Overview
The Anne U. White Trail is a unique natural surface hiking trail about 1¾ miles in length that traverses up a narrow canyon by hopscotching back and forth across Fourmile Canyon Creek. The trail is located west of North Boulder near Lee Hill Road. The trail was significantly damaged by the September 2013 flood. Because of safety and access concerns, it is the only trail in the county’s system affected by the disaster that remains closed. The flood recovery process is, however, presenting opportunities for Parks & Open Space to find new solutions to parking capacity issues that have been a safety concern for many years. An amendment to the management plan is necessary in order to move forward with the design and construction of a new trailhead. In the meantime, the property will remain closed until a new parking area can be constructed and the remaining trail repairs can be completed. The project web page is available at BoulderCounty.org/anne-u-white-trail.

An Opportunity to Address Long-Standing Safety Concerns with Flood Recovery Project
The popularity of the Anne U. White trail has grown since it first opened in the late 1980s. So much so that the former five-car parking area located at the end of Pinto Drive had insufficient capacity to meet the parking demand that could at times exceed 40 vehicles on pleasant weekends. During those busy times, significant overflow parking occurred on the shoulder of Wagonwheel Gap Road. Congestion on the road has created safety concerns for vehicles, pedestrians, and emergency responders; and illegal parking has negatively impacted neighbors.

The 2013 flood created significant devastation in the area and flood recovery has been multi-faceted. In addition to the Anne U. White Trail repair project, Boulder County Transportation has completed the Wagonwheel Gap Road repair project and the adjacent stream restoration project. Boulder County also acquired two parcels on Pinto Drive adjacent to the Anne U. White Trail through the flood buyout program. Parks & Open Space staff is also currently working with another neighbor adjacent to the buyout parcels to secure a property donation that will—along with the right-of-way at the end of Pinto Drive—provide an opportunity to create additional parking capacity and other trailhead amenities.

Property History and Existing Management Plan
The existing management plan for the trail area is the Fourmile Canyon Creek Park Management Plan.
Plan (attached). The plan was adopted in 1985 after public opposition to proposed road construction in the canyon and Boulder County acquired sufficient property interests to secure the right to manage and maintain the trail corridor that is present today. It was during this time that Gilbert and Anne U. White donated a parcel of land to the county that was key to the success of the trail. Gilbert White is known for his prominent contributions to floodplain management policy. Anne U. White, for whom the trail is named, was an early member of POSAC, the Parks & Open Space Advisory Committee serving from 1976 to 1982.

The 1985 management plan recommended that the existing informal trail be maintained as a foot trail. It discouraged horse travel because the trail is extremely narrow in places and the riparian habitat and creek itself, which are relatively pristine, could be adversely impacted. These conditions remain true today. The management plan also recognized that if a loop trail to Eldorado Canyon State Park were to be completed the foot trail should be improved for equestrian use. Such a loop trail is not currently in any stage of planning. While the trail is currently designated for pedestrian and equestrian use, staff recommends that the trail be designated only for pedestrian use to protect the unique riparian resource values present in the canyon. In addition, equestrian safety is a concern; the narrow canyon is most suitable for constructing only the footpath using multiple stone crossings.

Planning Considerations

Trail Visitation and Parking Demand
Trail visitation data from six weekends in 2013 has been analyzed to confirm assumptions about parking demand (see Summary of Parking Demand Analysis, attached). It demonstrates that on pleasant weekends there is consistent demand to accommodate 20 to 30 vehicles. The data corroborates anecdotal information from ranger staff, neighbors, and others who have reported that prior to the flood, 20 to 30 vehicles, and sometimes more, consistently parked along Wagonwheel Gap Road on weekends with varying degrees of compliance with posted No Parking signs.

Planning Area and Physical Constraints
A planning area has been identified for study for a potential trailhead that is made up of Pinto Drive, a portion of the buyout lands, and the potential acquisition from the neighbor (see Parking Study Area, attached). Consistent with the general description of the lands described in the management plan, the physical and spatial considerations influencing the design and extent of the potential parking area include a steep, erodible slope generally to the north, and Fourmile Canyon Creek and its associated floodplain and valuable riparian habitat generally to the south. To the west, the planning area is limited by a pinch point where the creek turns south from the toe of the steep slope. The area of Pinto Drive where parking occurred prior to the flood occupies the eastern portion of the planning area.

