

# Girdwood Bike Park Master Plan

Presented by:



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## Introduction

The Girdwood Mountain Bike Alliance (GMBA) was created in the fall of 2016 to address the need for more mountain biking opportunities in Girdwood. As mountain biking continues to grow in popularity, the hiking trails in Girdwood are becoming increasingly crowded with bikers. This presents a safety concern for both hikers and bikers alike. To mitigate this problem a group of local bike enthusiasts decided to organize and take action on something that has long been talked about and needed in our community: single-use, purpose-built bike trails. Throughout the state similar bike trails are being developed to match increased demand and trail user conflicts. Through responsible trail construction and maintenance, GMBA strives to make the sport more accessible to Girdwood's residents and visitors alike. Our goal is to continue helping Girdwood becoming a better place to live, work and play.

The GMBA mission statement is:

**To develop and support opportunities for mountain biking in Girdwood, by building and maintaining trails, promoting responsible trail use and advocating for cycling in our community.**

The main goal of the Girdwood Bike Park Master Plan is to illustrate and describe the vision of a “complete build-out” scenario of the Girdwood Bike Park. This document will also inform all entities involved in the approval process and serve as a working document to guide development of the Bike Park through the different phases of construction.

This Master Plan establishes how the Girdwood Bike Park will be incorporated into to the current trail network in the Girdwood Valley. The Master Plan has aimed to incorporate all aspects of the Heritage Land Bank work plan as well as the current Girdwood Area Plan and Girdwood Valley Trails Management Plan.

GMBA aims to obtain approval of the Master Plan from all reviewing entities involved such as: Girdwood Trails Committee, Girdwood Land Use Committee, Girdwood Board of Supervisors, Anchorage Urban Design Commission, Heritage Land Bank Advisory Commission and Anchorage Assembly. An approval of the Master Plan would allow the GMBA to efficiently obtain funding, schedule construction and maintenance, reduce administrative fees, and allow greater transparency to the overall vision of the bike park prior to development.

## **Project History**

GMBA identified an area of Girdwood that would be ideal terrain and access for a proposed Bike Park. The land owner is the Municipality of Anchorage's Heritage Land Bank (HLB).

During the summer of 2018, GMBA began construction of the first trails in the Girdwood Bike Park (see Exhibit A, Girdwood Bike Park Map). Three trails in total were approved for construction. Two trails were approved as purpose-built, one-way downhill bike trails and the third trail was approved as a two-way multi-use trail to connect the "High Point" of the Girdwood Bike Park to the existing 5K Nordic Ski Loop. The "High Point" is a name given to highest elevation of the Girdwood Bike Park and where all upper downhill bike trails will originate.

In August 2018, GMBA constructed the first purpose-built, one-way downhill bike trail, named "Small House". The start of this trail is located just past the 1K turnaround on the Nordic Ski Loop and finishes just past the top of "Uncalled 4 Hill" on the Nordic Ski Loop. The trail has an approximate length of 0.2 miles. The trail was designed as a beginner level flow trail. The trail tread was constructed and hardened by excavating native mineral soils that were present under the approved trail tread and burying all unusable materials in the excavated holes. Re-vegetation of any disturbed areas outside the trail tread was accomplished by salvaging and replacing moss matting throughout construction. The trail will open in the spring of 2019 after formal recording of the trail easement and the installation and acceptance of necessary signage, by HLB.

In September 2018, construction began on the second purpose-built, one-way downhill bike trail, named "2-Cents", and was put into winter shutdown at the end of October 2018. Completion of this trail will be accomplished during the summer of 2019. This trail begins at the "High Point" and descends to the 5K Nordic Ski Loop just past the first snow stake, approximately 2K around the Nordic Ski Loop. This trail has an approximate length of 0.4 miles. This trail was designed as an intermediate/advanced level downhill flow trail, with some natural, more technical features. The trail tread was constructed and hardened by excavating native mineral soils that were present under the approved trail tread and burying all unusable materials in the excavated holes. Re-vegetation of any disturbed areas outside the trail tread will be accomplished by salvaging and replacing moss matting throughout construction. Work to be completed prior to opening of this trail involves the importing of gravel to harden specific sections of the trail where insufficient quantities of native mineral soils were present. The structure and bike features of the trail were completed during the 2018 construction. Approximately 20% of the trail tread will need to be hardened with imported gravels. This trail is planned to open in the summer of 2019 after recording of trail easement, trail signage and concurrent with the opening of "Urn-Again".

In the summer of 2019, GMBA plans to begin construction on the third approved trail in the first approval process called, “Urn-Again”. This trail will connect the 5K Nordic Ski Loop at the location of the first snow stake and navigate uphill to the “High Point” of the Girdwood Bike Park. This trail was designed and approved as a multi-use, two-way trail. The current goal of this trail is to provide uphill access to the “High Point” of the Girdwood Bike Park.

As the Girdwood Bike Park is further developed, this trail will be extended to create connections to the Chugach Powder Guides (CPG) Cat Road corridor and then ultimately back to the 5K Nordic Ski Loop at its lower elevations. Once fully completed, this trail will provide the Girdwood Bike Park two alternative uphill access routes to the “High Point”. This trail will also add a cross-country bike trail option to the Bike Park while creating an additional trail option for all other user groups to circumnavigate the Girdwood Bike Park and obtain views out of the forest canopy and up the Winner Creek Valley.

## **Bike Park Description**

The Girdwood Bike Park creates greater trail connectivity, safer trail options, and desired trail types for all user groups during all seasons. The designated area of the Girdwood Bike Park, as shown in Exhibit A, was selected for several reasons.

- Maximize the use of the pre-existing trails such as the 5K Nordic Ski Loop and CPG Cat Road corridor.
- Connectivity and access to the proposed purpose-built downhill bike trails.
- Provide overall connectivity for all trail users in and around the Girdwood Bike Park
- Minimize environmental impacts by allowing easier movement of trail building equipment through the forest.

The existing CPG Cat Road will be followed once the clearing leaves the wetland meadows and is on upland terrain. Using this existing clearing reduces the environmental impact of the new trails. GMBA believes the most economical, practical and responsible way to create a trail system as described in this Master Plan is to utilize all existing infrastructure.

Adding purpose-built bike trails to the existing trail systems provides different user groups the experience they desire while minimizing environmental impacts and user conflicts.

## Trail Descriptions

The design of the Girdwood Bike Park is based a system of downhill, purpose-built, bike trails that best utilize the natural terrain to provide the optimal bike riding experience. This will be achieved by incorporating a combination of machine built “flow trails”, hand-built technical trails and multi-use connector trails throughout the designated Girdwood Bike Park.

