

TO: Open Space Board of Trustees

FROM: Tracy Winfree, Director, Open Space and Mountain Parks
Mark Gershman, Environmental Planning Supervisor
Steve Armstead, Environmental Planner

DATE: January 13, 2015

SUBJECT: Study Session: North Trail Study Area Plan Refined Scenarios

I. PURPOSE

The purpose of this study session is for the Open Space Board of Trustees (OSBT) and staff to discuss community-suggested revisions to the refined scenarios (“A” and “B”) for the North Trail Study Area (TSA) Plan; and for the OSBT to provide feedback about preferences for a scenario upon which to base the draft North TSA Plan.

In an effort to streamline the memo, content will focus primarily on new and updated information with background information and prior process materials available in attachments and by accessing web hyperlinks. Should additional time be necessary for the study session, staff has reserved City Council Chambers for continuing the meeting on Jan. 14. Additionally, Heather Bergman of Peak Facilitation will be facilitating the meeting to help ensure we achieve our ambitious schedule.

II. QUESTIONS FOR THE BOARD

1. Does the OSBT have questions or comments on the community input about the refined scenarios?
2. What specific actions or changes to the refined scenarios do OSBT members consider desirable and feasible to better balance the interests?
3. Which of the refined scenarios and corresponding revisions do OSBT members suggest staff advance as a preferred scenario to use as the basis for a draft plan?

III. BACKGROUND

The North TSA

The [North TSA](#) includes Open Space and Mountain Parks (OSMP) lands north of the Diagonal Highway and Linden Avenue. The North TSA Plan will include management recommendations for 7,701 acres that OSMP owns and manages in this area. The goal of the North TSA Plan is to improve visitor experiences and increase the sustainability of trails and trailheads while conserving the area’s natural, cultural and agricultural resources. Additional background on the plan and process is available in Attachment A.

The Planning Process

The North TSA planning process includes the following four phases:

1. Collecting and compiling information about current conditions and management practices in the TSA.
2. Identifying key interests and issues that need to be addressed in the plan.

3. Assessing scenarios resulting in the selection of a preferred scenario and recommended actions to include in a draft plan. This is the current phase of the process. The community, the OSBT and staff have participated in this assessment.
4. Reviewing the draft plan by the community, the OSBT and recommendation and acceptance of the plan by City Council.

North TSA Plan Scenarios

Staff initially created four preliminary scenarios for the North TSA Plan that incorporated and sought to balance community interests. Staff refined the four [preliminary scenarios](#) into two [refined scenarios](#) based on community and OSBT feedback.

A table summarizing significant actions and differences between the refined scenarios to balance interests is available in Attachment B. A [summary table comparing the scenarios](#) is available online along with the scenario [maps and tables](#) describing the actions relevant to the scenarios. The scenario tables identify the intended interests that the recommended actions achieve.

Staff hosted a public workshop on Dec. 10, 2015 to share information and seek feedback on the refined scenarios. After the workshop, there remained an opportunity for the community to provide feedback through Jan. 3.

Staff asked for comment on the following questions:

- What scenario are you commenting on?
- Why did you think the scenario needed to be revised?
- What interest(s) were not sufficiently met and why?
- What one change would you make to the scenario and why?
- Considering the change suggested above, what other change(s) would be needed to maintain the overall balance of the interests?
- What, if any, additional changes would you suggest to improve the scenario and maintain the overall balance of the interests?

IV. ISSUES

Community Feedback on Refined Scenarios

Community members were able to provide feedback on the refined scenarios at the Dec. 10 community workshop and online. Comments from both the workshop and those received online were combined, and are available in a [detailed table](#). A large number of emailed comments that were sent to the OSBT and staff are also included in the [compendium](#). Many of the comments indicated support for a particular scenario and why it was preferred. Fewer respondents provided suggestions for how either of the scenarios could be improved. For comments where changes were suggested, staff has identified some of the common themes and some specific suggestions proposed for the scenarios. These themes and suggestions are highlighted below with a detailed analysis of feedback in Attachment C.

Some of the themes that apply to both scenarios include interest in or support for:

- Retaining Joder's Habitat Conservation Area (HCA) designation due to its important drainages, high-quality shrub-nesting bird habitat, exposed rock and cliff habitat, rare plants and plant communities, elk and deer habitat, and rare and imperiled butterfly habitat.

- Designating Joder as a Natural or Passive Recreation area due to the trail access proposed on the property as well as the fact that it is a former recreation site, former working horse ranch and that it borders a major highway.
- Providing a connection from Boulder Valley Ranch to Niwot Road via the North Rim Trail and Axelson property.
- Including both of the proposed Joder connectors (east and west of US 36) in both scenarios.
- Including the proposed underpass at US 36 in both scenarios.
- Expanding or eliminating temporal activity management for the Joder Connector and Joder trails.
- Providing mountain bike access on the Old Kiln Trail.
- Closing a greater number of agricultural Northern Properties to public access and clearly marking which properties are closed and which are open to the public.
- Allowing public access on the Stratton property.
- Greater off-leash access.
- Less off-leash access.
- Adding more restrooms at trailheads.

In addition, concerns were expressed about:

- The safety of underpasses for equestrians.
- The resource impacts and impacts to neighbors' privacy of the proposed Wonderland Lake fishing/educational pier, access to the cattail marsh, and construction of a shade structure.

Themes specific to each of the scenarios are provided below. In addition to general themes, specific suggestions for improving the scenarios and recommended corresponding actions to maintain the balance are indicated in the accompanying tables.

Scenario A

There was support for:

- The east of US 36 Joder connection because it minimizes habitat fragmentation and impacts to important drainages and high biodiversity area, allows for more sustainable trail construction and maintenance and would involve fewer permitting and bridging challenges, provides improved connectivity and helps plan for resilience of our open space lands in this era of global warming.
- The route northeast along the drainage from Longhorn Road to be constructed if it can be done sustainably.
- The directional regulations on the Joder loops.

There was interest in these changes:

- Re-routing the eastern portion of the Joder Interim Trail off of the access road and onto a single track with a lower gradient.
- Aligning trails on the Joder property in a way that would minimize impacts to resources, with the suggestion of perhaps only including one loop trail.
- Retaining the existing on-leash access for dogs on Lefthand Trail.

- Providing more off-leash opportunities.
- Not allowing horse trailer parking at the Boulder Valley Ranch agricultural headquarters.
- Not allowing horses on Hogback Trail.
- Making the Lefthand Trail connection on-trail from Cobalt to Neva Road to protect the mixed shortgrass prairie area, burrowing owls, rattlesnakes, prairie dogs and other resources east of 36.
- That if one (or two) loop alignment(s) can be found on Joder that do not impact the resources, designate them for bikes with directional restrictions, no-bikes on Tuesdays and Sundays, and as dog-free trails to provide for the quiet hiker interest and to decrease visitor conflict.

Table 1: Scenario A suggested change with actions to maintain balance of interests

| Proposed Change | Actions to Maintain Balance |
|---|--|
| Suggestion to not designate the railroad grade social trail. Close, restore and discourage the re-establishment of undesignated trails in the HCA per the Grassland Plan. | Allow access to the currently existing railroad grade social trail through OSMP guided hikes to preserve the HCA and increase education and understanding of the importance of the area. |

Scenario B

There was support for:

- The Joder connector on the west side of US 36 because it provides a more direct connection, and is safer because it does not require crossing US 36.
- Using the existing railroad grade as part of this connection because it provides a better visitor experience on a more interesting and scenic trail.

There was interest in these changes:

- Including the Longhorn Road east of US 36 connector trail in addition to the west of US 36 connector trail.
- Creating two parallel trails west of 36 in an effort to separate activities and decrease visitor conflict.
- Allowing bikes on Joder connection all days. This would spread use more evenly across the system.
- Designating horse trailer parking at Boulder Valley Ranch near the public riding arena.
- Retaining the east-west gliding access trail west of Wonderland Lake (as proposed in Scenario A) and re-routing it so it can be more easily maintained.
- Prohibiting large group activities west of US 36 (outside connector trail)
- Designating the Interim Joder Trail as Voice and Sight for dogs or Voice and Sight on corridor (if Joder remains an HCA) to balance the new proposed no dog loop trail.
- Maintaining the current and historical Voice and Sight designation on the Buckingham Trail to be fair to local neighborhood visitors who are accustomed to this access.
- Adding a traffic light at Neva Road to slow down traffic along Broadway.

- Waiting until the land where the McGuckin’s warehouse is can be purchased and used for the trail alignment to minimize impacts to resources.

Table 2: Scenario B suggested change with actions to maintain balance of interests

| Proposed Change | Actions to Maintain Balance |
|---|---|
| Add two bikeable loops on Joder. | Add directional travel on loops rather than spatial or temporal separation. |
| Alternating bike/no bike days for trails to and around Joder Ranch. | Consider having three non-bike days instead of just two. |
| Keep the single-track parallel to the Eagle and Sage Trails as proposed in Scenario A. | Dogs on BVR trails should be on leash. |
| Allow bikes on Joder connection on all days. This would spread use more evenly across the system. | Consider restricting bikes from other trails to decrease visitor conflict instead of using temporal restrictions. |

Boulder County Feedback on Refined Scenarios

Boulder County Parks and Open Space (BCPOS) staff provided comment on the refined scenarios which highlighted both the importance of a trail connection from Foothills Trail to the Joder property and their observation that there are a significant number of environmental resources which have been identified in the Boulder County Comprehensive Plan (BCCP) on the west side of US 36. Based upon those factors and the comments received by county staff regarding this trail connection, they supported efforts to identify an alternative for planned improvements that are acceptable to the variety of interests. In addition, county staff:

- expressed their support for city management of the Beech Pavilion and the proposed management of the properties in the North Sub-Area in either scenario
- recommended that plan
 - include guidance regarding the North Rim Trail,
 - show the LoBo and IBM Connector Trails on relevant maps
 - include parking for passenger vehicles at the Joder Trailhead

The full text of the BCPOS comments can be found in Attachment D.

