

MEMO

Date: April 13, 2021

To: Laurie Kadrich, CPIR Director

From: Daylan Figgs, Director, Natural Resources Department

Purpose: To provide a staff recommendation for management/regulation of electric motorized bikes (e-bikes) on Larimer County's Department of Natural Resources (LCDNR) managed trails, based on public feedback and a trial study at Devil's Backbone Open Space.

Staff Recommendation: Based on the information and discussion below, staff recommend:

1. Expand access for individuals with a mobility disability to use e-bikes as an "other powered mobility device" to access all LCDNR's paved and natural surface trails where bikes are allowed.
2. Continue to allow Class 1 and 2 e-bikes on all paved surface trails managed by LCDNR.
3. Continue existing regulations that prohibit e-bikes and other motorized devices on natural surface trails managed by LCDNR.

Rationale: The staff recommendation above was developed to meet a suite of considerations informed through extensive information and public input on e-bikes over the past several years including online surveys, a statistically valid on-site survey combined with an e-bike trial study at Devil's Backbone Open Space, informal stakeholder meetings, and discussions with the department's advisory boards. The rationale for staff recommended e-bike regulations are based on the following considerations:

- **Public Survey Results:** Overall 64% of survey respondents opposed allowing e-bikes on natural surface trails with 36% in support as expressed by two online surveys conducted in 2018 and 2020. On site surveys conducted at Devil's Backbone Open Space in 2020 indicated 48% of respondents opposed, with 23% in favor and 34% unsure or neutral.
- **Regional Opportunities:** County-wide there are 643 miles of e-bike accessible trails; 131 miles on paved trail, 56 miles on natural surface single-track trails and 456 miles on two-track trails (see attached map).
- **Alternative Transportation Needs:** Paved trails that interconnect between communities in Larimer County are abundant (76 miles), designed for higher capacity use and faster speeds, allow Class 1 and 2 e-bikes, and contribute to meeting County/regional climate strategy goals.
- **Trail Congestion:** Visitor crowding and congestion on natural surface trails is a current issue. Visitor survey respondents (2020) reported feeling crowded on Devil's Backbone natural surface trails at levels exceeding acceptable thresholds of crowding. Adding new uses to already crowded trails will likely exacerbate congestion issues.
- **Regulation Consistency:** Ensure regulatory consistency between adjacent agency-managed trails where e-bikes are not allowed, thus avoiding visitor confusion and enforcement challenges.
- **Administration:** Avoids creating an administrative or regulatory burden to manage.
- **Accessibility:** Provide opportunities for individuals with disabilities to access trails. Online survey respondents in favor of e-bikes (36%) primarily noted their reasoning as to provide access for individuals with disabilities, chronic health and age constraints.

Discussion/Background Information

In response to increasing use of electric motorized bikes (e-bikes) and how they are considered within transportation regulations, the State of Colorado passed a bill in April of 2017 which designated e-bikes as non-motorized and defined them into 3 classes. The bill gives local jurisdictions the authority to allow or prohibit the use of e-bikes on pedestrian and bike paths. In 2019, additional legislation was passed which requires that electric motorized scooters (e-scooters) not be regulated more restrictively than Class 1 e-bikes. The State's e-bike class definitions are as follows:

Class 1: An electrically assisted bicycle equipped with a motor that provides assistance only when the rider is pedaling and ceases to provide assistance at 20 mph.

Class 2: An electrically assisted bicycle equipped with a motor that provides assistance regardless if the rider is pedaling and ceases to provide assistance at 20 mph.

Class 3: An electrically assisted bicycle equipped with a motor that provides assistance only when the rider is pedaling and ceases to provide assistance at 28 mph.

The majority of online (64%) and nearly half of on-site survey respondents were not in favor of allowing e-bikes on existing natural surface trails. While e-bike participants reported little-to-no negative comments, the county recorded violations by e-bike participants and motorized uses by non-participants during the study period.

A primary reason cited by those in support of e-bikes (36% online survey; 23% visitor study survey) was providing for citizens with disabilities. Staff recommend allowing those with disabilities to use e-bikes as other-powered mobility devices on LCDNR managed paved and natural surface trails that allow bikes. In addition, there are 643 miles of trails countywide that allow e-bikes by any user.

