MARIN COUNTY PARKS
PRESERVATION·RECREATION

MEMORANDUM

www.marincountyparks.org Marin County Parks, 3501 Civic Center Dr, Suite 260, San Rafael, CA 94903

DATE: November 29, 2016

FROM: Carl Somers, Chief of Planning and Acquisition

SUBJECT: Proposed Projects for the Alto Bowl Open Space Preserve

UPDATE REGARDING PENDING PROPOSED PROJECTS IN THE ALTO BOWL OPEN SPACE PRESERVE

Background

The Marin County Open Space District (MCOSD) road and trail projects are part of a science-based, public inclusive, comprehensive plan (RTMP) which addresses the complex challenges of the MCOSD roads and trails. The plan was developed over the course of four years on the basis of extensive outreach and public input.

The MCOSD road and trail projects are designed and implemented to reduce the environmental impact of the road and trail network and enhance visitor experience and safety. The RTMP establishes a process whereby members of the public, working alone or in coordination with others, can submit proposals for projects that will advance the goals of the plan. Proposed projects must demonstrate familiarity and compliance with the RTMP's adopted standards and procedures.

On August 25, 2016, Marin County Parks hosted a community workshop in Mill Valley on current proposed projects in the Alto Bowl Open Space Preserve. Staff opened with a presentation about the Road and Trail Management Plan and its implementation. Next, staff provided an orientation on a future project to repair the Alto Bowl Fire Road, which is undercut by erosion and is failing at its northern end. Informed by detailed feasibility studies and with the participation of consultants who authored the studies, staff introduced two proposed projects and recommendations for implementation.

1. A proposed project to improve drainage and change the designated use of the Bob Middagh Trail to allow bicycles. The related feasibility study presented a range of physical measures that could be taken to address concerns about comfort and safety, including speed control devices, minor realignments of the steepest sections, and brush removal to improve sight lines. These measures would not be mutually exclusive and the public was invited to weigh in on what specific combination of measures would be most appropriate in conjunction with a change in the designated use to allow bicycles. Staff made a specific recommendation to proceed with implementation, but held off on making a specific recommendation of how the trail could be appropriately improved until public comment is collected and synthesized.
2. A project to address the severe erosion and barriers to accessibility present along the so-called "Gasline Trail" (a trail connection that follows a PG&E transmission line and gasline alignment between Alto Bowl Fire Road, near its junction with Coach Road, and the Horse Hill Trail). The related feasibility study evaluated alternatives for addressing these issues, including rebuilding the trail in its current location using closely spaced switchbacks, building the trail in its current location using stairs, and building the trail in a new location to the north of its current alignment at a 5 or 10% average grade. The trail is currently designated as dual use (equestrian and pedestrian) and

none of the alternatives considered included a change in use component. In other words, the use would remain dual use as currently designated. Rebuilding the trail in its current location with closely spaced switchbacks is deemed to be infeasible. Relocating the trail to the north and constructing it at a 5% grade is deemed to be technically possible but too disruptive to the visual and physical environment. Both other options were feasible and presented as viable alternatives. Of the two, relocating the trail and constructing it to a 10% average grade seemed superior because it would cost much less to construct and maintain and would be much more accessible to those with mobility impairments than stairs. Staff recommended restoring the current damage and developing a new trail connection consistent with one of the two feasible and viable alternatives. Staff held off on recommending a specific alternative until public comment is collected and synthesized.

Both proposed projects, in particular the proposal to change the designated use of the Bob Middagh Trail, have generated intense public interest over the past year. The August 25, 2016 meeting was followed by a 30 day formal comment period on both proposed projects. This comment period closed September 24, 2016. The MCOSD collected comments from over 400 individuals during the formal comment period. The vast majority of these communications focused on the proposed change in use to the Bob Middagh Trail and approximately 82 % of the commenters had a favorable opinion of the proposed change. Approximately 75 people, or 18% of those who submitted a comment about the Bob Middagh Trail, expressed unfavorable opinions about the proposed change. Commenters were not required or asked to include their address, but many did include their address or at least their community of residence in their comments. Of those who wrote with favorable opinions about the proposed change, approximately 75 people, or 18% of those who submitted a comment about the Bob Middagh Trail, referenced living in the adjacent communities of Mill Valley or Corte Madera. The majority of the approximately 75 people who wrote with negative opinions of the project also referenced residing in Mill Valley or Corte Madera.