Comparison of East and West Side Joder Connector

Determining a trail connection from Foothills Trail to the Joder property (“the Joder Connector”) is an important component of the North TSA Plan. Both scenarios integrate how the Joder Connector is accomplished as part of the package of actions to balance interests in each scenario. Scenario A includes a range of actions with the Joder Connector on the east side of US 36. Scenario B has another set of actions with the Joder Connector on the west side of the highway. Table #3 provides some examples of the associated actions that coincide with the location of the Joder Connector. What, where and how the different recreational activities are managed are also related to balancing interests in both scenarios but not addressed in the summary table below.

Table 3: Actions associated with the Joder Connector

| Scenario A (East Side) | Scenario B (West Side) |
|--|---|
| Passenger vehicle parking at Schooley property | Passenger vehicle parking at Dagle property (west |

| Scenario A (East Side) | Scenario B (West Side) |
|---|---|
| (east side of US 36) | side of US36) |
| Designation of part of the railroad grade social trail as a designated trail in the North Foothills HCA | Partially rerouted Joder Interim Trail |
| Two adjacent loop trails on Joder | Two separated loop trails on Joder |
| Off-trail permits allowed in North Foothills HCA | Off-trail permits not allowed <i>west of</i> trail in North Foothills HCA |
| Designate parallel single-track around Eagle and Sage Trails | |
| Create a smaller loop trail in addition to the larger loop trail at Wonderland Hill | |

Staff assessed conceptual routing options for both the east and west side Joder Connectors. West side conceptual routes include options that work to reduce natural resource impacts and keep the trail as far east as possible. Key natural resources considered include the Schneider Draw and other riparian corridors, wetlands, shale barrens, rare plants and communities, and high-quality native grass and shrub communities. Options considered such as routes leaving Foothills Trail east of the railroad grade, staying on the railroad grade and using sections of the railroad grade except when minimizing resource impacts were best achieved by a route off of the railroad grade.

Potential east side conceptual routes included options that provide a more direct connection west of Lefthand Trail that could also provide a more enjoyable experience than the existing trail. Options considered included a route adjacent to US 36, a connection between Lefthand Trail and US 36 and various more direct connections to Lefthand Trail. Travel distance, terrain, trail sustainability, visitor experience and natural resources were key factors in assessing conceptual routes on the east side of US 36.

Through recent site assessments in the field and with the assistance of GIS, staff has learned more about natural resource and trail design considerations for the east and west side connections. Tables #4 and #5 include some of the specific considerations. Additional information is available in Attachment D.

Table 4: Trail design and visitor experience factors

| Scenario A (East Side) | Scenario B (West Side) |
|--|--|
| Distance from Foothills Trail intersection with railroad grade social trail to the Joder property is approximately 4 miles. | Distance from Foothills Trail intersection with railroad grade social trail to the Joder property is approximately 3 miles. |
| Route requires 5 road crossings, one existing at US 36 box culvert at Foothills Trailhead and four new (North Broadway Street, Longhorn Road, Neva Road, and US 36). | No road crossings. |
| New diagonal trail link would have good views of west Boulder foothills and the surrounding grasslands. | Trail integrates northern section of railroad grade social trail and will require some improvements for water drainage and increased use levels. |

| Scenario A (East Side) | Scenario B (West Side) |
|---|--|
| The new trail link will have sustainable grades on 25 - 35% cross slopes. Lefthand Trail and the new diagonal link trail are located on clay soils with poor drainage. Areas of poor drainage will need to be surfaced. | Where the trail descends to cross Schneider Draw the grade exceeds cross slope resulting in conditions that are difficult to maintain over the long term. Elevation must be regained north of the draw where grades relative to cross slope result in conditions where it is difficult to maintain trail sustainability. |
| Minimizes total number of wetland crossings and likely will only require one bridge. Wetland permit required for crossing. | Trail would need to cross eleven drainages with the potential of many of the crossings requiring bridges to minimize impacts to natural resources. A wetland permit would be required for all crossings. |
| Northwest facing slope typically holds snow and ice and dries slowly requiring more frequent muddy condition closures. | East facing aspect will warm and dry faster after rain/snow events thus reducing muddy condition closures. |
| Creates a new loop trail option. Remote feeling along new loop section north of Longhorn Road with substantial distance from US 36 and good views of grasslands and foothills. | Provides the opportunity to feel remote, enjoy a rugged experience with sweeping views of the plains. |
| Limited diversity in terrain and vegetation types, similar to experience along Lefthand Trail. | Varied terrain features with a diversity of vegetation. |
| Cost factors include new trail construction, a new bridge, and underpass at US 36. Approximately \$600,000 for trail and bridge and \$2 million for box culvert underpass at US 36. | Cost factors include new trail construction and new bridges to minimize resource impacts at drainage crossings. Approximately \$800,000 for new trail and bridges. |

Table 5: Natural resource factors

| Scenario A (East Side) | Scenario B (West Side) |
|---|---|
| Crosses one mapped drainage. | Crosses 11 mapped drainages. |
| Lies within a grassland complex designated as a Best Opportunity Area for restoration in the Grassland Plan. Crosses the edge of the surrounding area indentified as an Environmental Conservation Area in the Boulder County Comprehensive Plan. | Crosses Schneider Draw, one of the two highest quality riparian areas identified in the Grassland Plan and which is designated for conservation. (The other is the Coal Creek corridor, which lies outside the North TSA, and is a plains, rather than montane riparian system.). Lies within a grassland complex designated as a Best Opportunity Area for Conservation in the Grassland Management Plan. Area is identified as Critical Wildlife Habitat and an Environmental Conservation Area in the Boulder County Comprehensive Plan. |
| Does not cross seep wetlands. | Crosses or adjacent to ground water supported “seep” wetlands which are uncommon on OSMP-managed land. |
| Is primarily situated in a grassland community dominated by needle-and-thread grass, which is uncommon on OSMP-managed lands. | Bisects two stands of the rare New Mexico feathergrass community. Bisects intact blocks of xeric tallgrass, a globally-rare ecosystem which |

| Scenario A (East Side) | Scenario B (West Side) |
|--|---|
| | provides habitat for several state-imperiled butterfly species |
| Impacts small, unmapped shale barren without known Bell's twinpod occurrence. | Impacts shale barrens - an uncommon and sensitive habitat on OSMP, which supports Bell's twinpod, a plant found in only shale outcrops in Boulder and Laramie counties and nowhere else in the world. |
| Minimizes impact to prairie dog colonies. Area is in rattlesnake habitat but not in a known area of high concentration of rattlesnakes. | Bisects multiple prairie dog colonies, which are highly suitable habitat for rattlesnakes and provide raptor foraging habitat. |
| Minimizes impacts to upland and riparian woodland communities by crossing drainage in areas dominated by herbaceous plant species and minimizes length of trail in shrublands. | Trail sections located in high quality riparian woodland communities |
| Increases fragmentation of an already-fragmented drainage. | Increases fragmentation of some of the last OSMP foothills drainages currently without designated recreational infrastructure. |
| Trail construction will require a wetland permit; permit application requires an evaluation of alternatives to minimize impacts to wetlands. Demonstration of minimization will be relatively straightforward. | Trail construction will require a wetland permit; permit application requires an evaluation of alternatives to minimize impacts to wetlands. Demonstration of minimization may be relatively challenging. |

V. NEXT STEPS

Staff will integrate the feedback from the OSBT to revise the refined scenarios to improve the balance of interests. Staff will then draft the North TSA Plan based on the improved scenario that is most preferred by the OSBT. With such feedback, staff intends to have a draft plan ready for community review in late February and presented to the OSBT in March.

The North TSA Plan will include recommendations for new trails that may be important links to advance regional trail connections. OSMP anticipates continued coordination with Boulder County, City of Boulder Parks and Recreation, and other partner agencies to participate in the development of a regional trail network consistent with the Boulder Valley Comprehensive Plan.

ATTACHMENTS:

- A: North TSA Plan and Process Background
- B: Actions Associated with the Refined Scenarios
- C: Summary of Refined Scenarios Feedback
- D: North TSA Refined Scenarios Feedback from Boulder County
- E: Comparison of Eastern and Western Joder Connector Opportunities

ATTACHMENT A: NORTH TSA PLAN AND PROCESS BACKGROUND

Trail Study Area Plans

In 2005, the Boulder City Council approved the Open Space and Mountain Parks (OSMP) Visitor Master Plan (VMP). An integral feature of the VMP was the creation of Trail Study Areas (TSAs). TSA plans were to establish visitor access and recreation resource management priorities and projects for specific areas of OSMP lands.