Already many LCDNR trails are at or near capacity. Results from the statistically valid Devil's Backbone Open Space visitor study (CSU, 2020) noted visitors felt crowded on the trails at levels exceeding acceptable thresholds of crowding. Allowing a new use, and one that at times can exceed the speed of any other use, is concerning for safety, capacity, and the quality of existing user experiences on natural surface trails. According to a 2019 BYU study, the average rider speed on a natural surface trail course on a Class 1 e-bike was 45% faster than on a traditional mountain bike (Cougar, et al. 2019). However, the approximately 10 miles of paved trails within 3 of the 10 county open spaces (River Bluffs, Lions and Long View open spaces), were designed to for higher use levels, meet alternative transportation and commuting goals, and are recommended to allow Class 1 and 1 e-bikes/e-scooter motorized access.

Providing consistent cross boundary regulations is a goal LCDNR strives to achieve since visitors rarely know when they've left trails within one jurisdiction and entered another. Lack of consistent regulations can be confusing, have negative consequences for users, and creates enforcement challenges. Larimer County, Fort Collins and Loveland co-developed and share identical regulations that allow Class 1 and 2 e-bikes on paved regional trails and no e-bikes on natural surface, single-track trails. Currently, between LCDNR and the cities of Fort Collins and Loveland, over 25% of the total combined trail systems managed by these entities allow e-bikes. Over time, regular planning and discussions with regional partners on consistent regulations around various trail uses will continue.

STUDY SUMMARIES

2020-2021 E-Bike Study Summary

Under direction from the Board of County Commissioners, LCDNR recently conducted a six-month e-bike study on designated natural surface trails at Devil's Backbone Open Space. The study permitted 30 individuals selected from a random lottery in which over 70 people applied, to ride Class 1 e-bikes from July 15, 2020 to February 15, 2021.

The study provided LCDNR with the opportunity to collect data to assess safety, trail experience impacts, public opinion, and trail etiquette awareness as they related to e-bike use on natural surface trails. The study's results are outlined below:

E-Bike Online Comment Form: An online public comment form was developed to measure public opinion on e-bikes and was available during the study period. Of 677 unique comments submitted, 64% of respondents reported they are opposed to e-bikes on natural surface trails. The most common reasons cited were that motorized use should not be allowed on natural surface trails and that e-bikes would cause an increase in user conflicts. Of the 36% of respondents that indicated they are in favor of e-bikes, the majority cited that e-bikes provide access for users with disabilities and chronic health conditions.

Devil's Backbone Open Space Visitor Survey: In partnership with Colorado State University and concurrent with the e-bike study, a statistically valid survey was conducted at Devil's Backbone Open Space from September to October 2020. One primary goal of the survey was to evaluate visitors' feelings around crowdedness. Respondents noted they felt crowded on the trails at levels exceeding acceptable thresholds of crowding. In addition, the survey included questions related to support for e-bikes on natural surface trails. Overall, 48% of respondents reported being opposed to e-bikes on natural surface trails, with 22% neutral, 23% in support, and 8% unsure.

E-Bike Rider Report Logs: Twelve study participants submitted a total of 61 rider logs. Of these twelve participants, 98% reported being satisfied to very satisfied with their experience. While some noted their continued support for e-bikes on trails, one rider cited not supporting e-bikes on natural surface trails due to increased trail congestion.

Ranger and Trail Camera Data: During the study, no staff safety or emergency responses related to the 30 participants were required. Staff received few negative comments directly from visitors about e-bikes. However, trail camera footage revealed numerous issues with participants breaking the rules of their permit by entering adjacent trail systems (Horsetooth Mountain Open Space and trails managed by the City of Fort Collins) which do not allow e-bikes. Additionally, documented during this time were new motorized uses on natural surface trails (e-scooters, gas-engine dirt bikes and one-wheel vehicles).

2020-2021 Online E-bike Survey Results

Public response via website and Facebook regarding allowing e-bikes on natural surface trails:

Website Comment Form

		Total
No	64%	371
Yes	36%	213
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	100%	584

Facebook Comments

		Total
No	63%	59
Yes	37%	34
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	100%	93

2020 Devil's Backbone Open Space Visitor Survey Results

(Statistically valid survey conducted in partnership with Colorado State University)

Support for e-bikes on natural surface trails at Devil's Backbone Open Space

	Respondents	Total
Strongly opposed	28%	152
Moderately opposed	13%	67
Slightly opposed	7%	38
Neither	22%	115
Slightly support	6%	33
Moderately support	8%	41
Strongly support	9%	48
Not sure	8%	<u>42</u>
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	100%	536

2018 Online E-bike Survey

In 2018, during an evaluation and update of park and open space regulations, Larimer County Natural Resources Department (LCDNR) carefully considered appropriate regulations associated with motorized uses such as e-bikes and e-scooters as part of the updated departmental regulations on specific trails. At that time, an online survey was administered and, of 771 responses, 65% indicated that they were opposed to e-bikes while 35% were supportive or indifferent.

