

1 **Appendix F - Trail Plan**

2  
3 **Introduction**

4  
5 **Background**

6 Much of the trail management effort in Kachemak Bay State Park (KBSP) and Kachemak  
7 Bay State Wilderness Park (KBSWP) until recently has been directed to the upkeep of  
8 existing trails in a heavily vegetated coastal region. New growth of brush and windfall of old  
9 trees is a constant issue and heavy rains and snowfall have caused drainage issues that need  
10 to be constantly kept up with. Little funding was available to expand the system and so the  
11 basic trail network in the park has generally remained the same. Over time many of the trails  
12 have been upgraded into a more sustainable design and now it is possible to look forward to  
13 the construction of new sustainable trails.

14  
15 Since the 1995 Kachemak Bay State Park and Kachemak Bay State Wilderness Park  
16 management plan, the thinking on overall trail construction and management philosophy has  
17 evolved nationwide as most trail management agencies, like Alaska State Parks, have  
18 struggled to keep trails in acceptable condition. Trails in the Kachemak Bay area are no  
19 exception to this. To provide good trail experiences and to protect public safety and welfare,  
20 it became clear that best management practices needed to be upgraded to create a system  
21 where trails could be managed to enhance recreational opportunities, provide greater resource  
22 protection and most importantly given the availability of trail resources, require minimal  
23 maintenance.

24  
25 In March 2009, the Division of Parks and Outdoor Recreation (DPOR) finalized a Trail  
26 Management Policy that provides direction on how DPOR will manage, develop, maintain,  
27 and assess the condition of state park trails. The policy provides goals and trail management  
28 concepts for sustainable and responsible trail development and management. This trail plan  
29 was developed consistent with the concepts in the Trail Management Policy and will serve as  
30 the framework for management and trail development within KBSP and KBSWP. The use  
31 of sustainable design will create important long-term benefits, principally a reduced need for  
32 regular maintenance and repairs into the future. The use of the recently developed  
33 interagency trail classification system will enable DPOR to better coordinate with partners,  
34 share resources and allow for greater efficiency and seamless trail connectivity.

35  
36 Accommodating a variety of recreational uses and trail user groups is a challenge within the  
37 park because topography influences use patterns and park users are frequently competing to  
38 use the “best” areas. Under this plan, sustainable construction and trail maintenance  
39 practices will be utilized on all future trail management activities including both trail-related  
40 project work and regular trail maintenance. The trail system will remain multi-use in nature  
41 but will abide by the standards in the new Trail Classification System. This system defines  
42 trail standards and design parameters by some trails designed and managed uses.

**Plan Purpose**

The Kachemak Bay State Park and Kachemak Bay State Wilderness Park Trail Management Plan is needed as a strategic tool to plot the course of trail management in the coming years. It is based on an analysis of existing access points, trails, the park environment and resources, land ownership and status, and current and anticipated trends in recreational use. The plan identifies management objectives and establishes guidelines for the future use and development of trails in KBSP and KBSWP. The primary purposes of this plan are to provide:

- A trail system which allows for optimum recreational use of the area while protecting the natural resources of the park.
- A consistent set of principles and policies for trail management.
- A basis for future funding.
- A roadmap for the trail building and maintenance efforts.
- A trail system that is hiker friendly and safe.

**Planning Process**

The Department of Natural Resources (DNR) began the planning process to revise the 1995 Kachemak Bay State Park Management Plan in 2013, and the Trail Plan was started in 2014. Public scoping workshops were held in Anchorage, Homer and surrounding communities to gather information and identify issues and concerns. Many comments were received during the scoping phase of the process that focused on trails and trail maintenance. To learn more specific details about how people use the park and would like to use the park, additional focus group meetings were held in 2015 and 2016 with a variety of user groups.

**Trail Inventory Process**

In the Spring of 2011, a Trail Inventory and Assessment Project began in Kachemak Bay State Park and has proven to be a major asset in the development of this plan. The pilot program was initiated by the Kachemak Bay State Park Citizens Advisory Board using the National Park Service's (NPS) River Trails and Conservation Assistance Program resources. It was a collaborative effort between State Parks, the US Forest Service (USFS), and the Alaska Department of Natural Resources' Land Records Information Section. Park staff used Global Positioning System (GPS) and ground station equipment to hike and catalog the condition, features and exact locations of the trails within the park.

The project plan was to map existing trail centerlines as accurately as possible while recording basic trail condition and associated constructed features found directly adjacent to the trail and processing and archiving these data in a Geographical Information System (GIS). Over two summers the field mapping crew used GPS units with sub-meter accuracy and basic trail inventory equipment to collect data for approximately 265 miles of trails. The crew collected information based on uniform standards like those adopted by the USFS and utilized by the NPS and the Municipality of Anchorage. The data included trail centerlines; trail condition information such as amount of brush, erosion, trail width, grade, and surface

1 type; trail structures such as bridges, culverts, boardwalks, and signs; trailheads and  
2 associated features including gates, kiosks, parking, fee stations, and toilets; physical features  
3 such as ford sites and viewpoints; and photographs with spatial coordinates to create photo  
4 links.