The North TSA

The [North TSA](#) includes lands north of the Diagonal Highway on the east and lands north of Linden Avenue on the west. The North TSA Plan will include management recommendations for 7,701 acres that OSMP owns and manages. The North TSA planning area includes land with some level of city open space ownership, but where OSMP does not provide or manage public access (conservation easements, lands jointly owned with and managed by Boulder County). Lands not managed by OSMP are outside the scope of the North TSA but do provide important context for plan recommendations. The goal of the North TSA Plan is to improve visitor experiences and increase the sustainability of trails and trailheads while conserving the area's natural, cultural and agricultural resources.

The Planning Process

The [planning process](#) has four phases. The first phase focused on collecting and compiling information about current conditions and management practices in the TSA. The primary deliverable for the first phase was the inventory and assessment report which was available on June 15, 2015.

The second phase identified key interests and issues that need to be addressed in the plan. The interests and issues along with the inventory and assessment information informed and guided the development of alternative scenarios which are ways to meet interests or address issues. This phase resulted in a list of interests and potential actions to help direct the development of scenarios.

During the third (current) phase, staff, the community and the Open Space Board of Trustees (OSBT) will assess scenarios, resulting in the selection of preferred recommended actions to include in a draft plan. This part of the planning process will conclude with the completion of a draft plan.

The fourth and final phase includes the review of the draft plan by the community, the OSBT and recommendation and acceptance of the plan by City Council.

Community Engagement

The intent of the planning process and community engagement is to have broad community participation, inclusive dialogue and connect with the community in varied and meaningful ways. Community members have been involved through a range of different approaches including:

- Nine community workshops
- Inspire Boulder, the city's internet-based participatory platform

- On-site and local store-front engagement
- Email and social media submissions
- Youth engagement

Community participation in the assessment, interest and preliminary scenario development phases of the process has represented a diversity of perspectives in the community including people visiting trails in the North TSA, neighbors, stakeholder organizations, youth and families. Currently, 642 people have signed up to receive email updates about the plan. A complete compendium of comments received is available on the [North TSA Website](#).

Figure 1. Community Engagement Participation Levels

| Engagement Approach | Assessment Phase | Interest Phase | Expert Panels | Preliminary Scenarios | Refined Scenarios |
|---|------------------|----------------|---------------|-----------------------|-------------------|
| Workshop Participation | 60 | 36 | 65 | 155 | 70 |
| In-field, store front, neighborhood and Latino community engagement | 167 | 413 | NA | Outreach Only | Outreach Only |
| Youth engagement | 16 | 57 | NA | NA | NA |
| Totals | 243 | 507 | 65 | 155 | 70 |
| Comments on Inspire Boulder/online/email/social media comments | 105 | 115 | NA | 196 | 276 |

OSBT Hosting of the Process

The OSBT has been involved with the development of the North TSA Plan from the beginning as “host” of the North TSA Plan. The intent of this role is to make it clear that OSBT is the recommending body to the City Council and to raise the board’s visibility in different types of community forums. The role as host also supports community engagement throughout the process, providing an alternative to the three-minute public testimony approach of more traditional public hearings. As host, the board’s participation can clearly be seen by the community and the City Council as the board primarily welcomes, listens to and observes the community engagement process.

North TSA Plan Interests

The North Trail Study Area Interests and Issues [report](#) is a compilation of the perspectives and feedback provided to date during the interests and issues phase of the North TSA planning process. Community members were asked to share their interests in the planning area rather than positions. Positions describe what someone wants or needs, while an interest explains why they want or need it. If the community was asked to share ideas about positions, the final result would be distributive, rather than integrative, and a lot of people would not get what they want. Assessing the “why” of what community members want enables staff and the OSBT to better meet the needs of a diverse community and recognizes that individuals carry multiple interests about managing properties, allowing for more win/win opportunities.

Through the various engagement efforts to understand the community and stakeholder interests in the North TSA, ten interests emerged. These interests are consistent with the goal and objectives of the North TSA Plan and provided guidance for staff in the development of the scenarios. The desired plan outcomes or actions that were suggested in the effort to understand interests also informed how potential actions were combined into different scenarios.

| 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 |  |

North TSA Plan Preliminary Scenarios

Finding ways that the North TSA can be enhanced for the identified plan interests accomplishes the goal of the North TSA Plan. The interests also provided a means to focus the range and types of actions considered in the development of preliminary scenarios. Scenarios are conceptual visions of alternative trail changes, proposals for new trail connections and trailhead improvements for the North TSA that also advance efforts to conserve the area’s diverse natural, agricultural and cultural resources. Scenario maps depict concepts of a proposed set of actions that make up the scenario. Staff had three primary factors to guide the development of the scenarios:

1. Consistency with the North TSA Plan Sideboards.
2. How the group of proposed actions achieve the interests.
3. How well the scenario balances the interests.

Staff deliberately avoided the approach of developing scenarios that prioritized specific interests such as scenarios that were best for improving visitor experience or best at protecting natural resources. In determining changes and actions to include in the scenarios, staff considered suggestions made by the community as part of the public engagement effort to understand interests, information from the inventory and assessment report and ideas shared during the expert panels. The fundamental intent of each preliminary scenario is to balance all of the community interests through different combinations of proposed actions.

Balancing Interests in the Preliminary Scenarios

Each of the four preliminary scenarios sought to balance the North TSA interests in different ways. OSMP staff reviewed the inventory and assessment report and the full scope of community input from the assessment phase through the expert panels to propose ideas. The North TSA project team worked hard to listen to each other’s ideas and consider different and creative proposals for addressing the interests. Staff also understood that there are a lot of ways proposed actions could be combined to balance the interests. None of the preliminary scenarios

had the “right” mix and balance of ideas; however, the four preliminary scenarios provided a good base for integrating community feedback into the scenarios and building the refined scenarios.

To develop the scenarios, staff began with the four subareas and discussed a range of possible actions for each of the subareas. Staff then combined actions in alternative ways so the interests could be balanced across the subareas. The subareas were then combined in different ways to make up the four preliminary scenarios and further adjustments were made to balance interests. Proposed actions that were important to balancing interests across the four scenarios include:

- Regional connections,
- New trail connections,
- Trail re-development,
- Measures to avoid habitat fragmentation and conserve sensitive resources,
- Innovative ideas to manage a range of passive recreational activities and decrease visitor conflict,
- Trailhead and access improvements, and
- Education and stewardship opportunities.

A table summarizing some of the significant actions and the ways they varied between the scenarios to balance interests across the scenario is available in [Attachment D of the November 16, 2015 OSBT Study Session Memo](#). A [summary table comparing the preliminary scenarios](#) is available online along with the preliminary scenario [maps and tables](#) describing the actions relevant to all scenarios and to each of the individual scenarios. The tables describing the scenario actions identify the intended interests that the recommended actions achieve. The [regulation maps](#) for the scenarios reflect the trail changes proposed in the scenarios.

Community Feedback on Preliminary Scenarios

Staff initially presented the preliminary scenarios to the community at a workshop on Oct. 5 and provided an opportunity for participants to provide initial thoughts about the scenarios and how they did or did not balance the interests. Feedback from break-out groups and from a participant poll is available on the [project website](#). After the workshop, staff posted an online [survey](#) to gather additional input. Both the poll and the survey aimed to gather information on community perspectives about how well the preliminary scenarios balanced interests and on which interests the scenarios fell short. They were not designed to determine what changes to make to the scenarios or to select which scenarios should be refined further.

A second workshop on Oct. 19 sought feedback from participants about which of the scenarios they thought could be improved on how well they balanced the interests and to suggest changes to the scenarios that would improve the balance. Community members were able to provide feedback online for a week after the workshop. Feedback from the second workshop and online comments were combined together and are available in a [detailed table](#). Included are all comments submitted in response to the questions staff asked for feedback on:

- Which scenario was selected?
- Why was it selected?
- What changes are proposed and how do the changes improve the balance among the interests?

There was substantial community engagement and feedback during both workshops and the associated online community review and comment opportunity for the preliminary scenarios. Staff received many comments including support for the various scenarios, concerns about specific actions and suggestions on how interests could better be accomplished and balanced for particular scenarios.

Staff compiled feedback on the suggested changes to the scenarios in a separate summary table that includes proposed changes, associated rationale and if/how the proposed change(s) were incorporated into the two refined scenarios. This information is available on the [North TSA Website](#).

OSBT Feedback on Preliminary Scenarios

Staff presented the preliminary scenarios as well as the community feedback received on the preliminary scenarios to the OSBT at a Study Session on Nov.16, 2015. Staff asked the board:

- Does the OSBT have comments on the community input about which of the preliminary scenarios best balances the North TSA interests?
- Which of the preliminary scenarios do OSBT members suggest staff revise and advance as preferred scenarios?
- Are there specific actions or changes to the scenarios OSBT members think important for staff to consider in the development of preferred scenarios that balance the interests better?

Staff compiled the feedback received from the board in a table that details the feedback as well as if/how it was integrated into the two refined scenarios. This information is available on the [North TSA Website](#).

North TSA Plan Refined Scenarios

Based on community input and board feedback, staff refined the four preliminary scenarios into two refined scenarios as detailed in the Jan.13, 2016 OSBT Study Session Memo.

