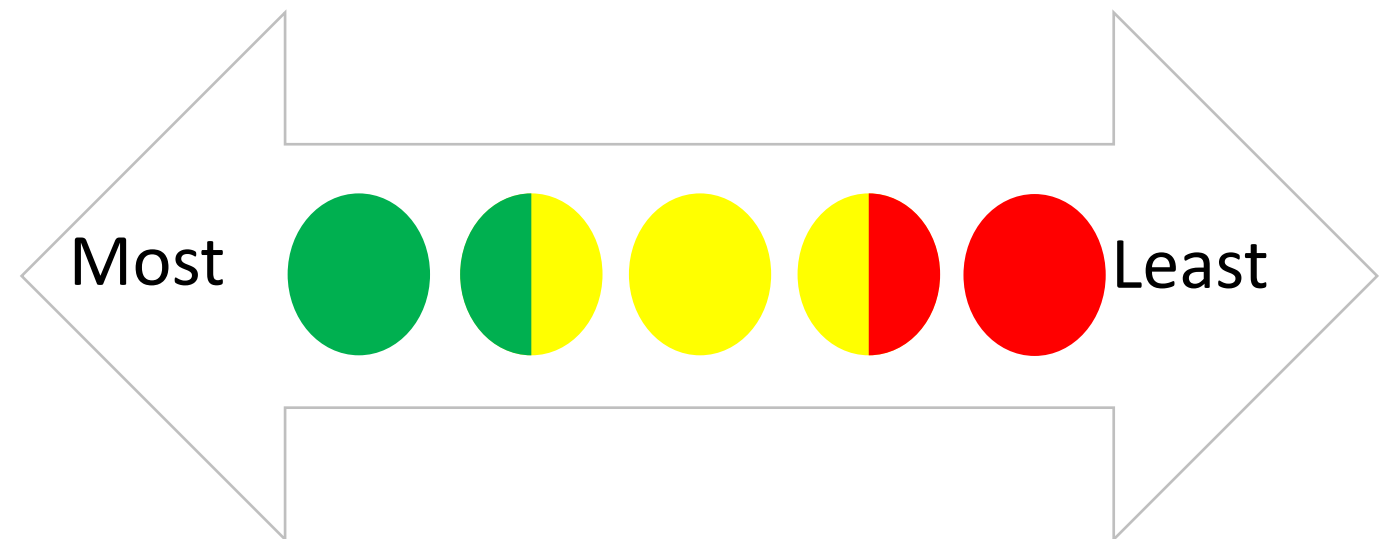
Aligned with city climate initiatives

Protection of natural resources

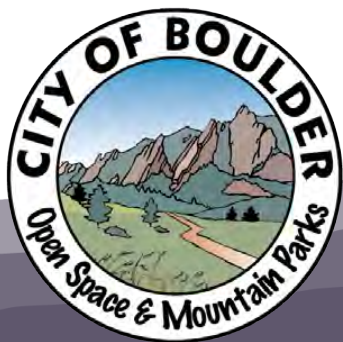
Visitor displacement

Trail maintenance

Visitation

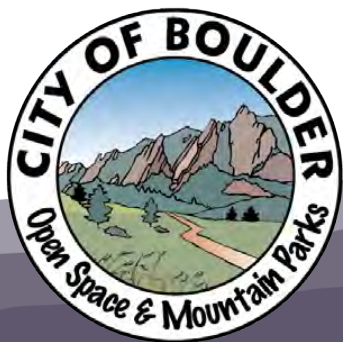


Preliminary Staff Proposal
Alternative B



Alternatives Evaluation

Community Input



About the datasets

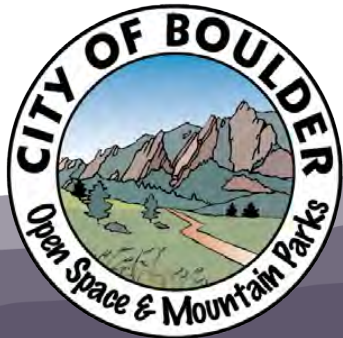
Online Engagement

- 2,331 responses were submitted between July 11 to Aug. 8.
- 1,543 participants provided open ended comments.
- Open participation opportunity to provide input through Be Heard Boulder platform

Onsite Intercept

- 431 survey responses were gathered across 9 weeks between July 2nd and August 26th
- 12 OSMP access points/trailheads were surveyed, including 8 multi-use and 4 pedestrian only trails
- Randomized sample size with response rates between 70% and 82% (quite high for intercept surveys)

Consideration	Online Engagement	Onsite Intercept
Generalizable	✗	✓
Bias	↑	↓
Trend Analysis	✗	✓
Informs decision-making	👍	👍



Key findings

Overall

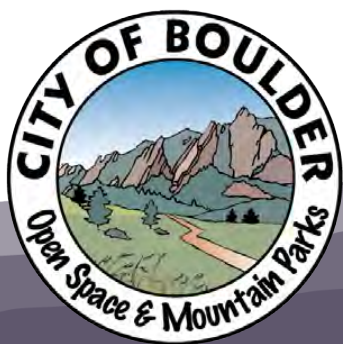
- Majority support for e-biking on some trails

Preferences

- Alternative B supported by most online engagement respondents
- Support across all three alternatives by many onsite intercept respondents