E-Bikes on Larimer County Natural Surface Trails

	Class 1 E-Bikes on All Natural Trails	%	Class 1 E-Bikes on Certain Natural Trails	%
1 (against)	430	56	379	49
2	57	7	58	8
3	18	2	40	5
4	14	2	55	7
5	29	4	32	4
6	28	4	45	6
7 (in favor)	195	25	162	21
Total Survey Responses	771	100	771	100

Survey Comments

Survey Question #1: A Class 1 e-bike has an electric motor that only turns on when the rider is pedaling. The motor ceases to operate once the bike reaches 20 mph. Are you in favor of allowing Class 1 e-bikes on *all*-natural surface (dirt) trails managed by Larimer County that are already open to bicycles? (Select one.)

Respondents opposed commented on safety concerns due to speed potential and inexperience of e-bikes riders, resource damage, noise concerns, increased use on already congested and crowded trails, enforcement challenges, and generally not in favor of allowing any motorized uses on natural surface trails. Those in favor of e-bikes cited the benefits related to exercise, assistance for those with limited mobility or health issues, and that Class 1 e-bikes are quiet, efficient, and reliable.

Survey Question #2: LCDNR could designate certain trails in its system for e-bike use. Are you in favor of the department designating *certain* natural surface (dirt) trails for e-bikes?

Respondents opposed believe that certain trail designations would be too confusing for all users, be unsafe, create issues at junctions, lead to resource damage and that there are plenty of other options for e-bike users such as roads, commuter trails, USFS trails, and more. Those in favor believe there needs to be more options available to e-bike users on natural surface trails. Some respondents stated that by allowing select natural surface trails for e-bikes would provide an opportunity to pilot the use.

Boulder County Literature Review Information

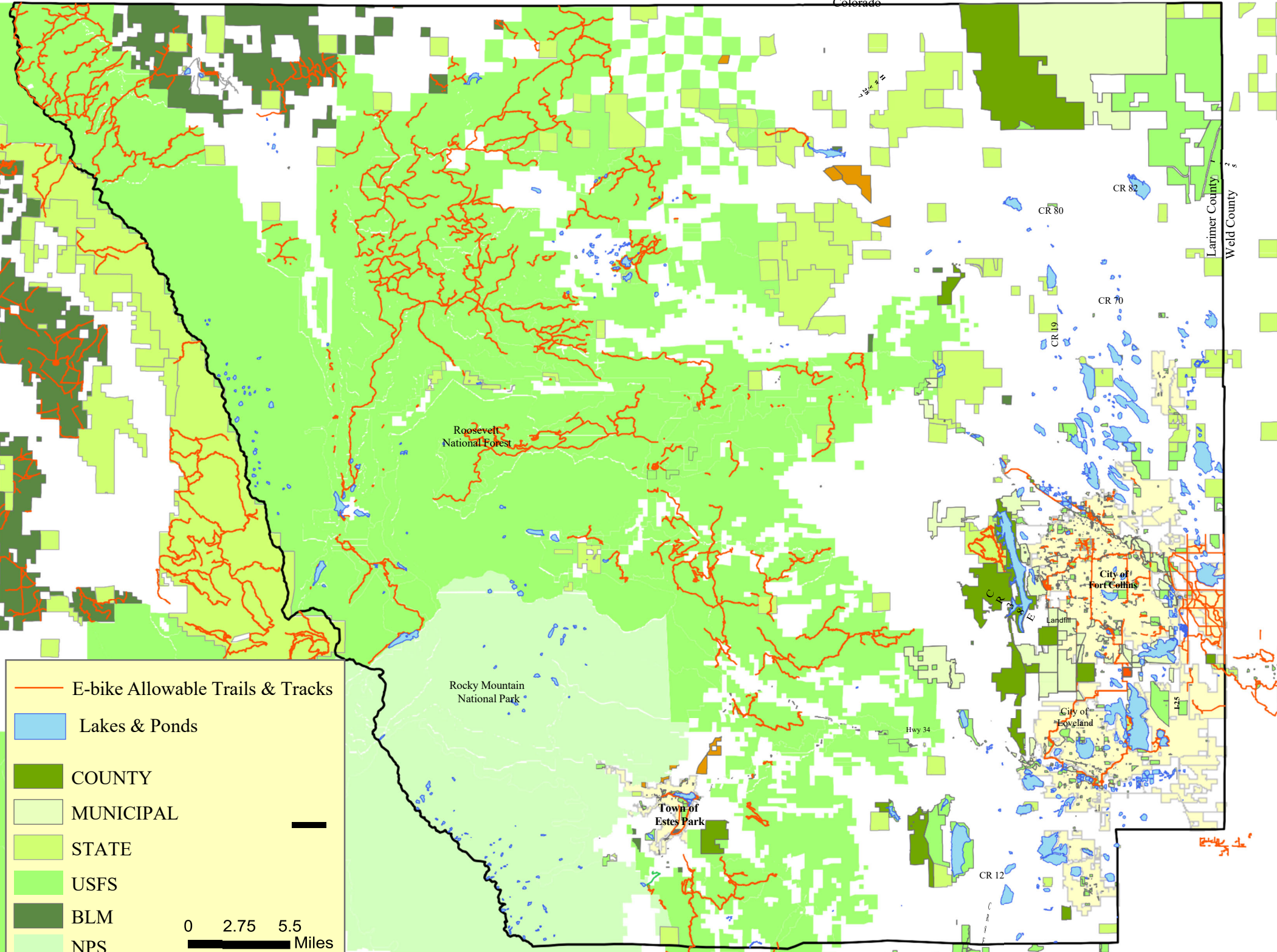
Boulder County completed an e-bike literature review in September 2019 to gather any published studies on e-bike trends, trip purpose, impacts to trails and recreational visitor conflicts.