A mountain bike flow trail as defined by the International Mountain Bike Association (IMBA) is as follows:

*“Flow Trails take mountain bikers on a terrain-induced roller coaster experience, with little pedaling and braking necessary. This style of trail typically contains features like banked turns, rolling terrain, various types of jumps, and consistent and predictable surfaces. Conspicuously absent are abrupt corners or unforeseen obstacles. As a rider carves back and forth, and up and down, he or she develops a rhythm and flows down the trail.”*

Hand-built technical trails will be constructed where larger equipment cannot access. These trails will be reduced in size, and will have a smaller impact to the forest environment. They may at times utilize native bedrock as a natural riding surface as well as roots and other natural features as obstacles to navigate. These trails will generally be rated more difficult than other trails and be only for the more experienced rider.

The multi-use connector trails will create the connectivity the Bike Park needs by providing the uphill routes to the “High Point”, while at the same time allowing for more of a cross-country biking experience that circumnavigates the Bike Park. This will allow all levels of bikers to ride to the “High Point”, if not comfortable with steeper, more technical descents, it will provide a safer, easier route back to the lower sections of the Bike Park. The multi-use connector trails will also connect the existing 5K Nordic Ski Loop in two different locations and the CPG Cat Road Corridor allowing for all user groups to be able to safely travel around the perimeter of the entire Bike Park, while expanding the options for a wonderful trail experience in the Girdwood Valley for all trail users.

## Trail Design Parameters

The Girdwood Bike Park Master Plan consists of three different proposed purpose-built bike trail types with their own design parameters. *Figure 1* is an illustration of standard bike trail design parameters provided in the Girdwood Valley Trails Management Plan. These bike trail design parameters were used as a starting point to formulate the parameters specific to the trails within the Girdwood Bike Park Master Plan.

**PROPOSED Design Parameters** (Sept 2008)

Trail Design Parameters provide guidance for the assessment, survey and design, construction, repair and maintenance of trails, based on the Trail Class and Designed Use of the trail. Exceptions and variances to these parameters can occur, however, when site-specific circumstances demand such exceptions.

Designed Use BICYCLE		Trail Class 1	Trail Class 2	Trail Class 3	Trail Class 4	Trail Class 5
Design Tread Width	One Lane	6" – 12"	12" – 24"	18" – 30"	24" – 48"	36" – 60"
	Two Lane	Not applicable.	Not applicable.	48" – 60" Accommodate two-lane travel with passing lanes.	60" – 84"	72" – 120"
Design Surface	Type	Native. Rough, unstable or soft tread.	Native, with limited grading. Unstable or soft sections likely.	Native with some on-site borrow or imported materials. Some soft areas.	Likely imported or stabilized tread. Few, if any, loose or soft surfaces.	Firm, hardened surface.
	Obstacles	Rocks, logs and roots up to 6-12" common. Forced portages likely.	Embedded rock, protrusions to 6". Some portages may be needed.	Generally smooth with few protrusions exceeding 3".	Smooth, few obstacles. 1 – 2" protrusions.	No obstacles to wheeled transport.
Design Grade*	Target Range (>90% of Trail)	15% – 18%	< 12%	< 10%	< 8%	< 5%
	Short Pitch Max (Up to 200' lengths)	30% 50% on downhill-only travel.	25% 35% on downhill-only travel.	15%	10%	8%
	Max Pitch Density**	< 10% of trail	< 5% of trail	< 5% of trail	< 3% of trail	< 3% of trail
Design Cross-Slope	Target Range	5% – 10%	5% – 10%	5%	3% – 5%	3% – 5%
	Maximum					
Design Clearing	Width	24" – 36" Some vegetation may encroach into clearing area.	36" – 48" Some light vegetation may encroach into clearing area.	12" – 18" outside of tread edge.	12" – 18" outside of tread edge.	18" – 24" outside of tread edge.
	Height	6' – 7"	7' – 8"	8'	8' - 9'	8' - 9'
Design Turns	Radius	3' - 4'	4' – 6'	6' – 8'	8' – 10'	8' - 12'

\* Grade variances should be based upon soils, hydrological conditions, use levels, and other factors contributing to surface stability and erosion potential. Due to effects of use on tread and erosion, steeper pitches should be carefully evaluated based on potential effects of these various factors.

\*\* Maximum pitch density refers to the percentage of the trail that is within 5% (+/-) of the Short Pitch Maximum Grade.

*Figure 1: Bike Trail Design Parameters  
(Girdwood Valley Trails Management Plan, Page 37)*

Listed below are the three different types of trails created for this Master Plan and a description of their parameters and how they will be incorporated into the Girdwood Bike Park.

**Machine-built, single-use, one-way, downhill bike trail:** The design parameters of this trail are most similar to a Class 4/5 bike trail listed above. The exact parameters of this trail type are as follows:

**Design Tread Width:** 48" – 72"

**Design Surface:** Firm, smooth, hardened tread, well drained, bike features

**Design Grade:** 5%-8% avg.; increased grades over short distances

**Design Cross-slope:** 3%-5%; increased cross-slopes for bike features  
**Design Clearing:** 12' wide; 8'-10' feet high  
**Design Turn Radius:** 12' - 18'

This type of trail will be constructed in the areas of the Bike Park that will allow a mini-excavator to easily navigate the forest environment. Native mineral soils will be used for the majority of the tread surface and be excavated from within the clearing limits. If insufficient amounts of native soils are present then imported gravel will be used to harden the trail tread creating a sustainable surface for bike traffic.

**Hand-built, one-way, single-use, downhill bike trail:** The design parameters of this trail are most similar to a Class 2/3 bike trail listed above. The exact parameters of this trail type are as follows:

**Design Tread Width:** 18" – 48"  
**Design Surface:** Native surfaces and obstacles, natural bike features, well drained  
**Design Grade:** 8%-10% avg.; increased grades with more difficult trail rating  
**Design Cross-slope:** 3%-5%; increased cross-slopes due to natural terrain  
**Design Clearing:** 12' wide; 8'-10' feet high  
**Design Turn Radius:** 6' – 12'

This type of trail will be found in the upper elevations of the Bike Park, where it is not feasible for a mini-excavator to navigate the forest environment. Native mineral soils will be used for the majority of the tread surface and be excavated from within the clearing limits. If insufficient amounts of native soils are present then imported gravel will be used to harden the trail tread creating a sustainable surface for bike traffic.

**Machine-built, two-way, multi-use trail:** The design parameters of this trail are most similar to a Class 4/5, two-way bike trail listed above. Even though this is multi-use trail, the bike user group will set the design parameters. The exact parameters of this trail type are as follows:

**Design Tread Width:** 72" – 96"  
**Design Surface:** Firm, smooth, hardened, well drained  
**Design Grade:** 5%-8% avg; 10-12% max grade over short sections, when needed  
**Design Cross-slope:** 3%-5%; increased cross-slopes for bike specific features  
**Design Clearing:** 14' wide; 8'-10' feet high  
**Design Turn Radius:** 12' – 18'

This type of trail will be used for all multi-use trails throughout the Bike Park. These trails will be designed and constructed to optimize uphill bike traffic efficiency, while at the same time creating an increased width to accommodate two-way, multi-use traffic.