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ATTACHMENT B: ACTIONS ASSOCIATED WITH THE REFINED SCENARIOS

| KEY ACTIONS | SCENARIO A | SCENARIO B |
|--|--|---|
| North Foothill Trails | <ul style="list-style-type: none"> • Joder connector east of US 36 via connector from Longhorn Road to Lefthand Trail. • Out and back trail created by designating a portion of the southern railroad grade. • Two adjacent loop trails on the northern portion of Joder with seasonal closures for dogs and directional regulations for bikes. • Non re-routed Joder Interim Trail. | <ul style="list-style-type: none"> • Joder connector west of US 36 and Foothills Business Park. • Two separated loop trails on Joder with spatial and temporal separation (no dogs allowed on western loop and bikes allowed, except for Tuesdays and Sundays). • Partially re-routed Joder Interim Trail. |
| Maintaining Habitat Blocks and Resource Conservation Strategies | <ul style="list-style-type: none"> • No Joder trail connection through North Foothills HCA to maintain unfragmented habitat block. • Access to North Foothills HCA through off-trail permits. | <ul style="list-style-type: none"> • Joder connector trail in HCA. • No off-trail permits allowed in the North Foothills HCA. |
| BVR Trail Redevelopment | <ul style="list-style-type: none"> • Redevelop the entire trail system around Mesa Reservoir. • Designate and slightly re-route one parallel single-track around Eagle and Sage trails, parallel to the road. | <ul style="list-style-type: none"> • Redevelop the entire trail system around Mesa Reservoir. |
| Wonderland Lake | <ul style="list-style-type: none"> • Create a more sustainable smaller loop trail near the existing glider access trail up Wonderland Hill. • Loop trail including re-routes of existing trails. • Fishing and educational pier. • Hardened access on peninsula for education. • Shade structure near Wonderland Lake Trailhead. • Access to the cattail marsh north of the peninsula. | <ul style="list-style-type: none"> • Loop trail including re-routes of existing trails. • Fishing and educational pier. • Hardened access on peninsula for education. • Shade structure near Wonderland Lake Trailhead. • Access to the cattail marsh north of the peninsula. |
| Regional Trail Connectivity | <ul style="list-style-type: none"> • Northeast connectivity to Niwot Road by connecting with Boulder Reservoir Trails (with a preference for an alignment along 55th Street). | <ul style="list-style-type: none"> • Northeast connectivity to Niwot Road by connecting with Boulder Reservoir Trails (with a preference for an alignment along 55th Street). • Seek connectivity through Area III land. |
| Trailheads | <p>Passenger-vehicle parking at Schooley.</p> <p>Improve BVR trailheads as follows:</p> <ul style="list-style-type: none"> • Bring Eagle Trailhead up to standards, including horse trailer parking and restrooms, • Bring Sage Trailhead up to standards, including improving restroom facilities | <p>Passenger-vehicle parking on Dagle property.</p> <p>Improve BVR trailheads as follows:</p> <ul style="list-style-type: none"> • Bring Eagle Trailhead up to standards, including horse trailer parking and restrooms • Bring Sage Trailhead up to standards, |

| KEY ACTIONS | SCENARIO A | SCENARIO B |
|-------------|---|--|
| | <p>and adding equestrian trailer parking at BVR agricultural headquarters</p> <ul style="list-style-type: none"> • Bring Foothills Trailhead up to standards to meet backing requirements and add a new trailhead including horse trailer parking at the Degge Trail access point • Pave Longhorn Road to improve access to Sage Trailhead. | <p>including improving restroom facilities</p> <ul style="list-style-type: none"> • Bring Foothills Trailhead up to standards to meet backing requirements and add a new trailhead including horse trailer parking at the Degge Trail access point • Pave Longhorn Road to improve access to Sage Trailhead. |

ATTACHMENT C: SUMMARY OF REFINED SCENARIO FEEDBACK

| Concerns/Interests | Suggestions/Proposed Changes | Actions to Maintain Balance |
|--|---|---|
| BOTH SCENARIOS | | |
| N-S Joder Connector Trail | | |
| Increased Safety | Both scenarios should include safe trail crossings of US 36 at Joder Ranch and the Foothills TH. | |
| Increased Safety | Underpasses are not necessarily safe for horses, because horses spook inside them. Scenario A which includes an underpass intended for safe crossing of US 36 may not actually provide safe crossing for equestrians. | |
| Conservation of Resources | I urge OSMPB to consider a Plan C. Do nothing - leave it alone! Thank you. | Undeveloped land does not have to be accessible or developed to have purpose. People have an incessant need to dominate and alter the environment. This area is not a playground. Even the BCCP recognizes the inherent value of the area as critical wildlife habitat. Construction of trails and underpasses alone will have a negative impact. US 36 is already groaning under the weight of Boulder's ever-increasing population. It is an unarguable fact that opening up this area for any type and amount of human recreational use will be detrimental to the area, as well as increase fire danger. People = noise, traffic, trash. Dogs = poop and stressed wildlife. Please leave this area alone - it deserves our protection and preservation. |
| N-S Joder Connector Regulations | | |
| Decreased Visitor Conflict - would like to see more specifics about bike/pedestrian conflict management. Concerned about | Do not "harden" trails - make the trails less attractive for bikes speeding. Add more gates to make bikers stop to open/close. License for bikes to cross open space on specific trails such as Teller Farm or BVR. Require bikers to | |

| Concerns/Interests | Suggestions/Proposed Changes | Actions to Maintain Balance |
|---|---|---|
| dangerous conditions on trails due to excessive speeds of bikers. | attend educational sessions about bike courtesy and pedestrians. | |
| Improved Access and Accessibility | add the Northern trail west of US-36 from scenario B and allow biking week-long remove the Tuesday/Sunday banning of bikes to better balance the interests | |
| Joder Trails | | |
| Decreased Visitor Conflict, Conservation of Resources | Create totally separate loops for mountain bikers. Limit their access to any environmentally sensitive areas. Create smooth undulating trails for hikers and equestrians. | Use the abandoned railroad grade to access Joder, but create bridges over all the drainage draws to prevent erosion, silting of the ephemeral little streams. |
| Joder Trail Regulations | | |
| Decreased Visitor Conflict | Designate bike and hike days to separate them. | |
| Joder Designation | | |
| Conservation of Resources, Honoring Community Values and Commitments, Effective Planning and Implementation | Support for Joder being retained as an HCA because it contains important drainages, high quality shrub-nesting bird habitat, rare plants and plant communities, elk and deer habitat, exposed rock and cliff habitat for rock wrens and eagles, and rare and imperiled butterflies. | |
| Effective Planning and Implementation, Honoring Community Values and Commitments | Joder should not be an HCA due to the existing trails/impacts to the area. | |
| North Foothills HCA and Trails | | |
| Conservation of Resources, Honoring Community Values and Commitments, and Effective Planning and Implementation | Agreed that North Foothills HCA should be retained as an HCA due to its valuable resources. | |
| Boulder Valley Ranch (BVR) Trails | | |
| Decreased Visitor Conflict, Improved Visitor Experience | Do not allow bikes on Mesa Reservoir Trail so that horses and pedestrians can have a better experience. | |

| Concerns/Interests | Suggestions/Proposed Changes | Actions to Maintain Balance |
|--|--|---|
| Improved Connectivity | The Axelson Trail should be planned and built, and it should be built to maximize the visitor experience. The recently-proposed-and-dropped alternative to Axelson, along the shoulder (?) of N55th St, is not acceptable as a trail. This trail should be made a high priority for the NTSA. | |
| BVR Trail Regulations | | |
| Improved Access and Accessibility, Increased Education and Understanding | On the Scenario A Bike Regulations map, there is a short red ("no bike") line about 1 mile north of "Rd." in "Jay Rd." There may be a good reason for the restriction, but to someone just looking at the map, that restriction seems unnecessary. If it is lack of landowner agreement, perhaps the problem could be addressed creatively. The rest of the map seems appropriate to me. I would encourage signage that asks users to not widen trails where they get muddy; it seems that muddy trails are expected at times in some areas east of U.S. 36. | |
| Wonderland Lake | | |
| Access and Accessibility | Leave the Old Kiln Spur Trail up the hill open and close the rest. | BVR- Dogs should be leashed to prevent cattle/dog conflicts. Dogs should be prohibited in more areas. |
| Access and Accessibility, Increased Safety | Do not close the Old Kiln Trail and provide access for mountain bikes. | |
| Improved Access and Accessibility | Make it clear on the ground that Old Kiln is an out and back trail, or make it a loop as in an earlier scenario. Old Kiln Trail may be used for emergency evacuation from particularly the North Cedar Brook area of Pine Brook Hills, and therefore maintain accordingly. http://www.pinebrookhills.org/evacuation_map.html | |
| Conservation of Resources, Decreased Visitor Conflict | Do not allow dogs to be off leash on Wonderland Lake trails | |
| Conservation of Resources | The proposed wonderland lake fishing/educational pier, the access to the cattail marsh, and the proposed shade | Could the peninsula serve as this "educational pier" instead? |