5  
6 For the first time, accurate trail alignments and distances are known for a large portion of the  
7 trails within the park and the condition of the trails and associated structures are documented.  
8 In the future, this information can be used to make further assessments and prescription  
9 decisions, to generate maps and trail websites, to help in securing grant funding, and for  
10 further planning purposes.

## 11 **Use and Users**

12 Perhaps the most heavily used resource within Kachemak Bay State Park is the trail system  
13 and increased focus should be put on the maintenance of these trails. Park trails offer a wide  
14 variety of recreational opportunities year-round for residents and out-of-state visitors alike.  
15 Summer uses include hiking, mountaineering, bicycling, fishing, running, horseback riding,  
16 orienteering, kayaking, rafting, canoeing, pack rafting, paragliding, berry picking, nature  
17 walking, sightseeing, and hunting. Winter activities include skiing, snowboarding,  
18 snowshoeing, dog mushing, skijoring, winter biking, and trapping. Demands for organized  
19 events within the park areas such as bike races, ski races, fund raisers and other gatherings  
20 continue to grow as does commercial use of the park. The differing skill levels of park users  
21 and the multitude of competing interests and uses often overlap seasonally and  
22 geographically. This plan seeks to lay the framework for a network of trails that over time  
23 will provide diverse trail opportunities and experiences for a wide variety of park users.  
24  
25  
26

## 27 **General Trail Policies**

28  
29 The Kachemak Bay area needs a lot of work to improve existing trails and plan for exciting  
30 new trail routes through DPOR managed areas in KBSP and KBSWP. DPOR plans to  
31 transform the trail system into a sustainable and functional trail system that meets the needs  
32 of user groups while simultaneously providing for the protection of natural resources. Using  
33 the new interagency trail classification system, sustainable trail design and proper  
34 maintenance, improvements will be made over time to create a functional, high-quality trail  
35 system. The following general trail management policies and management concepts apply to  
36 trails in the park in conjunction with the trail specific recommendations provided later in this  
37 plan.  
38

### 39 **Sustainable Trail Framework**

40 In complying with the Division of Parks and Outdoor Recreation’s Trail Management Policy,  
41 this plan implements a Sustainable Design Framework to create a trail system that has  
42 minimum impact on natural systems and low maintenance costs. A Sustainable Trail is  
43 defined as a trail that conforms to its terrain and environment, can handle its intended use  
44 without serious resource degradation, and requires minimal maintenance. Sustainable Trails  
45 focus on initial trail design to minimize resource degradation and maximize the user

1 experience. This involves the use of integrated water control, curvilinear layout, grade  
2 control and full bench construction. While initial construction costs may be more, reduced  
3 future maintenance costs should compensate for those initial investments.  
4 The following guidelines will be considered and integrated when building or improving trails  
5 within the park. At times, certain circumstances may make the use of some of these  
6 guidelines difficult or impossible to fully implement. In these cases, reasonable measures  
7 should be taken while maintaining the spirit of the guidelines. Some segments of the existing  
8 park trails do not yet meet the sustainable standards. Where this is the case, a higher level of  
9 maintenance is required to keep the trail tread in reasonably good condition while  
10 minimizing impacts on park resources. The ultimate result will create a park resource that  
11 provides transportation alternatives, recreational opportunities, environmental aesthetics,  
12 open space preservation, and increased adjacent property values.

13  
14 The following six guidelines will be considered and integrated when building or improving  
15 trails within the park. At times, certain circumstances may make the use of some of these  
16 guidelines difficult or impossible to fully implement. In these cases, reasonable measures  
17 should be taken while maintaining the spirit of the guidelines. Some segments of the existing  
18 park trails do not yet meet the sustainable standards. Where this is the case, a higher level of  
19 maintenance is required to keep the trail tread in reasonably good condition while  
20 minimizing impacts on park resources. The ultimate result will create a park resource that  
21 provides transportation alternatives, recreational opportunities, environmental aesthetics,  
22 open space preservation, and increased adjacent property values.