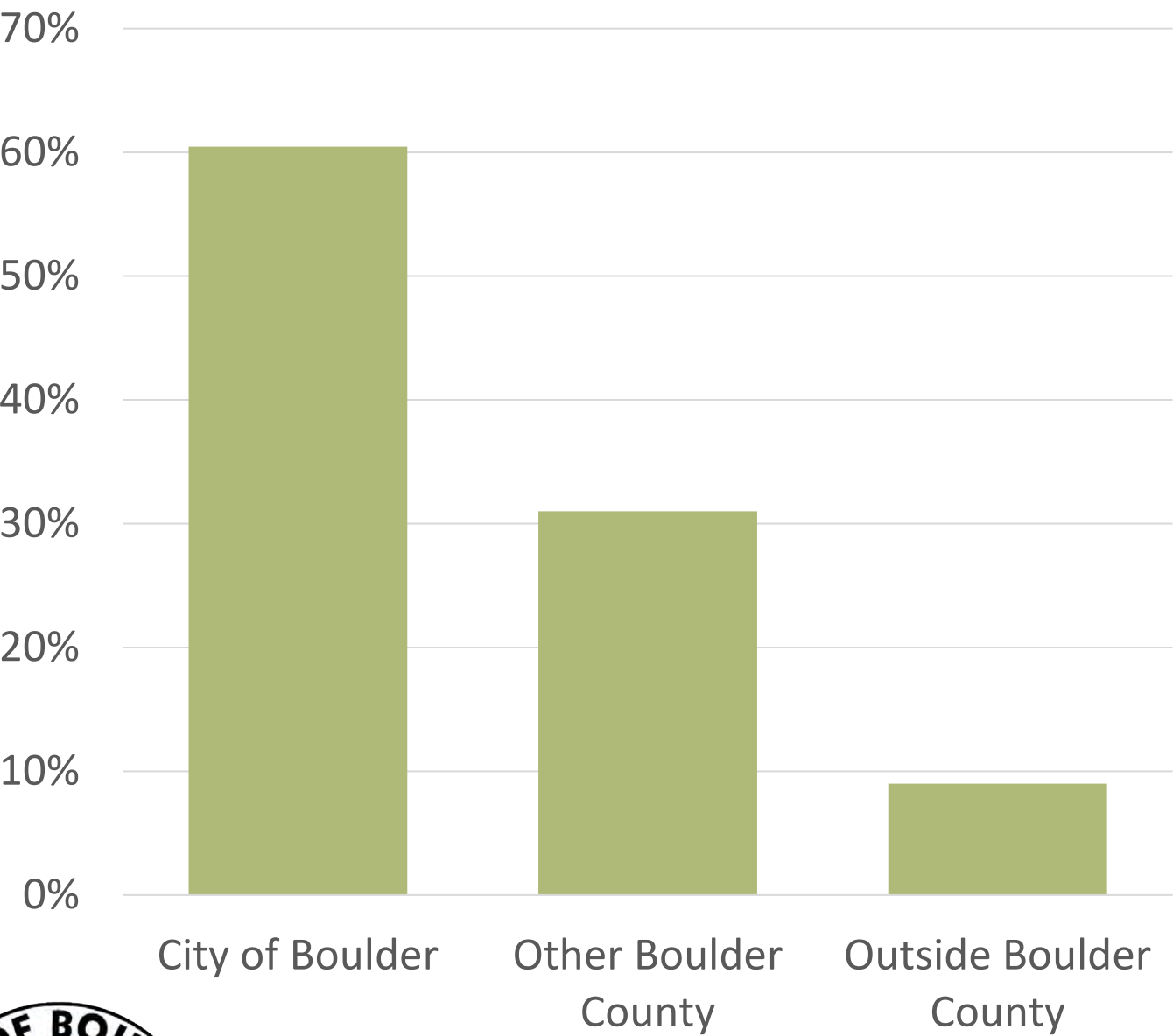
Management Considerations

- E-biker speed
- concern for conflict
- Potential impacts to trail conditions

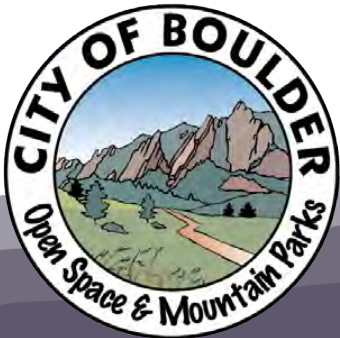
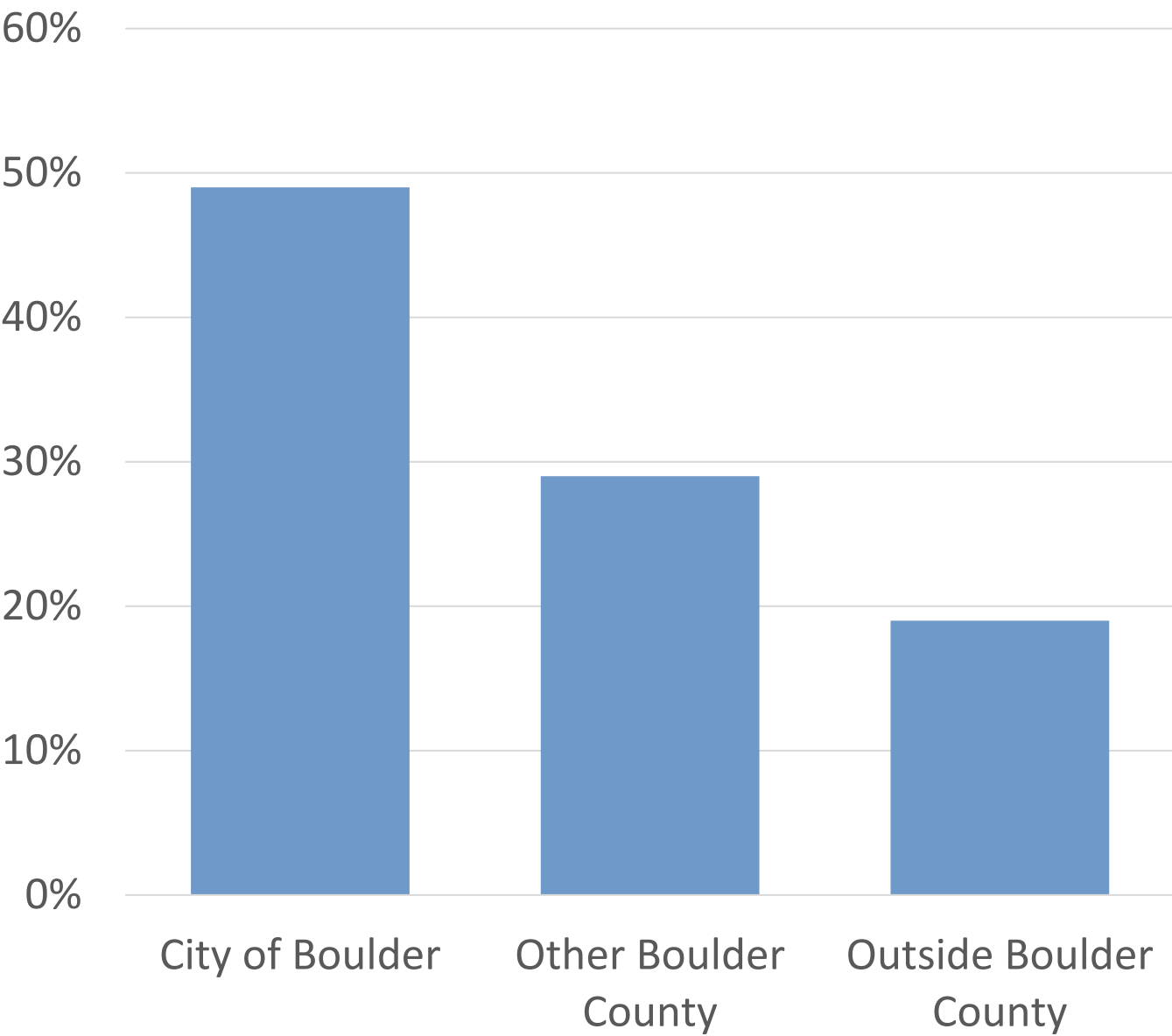


Residence

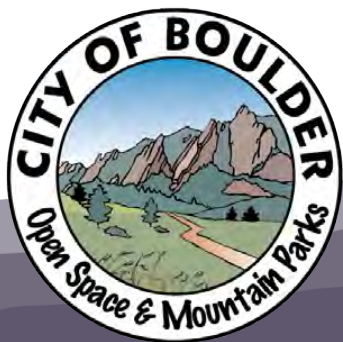
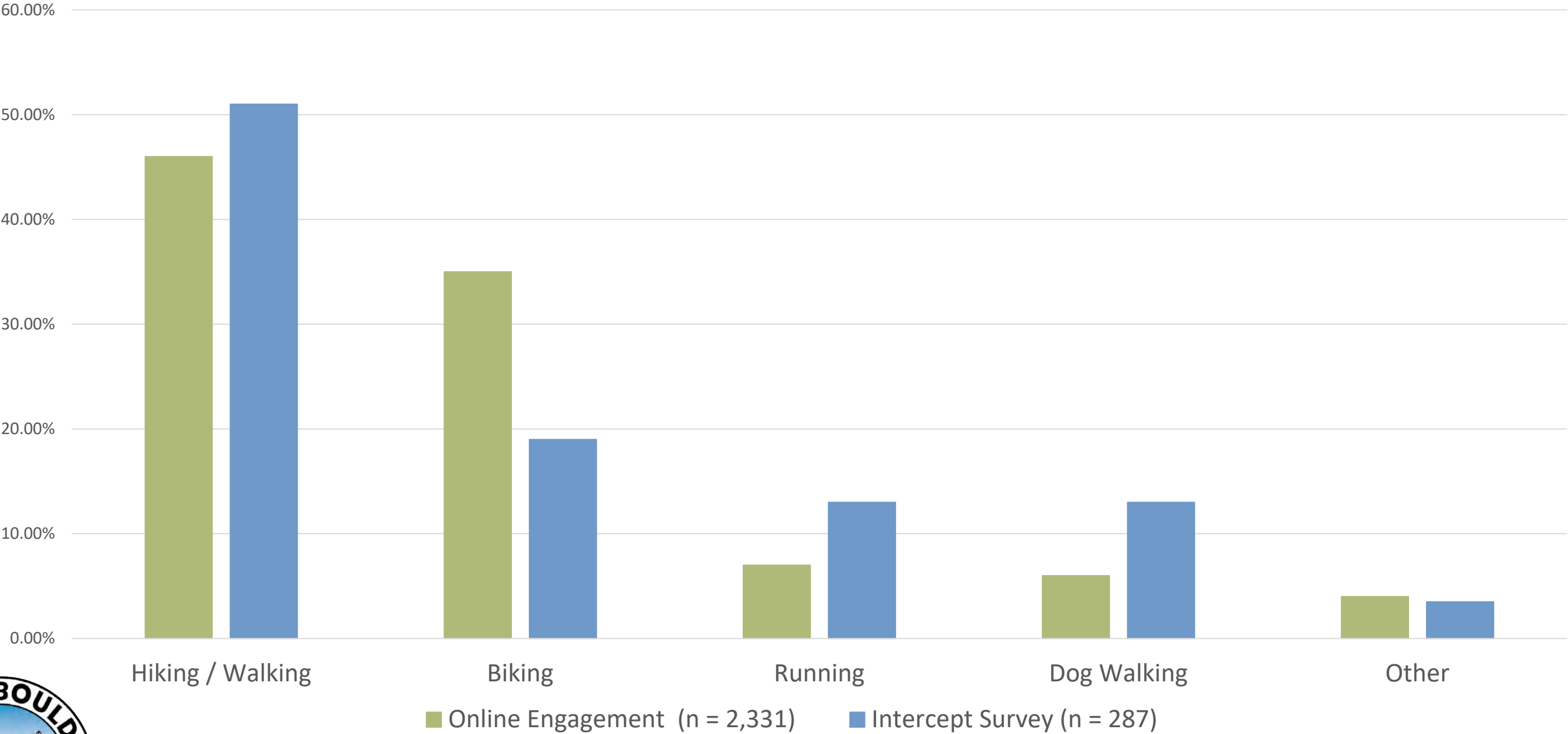
Online Engagement