BOB MIDDAGH TRAIL: USER-PROPOSED PROJECT TO MAKE ENVIRONMENAL AND SAFETY IMPROVEMENTS, AND TO CHANGE THE USER DESIGNATION TO ALLOW BICYCLES

The Bob Middagh Trail was originally constructed as an access road for installation of a Marin Municipal Water District water line. The trail has since become an important connection for people traveling from points east to the Camino Alto Preserve and further to the larger contiguous open space to the west. Through the public process of the RTMP the Bob Middagh Trail received a public proposal by the Marin County Bicycle Coalition to change the use of the trail to include bicycle accessibility. Marin County Parks hired TrailPeople, a professional trail design company to assist in the assessment and feasibility of a change in use designation for the Bob Middagh Trail.

The results of this feasibility analysis were presented to the public during the August 25 public meeting. As noted above, the majority of the comment letters received during the comment period supported the project, but there were was a large minority that raised concerns. Those letters focused on the impact of bicyclists on other trail users and the environment. Specifically, these comments included the following stated concerns:

- Provides an area for kids and families to ride mountain bikes
- Creates a safe connection to the Camino Alto Preserve
- Improvements will reduce sedimentation into the watershed
- The existing path already meets the MCOSD's multiple use design standards
- Displacement of other users
- Interference with historic horse use
- Rewarding of bicyclists for illegal trail riding

- Effects on the rate and severity of trail erosion
- Impacts to plants, wildlife, and other natural resources
- Potential to destroy the peaceful nature of the trail
- Problems with enforcing speed limits
- Costs of making the proposed improvements
- Doubts about the importance of this trail as a connector
- Already sufficient bicycle trails in other preserves in the area

Factors considered in the evaluation of design alternatives included the following technical and policy considerations:

- Effects to trail circulation patterns within the park unit
- Effects to trail safety
- Effects to trail sustainability
- Effects or impacts to natural and/or cultural resources
- Effects or impacts to maintenance and operational costs
- Compatibility with RTMP policies and goals

Technical Analysis

Effects to Trail Circulation Patterns

The use of the Bob Middagh Trail by bikes would provide an important non-paved biking route connecting the Alto Bowl Preserve to the Camino Alto Preserve and points west. This connection would facilitate regional non paved bike connections from the Bay Trail to the greater Mt. Tam open space. Additionally, allowing bike use on the Bob Middagh Trail would also alleviate safety concerns by eliminating the need to use a large portion of Camino Alto Road.

Effects to Trail Safety

The Bob Middagh Trail currently receives low to moderate use from hikers and equestrians. To safely incorporate bicycles onto the trail with other user groups reroutes will be necessary to reduce linear grades and provide increased trail sinuosity to reduce user's speed. In addition, armored textured rolling grade dips and armored drainages would be installed to both improve trail drainage and protect waterways, but also to slow bike users by roughing the trail surface.

Effects on Trail Sustainability

The Bob Middagh Trail is currently a relatively sustainable trail in most locations. The new trail reroutes will be built with best management practices to employ a sustainable design which will require minimal maintenance. It is anticipated that the majority of the trail alignment will remain sustainable with the addition of bike use if maintenance (brushing, removing fill slope berms, removing back slope sloughing) and minor reconstruction (increase outslope) is preformed and maintained on the trail. It will be necessary to install rolling grade dips, rock armor trail tread and incorporate reroutes in step sections of trail to insure sustainability.

Effects to Natural and Cultural Resources

Initial evaluations indicate there should be no significant impacts to natural or cultural resources associated with the change in use and modifications required for change in use approval if standard departmental best management practices are implemented. A complete bio assessment of the flora and fauna of the site will guide trail construction to minimize the impacts to the natural resources.