- Crowding is a concern on public lands across the nation. Spatial and temporal management strategies may be effective to alter visitor recreation patterns and thereby disperse use, minimize recreation conflict, and environmental impacts.
- Recommendations for e-bike management on trails range from descending direction trails to speed limits to restrictions on trail width for e-bike use.
- Educational strategies may be useful when implementing e-bike regulations and for improving on-trail etiquette for all trail users.
- Given the recent introduction of e-bikes into the outdoor recreation space, there is a paucity of research on e-bike management prescriptions.

E-bike allowance by trail type in several jurisdictions within Colorado (Classes 1, 2, or 3)

Jurisdiction	Type of Trail/Area Where E-bikes are Allowed			
	Natural Surface ¹	Improved Surface ²	Paved	Motorized Use
U.S Forest Service				1, 2, 3
U.S Forest Service Special Use Permit	1, 2			
Bureau of Land Management	1, 2, 3			1, 2, 3
National Park Service	1, 2, 3		1, 2	1, 2, 3
Colorado Department of Transportation			1, 2, 3	
Colorado Parks and Wildlife	1, 2		1, 2	1, 2
Boulder County Parks and Open Space		1, 2		
City of Boulder Open Space & Mountain Parks				1, 2
City of Boulder Multi-use Paths			1, 2	
Larimer County Natural Resources			1, 2	
Fort Collins Natural Areas			1, 2	
Fort Collins Moves			1, 2	
Roaring Fork Transportation Authority			1	
Summit County Open Space & Trails			1	
Jefferson County Open Space	1		1, 2	
Eagle County Trails			1, 2	
Town of Aspen Transportation			1, 2, 3	
City of Grand Junction			1, 2	

¹Hall, Cougar, Hoi Taylor, et al. 2019. Pedal-Assist Mountain Bikes: A pilot Study Comparison of the Exercise Response, Perceptions and Beliefs of Experienced Mountain Bikers. *JMIR Form Res.* 2019 Jul-Sep; 3(3): e13643.



SUBJECT: Use of Power-Driven Mobility Devices on Trails by Individuals with Mobility Disabilities

DATE: July 1, 2011

EFFECTIVE PERIOD: Until superseded

REVIEW SCHEDULE: Annually

PURPOSE: For compliance with ADA Part 35 (Title II) Regulations concerning use of power-drive mobility devices by Individuals with Mobility Disabilities, for consistent response to inquiries about the use of power driven mobility devices on trails managed by the Larimer County Natural Resources Department and for enforcement of policies concerning use of power drive mobility devices on trails managed by the Larimer County Natural Resources Department.