Onsite Intercept

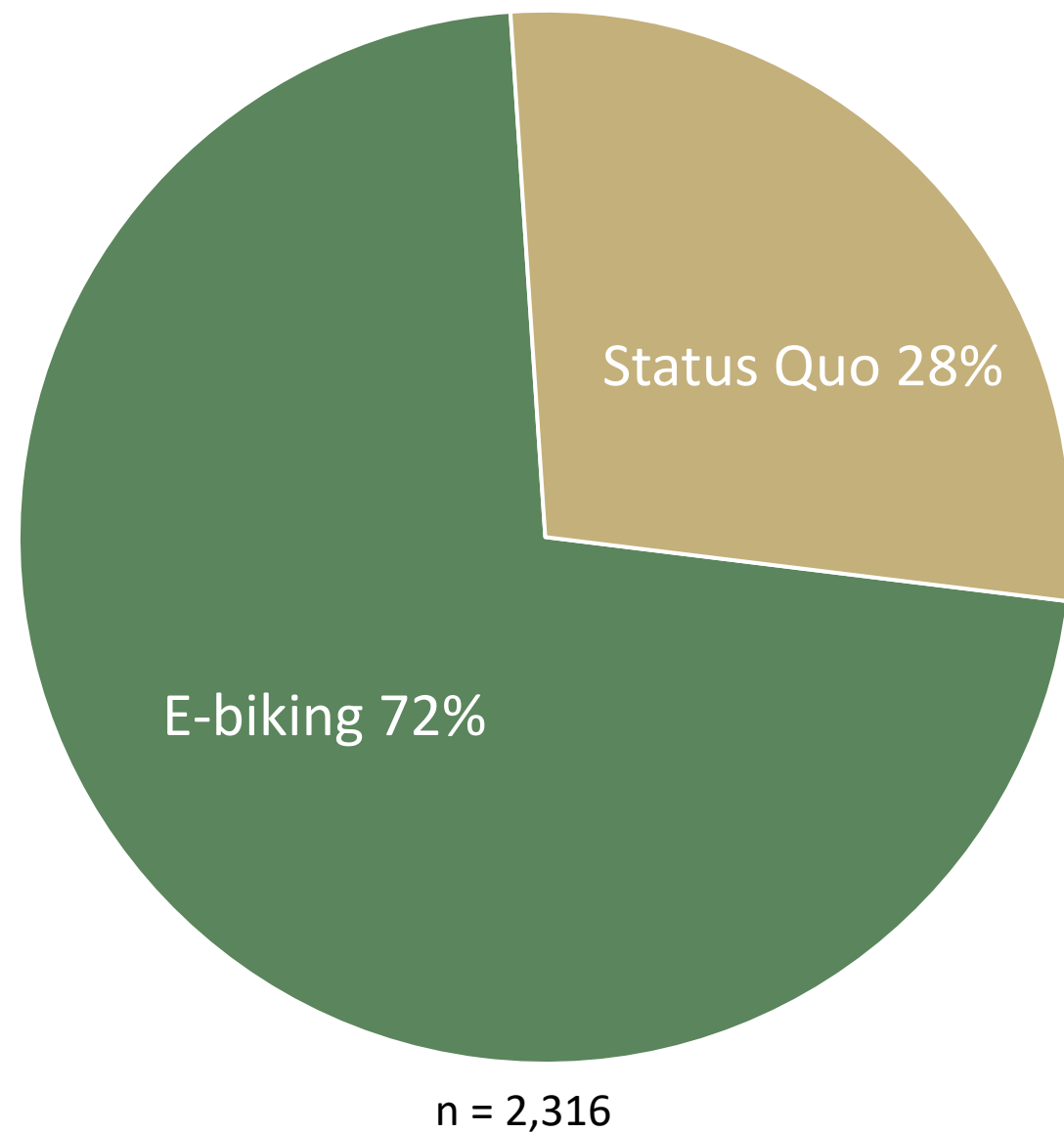


Primary Open Space Activity

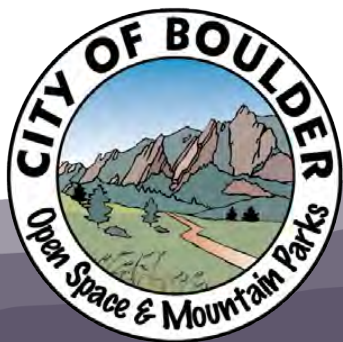
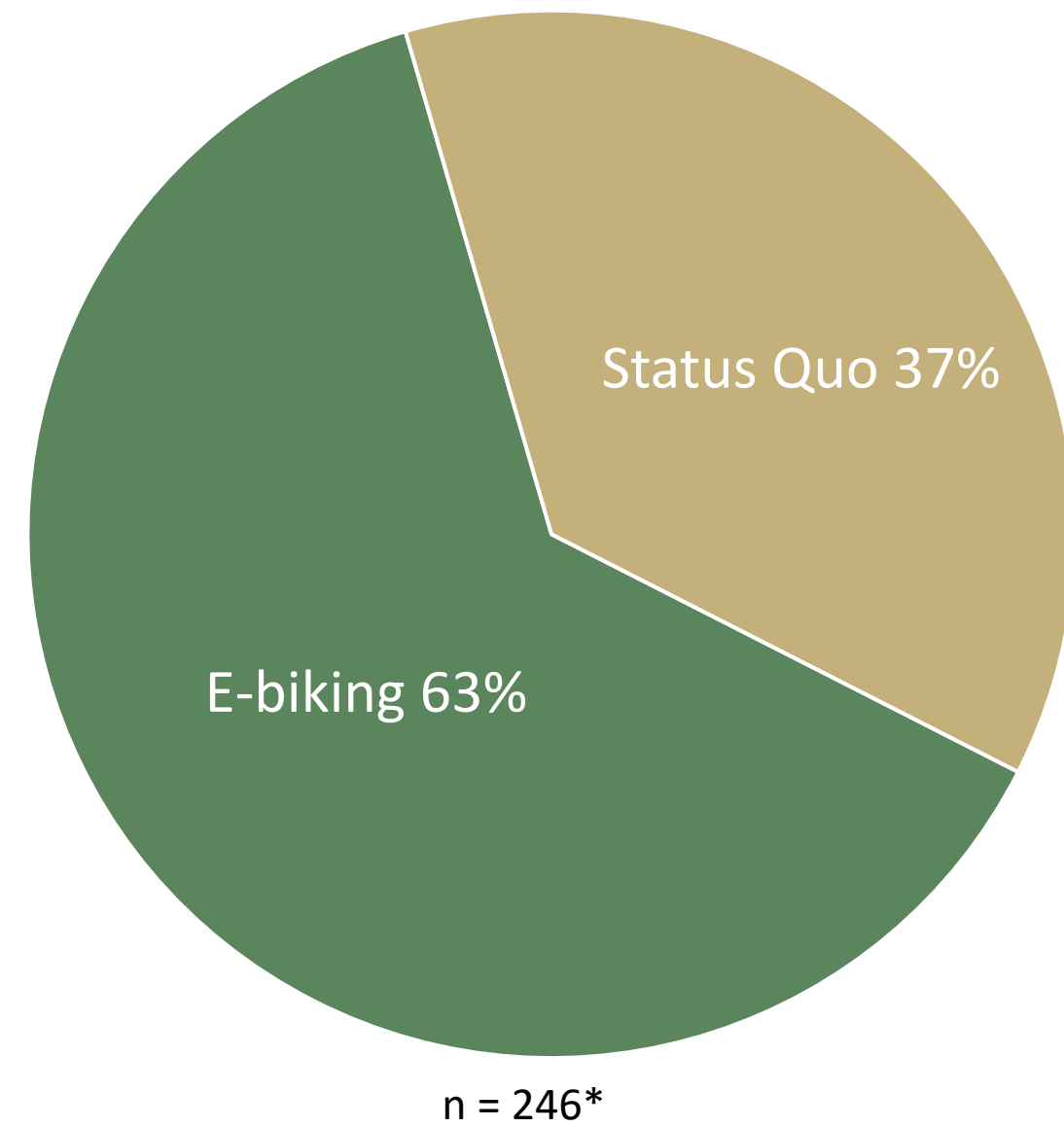


Support for E-bikes on Open Space

Online Engagement



Onsite Intercept

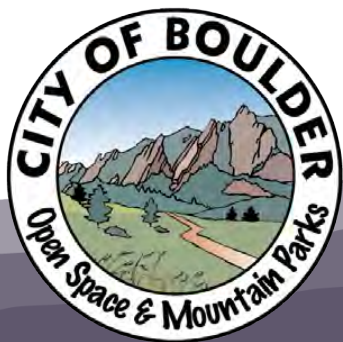


Community Input Comparison

*These percentages come from a question that was added starting in week 4 of the 9-week survey that specifically asked respondents to indicate which option they “most prefer”.

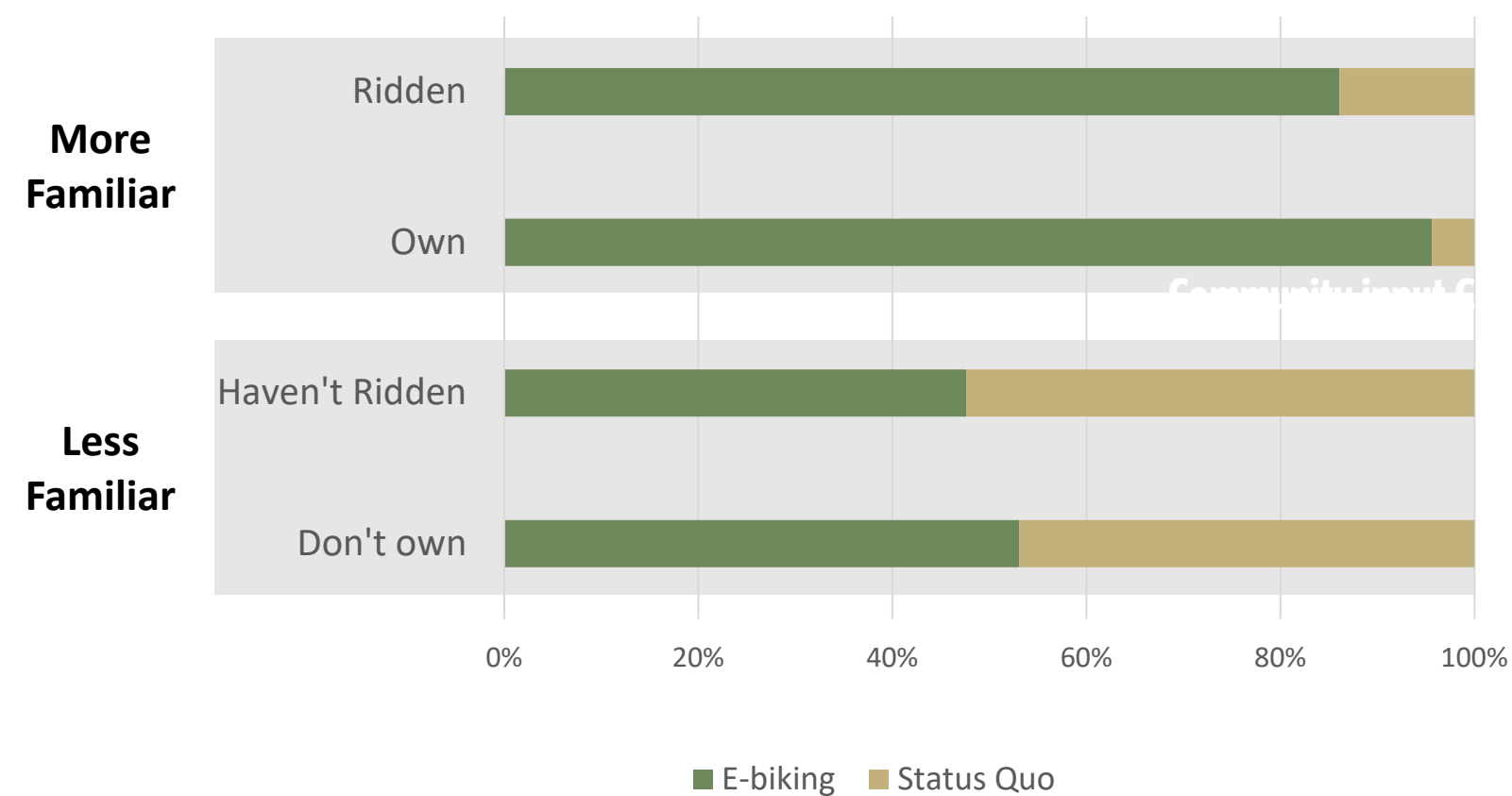
Support preferences by demographics

- **Primary activity**
- **Residence**
- **Age group**
- **Familiarity with e-bikes**
 - **Ownership**
 - **Ridership**

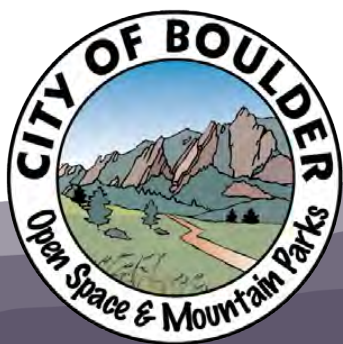
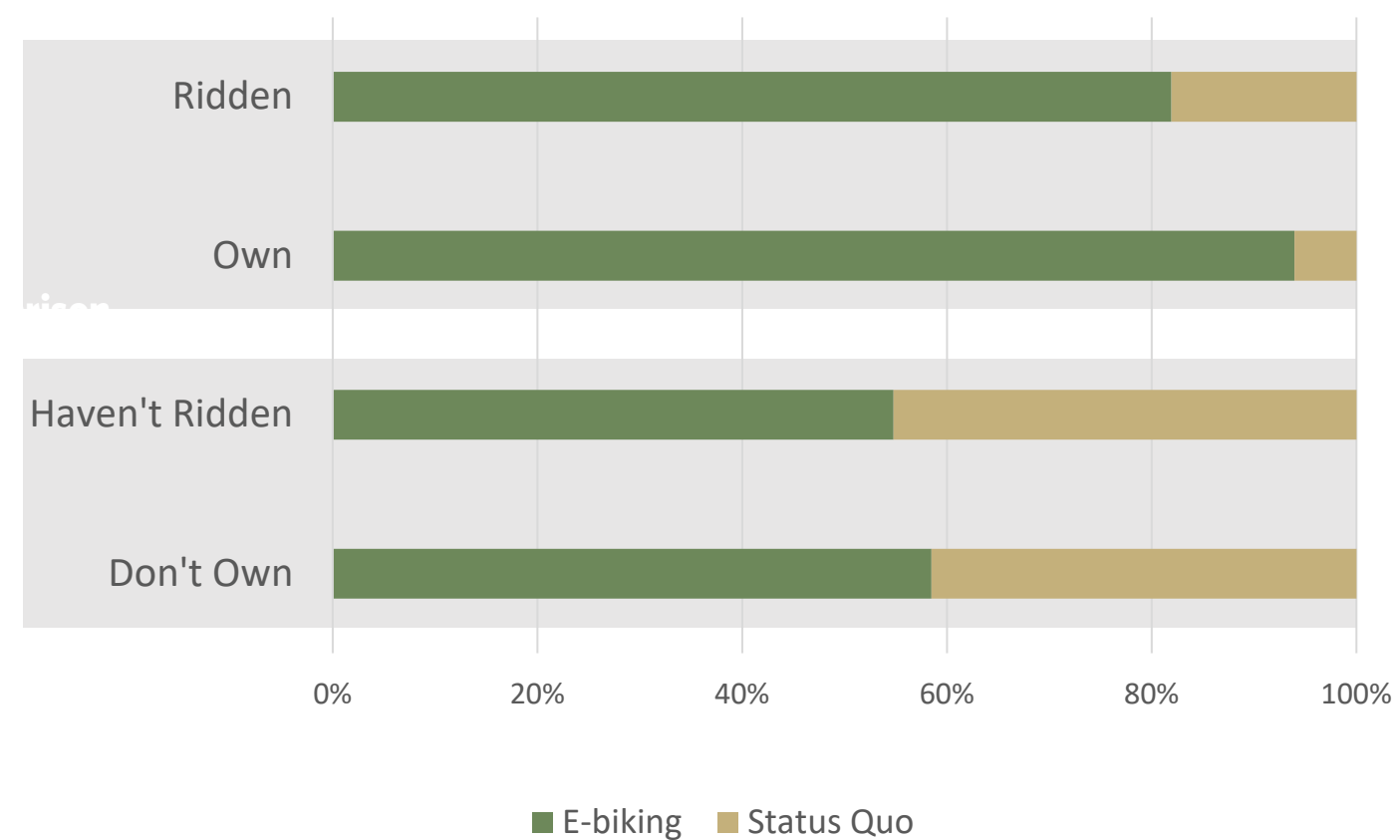