In accordance with 5K Nordic Ski Loop user restrictions, winter biking on these trails will not be allowed. All trails will be closed during the winter months.

## Trail Ratings

The Girdwood Bike Park is designed to provide a full array of trail difficulty. The organization of the trails and their associated ratings will be similar to what is found within a downhill ski area. The most difficult trails will be found in the higher and steeper terrain. As a rider descends through the park into less steep and technical terrain there will be greater options for the beginner or intermediate rider. *Figure 2* shows the trail rating system as set forth by the International Mountain Bike Association (IMBA).

Trail Difficulty Rating System					
	Easiest White Circle 	Easy Green Circle 	More Difficult Blue Square 	Very Difficult Black Diamond 	Extremely Difficult DbI. Black Diamond 
Trail Width	72" or more	36" or more	24" or more	12" or more	6" or more
Tread Surface	Hardened or surfaced	Firm and stable	Mostly stable with some variability	Widely variable	Widely variable and unpredictable
Average Trail Grade	Less than 5%	5% or less	10% or less	15% or less	20% or more
Maximum Trail Grade	Max 10%	Max 15%	Max 15% or greater	Max 15% or greater	Max 15% or greater
Natural Obstacles and Technical Trail Features (TTF)	None	Unavoidable obstacles 2" tall or less  Avoidable obstacles may be present  Unavoidable bridges 36" or wider	Unavoidable obstacles 8" tall or less  Avoidable obstacles may be present  Unavoidable bridges 24" or wider  TTF's 2' high or less, width of deck is greater than 1/2 the height	Unavoidable obstacles 15" tall or less  Avoidable obstacles may be present  May include loose rocks  Unavoidable bridges 24" or wider  TTF's 4' high or less, width of deck is less than 1/2 the height  Short sections may exceed criteria	Unavoidable obstacles 15" tall or greater  Avoidable obstacles may be present  May include loose rocks  Unavoidable bridges 24" or narrower  TTF's 4' high or greater, width of deck is unpredictable  Many sections may exceed criteria

Figure 2: IMBA Trail Difficulty Rating System  
([www.imba.com/resource/trail-difficulty-rating-system](http://www.imba.com/resource/trail-difficulty-rating-system))

This type of rating system of the trails is well recognizable and understood. This will provide riders the information they need to assess a trail's difficulty level prior to attempting the trail. The system will also allow riders to evaluate their own riding abilities allowing riders to progress their skills as they advance to more difficult trails. Again similar to a ski area the Girdwood Bike Park aims to provide a riding experience for all ability levels and all ages.

## **Trail Design and Construction**

Building bike trails in Girdwood Valley can be a challenging endeavor due to the soil conditions and weather in this northern rainforest environment. The Girdwood Bike Park Master Plan focuses highly on a sustainably built trails system that minimizes the impact on the surrounding environment.

The Winner Creek Trail is highly popular trail in the Girdwood Valley that provides trails users a wilderness trail experience with little effort. GMBA analyzed the balance between providing trails specifically designed to bike riders, while maintaining large natural buffers between the Girdwood Bike Park and the Winner Creek Trail. GMBA pledges to keep the Winner Creek Trail experience undisturbed. GMBA hopes are to also draw bike riders away from using the Winner Creek Trail by providing a better bike riding experience in the Girdwood Bike Park, thus minimizing user conflicts and increasing the wilderness feel of the Winner Creek Trail.

GMBA will incorporate specific design and construction methods aimed at successfully developing a low-maintenance, sustainable bike park, while maintaining the natural feel of the forest. These design and construction methods will include:

- Properly designed trail slopes and cross-slopes to minimize trail tread erosion
- Continual drainage features allowing water to freely drain from the trail tread
- Constructing a weather resistant trail tread with a combination of native mineral soils and imported gravels
- Re-vegetation plan utilizing native soils mosses to reclaim any disturbed area outside the trail tread encouraging native growth and eliminating erosion of the surrounding area.
- Regular monitoring of trail conditions
- Performing any necessary trail maintenance in a timely manner.

The construction plan for of all trails is to use the native materials such as organic soils, trees and stumps to form the foundation of the major trail features, such as berms and jumps. Excess amounts of organic material will be buried underneath the trail tread. This burial technique will dispose of excess unusable material with minimal impact outside the trail tread zone. Burial of the unusable material also provides the means to excavate the underlying mineral soils that will comprise the tread surface, making the trail resistant to the harsh climate. In locations where native mineral soils do not exist in sufficient quantity, imported gravel will be used. Imported gravel will be delivered by wheel or

track driven barrow to easily accessible locations. Imported gravel will be delivered in sling loads via helicopter to more difficult or environmentally sensitive locations.

All construction activities are closely monitored by HLB with required meetings, inspections and reporting. First a pre-construction meeting is held to coordinate any final details between HLB and GMBA prior to construction. Then a pre-construction on-site inspection is performed of the flagged route of each proposed trail to be constructed. Once the flagged route is accepted, then construction can commence. During construction, weekly reporting is required, including progress status and photos. After major construction activities are complete a post-construction inspection is performed. This inspection will generate a punch list of items required to be completed prior to being open to the public. Once all punch list items are complete a final inspection will be performed and the trail will be open for public use.

Per agreements with HLB all trail design and construction will be performed by licensed and insured consultants and contractors. Volunteers will also be used, but will only be allowed during construction activities deemed safe and approved by HLB.

## **Funding**

Funding of the design, construction, maintenance and operations of the Girdwood Bike Master Plan will be one of the most important aspects that will drive construction schedules, phasing and overall development timeline. GMBA is a 501(c)(3) non-profit organization. Funds will be secured through membership fees, acquisition of grants, fundraisers and donations.

GMBA currently offers a single person \$20 annual membership, as well as a \$30 family membership. These funds are allocated to operating costs for the organization, matching dollar amounts for grants, and provide capital to host future fundraising events.

The largest contribution to date for trail development has been through grant money. Most grants require a project to be approved and “shovel-ready” in order to apply. The final Girdwood Bike Park Master Plan approval will allow multiple years of trail construction to be eligible for grant application. This will enable GMBA to submit grant applications for future phases of construction while each current phase is being completed. GMBA will be continually applying for several grants such as:

- Federal Recreational Trail Program Grant
- Kenai Mountain Turnagain Arm National Heritage Area Grant
- People for Bikes Grant
- Rasmussen Foundation Grant
- Anchorage Parks Foundation Grant
- IMBA Grant

The last source of funding is a tax-deductible donation. GMBA offers individual as well as corporate donations, each with three levels of donations ranging from \$50- \$5,000+. These funds can go directly toward all phases of development as well as the growth of the Girdwood Mountain Bike Alliance and its mission for greater biking opportunities in the Girdwood Valley.