Initial Analysis and Concept Plan
An engineering analysis was conducted to determine a viable footprint within which a new, expanded parking area could be designed and constructed (see Concept Plan, attached). Preliminary information from the engineering analysis is being used by a multi-disciplinary team of county staff to develop design criteria for the parking area, including a stream restoration component, that would expand parking capacity and also support natural resource values along the riparian corridor. While the information is still preliminary, it appears that
capacity for 15 to 20 vehicles is most feasible. Additional capacity (up to 30 vehicles) will be evaluated once better topographic information is available and the turning radius necessary for emergency vehicles and/or snow plows is better defined.

Considerations for a Restroom
Staff has received input over the years about the desire for a restroom at this location. Staff believes that this would be an appropriate amenity to provide here given the extent of visitation and the proximity of the creek. Almost all of the proposed trailhead area is in the floodplain. This is a permitting constraint that may limit the size and location of such a facility. Since a funding source for the project has not yet been finalized, a permanent restroom facility may be part of a second phase of construction after the parking area is opened.

Overflow Parking Considerations
Parks & Open Space staff has also been working with Transportation staff as part of the flood recovery process for this area. This coordination will continue as the trailhead design is developed. Given the constraints in the planning area, it does not appear feasible to accommodate the expected parking demand during the highest periods of visitation at the expanded parking area. We are working with Transportation and parks rangers to identify methods for managing this concern and will have a plan in place prior to reopening the property.

Wildfire Concern
Neighbors have also expressed concern about increased wildfire threat from visitors to the trail. Staff plans to initiate a more focused discussion with the fire district and immediate neighbors about potential wildfire mitigation actions that could occur along the trail corridor.

Public Process
A neighborhood meeting was held on the evening of Tuesday, Nov. 13, at the North Broadway Campus. The meeting was attended by four neighbors. The attendees supported the parking concept plan and the components of the proposed amendment as outlined in the staff recommendation below. They were most concerned about seeking to construct as much parking capacity as reasonable, having a well-formed plan for parking management and enforcement on Wagonwheel Gap Road, constructing a restroom, and reducing wildfire risk. Comments received by email reiterated these concerns.

The staff recommendation below was brought to the Parks & Open Space Advisory Committee (POSAC) on Thursday, Nov. 15. After a staff presentation, POSAC made a recommendation to BOCC in support of the staff recommendation outlined below.

Next Steps
The final design for the parking area and trailhead will be developed in early 2019 by our multi-disciplinary team based on the scope and scale of the facility that is approved by BOCC in the management plan amendment. We are striving to construct the parking area next spring in order to reopen the Anne U. White Trail in the early summer.
Staff Recommendation
Staff is recommending that the Anne U. White Trail Management Plan (a/k/a Fourmile Canyon Creek Park Management Plan) be amended to allow for expansion of the parking area that incorporates the following considerations:

- **Parking capacity may be expanded** to accommodate up to 30 vehicles (at least 15 to 20 vehicles seem feasible).

- **Flood resilience** should be a significant component of the design (e.g., 100-year flood design, boulder toe wall, etc.)

- **Stream restoration** is an important component of the project. Consideration should be given to supporting montane riparian ecosystem functions in the overall design.

- **A permanent restroom** facility may be constructed assuming a suitable location can be permitted.

- The Anne U. White Trail shall be designated for **pedestrian use only**.

- **A plan for managing parking and other safety and enforcement concerns** on Wagonwheel Gap Road during periods of high visitation shall be developed in coordination with the Transportation Department, law enforcement, the local fire district, and neighboring land owners prior to reopening the trail.

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**Action Requested**
Approval of the Amendment to Anne U. White Trail Management Plan (a/k/a Fourmile Canyon Creek Park Management Plan) as described above and as further described by staff at the BOCC hearing.

Suggested motion language: I move approval of the Amendment to Anne U. White Trail Management Plan (a/k/a Fourmile Canyon Creek Park Management Plan) as staff has described.

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**AMENDMENT ADOPTED:**

Chair, Board of County Commissioners ________________________ Date ____________________
FOURMILE CANYON CREEK PARK
Management Plan

LOCATION AND ACCESS

Fourmile Canyon Creek Park is located west of Bow Mountain Subdivision. Access to the area is via Pinto Drive in the Bow Mountain Subdivision located south of the junction of Lee Hill Drive and Old Stage Road in an area northwest of Pinebrook Hills Subdivision and south of Boulder Heights subdivision. The park is 4.8 miles from the Courthouse Annex, 9.2 miles from the Walden Ponds Field Station, and 4.4 miles from Buckingham Park, the nearest patrolled park.