Familiarity of E-Bikes

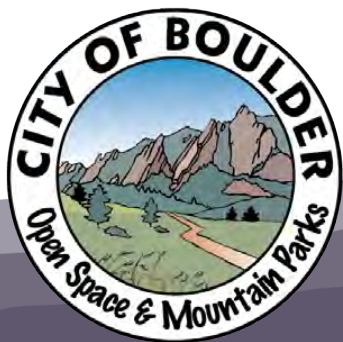
Online Engagement



Onsite Intercept

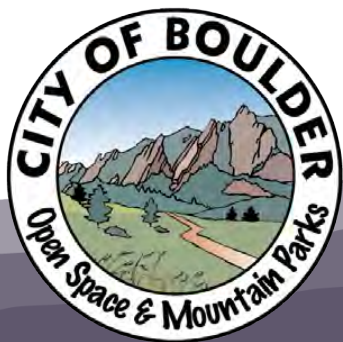


Support by Alternative



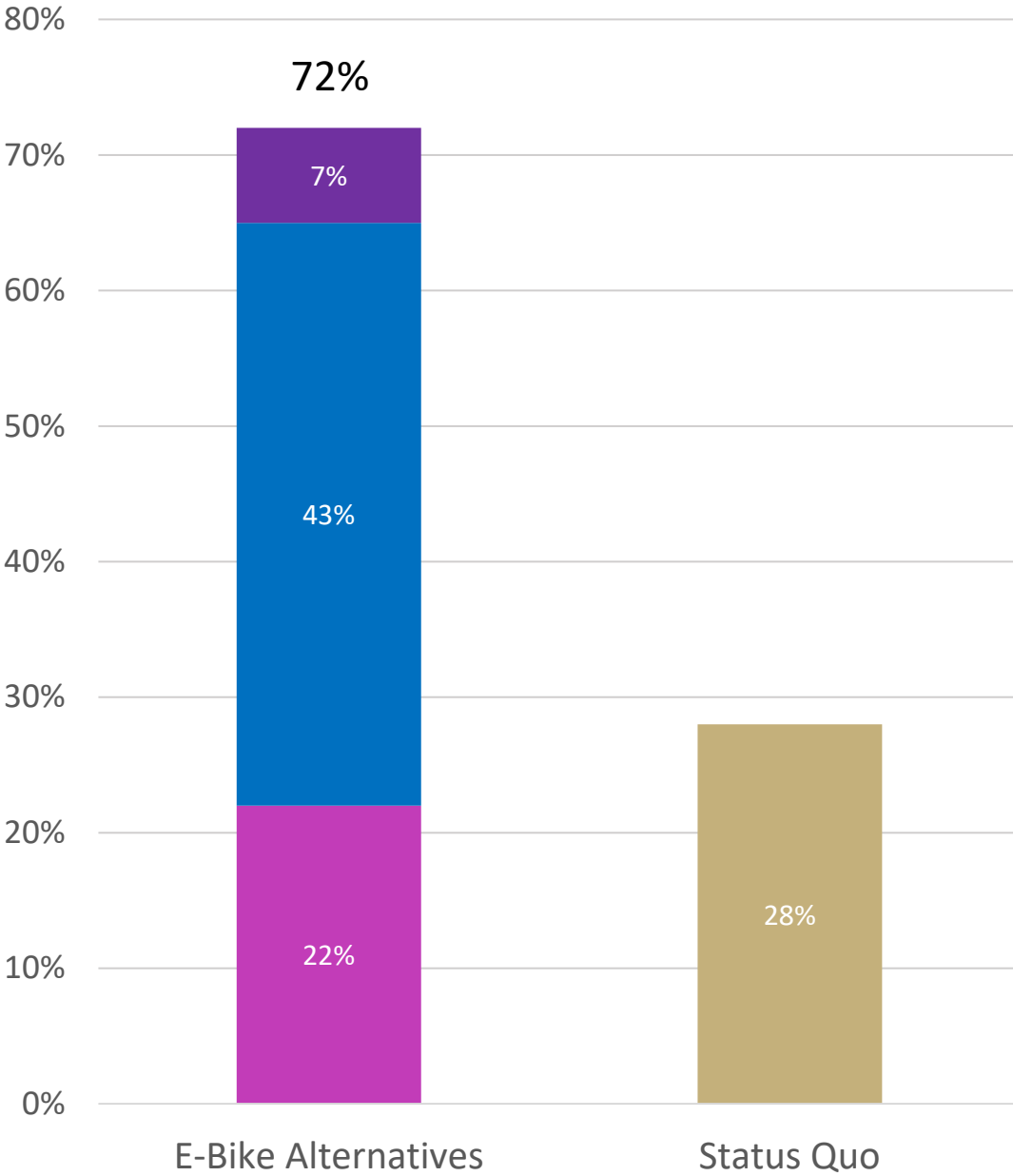
Alternatives to the Status Quo

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- C. Inter-Connected Trails that allow bicycling and are part of the regional trail.

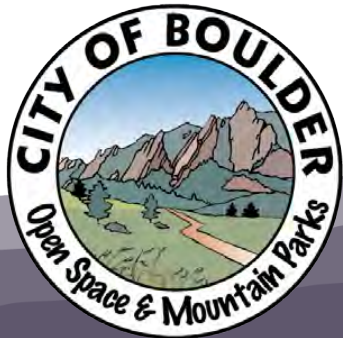
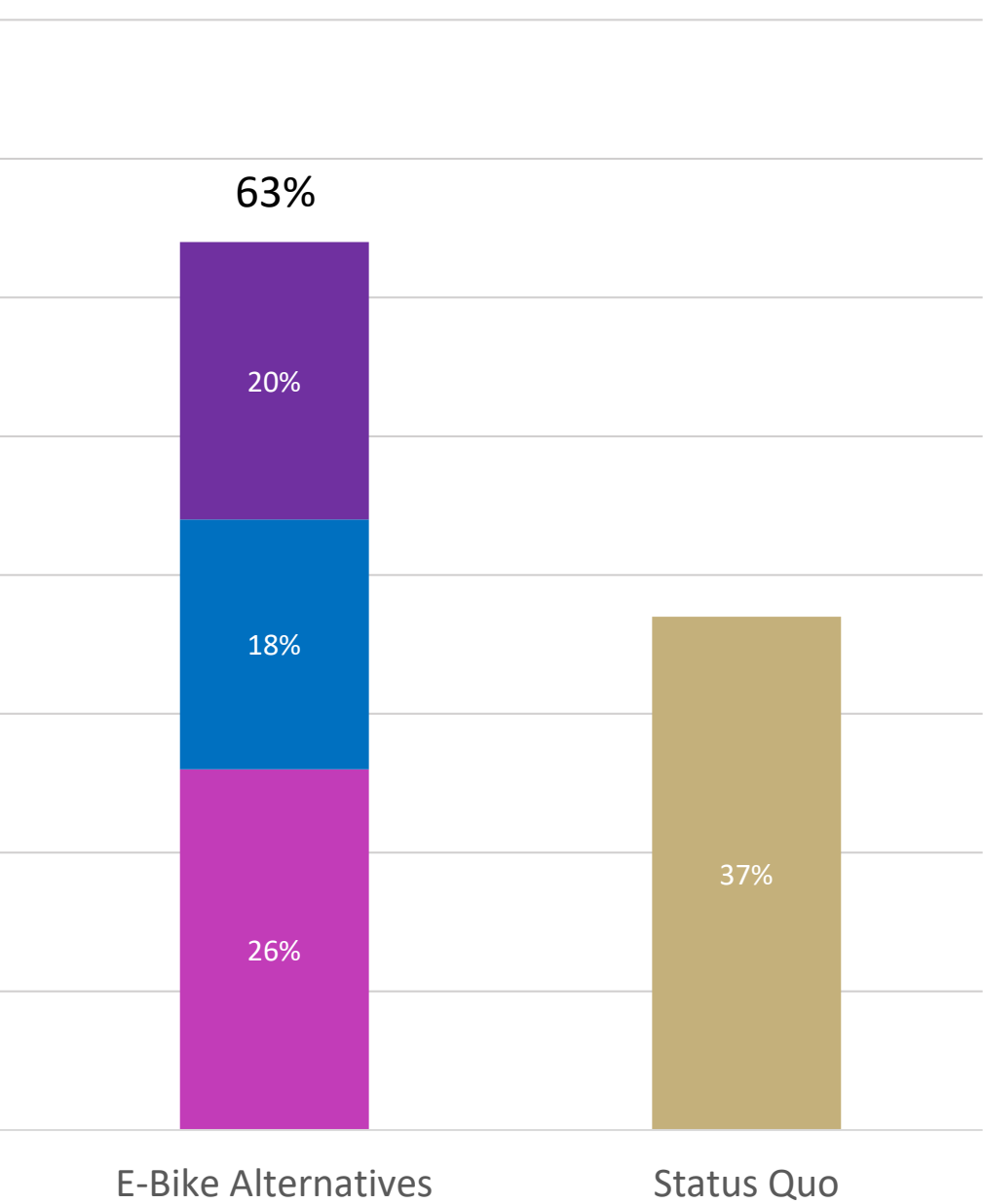