## **Construction Phasing**

The Girdwood Bike Park Master Plan is to be completed over multiple years. Complete development of the Bike Park will solely depend on availability of funding to complete construction of new trails, while continuing maintenance and operation of existing trails.

The approval of this Master Plan will allow for continuous funding opportunities because the next phase of construction will be “shovel ready” for grant applications and will not require additional approval for each phase. Continued incremental progress of the park will provide a tangible return to members and donors encouraging additional donations and an increased member base.

A phasing plan will evaluate many different considerations and aim to provide an annual work plan that will address the most immediate needs or concerns of the trail users, as funding becomes available. A general phasing plan of the Girdwood Bike Park will be developed based on several key components, such as:

- Variety of trail difficulty ratings to appeal to all riders and all ages
- User experience for all trail user groups
- Traffic flow and interactions of different user groups
- Construction timing and access
- Trail connectivity
- Public comment
- Funding

Phasing of specific trails and/or trail areas are planned to be developed in an order as listed below. Refer to attached map in Exhibit A.

1. Trails currently approved and funded for construction
  - a. Small House
  - b. 2-Cents
  - c. Urn-Again
2. Trails shown in **RED** while taking into account phasing considerations listed above.
3. The remaining section of Urn-Again as shown in **Blue** that follows the CPG Cat Road and provides alternate access to the “High Point”
4. Zones A, B and C

Specific phasing will be developed on a year to year basis. Prior to the beginning of each construction season. The GMBA will determine their current funding level and then propose a work plan for the upcoming season. This can include new construction as well as necessary maintenance. Submitted with the work plan will be an estimated budget to complete the year's tasks. A simple formula will be used that states that any new trail constructed must have 105% of the estimated budget prior to beginning construction. The extra 5% of the estimated budget will be allocated to deferred maintenance of the trails after construction is complete. This work plan will be submitted each year to the HLB for approval. They will have the ability to review past construction success, future plans, funding levels, necessary maintenance, etc. prior to providing an early entry permit to allow new construction to commence.

The Girdwood Mountain Bike Alliance and The Heritage Land Bank will also be entering into a Cooperative Use Agreement. This agreement will define the rules to follow through construction, maintenance and continued operations of the Girdwood Bike Park. The Cooperative Use Agreement will not only include aspects of construction phasing as stated above, but it will also include the requirement for reporting all future work plans to the Girdwood Trail Committee prior to beginning any new phase of construction. The Cooperative Use Agreement will also prompt an annual meeting with all trail managers within this proposed area, including Girdwood Mountain Bike Alliance, Girdwood Nordic Ski Club, Chugach Powder Guides, and the US Forest Service to discuss how to further improve trail development, management and operations.

## **Continued Public Input**

The Girdwood Mountain Bike Park will be a community driven project. Continued support from the community of Girdwood is essential to the success of the Bike Park. The goal of GMBA is to keep the general public of Girdwood up to date with all current and future developments of the Bike Park. The mechanism for continued public input will be updates at the Girdwood Trails Committee and outreach with our membership base. After each year's work plan is developed and approved by HLB, it will then be reported to the Girdwood Trails Committee for comment. This comment period with the Girdwood Trails Committee will be planned to be held between April and May. The approved work plan will also be reported to our membership base at an annual membership meeting each year prior to the summer biking season. Both of these venues allow all types of trail users to comment on past construction and give suggestions for future development. GMBA is receptive to public comment and will incorporate comments, suggestions and concerns into each phase of construction as appropriate.

## **Operations and Maintenance**

Like all non-profit mountain bike organizations, GMBA will rely heavily on its member base for trail-building and maintenance operations. Because trails cannot be built and maintained solely by volunteers, GMBA will secure 100% of estimated construction funds as well as the first year's maintenance costs for trails prior to start of construction. The money saved through the use of volunteers will be put towards future maintenance and funding of new trails.

GMBA understands that the key to a sustainable trail system is to ensure proper funding of operating trails before any future trails are constructed. GMBA will organize and perform maintenance on trails by funding professional work and using the local volunteer community. GMBA will dedicate its entire annual budget to trail maintenance and operations prior to dedicating any funds towards new construction of future trails. As future trails get built the maintenance budget will grow and thus the growth of the bike park will be determined on the ability of the GMBA to acquire funds annually greater than their maintenance budget. Once sufficient funds for new construction are saved, future trails will be proposed for construction.

## **Safety and Signage**

The safety of all trail users within the Girdwood Bike Park is a key component for a successful recreational area for many years to come. Elements of safety will be incorporated into trail design, interaction of different users group, signage, as well as providing necessary information to assist the Girdwood Volunteer Fire Department (GVFD) in formulating rescue plans.

Safety of the Girdwood Bike Park starts with a focus on properly designed and constructed trails that allow riders of all levels to have a great trail riding experience without any unnecessary obstacles or hazards. Key aspects to safety oriented trail design and construction include:

- Thorough planning and flagging of trail alignments prior to construction.
- Separation of trails users by designating specific trails to be directional purpose-built bike trails, minimizing user conflicts
- Properly designed trail intersections that adequately reduce riders speed prior to riders exiting the directional purpose-built bike trails and entering multi-use trails.
- Extensively test riding all sections of trails and all trail features as they are being constructed.
- Providing a ride around option for the more technical features of trails. Where ride around options are not practical these trails will then be rated at the most expert level.
- Complying with all HLB inspection requests.
- Continued test riding through the life of the trail
- Maintaining, repairing or altering trails ensuring their continued safety

GMBA will develop a comprehensive signage system to assist all trail users in safely navigating the Girdwood Bike Park. Signage will also assist the Girdwood Volunteer Fire Department (GVFD) performing any necessary rescue missions. Prior to officially opening the trails to the public GVFD will be provided current trail information and access points for rescue missions. All signage will meet any requirements put forth during HLB post-construction inspections. Typical signage will include:

- Directional and informational signs to be placed at the main trailhead and at other key locations.
- Warning signs will prepare riders for more technical features
- Regulatory Signs will inform riders of direction of travel, designation of user groups, trail ratings, etc.
- Waypoint markers will be located at each trail intersection assisting in potential rescue operations should a rider be injured and local medical personnel need to locate them within the Bike Park.

## **Compliance with IMBA Standards**

GMBA's trail plan relies heavily on the "Principles of Sustainable Trails," outlined in IMBA's book Trail Solutions: IMBA's Guide to Building Sweet Singletrack. IMBA considers a sustainable trail one that

"has very little impact on the environment, resists erosion through proper design, construction, and maintenance, and blends with the surrounding area. A sustainable trail also appeals to and serves a variety of users, adding an important element of recreation to the community."