| Concerns/Interests | Suggestions/Proposed Changes | Actions to Maintain Balance |
|--|---|---|
| | structure seem unnecessary and possibly damaging to the already stressed ecosystems there. | |
| Conservation of Resources, Increased Education and Understanding | Reconsider the pier on Wonderland Lake. Consider and better explain what kind of educational activities you think would be useful to provide: more interpretive signs? Walking tours enhanced by interpretive apps on phone? | Consider one or two small platforms on the east side for fishing. |
| Improved Access and Accessibility | I would like to see more gliding access in north boulder and the gliding trails restored and improved. There should be an alternate trail to the north of the existing trail in case of flood/fire damage. There should be alternate launch locations in case the main area is closed or the wind direction makes it unsafe to launch. Connect other existing trails to give more access to the gliding trails. | Mark the gliding trails with signs. Update/improve the informational kiosk for paragliding access at the parking lot near Foothills community park. It has not been updated in years. |
| Conservation of Resources, Improved Access and Accessibility | Winter access to the lake needs to be monitored for protecting the shoreline in all seasons. I'm an ice skater, so access to the ice is important, it would be great to designate a south and north access. | |
| Northern Properties | | |
| Improved Access and Accessibility, Increased Education- the Cherryvale field is a great resource for unstructured walks. Would like to see more fields available and pedestrian gates. | Pedestrian gates are needed on properties open to access, so that people are aware that they're open | Add pedestrian gates with some additional signage with information about when not to access properties due to haying/wildlife breeding, etc. |
| Improved Access and Accessibility | Open Stratton property to public access with no designated trails. | |
| Conservation of Resources | It may be impossible to maintain balance of interests and sustainability. The Open Space acquisitions in Boulder have been attractive to me primarily as "white space" on the local canvas, and only secondarily as "playground space". | We need to realize that population growth will add more intense pressure on our natural environs, and the less access we encourage, the longer it will last. |
| Conservation of Resources | I am against opening up leased agricultural properties to the public where there is not a dedicated trail. I am not | |

| Concerns/Interests | Suggestions/Proposed Changes | Actions to Maintain Balance |
|---|--|--|
| | <p>advocating for trails through these properties, I am advocating that leased, irrigated agricultural property remains closed to the public.</p> <p>In addition, I am very against opening any properties on Niwot Road, 45th Street or Neva Road due to heavy bicycle and vehicular traffic. There is no good option for parking on the side of these roads and this is a recipe for accidents and increased visitor conflict.</p> <p>I live in this area and the amount of traffic has dramatically increased since the road was paved 25+ years ago. Now that the County has added a bike lane, there is more bike traffic than car traffic on the weekends. There is conflict already between bikes, runners and cars. This is a busy road - it will be very dangerous if you add parked cars on the side of the road. (Does the County approve or allow parking on the side of the road?) Additionally, there are also "special events" every other weekend in the summer, adding to the congestion on these streets. Opening any of the properties on Neva Road, 45th Street or Niwot Road to the public is a bad idea.</p> | |
| <p>Increased Education and Understanding, Conservation of Resources</p> | <p>I understand that the properties in the Northern Area will not be marked as public access. Anyone wishing to visit these areas would need a map to understand exactly what is publicly accessible and what is not.</p> | <p>I strongly suggest that these areas are marked at the preferred access point, otherwise:</p> <ul style="list-style-type: none"> - People would not know they exist and visitors could be excluded by someone putting an informal sign up. This is very common in Boulder. - If people do access an area they may use several access points rather than one, causing damage to fences etc. |

| Concerns/Interests | Suggestions/Proposed Changes | Actions to Maintain Balance |
|---|--|---|
| SCENARIO A | | |
| N-S Joder Connection | | |
| <p>Conservation of Resources, Effective Planning and Implementation, Honoring Community Values and Commitments, and Improved Connectivity</p> | <p>East of 36 Joder connection is preferred. Complies with sideboards, minimizes habitat fragmentation and impacts to important drainages and high biodiversity area, allows for more sustainable trail construction, provides improved connectivity and helps plan for resilience of our open space lands in this era of global warming. Fragmentation from the east of 36 connection is less critical/detrimental than it would be on the west side- when creating this connection it's requested that it be constructed on the periphery of this area, along Longhorn, skirting any wetland areas, then joining the already established Lefthand trail toward the north. VMP requires that trails through HCAs be on the periphery of the property, which is violated by the proposed west of 36 connector trail.</p> | |
| <p>Conservation of Resources, Effective Planning and Implementation, and Honoring Community Values and Commitments</p> | <p>Locating the N-S Joder connection east of 36 makes for a more successful scenario because: there are erosive soils (esp. the Smokey Hills Shales found in West Beech) that would make trail built here unsustainable and difficult to maintain, an east of 36 connector would be in better compliance with sideboards and would be of comparable length and much less expensive than the N-S connection proposed west of 36.</p> | |
| <p>Conservation of Resources, Effective Planning and Implementation</p> | <p>We believe that the TSA Scenario A provides a better balance than TSA Scenario B. The main advantages are two fold.</p> <p>The Yoder trail connection through North Foothill HCA presents multiple construction and permit challenges. There is a risk that the construction budget has major challenges unknowns. It needs to create multiple overpasses. This could become a great financial liability to</p> | <p>We believe that the TSA Scenerio A provides a better balance than TSA Scenerio B. The main advantages are two fold.</p> <p>The Yoder trail connection through the East connector can be enhanced. For that reason alone, the east connector achieves similar recreational benefits with less budget and construction risk.</p> |

| Concerns/Interests | Suggestions/Proposed Changes | Actions to Maintain Balance |
|---|---|---|
| | <p>OSMP. For that reason alone, the east connector achieves similar recreational benefits with less budget and construction risk.</p> <p>Secondly, in addition, OSMP has documented that the North Foothill HCA is a hotspot of biological diversity. This poses Federal permit risks and delays. For that reason, the better balance would to avoid intrusion on and disturbance to the existing ecological balance in the North Foothill HCA.</p> | <p>We strongly support TSA Scenario A as a good balance to achieve both the recreational and natural preservation goals that OSMP is charged with.</p> |
| <p>Conservation of Resources, Improved Connectivity</p> | <p>Regional connectivity is an issue and the peripheral alignment which already exists in Scenario A could be used. The route NE along the drainage from Longhorn Rd. should only be used if it can be constructed sustainably.</p> | |
| <p>Improved Connectivity</p> | <p>Encouraged making the east of US 36 N-S Joder trail connection and network OSMP's contribution to regional connectivity (particularly the Rocky Mountain Greenway system). Any trail built through the North Foothills HCA would not qualify as part of a regional trail which by definition cannot be closed.</p> | |
| <p>Conservation of Resources</p> | <p>Make the Lefthand Trail connection on-trail from Cobalt to Neva Road to protect the mixed shortgrass prairie area, burrowing owls, rattlesnakes, prairie dogs and other resources east of 36.</p> | |
| <p>Improved Connectivity, Increased Safety, Improved Visitor Experience</p> | <p>I believe that Scenario B provides better access and will promote enjoyment by more people. Scenario A fails to provide a convenient or safe way to connect with the Joder property. The "build safer crossing" does not address this deficiency, as there would need to be significant re-routing for users coming from North Boulder. Also, any form of stoplight or crosswalk would unnecessarily impact high speed travel on Route 36.</p> | <p>I would add an additional connector to 55th Street from the Boulder Valley Ranch trails to allow for loop possibilities. This was on some of the earlier scenarios but appears absent from both current scenarios.</p> |
| <p>Increased Safety, Improved Connectivity</p> | <p>Supported underpass at US 36.</p> | |

| Concerns/Interests | Suggestions/Proposed Changes | Actions to Maintain Balance |
|---|---|---|
| Joder Trail Regulations | | |
| Conservation of Resources, Improved Visitor Experience, and Decreased Visitor Conflict | If one (or two) loop alignment(s) can be found in the Joder HCA that do not impact the resources, then designate them for bikes with directional restrictions, for no-bikes on Tuesdays and Sundays, and as dog-free trails to provide for the quiet hiker interests and to decrease visitor conflict. | |
| Decreased Visitor Conflict, Conservation of Resources | All Joder trails should require dogs on leash all the time--or else dogs should be allowed only on the interim trail, and on leash. | |
| Decreased Visitor Conflict | liked the directional regulations on the Joder loops | |
| North Foothills HCA and Trails | | |
| Conservation of Resources, Honoring Community Values and Commitments | Do not designate the railroad grade social trail. Close, restore and discourage the re-establishment of undesignated trails in the HCA per the Grassland Plan. Designation would likely lead to invasive weeds such as jointed goatgrass in this area as well as increased likelihood of visitors going off-trail into the HCA and impacting resources. | Allow access to the currently existing railroad grade social trail via OSMP guided hikes only to preserve the HCA and increase education and understanding of the importance of the area. |
| Effective Planning and Implementation, Honoring Community Values and Commitments, and Conservation of Resources | Continue to manage North Foothills HCA as an HCA, with social trails removed and restored and access permitted only through the established HCA permit system. | |
| Concerned about safety (of hikers and trail) of allowing horses on Hogback Trail. | Do not allow horses on Hogback Trail. | |
| Conservation of Resources, Honoring Community Values and Commitments | Support for North Foothills HCA being retained as an HCA. | |
| BVR Trails | | |
| Conservation of Resources | Ensure the Longhorn Road trail connecting into the Lefthand Trail minimizes impacts to wetlands and grasslands in this area and that no dogs are allowed (to | |