Support for Alternatives or Status Quo

Online Engagement



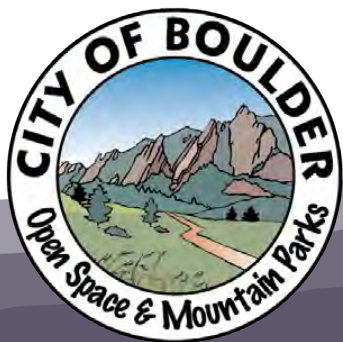
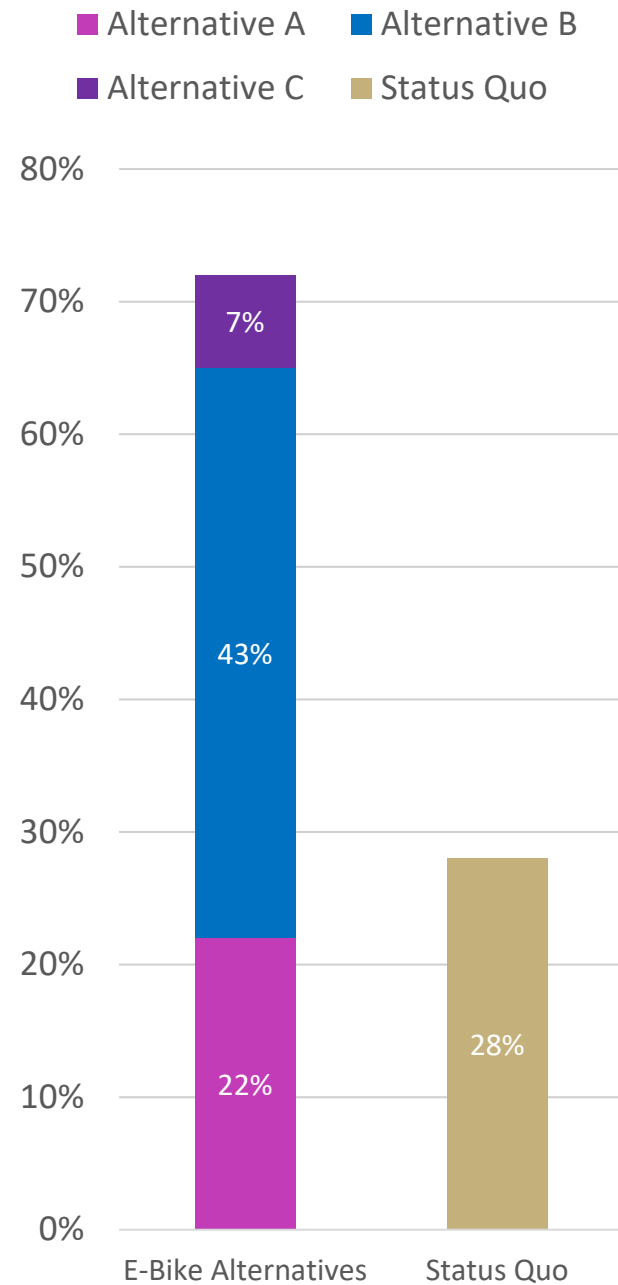
Onsite Intercept



Alternative A Alternative B Alternative C Status Quo

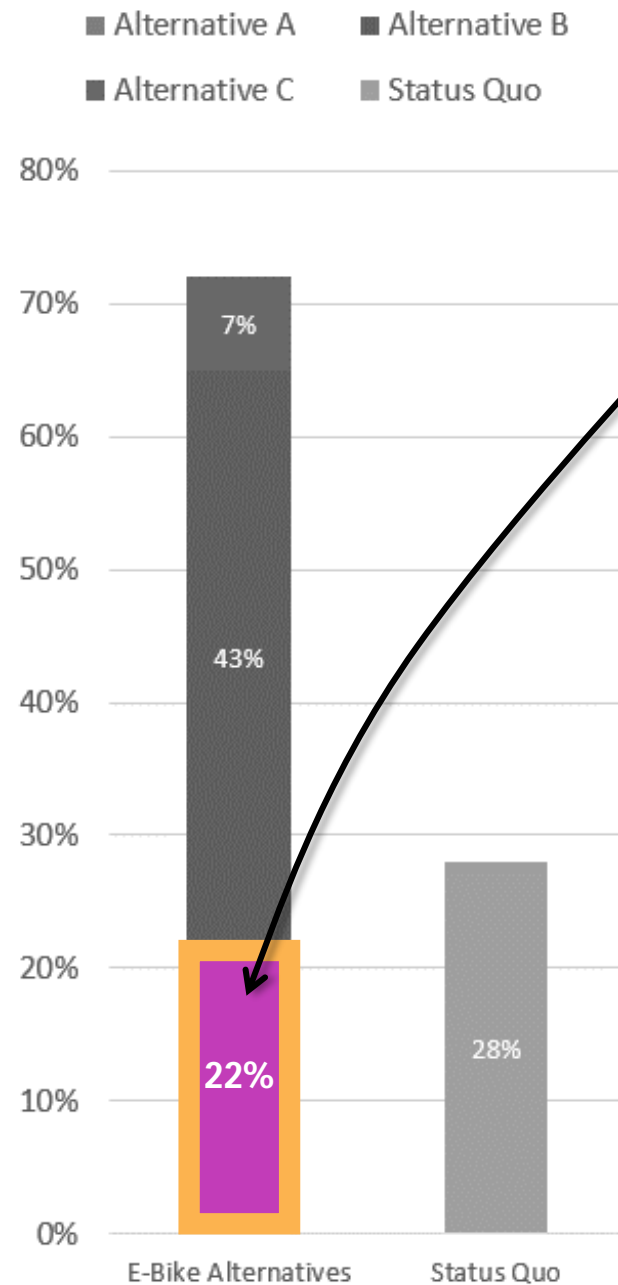
Online Engagement

Top 3 Reasons in Support of Each Alternative



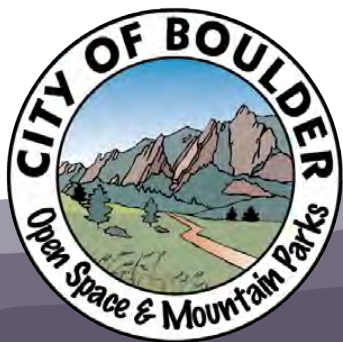
Online Engagement

Top 3 Reasons in Support of Each Alternative



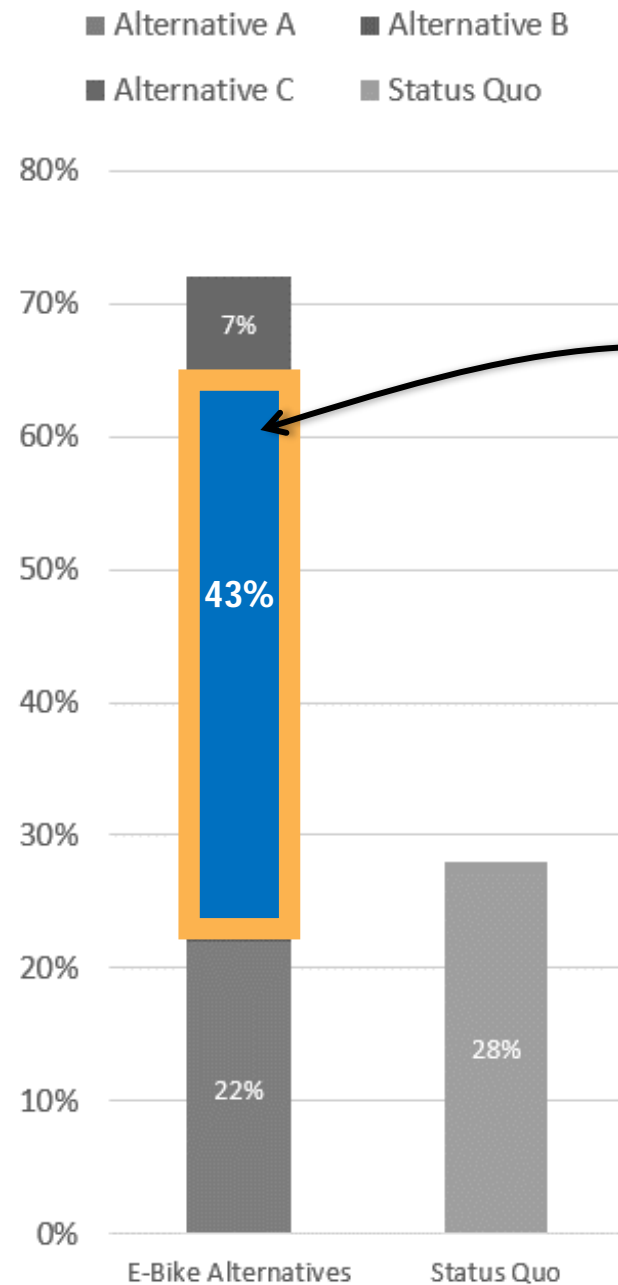
A:

It supports a wider range of ages and abilities and permits e-bikes everywhere traditional bikes are allowed.



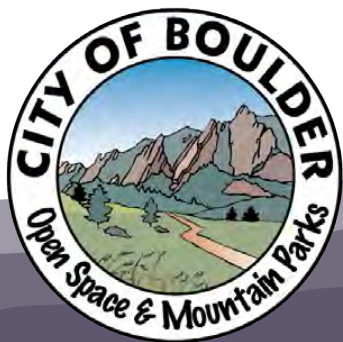
Online Engagement

Top 3 Reasons in Support of Each Alternative



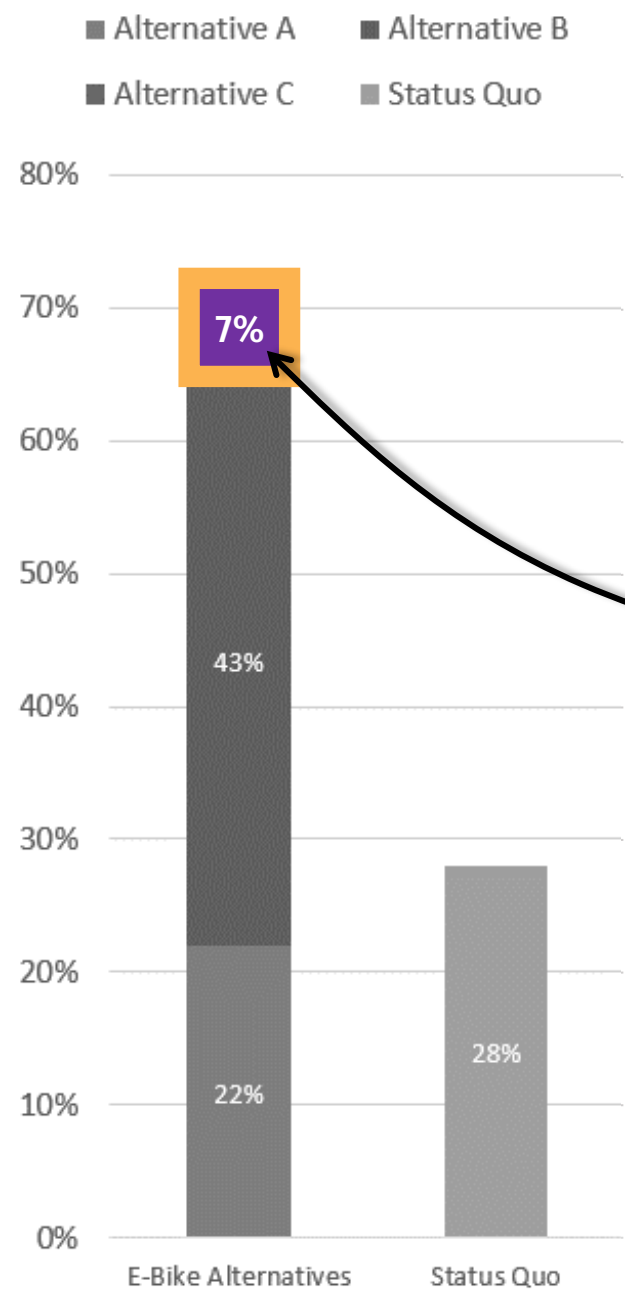
B:

It increases access for a wider range of ages and abilities and also reduces trips by car.