Technical aspects of sustainable standards are outlined below in the Girdwood Valley Trails Management Plan section.

## **Management Plans**

### **I. Heritage Land Bank (HLB) Work plan**

The Heritage Land Bank’s current 5-year work plan addresses future trail development as follows:

“strongly recommends that any new trails are proposed as a direct result of implementing a Girdwood Valley-wide trail vision, adopted as a comprehensive plan element. With varied user groups and interest both locally and regionally, it is imperative that access, parking, and user conflicts are addressed and planned for.”

This Master Plan establishes how this bike park will be incorporated into to the current trail network in the Girdwood Valley. The Master Plan has aimed to incorporate all aspects of the Heritage Land Bank work plan as well as the current Girdwood Area Plan and Girdwood Valley Trails Management Plan.

The current five-year HLB work plan states several key points that HLB aims to uphold to extend the existing trail network in Girdwood in a reasonable manner. Below is a list of those key points that were thoroughly addressed in the proceeding sections.

- Increase safety and accessibility for all trail users
- Minimize user conflicts
- Define the types and location of access points to the system
- Minimize adverse environmental impacts, and
- Ensure the long-term management and maintenance of the trail network

### **II. Girdwood Area Plan:**

Recreation is a primary concern of Girdwood land use. The first theme listed on Girdwood Area Plan’s Chapter 7 (Land Use Plan) is as follows:

“development of new resort/ recreational facilities.” This section continues, “besides downhill skiing, there are other recreational opportunities in the valley that could be created... in particular are summer season activities, such as, golf, tennis, hiking, mountain biking” and “The establishment of year-round destination resort/ recreational facilities in the Girdwood area can be part of a larger local and regional strategy to create a more independent and diversified economy. It can also bring additional social and recreational benefits to the area as well.”

The trails proposed by the GMBA align with the Girdwood Area Plan directly by providing a summer recreational facility in an area that previously has none.

### **III. Girdwood Valley Trails Management Plan.**

GMBA has followed the process outlined in the Girdwood Valley Trails Management Plan (Chapter 1, pg. 11).

*“For trails on HLB lands, the Girdwood Board of Supervisors, Parks and Recreation, and Trails Committee all provide recommendations to the Anchorage Assembly for approval of major trail decisions, such as trail dedication, easement establishment, or new trail construction. Less major decisions require approval of the Girdwood Board of Supervisors.”*

Mountain bike trails will contribute to the documented social and economic benefits of trails outlined in the Girdwood Valley Trails Management Plan. Examples of these include non-motorized access to community resources, access to affordable exercise to all within the community, numerous mental and physical health benefits to outdoor exercise, appreciation of natural assets and stimulation of local economy.

GMBA trails will comply with the Girdwood Valley Trails Management Plan “sustainable standards,” by utilizing trail concepts such as the half rule, maximum sustainable grade, grade reversals, durable tread surface, and outslope. These trail standards will be constructed professionally by a licensed contractor.

GMBA trails will focus on “Trail Users Experience,” as it is outlined in Chapter 2 of the Girdwood Valley Trail Management Plan.

GMBA will follow all guidelines in the “Trail Design Process,” section of the Girdwood Valley Trails Management Plan, including re-vegetation, signage, clearing guidelines and natural considerations.

Mountain Bike trails are in accordance with the Girdwood Valley Trail Management Plan Recommendation number one:

*Health and fitness will be encouraged throughout the valley. This will be accomplished by looking for opportunities to connect users with trail options that may offer alternatives to vehicular transportation for day-to-day activities and through the consideration of trail design and trail-related facilities that enhance health and fitness. (Chapter 6, pg. 39).*

## **APPENDIX**

### **Exhibit A: Girdwood Bike Park Master Plan Map**

# GIRDWOOD BIKE PARK

# MASTER PLAN

JANUARY 2019



**ZONE C**  
4-5 TRAILS  
(1,000' AVG.)

**ZONE A**  
1-2 TRAILS  
(300' AVG.)

**ZONE B**  
2-3 TRAILS  
(500' AVG.)

CPG CAT ROAD

5K NORDIC SKI LOOP

HIGH POINT

2-CENTS

EARN AGAIN

SMALL HOUSE

WINNER CREEK TRAIL

5K NORDIC SKI LOOP

ARLBERG RD.  
TRAIL HEAD  
PARKING LOT

## TRAIL LEGEND

-  APPROVED MULTI-USE TRAIL (.4 MILES)
-  APPROVED SINGLE-USE BIKE TRAIL (.6 MILES)
-  PROPOSED MULTI-USE TRAIL (1.5 MILES)
-  PROPOSED SINGLE-USE BIKE TRAIL (3.5 MILES)

MULTI-USE TRAIL = 6'-8' TREAD, 14' CLEARANCE

SINGLE-USE BIKE TRAIL = 4'-6' TREAD, 12' CLEARANCE

**PROPOSAL 116**

**5 AAC 85.020. Hunting seasons and bag limits for brown bear.**

**5 AAC 92.132. Bag limit for brown bears.**

Change the brown bear hunt in Unit 14C Remainder to a registration hunt with a bag limit of one bear every year as follows:

**Brown/Grizzly Bear**

**Unit 14C Remainder**

**Resident and Nonresident**

**One bear every regulatory year by registration permit RB XXX Sept. 1—May 31.**

**What is the issue you would like the board to address and why?**

**One every 4-year bag limit for brown bear in Unit 14C Remainder.**

Unit 14C Remainder within the Chugach National Forest is adjacent to Unit 7 that also includes the Chugach National Forest. Brown bear populations in both units are abundant.

The bag limit for brown bear in Unit 7 is one bear every regulatory year, September 1 – May 31, for both residents and nonresidents under the RB300 permit.

We see no reason the same bag limit and registration permit structure should not be implemented in Unit 14C Remainder.

**PROPOSED BY:** Resident Hunters of Alaska

(HQ-F18-024)

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**PROPOSAL 117**

**5 AAC 85.015. Hunting seasons and bag limits for black bear.**

Extend the hunting season for black bear in the Joint Base Elmendorf-Richardson Management Area in Unit 14C as follows:

Joint Base Elmendorf-Richardson (JBER) proposes to extend the black bear hunting season for 5 AAC 85.015. Unit 14C Joint Base Elmendorf-Richardson (DL455) to encompass the entire open season for black bears in Unit 14C: **Sept. 1—Jun 15** [APR. 15—JUN15]

**What is the issue you would like the board to address and why?** JBER would like to extend the black bear hunting season to encompass the entire open season for black bears in Unit 14C. For safety purposes during military training activities, portions of JBER are closed to the public while training occurs. Due to military training requirements, access to portions of JBER for the 2016 black bear hunt was curtailed for majority of the hunting season for safety to the military and public. To provide hunters with the greatest opportunity to have a successful hunt on JBER, we propose extending the open season dates of the hunt.