The property consists of three tracts of land: an 80+ foot right-of-way easement on and along Pinto Drive, 55 acres at the mouth of the canyon and a 54.83-acre conservation easement that includes land south of Fourmile Canyon Creek and land to the north of the creek which is generally within an elevation line 20 feet above the creek bed and 25 feet from the center line of the creek bed.

ENVIRONMENT

Fourmile Canyon Creek Park is located in Sections 9, 10 and 11 of T1N, R71W of the sixth P.M. The park is situated at an elevation of approximately 6040 feet above sea level. The area has an average annual temperature of 44-48°F and receives on the average, 18-24 inches of precipitation annually and has 80-120 frost-free days (average) (Mutel, 1976).

The park lies entirely within Fourmile Canyon. The park and areas adjacent are drained by Fourmile Canyon Creek. The area has been subject to periodic flooding. The canyon creates an environment cooler than surrounding, upland sites because of cold air drainage and stagnation. The park, surrounding the creek bed, has a substrate that is primarily a sandy alluvium material weathered from granite.

BIOTA

The park is in a lower montane riparian ecosystem which is characteristically rich in plant and animal species. The overstory species with a coverage of 25-50% include ponderosa pine (Pinus ponderosa) and Douglas fir (Pseudotsuga menziesii) as well as narrowleaf cottonwood (Populus angustifolia) which is less common. The understory has a coverage of 25% and is a mix of ponderosa pine and Douglas fir. Shrub layer is composed of thinleaf alder (Alnus tenuifolia), willow (Salix sp.), Douglas fir, ponderosa pine and cliff Jamesia (Jamesia americana). The herbaceous layer is diverse and includes the following species: wild strawberry (Fragaria vesca), wild sasparilla (Aralia nudicaulis), Oregon holly grape (Mahonia repens), harebell (Campanula rotundifolia), northern bedstraw (Galium boreale), sedges (Carex ssp.), orchard grass (Dactylis glomerata) and bluegrass (Poa pratensis).

Aralia nudicaulis is listed as a critical plant species (G4S2) by the Colorado Natural Heritage Inventory.
Montane riparian systems provide ample food, water and cover for wildlife. Small mammals that are common in these ecosystems are water shrew, montane vole and western jumping mouse. Larger herbivores are muskrat and beaver. These ecosystems typically have a great diversity of nesting birds. On a recent visit to the park, signs of porcupine and deer were observed. The diversity of wildlife using the property is undoubtedly high and one day of observations can not adequately document the habitat utilization by wildlife.

HISTORY AND ACQUISITION

Fourmile Canyon Creek Park is designated as an archaeologically sensitive area by the Boulder County Comprehensive Plan. Many of the canyons were utilized as travel routes by prehistoric and historic peoples of the area. Recently, Fourmile Canyon Creek has been used by local residents for hiking and by equestrians.

In 1983, the development companies of Eaton Investors and Boulder Heights, Inc. proposed the development of thirty-six 35-acre parcels on a 1234-acre piece of property between Boulder Heights and Pinebrook Hills. As first presented, the lower end of the access road system would utilize a portion of Fourmile Canyon and the Fourmile Canyon Creek corridor. The very narrow and scenic Fourmile Canyon is one of the few roadless canyons in the foothills surrounding Boulder and has been traditionally used for hiking and other activities. In addition, the canyon was designated as a potential trail corridor in the Boulder County Comprehensive Plan and could provide an important link in a close-in trail loop reaching Eldorado Canyon State Park. Public opposition to road construction in the canyon led to a temporary order by the Board of County Commissioners prohibiting use of the County-owned one-foot outlets for further access to the property. The closure resulted in negotiations between the private owners and the County to find an alternative access. In 1984 the Boulder County Parks and Open Space Department purchased right-of-way through a parcel located north of the creek. This, along with a right-of-way over a County outlet to the north was conveyed to the developers in exchange for the following:

- fee simple title to three lots at the mouth of the canyon (total acreage of 55);
- 80-foot right-of-way easement along Pinto Drive (outside boundary of the developer's property from the outlot west to lots);
- conservation easement covering all land from the southern boundary of the property to approximately 25 feet north of the creek (54.83 acres);
- public trail easement through Fourmile Canyon Creek corridor.