SCOPE: All Natural Resource Department Employees

RESPONSIBILITY: Director; Natural Resources Department Managers

BACKGROUND:

Effective March 15, 2011, the Department of Justice (DOJ) revised its rules effectuating Subtitle A of Title II of the Americans With Disabilities Act of 1990 with respect to the use of power-driven mobility devices by individuals with mobility disabilities on lands owned by public entities.

Larimer County Natural Resources Department completed an assessment of all trails it manages to determine reasonable modifications to its policies and practices to allow the use of power-driven mobility devices by persons with mobility disabilities and to define the types and classes of devices that are appropriate for each trail. Information about the devices that may and may not be used on each trail will be posted on the Departmental website. Larimer County desires to accommodate individuals with mobility disabilities while ensuring that power-driven mobility devices do not have a significant negative impact on the immediate environment, natural or cultural resources, or visitor safety. A number of assessment factors were used to evaluate the types of power-driven mobility devices acceptable on County-managed trails including type, size and speed of device, environmental, natural and cultural resource impacts, visitor safety, and trail use volumes.

DEFINITIONS:

For purposes of this policy:

Mobility Device means Other Power-Driven Mobility Device and Wheelchair collectively.

Other Power-Driven Mobility Device means any mobility device powered by batteries, fuel, or other engines—whether or not designed primarily for use by individuals with mobility disabilities—that is used by individuals with mobility disabilities for the purpose of locomotion, including golf cars, electronic personal assistance mobility devices (EPAMDs), such as the Segway® PT, or any mobility device designed to operate in areas without defined pedestrian routes, but that is not a wheelchair within the meaning of this section.

Wheelchair means a manually-operated or power-driven device designed primarily for use by an individual with a mobility disability for the main purpose of indoor, or of both indoor and outdoor locomotion.

POLICY:

1. Except as provided in Sections 2 and 3 below, individuals with mobility disabilities shall be allowed to use the following on County trails:
 - a. Wheelchairs;
 - b. Manually-powered mobility aids (e.g. walkers, crutches, canes, braces or similar devices designed for use by individuals with mobility disabilities); and
 - c. Other Power-Driven Mobility Devices
2. The following may not be used on County trails:
 - a. Gas-powered Other Power-Driven Mobility Devices;
 - b. Devices heavier than 500 pounds;
 - c. Other Power-Driven Mobility Devices and golf carts that have an outside wheel width between left and right side wheels that exceeds the width of the natural or paved trail (or any trail providing access to another trail of wider width) thereby causing the wheel(s) to roll over vegetation and resulting in environmental, and potentially cultural resource damage.
3. Other Power-Driven Mobility Devices may not be used on County trails if such use causes damage to the trail or facilities.
4. Other Power-Driven Mobility Devices must travel on low-pressure tires, remain on designated trails, and be capable of turning around within the trail tread in a safe manner.
5. Wheelchairs and Other Power-Driven Mobility Devices may not be operated at speeds greater than 5 (five) miles per hour (mph) and must be designed to have a maximum speed of 20 mph or less.
6. Other Power-Driven Mobility Devices may be used on County trails only on weekdays to coincide with lower visitation/use volumes with the exception of those trails at Eagle's Nest Open Space, Ramsay-Shockey Open Space, River Bluffs Open Space, and County-managed sections of the Pleasant Valley Trail – all of which have lower use volumes.
7. Only the person with the mobility disability is allowed on the Mobility Device.