**PROPOSED BY:** Joint Base Elmendorf-Richardson

(HQ-F18-010)

\*\*\*\*\*

hunters an opportunity to take bears in a much safer way. Since most hunters harvest bears from a tree stand, the trajectory of the projectile is in a downward direction, eliminating a stray bullet from traveling far. It also provides a better opportunity for hunters by attracting the animal to a planned location where it would draw them away from more populated areas. Many Anchorage citizens were concerned over last year's many interactions between residents and bears. Panic in some after hearing of the death of a 14-year-old hiker. Over 30 animals were killed by ADF&G, police and residents claiming they or their property was in danger in the Anchorage area last year alone.

**PROPOSED BY:** Phillip Calhoun (EJ-F18-767)  
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**PROPOSAL 121**

**5 AAC 92.044. Permit for hunting bear with the use of bait or scent lures.**

Allow the harvest of bear with the use of bait in Unit 14C Remainder as follows:

**Add Unit 14C Remainder to the list of areas under 5 AAC 92.044 where black bear baiting is allowed April 15 – June 30.**

**We also ask the Board of Game to consider allowing brown bear baiting from April 15 – May 31.**

**What is the issue you would like the board to address and why?**

**Bear baiting not allowed in Unit 14C Remainder.**

Both black and brown bear hunting is allowed in Unit 14C Remainder for both residents and nonresidents and there is no closed season for black bear in Unit 14C Remainder.

Unit 14C Remainder is adjacent to Unit 7 and within the Chugach National Forest. Bear baiting is allowed in Unit 7 within the Chugach National Forest. There is no reason we can see that bear baiting is restricted in 14C Remainder. The area is fairly remote, there are plenty of bears, and opening up more baiting opportunities will help spread out bear baiters.

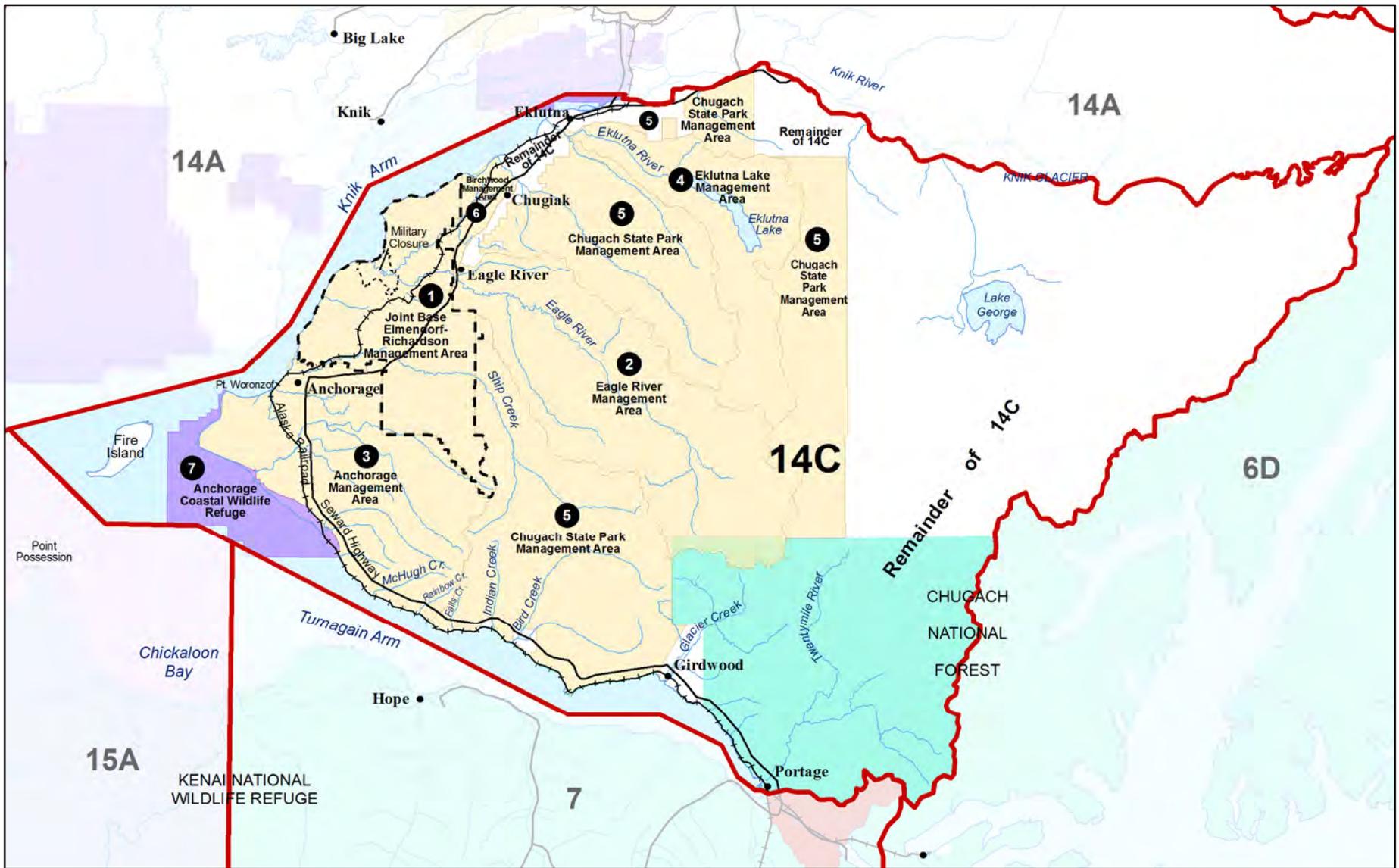
**PROPOSED BY:** Resident Hunters of Alaska (HQ-F18-023)  
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**PROPOSAL 122**

**5 AAC 92.003. Hunter education and orientation requirements.**

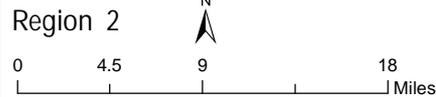
Require hunter education for small game hunting in the Joint Base Elmendorf-Richardson Management Area in Unit 14C as follows:

Joint Base Elmendorf-Richardson (JBER) proposes to be added to the list of areas identified requiring hunters to successfully complete a Basic Hunter Education course in the first paragraph of requirements for all hunters on page 13.