MANAGEMENT RECOMMENDATIONS

In accordance with the trail designation listed in the Boulder County Comprehensive Plan, staff recommends that an informal trail existing through the property be initially maintained as a foot trail and if the loop to Eldorado Canyon State Park is complete it should be improved for equestrian use. The trail is extremely narrow in places and since the riparian habitat and creek itself are relatively pristine, horse travel in the creek or close to the bank should be discouraged. A small bridge should be constructed where the trail crosses the creek to minimize soil erosion of the creek banks and to facilitate use of the trail. While no noxious weeds are present in large numbers at the park, white sweet clover (Melilotus alba) grows in dense stands.
on the road bed that is the first part of the trail. Populations of this species as well as other high-standing exotic weeds in or adjacent to the trail should be controlled mechanically.

A small parking lot should be installed in the area indicated on the attached map. This is inadequate for horse trailers. If the trail is lengthened to increase the desirability for horse travel, a car-trailer parking lot should be installed to the south of the creek as indicated on the map.

A park bulletin board with rules and regulations and trail map should be installed at the trailhead. Camping and ground fires should be prohibited because of the increased fire hazard to three nearby mountain subdivisions. The park should be patrolled several times a week during park summer use.

The close proximity of the area to an urban center as well as the ecological qualities of the park make the area desirable for interpretive activities. Further, the first 0.5 mile of trail could be easily maintained as handicap-accessible and will provide recreational and educational opportunities for other special populations as well.
MEMORANDUM

To: John Hinkelman, Planner
   Land Use Department
From: Nancy Dayton, Parks & Open Space
Subject: POSAC Recommendation on 4-Mile Creek Canyon Trail Management Plan

At their meeting on May 23rd, the Parks and Open Space Advisory Committee recommended approval of the Parks staff recommendations for management of 4-Mile Creek Trail with the following exception. The first paragraph on page 3 should contain a statement that if the level of use increases, the Parks staff will conduct a neighborhood meeting to determine an appropriate location for additional parking.

Since the meeting, the Parks staff has rewritten the first paragraph on page 3 to read:

Parking is currently along Pinto Drive, especially at its intersection with Wagon Wheel Gap Road. If the level of public use indicates additional parking is required, a small parking area could be established as indicated on the attached map. This would be inadequate for horse trailers. If the trail is lengthened to increase the desirability for horse travel, a car-trailer parking lot could be installed to the south of the creek as indicated on the map. In the event public use indicates a need to address the parking issue, staff should hold a meeting with neighboring landowners to seek input of the residents before any parking improvements are initiated.
Summary of Parking Demand Analysis for Anne U. White Trail

Trail counter data for 6 weekends between May and September 2013 including Memorial Day (5/27) and Labor Day (9/2) was analyzed for a total of 14 study days. Hourly demand is shown in Figure 1.

- Estimate based on 2.2 passenger/vehicle staying parked for 2 hours
- Peak visitation = 9:00 a.m. and 3:00 p.m.
- Parking demand ranged from 7 to 40 vehicles during peak visitation period
- Much of the time, the demand was for 20 cars or fewer

Daily minimum and maximum demand during peak visitation on each of the 14 study days (Figure 2) was analyzed and the following was observed:

- 12 of 14 days had a minimum demand between 10 and 20 vehicles (outliers=9 and 27 vehicles)
- 3 of 14 days had maximum demand above 30 vehicles (36, 37, and 40 vehicles)
- On 5 of the 14 days (36%), a 20 car lot would have had sufficient capacity.
- On 7 of the 14 days (50%), a 25 car lot would have had sufficient capacity.
- On 11 of the 14 days (79%), a 30 car lot would have had sufficient capacity.

Question for planning: How will parking demand in excess of future capacity be managed?
Study Area for Parking Expansion

Former location of parking (pre-flood)

Potential Land Acquisition

Existing County Right-of-Way

Flood Buy-Out Property
Concept Plan

- Acquisition
- Retaining wall
- Turn-around
- 5-7 cars
- 10-12 cars
- Stream restoration
- Vault Restroom
- *15 -19 cars total

Anne U White Trail
Management Plan Amendment
BOCC Hearing
December 13, 2018