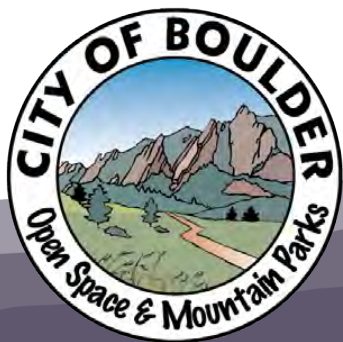


Online Engagement

Top 3 Reasons in Support of Each Alternative

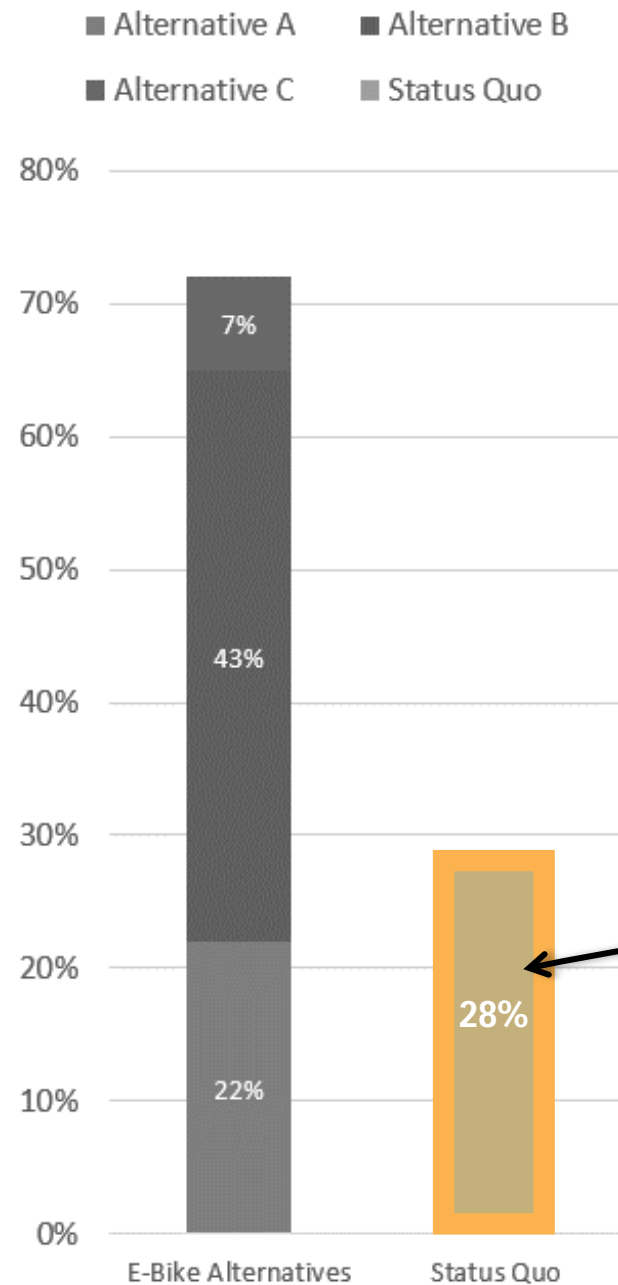


It still allows use of regional and interconnected trails but best addresses safety and conflict-related concerns while minimizes displacement of other visitors.



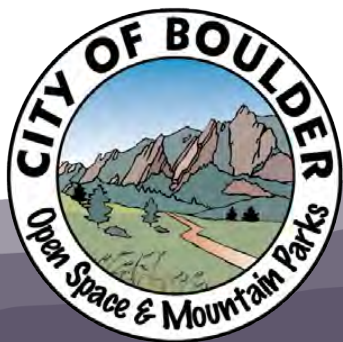
Online Engagement

Top 3 Reasons in Support of Each Alternative

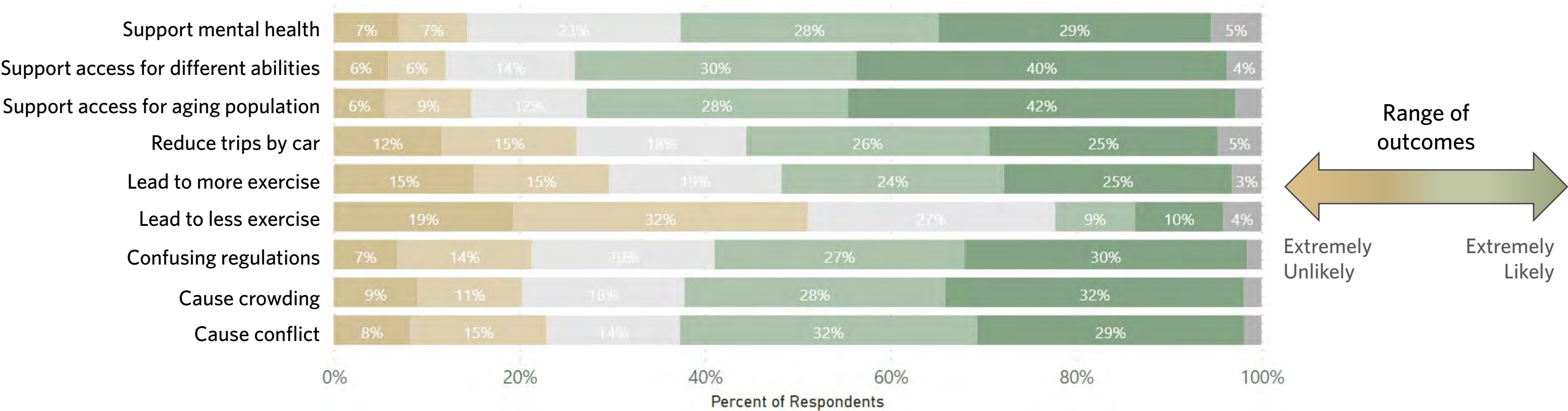


Status Quo:

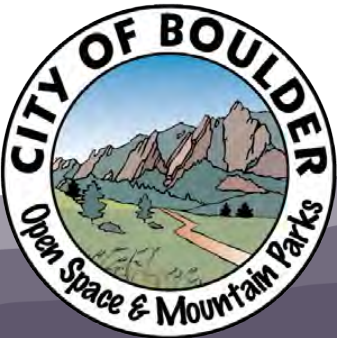
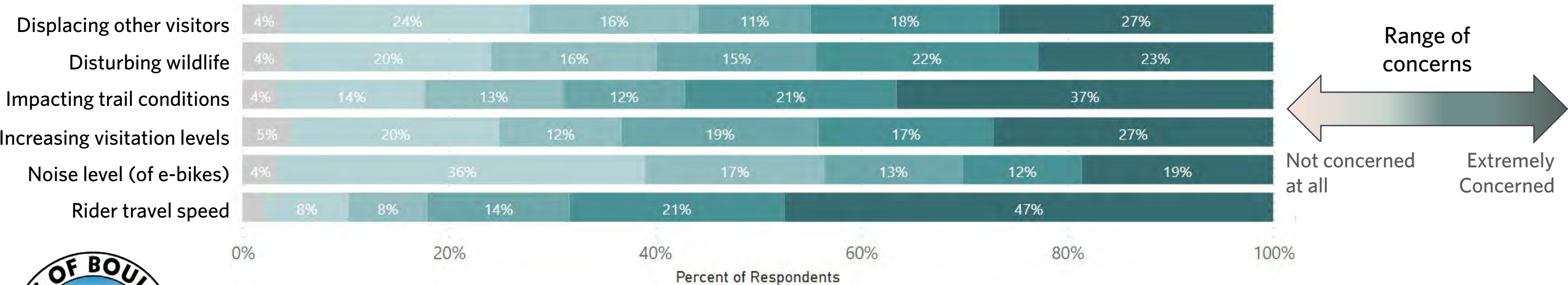
Concerns about e-bike rider travel speed, disagreement with electric-assist as non-motorized, and allowing e-bikes on multi-use trails causing visitor conflict led these participants to support the status quo.



What do you think the likelihood is for each outcome below?



To what degree are you concerned about...

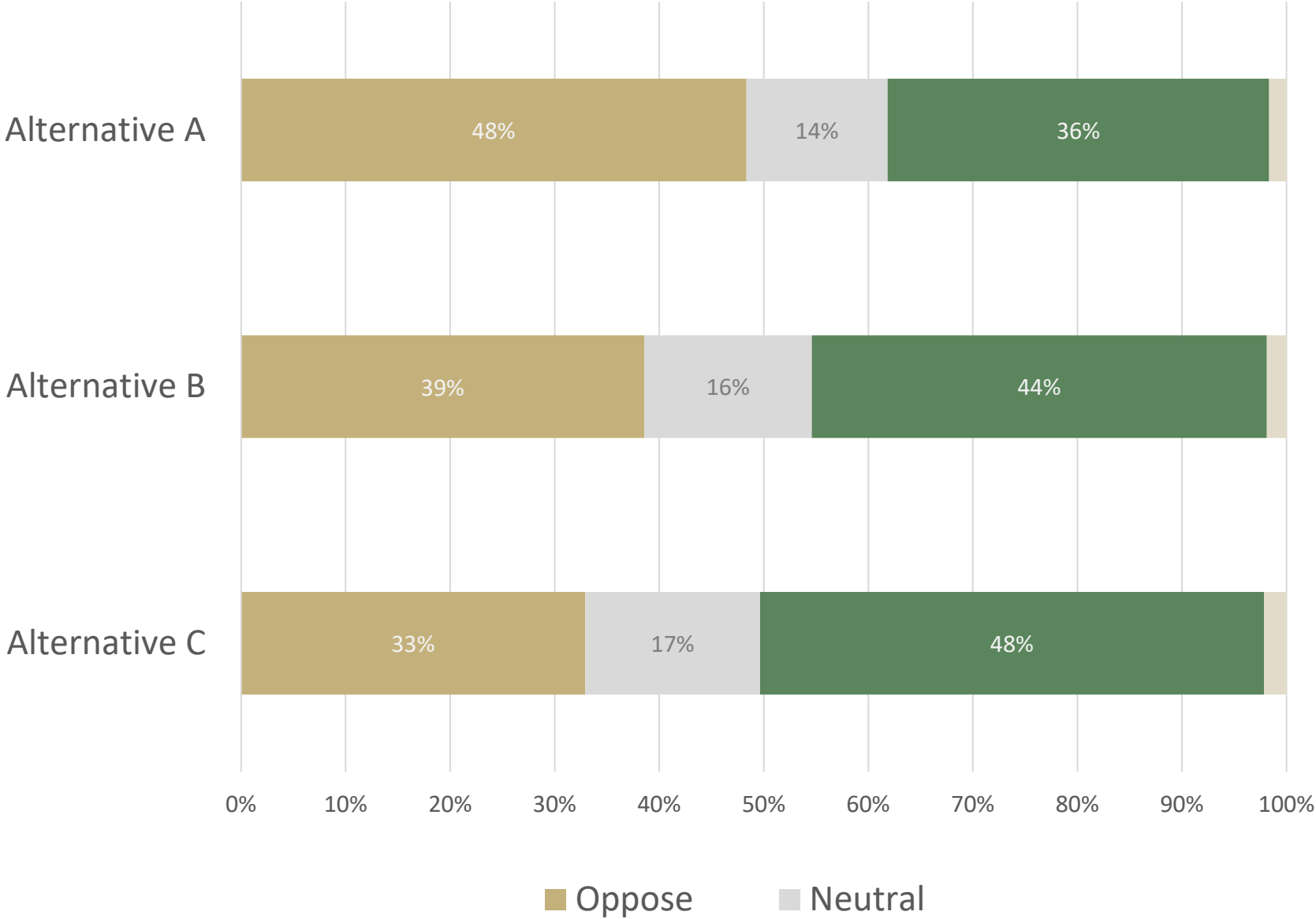


Onsite Intercept

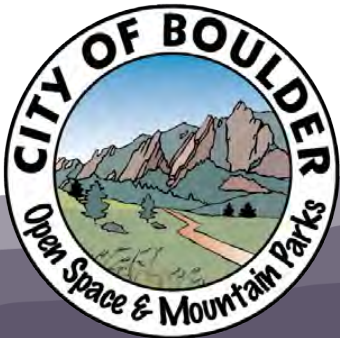
Onsite Intercept

Alternatives level of support

Many respondents indicated support for all 3 alternatives



n = 431



Engagement Window

**SUMMER
2022:**



Online Engagement Questionnaire



**On-Site Intercept
Survey**



Office Hours



**Compendium of
Community Comments**



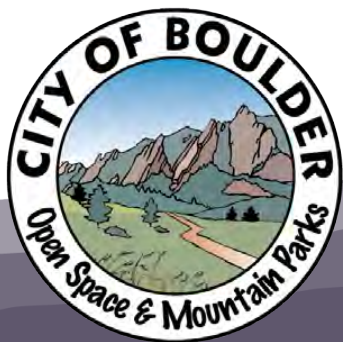
Comment themes include:

Concern for:

- **Safety**
- **User Conflict**
- **E-biking Speed**

Support for:

- **Speed Limit
Enforcement**



Overall Conclusions from Datasets

Overall

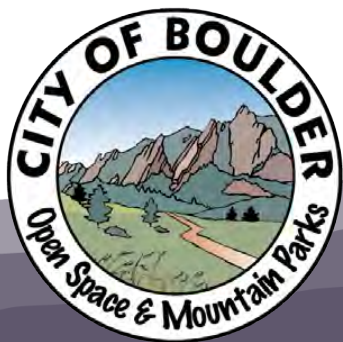
- Majority support for e-biking on some trails

Preferences

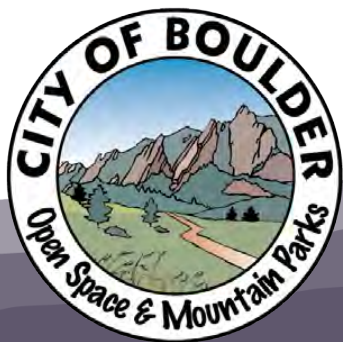
- Alternative B supported by most online engagement respondents
- Support across all three alternatives by many onsite intercept respondents

Management Considerations

- E-biker speed
- concern for conflict
- Potential impacts to trail conditions



Additional Staff Analysis



Boulder City Charter

Use of Open Space Land

- Section 176 limits the use of open space land
 - ✓ Preservation of land for passive recreational use such as hiking, photography or nature studies, and, if specifically designated, bicycling, horseback riding, or fishing *Section 176 (c)*



Boulder City Charter

Use of Open Space Land

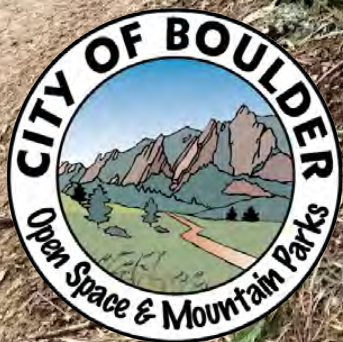
- Section 176 limits the use of open space land
 - ✓ Preservation of land for passive recreational use such as hiking, photography or nature studies, and, if specifically designated, bicycling, horseback riding, or fishing *Section 176 (c)*
- Does not define all passive recreational uses



Boulder City Charter

Use of Open Space Land

- Section 176 limits the use of open space land
 - ✓ Preservation of land for passive recreational use **such as** hiking, photography or nature studies, and, if specifically designated, bicycling, horseback riding, or fishing *Section 176 (c)*
- Does not define all passive recreational uses
- Allows for other activities to be considered "passive recreation" by use of phrase "such as"



Boulder City Charter



Use of Open Space Land

- Section 176 limits the use of open space land
 - ✓ Preservation of land for passive recreational use **such as** hiking, photography or nature studies, and, if specifically designated, bicycling, horseback riding, or fishing *Section 176 (c)*
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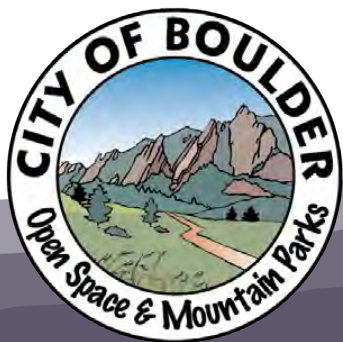
City Council Role

- Section 2(h) provides that all non-delegated functions reside with City Council.
 - Charter does not delegate defining Charter terms to OSBT
 - Within Council authority to define "passive recreational uses"

2005 Visitor Master Plan

Includes a definition of passive recreation as *non-motorized* activities that:

- Offer constructive, restorative, and pleasurable human benefits that foster an appreciation and understanding of Open Space [and Mountain Parks] and its purposes
- Do not significantly impact natural, cultural, scientific, or agricultural values
- Occur in an Open Space and Mountain Parks setting, which is an integral part of the experience
- Require only minimal facilities and services directly related to safety and minimizing passive recreational impacts
- Are compatible with other passive recreational activities



Passive Recreation

Peer Agency Experience

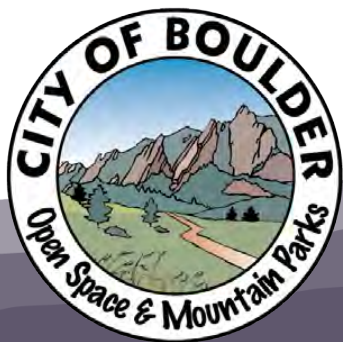
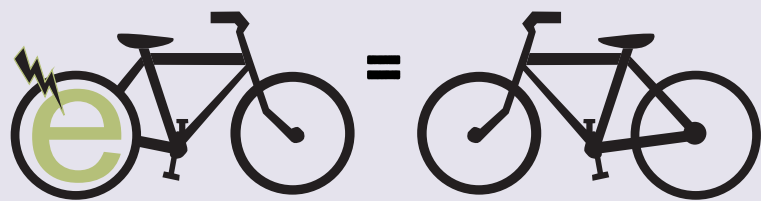
Increased citations?

Any new medical incidents?

Increased user conflicts?

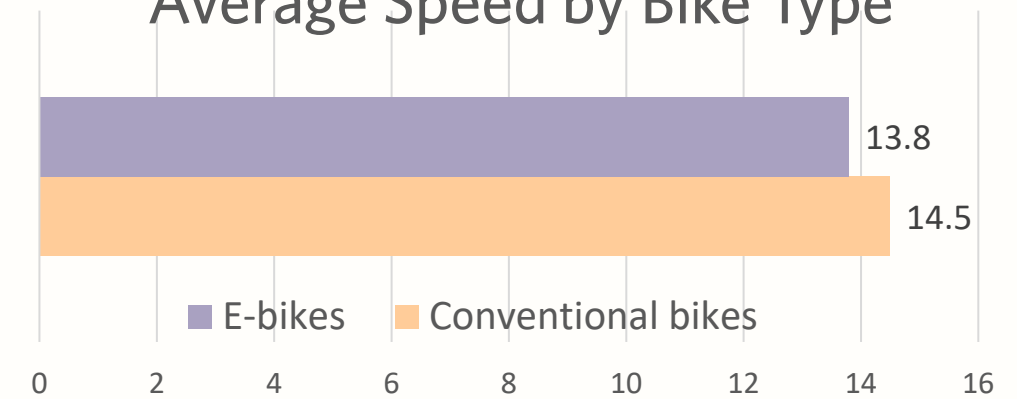
Complaints?

Peer agencies reported no increase in these concerns as a result of allowing e-biking on the lands they manage.



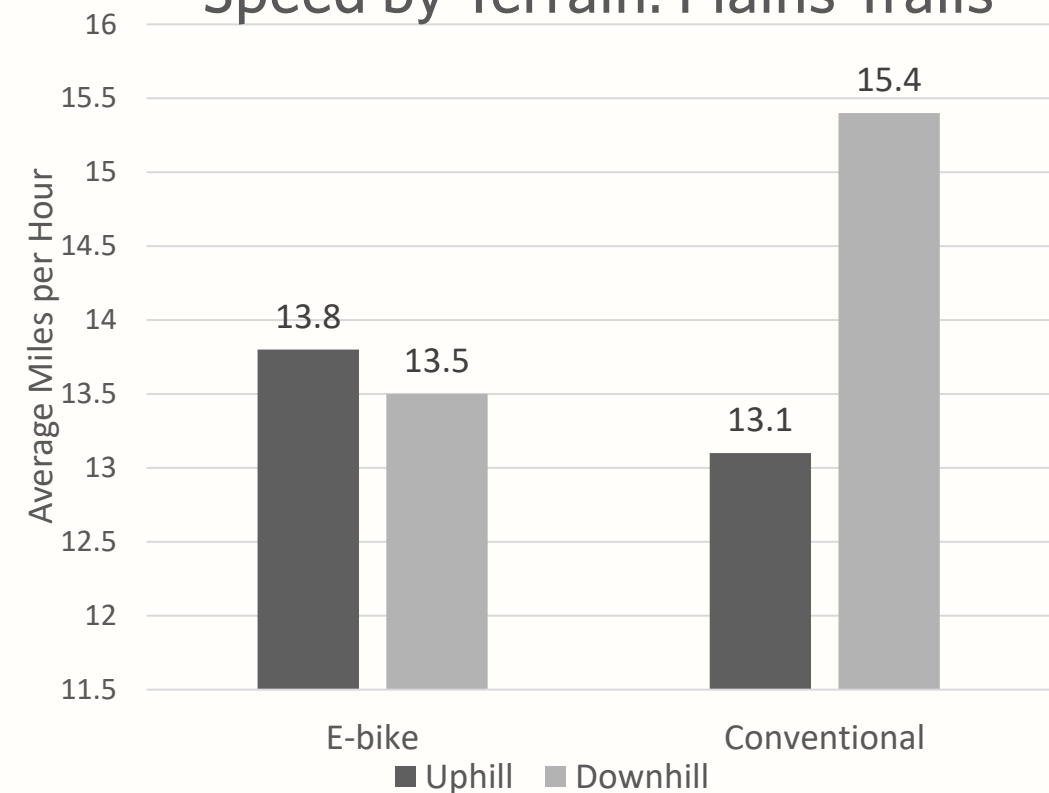
Boulder County Parks & Open Space Speed Study