| Concerns/Interests | Suggestions/Proposed Changes | Actions to Maintain Balance |
|--|--|--|
| | minimize footprint and resource impacts). This trail would contribute to regional trails (specifically the Rocky Mountain Greenway system) because any trail built through the North Foothills HCA would not qualify to be designated as part of regional trail which by definition cannot be closed. | |
| BVR Trail Regulations | | |
| Decreased Visitor Conflict | Keep lefthand as leash only. There are plenty of voice/sight trails on open space, and I dare say most dogs on those trails aren't under voice/sight control. | |
| Conservation of Resources, Decreased Visitor Conflict | East of 36, the trails designated voice and sight on corridor-sounds good, but it couldn't be enforced. If you want dogs on corridor, they must be leashed. | |
| Conservation of Resources, Decreased Visitor Experience | Certain parts of the NTSA east of U.S. 36 that are planned to allow "Voice and Sight" dog access in Scenario A would be more environmentally protected if dogs were only allowed if leashed and on-trail. These areas include special habitats such as wetlands and places where wildlife such as prairie dogs might be chased. Explanatory signage may help dog guardians understand why a part of a trail has a new leash restriction. | |
| BVR Trailheads | | |
| Improved Access and Accessibility | Expand Sage Trailhead, but don't allow parking at BVR agricultural headquarters | Put the trailer parking where it's easier to access US 36, very dangerous pulling out or turning in off of 36. |
| Wonderland Lake | | |
| Concerned about safety (of hikers and trail) of allowing horses and bikers on Wonderland Lake loop trails. | Do not allow horses or bikers on Wonderland Lake loop trails | |
| Concerned about safety (of hikers) if allowing bikes on Old Kiln Trail. | Do not allow bikes on Old Kiln Trail. | |

| Concerns/Interests | Suggestions/Proposed Changes | Actions to Maintain Balance |
|---|---|--|
| Overall | | |
| Effective Planning and Implementation | Ensure the county as joint owner be consulted about all proposed changes well ahead of time. | |
| Improved Access and Accessibility | Liked the off-leash opportunities, but would like to see even more. | |
| Effective Planning and Implementation, Honoring Community Values and Commitments, and Conservation of Resources | These "interests" are basically sideboards and should not need to be equally balanced with other identified community interests. This approach disrespects the considerable conservation compromises already made in the creation of the plans which are included as sideboards. | |
| SCENARIO B | | |
| N-S Joder Connection | | |
| Improved Connectivity, Improved Visitor Experience, Increased Safety | The connector trail on the west side of US 36 provides a much more direct connection (reducing the need for cyclists to drive to a trailhead to ride; therefore, supporting Boulder's climate commitment goals), a better visitor experience, a safer experience (without having to cross US 36) | |
| Decreased visitor conflict | I would create two parallel trails along the west side of 36 to separate user groups...and to allow for the diversion of traffic from one to the other in times of poor conditions. One of the trails would be less direct adding a more interesting route for bicycles and trail runners. the more direct route could be for horses, hikes, families, an those with dogs. When creating the trail take note of the "wind Tunnels" that flow through the area, here, more attention to trail tread should be applied. | |
| Improved Connectivity, Improved Access and Accessibility | Keep connection west of US 36. Would also like to see the Longhorn Road connection on the east side of 36. | Some kind of gravel surface might need to be added to the west side connector trail(beech) as it can get very muddy at times. Or possible close it during muddy times. |
| Conservation of Resources | Remove the connector trail from the west side of US 36. | Instead provide trails on the Joder property and restrict dog off-leash areas. Keep leash |

| Concerns/Interests | Suggestions/Proposed Changes | Actions to Maintain Balance |
|---------------------------------------|--|-----------------------------|
| | | access only. |
| Conservation of Resources | Keep the connector trail on east side of the highway, as with Scenario A, and NOT through the HCA. Unfortunately trails through HCA's - such as the Goshawk Ridge trail - entice people to go off trail, bring their dogs and claim ignorance, etc. I've even seen bike prints on that trail, multiple times. Other non-HCA trails have little wildlife anymore because of over saturation of recreational access - they are just too stressed, even when people keep their dogs on leash and stay on the trails. Many studies confirm this (see just about any recreation ecology study by David Cole or Yu-Fai Leung, or even various OSMP studies about dogs the last 10-15 years). There are so many trails in which we can recreate, but precious little habitat for sensitive species - and the more we stress those species, we will do irreparable harm to those irreplaceable habitats. | |
| Conservation of Resources | If the N-S Joder connector trail must go on the west side of US 36, please consider waiting until the land where the McGuckin's warehouse is can be purchased and used for the trail alignment to minimize impacts to natural resources. | |
| Effective Planning and Implementation | I'm concerned that the building of an underpass at 36 will delay the N-S Joder connection proposed east of 36, so would prefer to see the west connection. | |
| Increased Safety | Build safe crossings of Highway 36 at Joder Ranch and Foothills Trail. | |
| Increased Safety | Light at Neva Rd. to slow down traffic along Broadway. Making turns from the side areas is always a risky proposition | |
| Improved Access and Accessibility | On scenario B, I would keep the northern parts of the Lake Valley ranch as described in scenario A. This consider visitors entering the TSA via 51st street and continuing onto the Joder property. | |

| Concerns/Interests | Suggestions/Proposed Changes | Actions to Maintain Balance |
|--|--|--|
| N-S Joder Connector Regulations | | |
| Conservation of Resources | Do not allow dogs on the connector trail. | |
| Supported no off-trail access to protect native plant resources. | | |
| Improved Connectivity | Allow bikes on west of 36 Joder connection all days. This would spread use more evenly across the system and eventually allow access up to Heil. | |
| Improved Connectivity and Access and Accessibility | Allow bikes on west of 36 Joder connection all days. | |
| Improved Access and Accessibility | scenario B suggests limiting bikes on Tuesdays and Sundays, This restriction is too hard to remember and hurts families with limited riding time. A better solution is to restrict bikes from certain trails altogether to provide the quite experiencing people crave. I encourage leaving bike accessibility as it is on BVR | |
| Joder Trails | | |
| Improved Access and Accessibility | Would prefer two bikeable loops on Joder (preferred directional loops to spatial separation as in Scenario A). | |
| Likes separate loops (minimize visitor conflict) | | |
| Joder Trail Regulations | | |
| Improved Access and Accessibility, Improved Visitor Experience (for dog guardians) | Designate the Interim Joder Trail as Voice and Sight for dogs or Voice and Sight on corridor (if Joder remains an HCA) to balance the new no dog loop trail proposed. | |
| Improved Access and Accessibility, Improved Visitor Experience (for dog guardians) | Maintain the current and historical Voice and Sight designation on the Buckingham Trail to be fair to local neighborhood visitors who are accustomed to this access and would otherwise have to drive to BVR for off-leash dog access. | |
| Improved Access and Accessibility, Improved Visitor Experience (for dog guardians) | Allow dogs off leash, voice and sight control, on corridor for some portion of new trails planned at Joder Ranch property. | Additional Joder Ranch trail for bikes only would allow all users to access this area without crowding trail corridors. Add an off-leash trail to the west of existing trails in the |

| Concerns/Interests | Suggestions/Proposed Changes | Actions to Maintain Balance |
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| | | Wonderland/Lee Hill area. |
| Conservation of Resources | There should be no dogs allowed off leash, on the western loop. | Add seasonal closer from May - July on the western Joder loop trail to protect sensitive wildlife. |
| Decreased Visitor Conflict | Alternating bike/no bike days for trails to and around Joder Ranch seems like a good idea. | You might consider having three non-bike days, instead of just two. |
| Conservation of Resources | Prohibition of large group activities west of 36. | |
| Joder Designation | | |
| Improved Access and Accessibility | Designate Joder as Natural or Passive Recreation area since it is a former recreation site and former working horse ranch that borders a major highway- base designation on the VMP guidelines. | |
| North Foothills HCA and Trails | | |
| Improved Visitor Experience | For off-trail access you have the tedious same-day online permit system. Please make it easier to use on my smartphone. | |
| BVR Trails | | |
| Improved Visitor Experience, Decreased Visitor Conflict | Keep the single-track parallel to the Eagle and Sage Trails as proposed in Scenario A. | Dogs on BVR trails should be on leash. |
| BVR Trailheads | | |
| Improved Access and Accessibility, Improved Visitor Experience | Designate horse trailer parking at BVR near the public riding arena. | |
| Improved Visitor Experience | Add more restrooms at trailheads | |
| Wonderland Lake | | |
| Conservation of Resources | Do not allow dogs on leash on the Hogback/western trail loops. | Allow dogs on leash on all trails at Joder |
| Improved Access and Accessibility, Improved Visitor Experience (for dog guardians) | Allow Voice and Sight access on trails west of Wonderland Lake (as proposed in Scenario A) to improve access for neighbors and reduce need to drive to other areas for Voice and Sight opportunities. | |
| Improved Access and Accessibility | Keep the east-west gliding access trail west of Wonderland Lake (as proposed in Scenario A). Perhaps re-route it so it | |