Other agency permits (Regional Water Quality Control Board, Army Corps, California Department of Fish and Wildlife will be required for drainage crossing re-engineering necessary for trail sustainability. Plant surveys will also be required as part of project development and implementation. Identified sensitive plant locations, as determined by surveys, will be avoided and/or construction

techniques will be modified for minimization of potential impacts. Plant surveys will also be required as part of project development and implementation. Identified sensitive plant locations, as determined by surveys, will be avoided and/or construction techniques will be modified for minimization of potential impacts.

Effects to Maintenance and Operations Costs

The trail is currently maintained in a relatively sustainable condition. It is anticipated that through design modifications for sustainability and safety that significant additional resources will not be required to maintain the trail outside of an increase in maintenance to maintain sight distances. Maintaining user compliance through signage, education and cooperative efforts with user groups is not expected to create significant additional workload or added cost for park staff. The MCOSD estimates that the construction cost will be approximately $25,000 to complete the safety and environmental improvements to the trail. This makes the proposed project a relatively low cost opportunity to raise the standards of our trail network and advance the goals and objectives of the RTMP.

POLICY ANALYSIS

As part of the RTMP, the MCOSD adopted goals and policies that direct the designation of, improvements to, and use of its road and trail system. In determining whether to move forward with a project, the MCOSD evaluates it for consistency with these goals and policies. In the case of the proposed improvements to the Bob Middagh Trail, the staff has determined that the project is consistent with and implements these goals and policies.

Goal 1: Establish and Maintain a Sustainable System of Roads and Trails that Meet Design and Management Standards

The proposed upgrades to the Bob Middagh Trail are consistent with this goal. The MCOSD is proposing to realign existing steep sections to reduce the grade, install drain dips, replace failing culverts, and incorporate other actions to protect the environment and improve the user experience. These measures will improve the sustainability of the trail and are consistent with the design standards and best management practices contained in the RTMP. As such, it will substantially reduce impacts from erosion and runoff into nearby drainages, thereby reducing sedimentation into the Richardson Bay watershed.

Implementing this goal are policies SW.4, TRL-2.1, TRL-2.b, and T2a[1], which direct the MCOSD to design and build a sustainable trail system that protects natural resources and reduces the overall environmental impact from current conditions. The existing trail has several segments that are steep and erosive. Additionally, this trail has two culverts that are in poor condition, discharging sediment into the Richardson Bay watershed. The proposed improvements will substantially reduce the running slope of these segments, replace the failed culverts, and install drainage features that will dewater it without causing significant erosion or sedimentation. The project also includes restoring unnecessary segments rerouted by the project. These improvements will reduce the trail's physical impacts to the preserve and watershed.

Goal 2: Reduce the Environmental Impact of Roads and Trails on Sensitive Resources, Habitats, Riparian Areas, and Special Status Plant and Animal Species

The proposed improvements to the Bob Middagh Trail are consistent with this goal. Implementing this goal are policies BIO-5.f, SW.22, SW.23, SW.24, SW.27, SW.28, and TRL-2.a, which direct the

[1] A full copy of the text of these policies is in the RTMP, starting at page 4-11

MCOSD to protect rare and sensitive biological and cultural resources. The Bob Middagh Trail is located in an area that provides habitat to a number of plants and animals, but does not contain rare or particularly sensitive resources. The MCOSD's Vegetation and Biodiversity Management Plan (VBMP) zones the project site as "Highly Disturbed" and "Natural Landscape," which are the areas that are less likely to support these kinds of resources. As part of the environmental review process, the MCOSD will conduct biological and cultural literature reviews and site surveys. If these studies identify any rare or sensitive plant, animal, or cultural resources, the MCOSD will consider appropriate measures to avoid or reduce the effect.