# Unit 14C

## Anchorage-Eagle River



### Game Management Units / Special Management Areas

- |  |  |                                      |
|--|--|--------------------------------------|
| Closed Areas   | National Parks                           | Military Boundary                    |
| Controlled Use Areas                                 | National Preserves & Other Federal Lands | Military Closure                     |
| Management Areas                                     | Unit Boundary                            | Tangle Lakes Archaeological District |
| State Refuges, Sanctuaries, & Critical Habitat Areas | Subunit Boundary                         | Roads                                |
| Other State Lands                                    | City Boundary                            | Railroads                            |
|  |  | Trails                               |



## Girdwood Area Plan Update Committee Operating Procedures

The mission of the Girdwood Area Plan (GAP) Update Committee is to fund and complete a transparent, inclusive review of the Girdwood Area Plan to guide Girdwood land use in an orderly and understandable process that is respectful of all views.

The mission of the Girdwood Area Plan:

“Guiding Girdwood land use: creating a framework for the future of Girdwood.”

The GAP is a grassroots organization undertaking update of the 1995 Girdwood Area Plan in accordance with AMC 21.03.130.2B for the purpose of creating a plan that matches the wants and needs of the community as it continues to grow and evolve.

The GAP Committee must follow municipal requirements for completion of an Area Plan, and is operating with a Resolution of Anchorage Municipal Assembly Authorization. The GAP committee provides monthly reports to the Girdwood Board of Supervisors and the Girdwood Land Use Committee. The Girdwood Area Plan Update will be subject to review and approval by the Girdwood Land Use Committee, Girdwood Board of Supervisors, Municipal Departments and the Anchorage Assembly.

The GAP Update Committee will work with municipal stakeholders, business members, local residents, and cross functional organizations to procure, report on, develop, present and publish a 20 year plan document that reflects the desires, feedback, and current vision of the community for the future of Girdwood. The document will reflect the opinions, in general, of our community at large and anecdotally note areas where there may be alternative views as expressed by the public.

### I. Meetings

- Regular meetings are held monthly, generally the last Wednesday or Thursday of each month, unless a national holiday or other important event conflicts.
- Meetings are open to all interested persons.
- A previously published agenda is followed at each meeting.
- GAP meetings are lead by one of the co-chairs. The Girdwood Valley Service Area (GVSA) Administrative Officer, or designee takes minutes and publishes the agenda and minutes for meetings on the website: [www.muni.org/gbos](http://www.muni.org/gbos) as well as posting them on the Girdwood Library, Community Room and Girdwood Post Office bulletin boards.  
The GAP committee manages an independent website: [www.girdwoodareaplan.com](http://www.girdwoodareaplan.com) and [www.girdwoodareaplan.org](http://www.girdwoodareaplan.org).
- Format is an open forum; Robert's Rules of Order are followed when necessary.
- Issues requiring a vote require a minimum of two presentations at two different meetings at least one month apart.

### II. Voting Membership

Voting membership is defined according to the guidelines for community council voting membership under Anchorage Municipal Code Title 2 Chapter 40 and is consistent with affording residents maximum community involvement.

- **Members** – A Qualified Member is any person eighteen (18) years of age or older who has been a resident and/or property owner, business owner or designated representative of a non-profit association who has resided in, owned property in, owned a business located in, or operated as a non-profit association for ninety (90) days or longer in Girdwood Valley. Girdwood Valley is the area defined as “the Girdwood Community Association/Land Use Committee boundary area depicted on Map 10 located in AMC Section 2.40.090”.

Businesses and nonprofit entities not otherwise represented at the Girdwood Area Plan Update Committee and who meet one of the following criteria may designate one (1) representative to be a voting member of the Girdwood Area Plan Update Committee:

- a) The business is a corporation operating in Girdwood but without the representation of a director or corporate officer who otherwise meets the membership criteria.
- b) The business is a partnership with all partners residing outside the Girdwood area but operating in Girdwood.
- c) The business is a limited liability company with all member(s) residing outside the Girdwood area but operating in Girdwood.
- d) The business is a sole proprietorship with the proprietor residing outside the Girdwood area but the business operates in Girdwood.
- e) The nonprofit entity is a corporation duly qualified under a subsection of IRC 501 and registered in the State of Alaska with all officers, directors and members residing outside the Girdwood area but operating in Girdwood.
- f) The nonprofit entity is an association duly organized under Internal Revenue Code and registered in the State of Alaska with all officers, directors and members residing outside the Girdwood area but operating in Girdwood.

Businesses and nonprofit organizations that qualify as described above may designate one (1) representative for the calendar year. The written request must be made January 1 thru 31 of each year or when commencing operations in the Girdwood area. The written request must be delivered to the GAP Co-Chair and duly recorded by the GVSA Administrative Officer. Designated representatives have one (1) vote on any issue regardless of whether they qualify for GAP membership under other categories.

Anyone may inquire of any person who purports to meet the membership requirements in order to determine their eligibility to be a member of the GAP.

- Attendance is verified by signing in on a sign-in sheet available at each meeting. Attendance records will be kept by the GVSA Administrative Officer. Determination of qualified voters will be made by the co-chair or their designee.
- Voting members must be physically present during the meeting in which they vote. Absent members are encouraged to send comments to the chair prior to the meeting. These comments will be read to the committee before a vote.
- A Quorum is defined as five eligible voting members.
- Eligible voting members must have attended one meeting in the last twelve months in order to cast a vote.

### **III. Elections and Officers**

- The GAP officers are two co-chairs.
- A report of the funds held by Girdwood, Inc. on behalf of the Girdwood Area Plan Update Committee shall be provided monthly.
- Elections are held once a calendar year, preferably in January.

### **IV. Funds**

- Per agreement, committee money is held in a designated account with Girdwood, Inc.
- Girdwood Parks and Recreation staff or committee chair may request funds from Girdwood, Inc. Requests must be made on the Girdwood Inc., required form and accompanied by a receipt.

### **V. Modifications to This Document**

- Voting members may modify this document with a majority vote.

Girdwood Area Plan Update Committee  
PO Box 1102  
Girdwood, AK 99587

Adopted October 24, 2018

## Procedure for considering Out of Area Requests for hearing and action

### Introduction & Overview:

Anchorage Municipal Code 2.40.030.E: The municipality recognizes the Girdwood Board of Supervisors as the community council ex-officio, which serves the Girdwood Community Association/Land Use Committee boundary area depicted on Map 10 located in section 2.40.090.

Occasionally there are requests for action not related to Girdwood Valley Service Area budget items of: parks and recreation, roads, cemetery, public safety and fire department and/or pertaining to items originating outside of the Girdwood Valley. These items must be represented a community sponsor\*; action is voted on at Land Use Committee (LUC), and passed to the Girdwood Board of Supervisors (GBOS) for further consideration and action. This process typically requires two months (four meetings) and a majority vote of both LUC and GBOS to complete.

### Process:

Petitioner must determine if they are seeking group action from LUC/GBOS or if they are seeking action by individuals in the area. If individual action is requested, the petitioner should speak under Public Comment at the Girdwood Public Meetings requesting that individuals take action. Public comment is limited to 3 minutes.