8. Other Power-Driven Mobility Devices may not exceed a 55 decibel (dBA) maximum sound level as heard 25 feet from the device.
9. A person using a Mobility Device may be asked to provide a “credible assurance” that the Mobility Device is required because of the person’s disability. Credible assurance may include: showing a valid State-issued disability parking placard or card or other State-issued proof of disability. In lieu of a valid State-issued disability parking placard or card or other State-issued proof of disability, a verbal representation, not contradicted by observable fact, that the Mobility Device is being used for a mobility disability shall constitute credible assurance.
10. A person using a Mobility Device may not be asked about the nature and extent of the person’s disability.
11. The Mobility Device user, or a competent assistant to the user, should be advised that even though sections of trail may appear to be passable with a Mobility Device, there is no assurance that it can be done safely. Trails are subject to the weather and other environmental conditions and change over time.
12. Safe use of any approved Mobility Device is the user’s responsibility. The Mobility Device must not be operated in a dangerous or reckless manner that jeopardizes the safety of others.
13. The Natural Resources Department accepts no responsibility for storage of the Mobility Device.
14. The Natural Resources Department accepts no liability for damage to the Mobility Device or injury to the user under any circumstance.
15. The Natural Resources Department accepts no liability for damage or injury to others caused by the use of a Mobility Device.
16. The Natural Resources Department reserves the right to suspend the use of a Mobility Device on County trails or facilities if such suspension is necessary to meet a management objective of the Department.
17. Users of Mobility Devices are subject to all other park/open space policies and regulations to the extent such policies and regulations are not inconsistent with this Policy.
18. This Policy may be amended at its annual review date or any other time the Natural Resources Department in its discretion determines such amendment to be necessary or appropriate.
19. Larimer County will post on the Natural Resources Department website the Other Power-Driven Mobility Devices allowed at specific parks/open space and on specific trails.

20. Special needs not addressed in this Policy or requests for exceptions will be addressed through the Natural Resources Department Special Event Application Process.

21. Grievance and Considerations

A. Grievance: Any mobility disabled person who believes he/she has been aggrieved by the application of this Policy may file a grievance using the following procedure:

Step 1. File the Grievance

Within ten days following the incident giving rise to the grievance, the grievant shall submit a written grievance to the Director of the Department of Natural Resources. The grievance shall include at least the following information:

- a. Name, address, and phone number of the person filing the grievance.
- b. Name, address, and phone number of the person alleging a violation of this Policy, if other than the person filing the grievance.
- c. Description of the alleged violation, including date of the incident, names of persons involved, and details of the incident.
- d. Description of the remedy sought.
- e. Whether a complaint has been filed with the Department of Justice or other federal or state civil rights agency or court and if so, provide the name of the court or agency, name and address of a contact person, the date the charge or case was filed, and the charge or case number.

Step 2. Acknowledgement

Within 5 working days of receipt of the grievance, the Department of Natural Resources will send a written acknowledgement to the grievant that the grievance has been received.

Step 3. Informal Resolution

Within 30 calendar days of receipt of the grievance, the Department of Natural Resources will conduct and complete such investigation as it deems necessary to determine the validity of the alleged violation. If appropriate, the Director of Natural Resources will arrange to meet with the grievant to discuss the matter and attempt to reach an informal resolution of the grievance. Any informal resolution of the grievance shall be documented in writing and the case will be closed.

Step 4. Written Determination

If an informal resolution of the grievance is not reached in Step 3, within 45 calendar days of receipt of the grievance, the Director of Natural Resources will issue a written determination as to the validity of the grievance, and a description of the resolution. The Director shall mail a copy of the determination to the grievant by both first class mail, postage prepaid and by certified mail, return receipt requested.

Step 5. Review of Determination

If the grievant is not satisfied with the Director of Natural Resources' written determination, the grievant may, within fifteen calendar days of the date of the grievance, file an appeal with the Public Works Director. The appeal shall describe all facts, circumstances and law which grievant asserts support grievant's contention that the Director of Natural Resource's decision is in error.

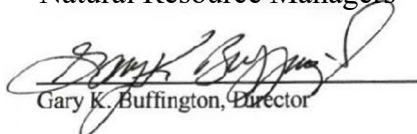
Within fifteen calendar days of receipt of the appeal, the County Manager shall issue a written determination. The Public Works Director's written determination shall be final.

- B. Considerations: Resolution of any specific grievance will require consideration of varying circumstances, such as the specific nature of the disability; the nature of the access to the service or facility at issue, the health and safety of the grievant and others, the degree to which an accommodation would constitute a fundamental alteration in the service or facility or cause an undue hardship to the County. Accordingly, the resolution by the County of any one grievance does not constitute a precedent upon which the County is bound or upon which other complaining parties may rely.

For questions or more information regarding Larimer County Natural Resources Trail & Facility Assessment for Other Power-Driven Mobility Device use, please contact Gary Buffington, Director at (970) 679-4560.

DISTRIBUTION: Natural Resource Managers

APPROVAL:



Gary K. Buffington, Director

7-1-2011
Date

COMPUTER FILE

LOCATION:

Departmental Policy/DNR-General/DNR-01 Use of Power-Driven Mobility Devices on Trails by Individuals with Mobility Disabilities.doc