Goal 3: Improve the Visitor Experience and Visitor Safety for All Users, Including Hikers, Mountain Bikers, and Equestrians

The third goal of the plan is to improve visitor experience and safety. The proposed realignment of the Bob Middagh Trail will achieve these benefits by changing the use to allow bicycles, reducing its steep grades, and replacing failed culverts. The change in use will allow bicyclists to use the trail to connect to other preserves and parks. Additionally, the improved trail will be easier to use, especially for younger children, the elderly, and people with disabilities. The improved grade will also be more suitable to equestrians, making it easier to ride and reducing erosion impacts. Finally, the proposed project will improve the safety of the trail by widening narrow sections, reducing steep grades through reroutes, and improving sightlines.

Implementing this goal are policies SW.12, SW.17, T.1, T1d, T.3, TRL-2.3, TRL-2.5, and TRL-2.e, which direct the MCOSD to: (1) increase trail connectivity for all users; (2) prevent user displacement; (3) improve public safety; (4) provide access for people with disabilities; (5) permit mountain bikes on new and existing trails built for that purpose; (6) increase trail opportunities for all users; and (7) provide opportunities for long-distance connections. The proposed project will provide bicyclists with access to Alto Bowl Preserve and connect to the Camino Alto Preserve, which is adjacent to other preserves and parks on the slopes of Mount Tamalpais. Additionally, the proposed modifications to the trail will meet the district's design standards for multiple use trails, including appropriate trail width and sightlines to protect public safety.

These policies also require the MCOSD to strive to prevent the displacement of existing trail users. The proposed trail project will include measures to improve safety by designing it to meet the MCOSD's multiuse standards. These improvements include: (1) realigning the trail to reduce its grade; (2) improving sightlines along the trail; and (3) widening portions of the trail. With these measures, the trail will provide a safe experience for various users and will minimize any displacement of other recreationalists. Finally, these measures will make the trail more accessible to people with disabilities.

Recommendations Summary

The proposal to improve and open the Bob Middagh Trail to bicycle use was approved with design modifications as described in this summary. The change in use evaluation process determined that the addition of bicycle use on the Bob Middagh Trail could be accommodated in a safe and sustainable manner and would not have significant effects to natural or cultural resources if recommended design and management modifications are implemented. The addition of bicycles to the trail would also provide an important non paved bicycle route connection for the surrounding community. The intended purpose of this use would be for connectivity and not for the purpose of seeking technical challenges which could be considered attractions unto themselves. This recommendation would require design and management modifications to be implemented prior to allowing bicycle use on the trail. Additional design details, resources surveys, environmental compliance and permitting would be required prior to the implementation of design modifications.

Next Steps

It is anticipated that the MCOSD will begin construction of the Bob Middagh Trail beginning in the spring of 2017. The next steps for these projects are outlined below

- Budget Approval
- Site Bio Assessment
- Final Trail Design Refinement
- Environmental Review and Regulatory Permitting
- Agency Permitting
- Nesting Surveys
- Construction

GASLINE TRAIL: PROJECT TO DECOMMISSION EXISTING TRAIL AND CONSTRUCT A SUSTAINABLE REPLACEMENT ALIGNMENT

The current alignment of the Gasline Trail is an unsustainable fall line trail with an average grade of 26% and maximum grade of 30%. It is a difficult and unpleasant recreational trail which first appeared as a social trail following the alignment of the PG & E gas line easement. Due to the substandard design and alignment the trail continues to erode and discharge sediment to the storm drains and watershed. The MCOSD has performed a thorough investigation of trail improvement options including but not limited to; reconstructing the existing alignment with built steps or adopt a newly designed 10% grade earthen trail alignment. Marin County Parks worked with TrailPeople, a professional trail design company, to assist in the assessment and feasibility of improvement options for the Gasline Trail.

The results of this feasibility analysis were presented to the public during the August 25 public meeting. Following the meeting, the district received five formal comment letters on the Gasline Trail and

numerous other less formal comments. The majority of those commenting favored the 10% grade earthen trail alignment alternative. Specific stated concerns included:

- Implement the proposal because it is the less expensive option
- The new trail will be safer and easier to use
- The realigned trail will damage vegetation and habitat
- Mountain bikers should not be excluded from the trail or the Horse Hill Preserve
- The new trail alignment will invite people to trespass on to private property
- The MCOSD should consider the following as alternatives to the new alignment
    - reconsider rebuilding the trail in its current footprint using steps
    - pursue a trail easement over Mill Valley Meadows Homeowners Association for an alternative route
    - close the trail during the wet season to reduce erosion
- The district should work with PG&E to redevelop the existing trail
- The new alignment will damage an undisturbed area used by wildlife
- The proposal is an inefficient use of the MCOSD's monetary and staff resources
- The new alignment would make it possible for the MCOSD to allow bicyclists at a future date

Factors considered in the evaluation of design alternatives included the following technical and policy considerations:

- Effects to trail circulation patterns within the park unit
- Effects to trail safety
- Effects to trail sustainability
- Effects or impacts to natural and/or cultural resources
- Effects or impacts to maintenance and operational costs
- Compatibility with RTMP policies and goals

Technical Analysis

Effects to Trail Circulation Patterns

The new trail alignment will not impact or alter the use patterns of the existing Gasline Trail connection. Furthermore, in consideration of the concerns raised regarding the potential impacts of a newly aligned trail on nearby private residences, the bottom of the new trail will be moved further to the north, away from the residents on Benson Circle and Coach Road. The top connection of the new Gasline Trail with the Horse Hill Trail will be moved further west or downslope, creating a larger buffer between trail users and the residents on Meadowcrest Drive. Additionally, the social trail at the top of the Horse Hill Trail traveling north through private property will be decommissioned.

Effects to Trail Safety

The new alignment will be designed at a comfortable walking grade of less than 10% with good sightlines. This design will include dewatering trail features to reduce erosion ruts and slickness of trail which will make the trail safer for all users.

Effects on Trail Sustainability

The current Gasline Trail has a fall line alignment which is unsustainable and has become extremely erosive discharging sediment into our watershed. The new trail alignment will be built with best management practices to employ a sustainable design which will require minimal maintenance.

Effects to Natural and Cultural Resources

Initial evaluations indicate there should be no significant impacts to natural or cultural resources associated with the realignment of the Gasline Trail. A complete bio assessment of the flora and fauna of the site will guide trail construction to minimize the impacts to the natural resources. The new alignment would also be designed to avoid the necessity to remove trees as it traverses up the slope through the oak trees. Furthermore, the new alignment will cross the slope above the creek drainage which will further reduce the need to build structures and limit sediments eroding into the watershed. Plant surveys will also be required as part of project development and implementation. Identified sensitive plant locations, as determined by surveys, will be avoided and/or construction techniques will be modified for minimization of potential impacts.

Effects to Maintenance and Operations Costs

The trail is currently unmaintained due to the erosive nature of the trail alignment. It is anticipated that through sustainable trail designs the new alignment will requirement minimal maintenance.

POLICY ANALYSIS

As part of the RTMP, the MCOSD adopted goals and policies that direct the designation of, improvements to, and use of its road and trail system. In determining whether to move forward with a project, the MCOSD evaluates it for consistency with these goals and policies. In the case of the proposed improvements to the Gasline Trail, the staff determined that the project is consistent with and implements these goals and policies.

Goal 1: Establish and Maintain a Sustainable System of Roads and Trails that Meet Design and Management Standards

The proposed upgrades to the Gasline Trail are consistent with this goal. The existing path runs straight down the slope, a fall line trail, within PG&E's utility easement. The MCOSD is proposing to realign the trail, install appropriate dewatering measures, and incorporate other actions to protect the environment and improve the user experience. The district will build the new trail using the RTMP's policies, design standards, and best management practices. As such, it will substantially reduce impacts from erosion and runoff into nearby drainages, and thereby, reducing the amount of sedimentation into the Richardson Bay watershed.

Implementing this goal are policies SW.4 and TRL-2.1[2], which direct the MCOSD to design and build a trail system that protects natural resources and reduces the overall environmental impact from current conditions. The existing fall line trail is a significant source of sediment discharged into the watershed. The proposed realignment will substantially reduce the running slope of this trail and install drainage features that will dewater it without causing significant erosion or sedimentation. The project also includes restoring the existing alignment of the trail by dewatering and breaking up its tread. These improvements will reduce the trail's physical impacts to the preserve and watershed.