If action from the LUC/GBOS is requested, the item will follow LUC/GBOS procedures:

#### A. Introduction at LUC and GBOS as New Business

Item will be brought to the LUC and GBOS as New Business for introduction. This introduction should not last more than 5 minutes, plus Questions/Answer period. If the item does not have a community sponsor\*, the petitioner must find one before it can be brought back to LUC and GBOS as Old Business for a potential vote.

#### B. Hearing at LUC and GBOS as Old Business

After one month, items with a community sponsor can come back for hearing and review by the LUC and GBOS to request action as Old Business. At least one week prior to the LUC meeting, the community sponsor must provide draft language of the Resolution of Support. LUC will hear the topic and will vote whether or not to recommend action by the GBOS. If LUC votes in favor of the action, the draft resolution language will be reviewed by a member of the GBOS and the community sponsor to create a final draft. At the GBOS Old Business hearing, the topic will be discussed, including the recommendation of the LUC and proposed final language.

In the event that LUC and GBOS disagree on the outcome, a special meeting to resolve their differences will be called, as outlined in the GBOS Rules and Procedures and LUC Operating Principles.

\*A community sponsor is any member in the community who meets the requirements as a voting member of the Girdwood Land Use Committee. A voting member is any person eighteen (18) years of age or older who has been a resident and/or property owner, business owner or designated representative of a non-profit association who has resided in, owned property in, owned a business located in, or operated as a non-profit association for ninety (90) days or longer in Girdwood Valley.

# Application for Dimensional Variance

Municipality of Anchorage  
 Planning Department  
 PO Box 196650  
 Anchorage, AK 99519-6650



PETITIONER*		PETITIONER REPRESENTATIVE (if any)	
Name (last name first) Swanson, Robert B. Jr & Cszasz-Swanson, Sandra M.		Name (last name first)	
Mailing Address PO Box 111671,		Mailing Address	
Anchorage, AK. 99511			
Contact Phone – Day 907-227-4606	Evening 907-227-4606	Contact Phone – Day	Evening
Fax 907-349-2555		Fax	
E-mail sgcrob@pobox.alaska.net		E-mail	

\*Report additional petitioners or disclose other co-owners on supplemental form. Failure to divulge other beneficial interest owners may delay processing of this application.

PROPERTY INFORMATION		
Property Tax # (000-000-00-000):	076-072-09-000	
Site Street Address:	119 Stowe Drive, Girdwood, AK.	
Current legal description: (use additional sheet if necessary)		
Alyeska Basin #5 BLK 20 Lot 11		
Zoning: GR-2	Acreage: .339 (14,784 sf)	Grid #: SE4916

PETITIONING FOR
Dimensional variance to place rock retaining wall and fill a maximum of 12'-4" into 25' Stream Setback to construct an elevated building pad.

CODE CITATIONS
AMC 21. 07.020B.9
AMC 21.

I hereby certify that (I am)(I have been authorized to act for) owner of the property described above and that I am petitioning for variance in conformance with Title 21 of the Anchorage Municipal Code of Ordinances. I understand that payment of the application fee is nonrefundable and is to cover the costs associated with processing this application, and that it does not assure approval of the variance. I understand that the burden of evidence to show compliance with the variance standards rests with me, the applicant. I also understand that assigned hearing dates are tentative and may have to be postponed by Planning Department staff or the Zoning Board of Examiners and Appeals for administrative reasons.

Signature       Owner     Representative  
 (Representatives must provide written proof of authorization)

1/29/19  
 Date

Robert B. Swanson Jr.  
 Print Name

Accepted by:	Poster & Affidavit:	Fee:	Case Number:	Requested Meeting Date:
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### GBOS/LUC Quarterly Joint Meetings

These meetings began in 2014, in part to discuss together the Community Council issue

Joint meetings are not addressed in the GBOS Rules & Procedures or the Land Use Committee's Operating Principles.

GBOS LUC Joint meetings were held in March 2018 and January 2019 (December meeting moved to accommodate GBOS/GFR Joint meeting)

Joint meetings can be called at any time, by either body.

Under the Quarterly schedule, the next GBOS LUC Joint meeting is tentatively scheduled April 15 at 6PM, prior to Regular GBOS meeting.

Recommend that the LUC and GBOS consider the meeting schedule "as needed, but not less than twice annually".

**TO:** Girdwood Land Use Committee  
**FROM:** Christina Hendrickson, PO Box 978, Girdwood, AK 99587  
**RE:** Request for Resolution Supporting Girdwood Bike Park  
**DATE:** 11 February 2019

Good evening. I am unable to join you in tonight's discussion and have requested that my comments and input be read for the public record. Last Thursday, I spent three hours reviewing and editing the proposed DRAFT Girdwood Bike Park Master Plan. I submitted my comments to Nick Georgelos.

I do not YET support this request for a Resolution. I support the Girdwood Mountain Bike Alliance(GMBA)'s momentum to document their intent in a living document, and I support this non-profit group's effort.

I understand that the driver to move this forward tonight is to help the Alliance move forward through GBOS, HLB, and the Municipality. Per their narrative, GMBA will complete a third trail in Girdwood Bike Park in Summer 2019. At this time, no Work Plan nor grant applications are imminent for additional field work in 2019.

I would like to take time to review, understand, and engage HLB's Cooperative Use Agreement (CUA) with GMBA. These two entities formalized this new arrangement in late January 2019. GMBA presented the CUA as operating guidelines, accountability, and process to approve annual Work Plans. During the Girdwood Trails Committee (GTC) meeting, many questions arose on how this CUA and its governance fits into the flow chart GTC worked on diligently in the recent past.

I would prefer to vote on this Resolution after hearing from HLB regarding how they perceive this agreement fitting into the process by which GTC requires all other trail-related requests in our Service Area.

I understand GMBA's desire to run approval processes concurrently. Governance takes time and resources, which are not easy to come by as a non-profit. I get that. In January 2019, Girdwood Board of Supervisors learned of the new \$4,000 application review fee imposed by the Municipality. And now, on the heels of lessons learned from the Forest Loop Trail approval, and in the midst of the Girdwood Area Plan update, I am compelled to slow down, even just for a month, to align the objectives, roles and responsibilities, and communication among:

Girdwood Mountain Bike Alliance  
Land Use Committee  
Heritage Land Bank

Girdwood Trails Committee  
Girdwood Board of Supervisors  
Urban Design Commission

In the next month, these six entities can meet. GMBA can incorporate more detailed edits into its Master Plan and Maps and present a more final version in future presentations. Questions posed at the February GTC meeting can be answered, such as, "At what point can the public weigh in on and provide comments to a proposed trail or Master Plan?"

The fact that this basic public involvement milestone is unclear in the multiple processes that the non-profit applicant must navigate warrants a brief pause to redress the issues conveyed to these multiple entities.

Thank you for your time and respectful discourse.