| Concerns/Interests | Suggestions/Proposed Changes | Actions to Maintain Balance |
|---|--|--|
| | can be more easily maintained. | |
| Improved Access for gliders | Keep the east-west gliding access trail west of Wonderland Lake (as proposed in Scenario A). | |
| Improved Access and Accessibility, Improved Visitor Experience | <p>More trails North of hogback loop, there are only flat trails North of Dakota ridge, add a climb to the ridge from beech trail.</p> <p>Could we get a neighborhood easement near spring Valley road to make a bigger loop West of wonderland lake...a trail that crests the ridge line above the lake would be great!</p> | Another trail that leaves the beech trail and climbs the top of the hogback then continues along the ridge. We need more climbs and summit trails in NTSA. No HCA or natural areas, this area is not a nature preserve and has been land used by humans and cattle for decades, keep it open for recreation. |
| Improved Access and Accessibility, Improved Visitor Experience, Honoring Community Values and Commitments | Maintain Wonderland Hill trail west of Wonderland Lake to connect to upper trails system. This is an important local access point. Eliminating it would cause more vehicle use to get to north or south access points, and severely impact local hiking options for those hiking from their homes. Important in either scenario. | |
| Overall | | |
| Improved Connectivity | Work with county to have off-road access between Boulder and Lagerman Reservoirs | |
| Balancing of Interests | Would like to see data on the proposed trail miles that would be open to each visitor group (since the Inventory Report shows that NTSA visitors are 35% hiking, 25% running, 14% biking, 19% walking dogs). This information is needed when making decisions to balance these interests and plan strategies for minimizing visitor conflicts. | |
| Improved Visitor Experience, Improved Access and Accessibility | I'm concerned that Scenario B disproportionately favors bikers and equestrians by taking Voice and Sight access away from dog owners. I'd much prefer Voice and Sight access to be balanced equally with other interests. | |
| Improved Access and Accessibility | Focused access from Boulder Meadows (low income housing in North Boulder) and other low-income, | Targetted and spanish-speaking outreach, and specific group activities for folks from this neighborhood. |

| Concerns/Interests | Suggestions/Proposed Changes | Actions to Maintain Balance |
|--|---|-----------------------------|
| | affordable housing in North Boulder. | |
| Visitor Experience, Decreased Visitor Conflict | Consider limiting horse access to certain days per week. | |
| Improved Visitor Experience | I would like to see latrines added at the trailheads, and several benches along the paths at logical points. OSMP trails are not always friendly to those who can't walk extended distances, and benches also provide better choices when the ground is muddy. This area is very open, and there are few good places for toileting. | |

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ATTACHMENT D: North TSA Refined Scenarios Feedback from Boulder County

Boulder County Parks and Open Space (BCPOS) staff provided comment on the refined scenarios. Their comments refer to the Boulder County Comprehensive Plan (BCCP) which is a document developed by Boulder County staff and approved by the Boulder County Board of Commissioners. Because of the relevance of the factual information contained in the plan, the alignment of the city and county's open space programs, and the intent of OSMP to collaborate where appropriate with BCPOS on meeting objectives of the BCCP, OSMP staff participated at the county's request in the recent update to the Environmental Resources Element of the BCCP and the 2007-8 Survey of Critical Biological Resources in Boulder County. The significant resources and designations described in the BCCP were identified early in the North TSA planning process and are shown in [Map N1](#) of the Inventory and Assessment Report. These resources and the designations have been an important consideration throughout the planning process.

Because the BCCP is County plan, it is not reviewed or accepted by the City Council or OSBT. Since it is not a city approved plan, it is not included among the sideboards for the North TSA.



Parks and Open Space

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DATE: January 7, 2016

TO: Steve Armstead, City of Boulder Open Space and Mountain Parks

FROM: Jeff Moline, Resource Planning Division Manager

RE: Review of North Trail Study Area Scenarios A and B

Thank you for the opportunity to comment on the plans at this time. First, the County certainly recognizes the importance and value of a North Foothills connecting trail. And, we recognize that OSMP is the agency charged with managing the Beech property per the Joint City-County IGA. That said, as we review plans for that area, we note that the Environmental Resource Element of the County Comprehensive plan indicates that there are more significant environmental resources on the west side of US 36. We feel that fact will be an important consideration in refinement of the plan. And, as the County also received an extensive amount of public input on this issue, we would like to suggest that there be an effort to gather the variety of interests to determine if there is a mutually acceptable alternative for the planned improvements in the North Foothills sub-area.

We have several other comments on the plans:

1. North Rim. It appears neither scenario proposes changes for this. County staff expected the City would receive input from the adjacent county subdivision residents or the public-at-large about formalizing the trails in this area. Since previous arrangements between the City and County have discussed this site, we think the plan should provide some guidance to the agencies about what, if anything, will be done with the trails in this area.
2. Beech Pavilion. The County remains comfortable with the City taking over management of the facility with the understanding that it would be maintained in a manner consistent with our current program. It appears that this arrangement is mentioned in Scenario A but we didn't see it mentioned in Scenario B.
3. Six Mile Fold. With Scenario B, the County might, in the future, build a trail on our section of the property, and would want to work with the City to avoid having duplicative trails in the area. With Scenario A, again, the County might want to formalize a trail on our property in the future (through a separate management planning process), but is fine with the City's plan in this scenario to minimize trails in the adjacent Joder HCA. We do recommend that the Joder Trailhead continue to include a number of regular car spaces for the convenience of people who want to visit Six Mile Fold.
4. Northern Properties. Our staff remains comfortable with the outcome of either Scenario.
5. Trail connections. We recommend showing the LoBo Trail alignment and IBM Connector on the maps.
6. Other map Items: Please remove parking symbol from our Marlatt property on 75th Street. County Open Space only has parking at Pella Ponds Open Space (which is still temporarily closed due to the flood)--which is properly depicted.

ATTACHMENT E: COMPARISON OF EASTERN AND WESTERN JODER CONNECTOR OPPORTUNITIES

Trail Design and Visitor Experience comparison of east and west Joder connector opportunities

The two conceptual Joder connector trails differ in diversity of terrain and views, sustainability, mileage, cost and maintenance requirements. The conceptual west side Joder connector would be slightly shorter and more direct than the conceptual eastern route at approximately 3 miles with less elevation gain and loss and would require no road crossings. By comparison, the conceptual eastern connector would be slightly longer at approximately 4 miles with greater gain and loss in elevation and would require five road crossings, including an underpass under US 36 which would cost approximately \$2 million.

The conceptual western connector would utilize the existing railroad grade for approximately $\frac{3}{4}$ mile, which has long been utilized by the community as an out and back social trail. Minor improvements would need to be made to this existing undesignated trail to improve its sustainability, drainage, and to accommodate the substantial increase in visitation levels. In order to minimize impacts to Schneider Draw, the trail would leave the railroad grade, lose elevation to the east and cross Schneider Draw where there is a change in the riparian vegetation. To cross Schneider Draw and the 10 other drainages on the west side, multiple bridges would be needed which could cost in the range of \$500,000. Some drainages may be crossed sustainably without the use of bridges; however, to reduce impacts to natural resources, bridges may be used at many of the drainage crossings. The section of trail near Schneider Draw would be fall-line (straight downhill), making it susceptible to high levels of erosion and much more challenging to maintain long-term than the conceptual eastern connector. From there it would regain the lost elevation at a 3%-4% grade and tie back into the existing railroad grade. The conceptual trail would then cross the existing railroad grade and begin to climb at a 6%-8% grade to gain the elevation needed to get above the private property of Foothills Business Park. From its highest point the western conceptual trail would begin a moderate descent down to the Joder property, using existing road beds to minimize impacts to resources. Due to the varied terrain and vegetation, this trail would provide a high-quality visitor experience with remote and rugged terrain and sweeping views of the plains.

The conceptual eastside Joder connector trail would require visitors to descend the Foothills Trail (proposed to be rerouted), travel through the existing US 36 underpass at Foothills Trailhead and cross the unpaved portion of Broadway Street where visitors would then connect to the multiple redesigned trails in the Boulder Valley Ranch complex. The terrain and cross-slope in the Boulder Valley Ranch area facilitates construction of a trail that meets OSMP's trail construction standards and will promote on-trail use. Visitors would cross Longhorn Road and travel a new diagonal link trail that would connect into the Lefthand Trail. This conceptual diagonal link would provide a more direct connection to the Joder Property than the existing

Lefthand Trail, as well as a new loop opportunity for visitors. Compared with the 11 drainage crossings required by the conceptual west connector, this conceptual east side trail will require construction of only one bridge to allow for the crossing of one drainage. The east side connector will also require aggregate for surfacing because it will be located on a north-facing slope with heavy clay soils. Due to the soil conditions and slope, this conceptual trail would be subject to muddy trail closures to protect surrounding resources and city infrastructure. In contrast, the western connector would be located on east-facing slopes with slightly better soil which would allow that trail to dry faster. However, the conceptual west side connector would also be part of the muddy trail closure program to help prevent damage to the trail and minimize impact to surrounding resources from off-trail travel.

Diversity in terrain and vegetation type where the east side connector would be located is limited; therefore, it would provide a visitor experience similar to the one currently available on the Lefthand Trail including a unique view of the west Boulder foothills. Visitor experience and safety on the conceptual east connector would be impacted by the need to cross numerous roads. Coordination with Boulder County Transportation, Lefthand Ditch Company and Colorado Department of Transportation (CDOT) would be required to determine the best way for visitors to safely cross US 36 and access the Joder property once they have made their way from the diagonal link to the Lefthand Trail and across Neva Road to the Schooley property. Initial conversations indicate that an underpass would be preferred for this highway crossing.