Additionally, policies TRL-2.b and T2a direct the MCOSD to improve trail sustainability. The proposed realignment will substantially reduce the trail's running slope and install appropriate drainage features. These improvements decrease the maintenance requirements of this trail by reducing erosion, and thus create a more sustainable design.

Goal 2: Reduce the Environmental Impact of Roads and Trails on Sensitive Resources, Habitats, Riparian Areas, and Special Status Plant and Animal Species

[2] A full copy of the text of these policies is in the RTMP, starting at page 4-11

The proposed improvements to the Gasline Trail are consistent with this goal. Preliminary analysis indicates that there are no rare or especially sensitive resources within the proposed trail footprint. Although the project would be located in an area that is relatively undisturbed and would result in impacts to native and nonnative vegetation, the project site is isolated from larger habitats by roads, houses, and other human development. Additionally, the restoration of the existing alignment will partially offset any new impacts to vegetation, and the project's benefits to water quality must be considered alongside any impacts to this isolated habitat.

Implementing this goal are policies SW.22, 23, 24, 27, and 28, which direct the MCOSD to protect high value biological and cultural resources. The Gasline Trail is located in an area that the MCOSD's VBMP zones as "Sustainable Natural Systems Zone," which is one of the higher value vegetation types defined by the VBMP. Additionally, although this area does provide habitat for a number of native and non-native plants and animals, initial assessments of the project indicate that it is not likely to support any special status plant or animal species or cultural resources. However, as part of the environmental review process, the MCOSD will conduct literature reviews and site surveys to confirm the absence of any sensitive resources. If this review identifies any significant impacts, the MCOSD will identify appropriate measures to avoid or reduce them.

Goal 3: Improve the Visitor Experience and Visitor Safety for All Users, Including Hikers, Mountain Bikers, and Equestrians

The third goal of the plan is to improve visitor experience and safety. The proposed realignment of the Gasline Trail will achieve these benefits by reducing its steep grades. The improved trail will be easier to use, especially for younger children, the elderly, and people with disabilities. Additionally, the sustainable grade will be more suitable to equestrians, making it easier to ride and reducing erosion impacts. Therefore, the proposed project will improve visitor experience and safety.

Implementing this goal are policies T.3, TRL-2.5, TRL-2.3, and TRL-2.e, which direct the MCOSD to improve public safety and provide access for people with disabilities. The current steep alignment is dangerous for both hikers and equestrians and inaccessible to many people with disabilities. The proposed realignment will substantially reduce the running slope of the trail, making it safer and more accessible.

Recommendations Summary

Through an exhaustive evaluation process, the option that most reflected the goals, policies, and adopted standards of the RTMP was to approve the 10% grade trail and to retire the current alignment. This new alignment incorporates the goals of the RTMP through sustainable trail design standards, reduction of environmental impacts and improved visitor experience with a comfortable walking grade. A complete bio assessment of the flora and fauna of the site will guide trail construction to minimize the impacts to the natural resources. The new alignment would also be designed to avoid the necessity to remove trees as well as the creek drainage. This will further reduce the need to build structures and limit sediments eroding into the watershed. Because the construction of the new trail would not involve built structures, it would be relatively inexpensive to construct. In house construction estimate is $25,000. Additionally, the earthen trail would be relatively easy to maintain further reducing maintenance costs and staff time. Finally, this design option would afford the MCOSD the opportunity to retire and restore the existing steep and erosive Gasline Trail.

Conversely, the reconstruction of the existing Gasline Trail alignment would prove to be an extremely expensive project at approximately $225,000 for the initial installation as well as additional costs to

maintain and replace steps over time. Furthermore, the steps have the potential to be inaccessible for some horses and people with mobility impairments which would potentially restrict access.

Next Steps

It is anticipated that the MCOSD will begin construction of the Gasline Trail beginning in the spring of 2017. The next steps for these projects are outlined below

- Budget Approval
- Site Bio Assessment
- Final Trail Design Refinement
- Environmental Review
- Nesting Surveys
- Construction