Average Speed by Bike Type



- Bike speeds don't differ much by bike types
- Bike speeds vary by terrain

Speed by Terrain: Plains Trails



OSMP Experience

Biking Activity

9-11% of visitors

20% on trails that allow bikes

86% from Boulder County

Conflicts

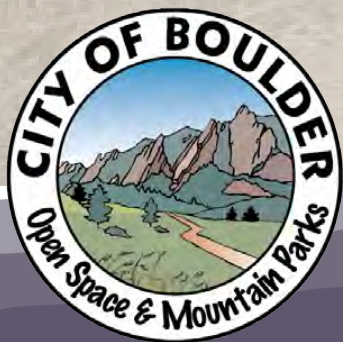
6% reported a conflict, overall

2% involved a bicyclist

Encounters among visitors

69% positive

26% neutral

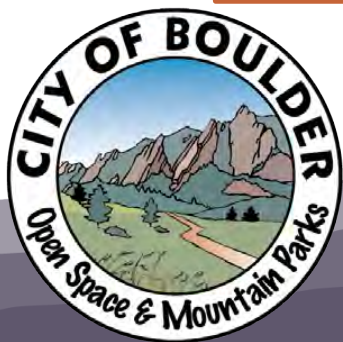


Approach to Authorize E-biking on Open Space

VMP Criteria for passive recreation

- Offer constructive, restorative, and pleasurable human benefits that foster an appreciation and understanding of Open Space [and Mountain Parks] and its purposes
- Do not significantly impact natural, cultural, scientific, or agricultural values
- Occur in an Open Space and Mountain Parks setting, which is an integral part of the experience
- Require only minimal facilities and services directly related to safety and minimizing passive recreational impacts
- Are compatible with other passive recreational activities

- **Legislative finding by Council that e-biking is passive recreational activity**
- **Designate trails for e-biking through rule-making authority by City Manager**



A Holistic Management Approach

**Trail Design &
Maintenance**



Monitoring

**Education &
Outreach**

Enforcement



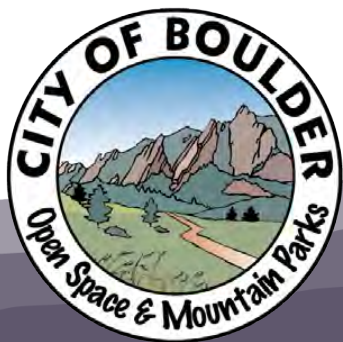
Trail Design and Maintenance

Continue to:

- Employ design best practices
- Identify and prioritize strategic trail maintenance

Enhance:

- Focus on pinch points for biking and e-biking





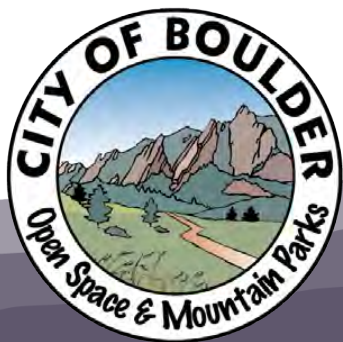
Education & Outreach

Continue to:

- Welcome visitors at trailheads and trails
- Engage broader visitor population at community-based events
- Partner with volunteer Mountain Bike Patrol
- Ranger presence on the land

Enhance:

- Add messaging about e-biking as a new activity and trails designated for e-biking use
- Expand awareness of trail courtesy and Yield Triangle understanding





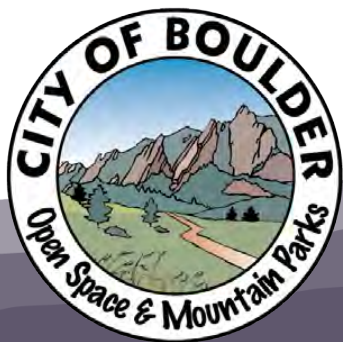
Enforcement

Continue to:

- Patrol high visitation trails

Enhance:

- Add e-biking to BRC 8-8-6 Regulation of Vehicles and amend other applicable rules
- Targeted enforcement activities, as needed
- Targeted patrol on trails with high bike & e-bike use





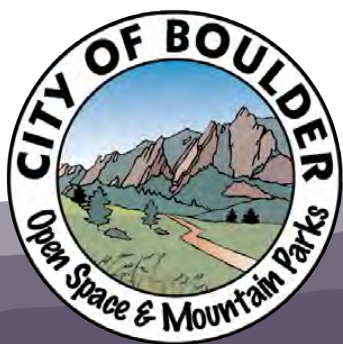
Monitoring

Continue to:

- Collect visitation data
- Track incidents involving bikers
- Assess visitor behavior and trends
- Trail conditions

Enhance:

- Add e-biking as a new activity
- Track incidents involving e-bikers
- Monitor conflict rates attributed to e-biking



Preliminary Staff Recommendation

- **Allow Class 1 and Class 2 e-biking as a passive recreational activity permissible on open space.**
- **Allowed only on certain designated trails.**

class

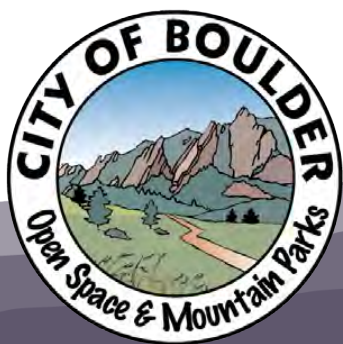
1

Pedal assist only,
maximum assisted
speed of 20 mph

class

2

Pedal & throttle
assisted, maximum
assisted speed 20 mph

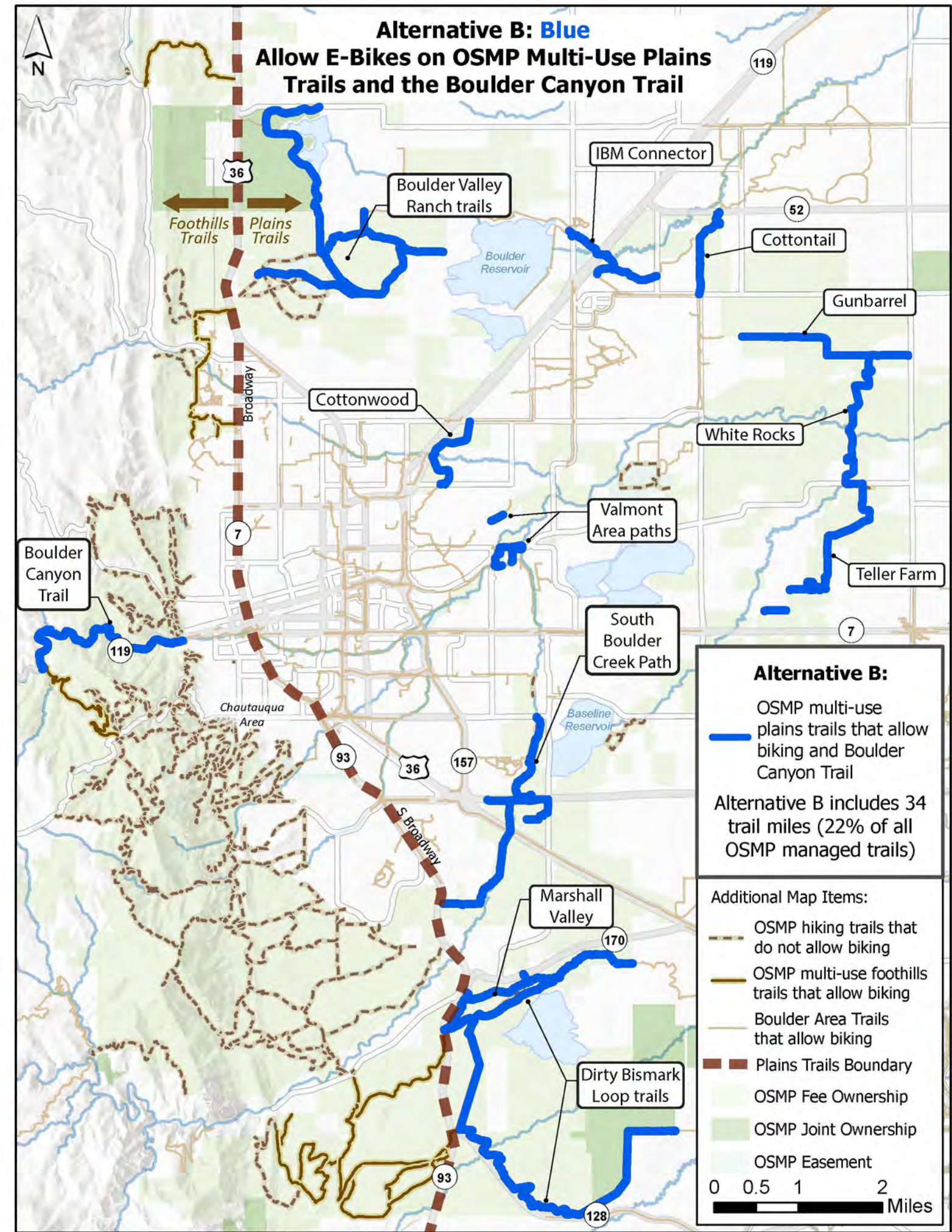
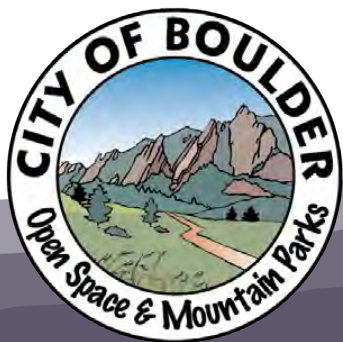


Alternative B

Preferred Alternative

OSMP Plains trails and Boulder Canyon trail

- Consistency with e-biking regulations interconnected trails.
- Effectiveness of regulations.
- Significantly increases equitable access to open space.
- Create an adaptive approach and alternative to disposal.
- Minimal impacts to natural resources, visitor experiences, visitor safety, and the trail system.
- Supports broader city climate goals.



Spring 2022

Evaluation of alternatives and preliminary proposal

Summer 2022

Community Engagement

Fall 2022

Board Input and Action

Nov 9: Present public feedback, additional analysis and preliminary staff recommendation

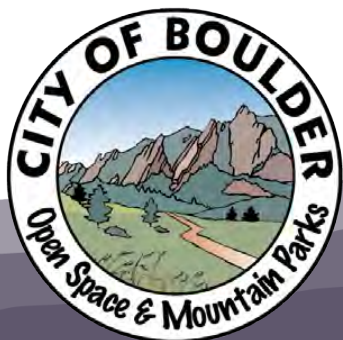
Dec 14: Public Hearing on Final Staff Recommendation

Jan 13: OSBT consideration and recommendation to City Council

Next
Step

Winter 2023

Council Consideration



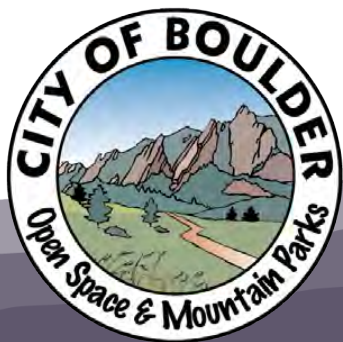
Board & Council Consideration

Questions for OSBT

- 1. Do Trustees have comments or questions about the community input?**

- 2. Do Trustees have comments or questions about the Additional Staff Analysis?**

- 3. Is there any additional information Trustees need to consider an action item regarding e-biking on open space trails?**



Thank You!



Questions?