Trail Design and Visitor Experience Summary Comparison Table

| Scenario A (East Side Joder Connector) | Scenario B (West Side Joder Connector) |
|--|---|
| Experience | |
| Mileage to Joder – approximately four miles from Foothills Trail intersection with railroad grade; greater elevation loss and gain | Mileage to Joder – approximately three miles from Foothills Trail intersection with railroad grade; less elevation loss |
| Five road crossings, one existing at US 36, four new (North Broadway Street, Longhorn Road, Neva Road, and US 36). Need to coordinate with partner agencies to construct a new crossing at US 36 (likely an underpass) | No road crossings |
| Unique views of the west Boulder foothills | Remote, rugged with sweeping views of the plains |
| New loop opportunity utilizing the new diagonal link trail and the trails in the Boulder Valley Ranch complex | New trail connecting from Foothills Trail to the Joder property |

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| Limited diversity in terrain and vegetation types; similar to the experience available on Lefthand Trail | More interesting terrain features with a greater diversity of vegetation |
| North-facing aspect will dry at a slower rate and could require more frequent closures | East-facing aspect will dry faster and allow the trail to remain open more days each year |
| Surfaced with aggregate material | Natural surface trail |
| Cost to Construct/Maintain | |
| Potential underpass under US 36; one bridge needed. Wetland permit will be required for crossing. | Potential for multiple bridges to cross drainages. Wetland permit will be required for all crossings. |
| Clay heavy soils on shallow (less than 25%) cross slopes means poor drainage and a need to surface the new diagonal link trail | Improved soil condition on larger cross slopes provides for better drainage and allows the use of natural surface |

Natural Resource comparison of east and west Joder connector opportunities

The two conceptual Joder connector trails differ in the type, quality, and quantity of habitat they cross. With respect to the quality of habitat, the proposed western connector crosses land that has been noted for its conservation importance on multiple scales. The proposed western connector bisects a state-recognized (by the Colorado Natural Heritage Program) "very high biodiversity area" and locally-identified (by the Boulder County Comprehensive Plan (BCCP)) "critical wildlife habitat" and Environmental Conservation Area. The City of Boulder has also affirmed the ecological importance of this area by designating the area as a Habitat Conservation Area (HCA) in the Visitor Master Plan (approved by City Council April 2005) and Schneider Draw as one of only two Best Opportunity Areas for Riparian Conservation in the Grassland Management Ecosystem Plan (accepted by City Council May 2010). Much of the conceptual west side connector borders or crosses landscape identified in the Grassland Ecosystem Management Plan (GMAP) as Best Opportunity Area for Conservation, a designation reserved for the highest quality grassland blocks in the OSMP-managed land system. The topography, extensive nature of these high-quality habitats, and private property boundaries make it very challenging to design a trail that avoids impacting these high-quality resources.

The east side Joder connector trail would cross landscape that is generally of lower habitat quality compared to the west side connection. The conceptual eastern connection would be located in a state-recognized "very high biodiversity area" and a county-designated Environmental Conservation Area; however, the conceptual route would cross the edge of this very high biodiversity area in close proximity to other developed areas. The area to the east of US 36 is designated as Natural Area (signifying its slightly lower quality) and is not recognized by the county as "critical wildlife habitat." Finally, the conceptual eastern connection would

cross land identified as a Best Opportunity Area for Restoration rather than Conservation in GMAP.

The differences in impact from trail construction between the east and west side connectors are, to some extent, a reflection of the type and quantity of high-quality habitat present. The area where the conceptual west connector would be located supports more and larger blocks of xeric tallgrass, a globally-rare ecosystem which provides habitat for several state-imperiled and globally vulnerable butterfly species; shale barrens, an uncommon and sensitive habitat on OSMP, which supports Bell's twinpod , a plant found in only two counties in the world; and New Mexico feathergrass community, a rare plant community which is restricted to small patches in the northern portion of the OSMP-managed land system.

The conceptual west side connection also bisects a concentration area for plains black-headed snakes, high-quality ungulate habitat and multiple prairie dog colonies which are highly suitable habitat (HSH) for rattlesnakes and foraging locations for raptors. Lastly, the proposed western route would go through high-quality riparian and upland shrublands, which are important habitat for shrub-nesting birds such as the lazuli bunting, and seep wetlands, which are special aquatic sites that are uncommon on OSMP-managed lands. The area where the conceptual east side connector would be located does not support a similar diversity of high-quality habitat types. The east side route would cross a high-quality needle-and-thread grass community on a northwest facing slope which is uncommon on OSMP-managed land.

The two proposed connections also differ in the impact they would have on the ecosystem function and habitat effectiveness of the area. Although the railroad grade social trail already exists in the area, a trail designed with greater attention to sustainable design factors and the substantial rise in usage would increase and create new resource impacts in this habitat block. The conceptual west trail connection would cross eleven drainages mapped by the U.S. Geological Survey (USGS). These drainages are the last remaining foothills drainages without trails or roads on OSMP-managed land. Crossing the drainages will fragment multiple important riparian corridors, reducing the habitat effectiveness of the area. Given the relative steepness of the drainages, the route will need to travel into several of the riparian habitats on each side of the drainage before crossing the drainage. The proposed eastern connection would cross only a single drainage, one that has already experienced a higher level of fragmentation. The single drainage crossing along the proposed eastern route will likely require less trail length in the riparian corridor due to the more gradual drainage slopes and bridge structure compared to the multiple crossings and potential bridge structures that will be required to span steep drainages for the west connection.

Natural Resource Summary Comparison Table

| Scenario A (East Side Joder Connector) | Scenario B (West Side Joder Connector) |
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| Overall Impacts | |
| Traverses the edge of state-recognized "very high biodiversity area;" in close proximity to other developed areas | Bisects large state-recognized "very high biodiversity area" habitat block |

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| Traverses the edge of county-designated Environmental Conservation Area (ECA) | Bisects a county-designated Environmental Conservation Area (ECA) |
| Not located in area identified in the Boulder County Comprehensive Plan as “critical wildlife habitat” | Bisects "critical wildlife habitat" identified in the Boulder County Comprehensive Plan |
| Crosses one mapped drainage | Crosses last untrailed/unroaded foothills drainages on OSMP land system; 11 mapped drainages would be crossed by the trail |
| Crosses land designated as Natural Area | Bisects land designated as Habitat Conservation Area |
| Does not cross a riparian area that received special designation in the Grassland Management Plan | Crosses Schneider Draw, one of two of the highest quality riparian areas identified in the Grassland Management Plan and is designated for Conservation. (The Coal Creek corridor, which is not in the North TSA and is a plains riparian system, is the other highest quality riparian area.) |
| Lies within a grassland complex designated as a Best Opportunity Area for Restoration in the Grassland Management Plan | Lies within a grassland complex designated as a Best Opportunity Area for Conservation in the Grassland Management Plan |
| Plant and Wildlife Impacts | |
| Does not impact xeric tallgrass; does not provide high-quality habitat for state-imperiled butterfly species | Bisects intact blocks of xeric tallgrass, a globally-rare ecosystem, which provides habitat for several state-imperiled butterfly species |
| Does not impact any New Mexico feathergrass community | Bisects two stands of rare New Mexico feathergrass community |
| Is primarily situated in needle-and-thread grassland community | Intersects smaller blocks of needle-and-thread grassland community |
| Minimizes impact to prairie dog colonies | Bisects multiple prairie dog colonies, which are highly suitable habitat for rattlesnakes and provide raptor foraging habitat. |
| Impacts small, unmapped shale barren | Impacts shale barrens - an uncommon and sensitive habitat on OSMP, which supports Bell's twinpod, a plant found in only two counties in world |
| Minimizes impacts to upland and riparian woodland communities by crossing drainage in areas dominated by herbaceous plant species and minimizing length of trail in shrublands | Impacts high-quality upland and riparian woodland communities |
| Wetland and Riparian Impacts | |
| Crosses one USGS-mapped drainage | Crosses 11 USGS-mapped drainages |
| Increases fragmentation of an “already-fragmented” drainage | Fragments several previously untrailed drainages, the last remaining untrailed foothills drainages on OSMP-managed land |

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| Minimizes length of trail in riparian woodland communities by avoiding most of them | Trail will need to cross into high-quality riparian woodland communities |
| Does not cross any seep wetlands | Crosses or borders seep wetlands which are uncommon on OSMP-managed land |
| At least one approach to the drainage is less steep minimizing the size of the bridge structure | Steepness of drainage slopes may require significant bridge structures; foundations of bridges will impact riparian shrubland habitat |
| Other Considerations | |
| Area is in rattlesnake habitat but not in a known area of high concentration of rattlesnakes | Prairie dog colonies in area have a known high concentration of rattlesnakes which is a safety concern for visitors and dogs |
| Trail construction will require a wetland permit; permit application requires an evaluation of alternatives to minimize impacts to wetlands. Demonstration of minimization will be relatively straightforward. | Trail construction will require a wetland permit; permit application requires an evaluation of alternatives to minimize impacts to wetlands. Demonstration of minimization may be relatively challenging. |