### 23 24 **The Six Essential Elements of Sustainable Trails<sup>1</sup>**

- 25
- 26 1. ***The Half Rule:*** Trail grade should not exceed ½ the side slope that the trail traverses,  
27 if so, it becomes a Fall-line Trail.
  - 28 2. ***The 10% Average Guideline:*** The average trail grade, or overall trail grade should  
29 not exceed 10% along the alignment of the trail. In many cases, keeping trail grades  
30 at about 10% will assure longer term sustainability, and this should be an objective  
31 for all trail projects, unless specifically designed at greater grades.
  - 32 3. ***Maximum Sustainable Grade:*** A defined maximum tread grade that can be  
33 constructed along the trail. Typically restricted to runs of less than 50 feet, and no  
34 more than 5% of total length of the trail. Determining the Maximum Sustainable  
35 Grade for a trail involves many variables that are specific to a region or trail section.  
36 For example, soils that have a very high organic content will be less stable than those  
37 that are composed of weathered granite. Variables influencing the Maximum  
38 Sustainable Grade include:
    - 39 • Soil type
    - 40 • Presence of surface rock or bedrock
    - 41 • Annual rainfall / intensity

---

<sup>1</sup> Derived from Alaska Trails Curriculum

- 1           • Type and spacing of integrated water control features
- 2           • Types of users
- 3           • Numbers of users
- 4           • Desired level of difficulty
- 5       4. **Grade Reversals:** A spot at which a climbing trail levels out and then changes
- 6           direction, dropping subtly a short distance (6-12 feet) before rising again. Ideally,
- 7           Grade Reversals are incorporated into a trail’s initial design as part of its Curvilinear
- 8           Layout. Water control features such as Rolling Grade Dips and Knicks can be
- 9           integrated into an existing trail as a maintenance item. Water bars are not
- 10          recommended due to their higher maintenance requirements.
- 11       5. **Outslope:** As the trail contours across a hillside, the downhill or outer edge of the
- 12           tread should tilt slightly downhill and away from the uphill trail edge. Under typical
- 13           circumstances, this “Outslope” should be less than 5%. Anything greater will usually
- 14           lead to tread creep and user discomfort. Outslope is influenced by the forces of
- 15           compaction, displacement, and erosion, which collectively reduce the effectiveness of
- 16           the design element. Even on trails that are constructed with proper outslope, it will
- 17           often deform through time and routine maintenance is needed to restore a trail tread to
- 18           its designed Outslope with these forces in mind. The integration of Grade Reversals
- 19           and Rolling Grade Dips insure that water is managed along the trail if Outslope is
- 20          compromised.
- 21       6. **Durable Tread Surface:** Surfacing should take into consideration special
- 22           characteristics of the soils such as the presence of permafrost, organic/muskeg soils,
- 23           volcanic ash, saturated soils, or some other environmental challenge. Many trails in
- 24           Alaska are not sustainable due to flat terrain or the soil characteristics noted above.
- 25           In these cases, tread surfaces require trail hardening to ensure sustainability. Trail
- 26           hardening includes techniques such as gravel capping, boardwalk and planking
- 27           decking, the use of geotextile surfaces and other means to provide a sustainable tread.

## **Avoid Flat Terrain Trails when Possible**

28  
29  
30 The premise of Trail Sustainability is built around integrated water control. Flat terrain (<3%

31 surface slope) represents a great challenge since often when trails are constructed in these

32 situations, there is no provision for drainage – the trail tread becomes the lowest point and

33 thus collects water. These situations include: valley floors, glacial plains, deltas, and

34 wetlands. This is especially problematic in Alaska where many historic trails which were

35 originally intended for winter use were built across wetlands, but are now being used in the

36 summer.

## **Common Trail Practices or Structures to Avoid when Possible**

- 37
- 38
- 39
- 40           • Fall-Line Trails (exceeding the half rule)
- 41           • Waterbars (difficult to properly construct, high-maintenance)

- 1 • Culverts – installing too small of diameter (difficult to maintain, fish passage issues)
- 2 • Grades too steep for sustainability (exceeding 10% average grade)
- 3 • Improper bridge location
- 4 • Lack of Grade Control along alignment (highly variable grades)
- 5 • Improper trail location (or non-curvilinear layout)
- 6 • Improper outslope (entrenched tread, <3% or >7%, poorly maintained)
- 7 • Failure to identify critical control points during layout
- 8 • Improper or failure to acquire proper permits (poor planning)
- 9 • Construction in a flood zone (poor planning)
- 10 • Construction in a sensitive habitat (poor planning)
- 11 • Construction on flat terrain (valley bottoms, ridgelines, etc.)

12

### 13 **Visitor Experience**

14 There are many aspects that contribute to a visitor’s experience when visiting an area and  
15 especially a trail. Efforts shall be made throughout the trail planning and construction  
16 process to consider the visitor’s experience. It is important to keep trails interesting,  
17 appreciated, well signed and respected to engender stewardship among users. Understanding  
18 core values is the key to being able to provide a good visitor experience. There are basic  
19 values associated with safety and convenience and recreational values associated with fitness  
20 and various transportation methods. Human values are important to recognize, understand  
21 and consider. These values include how trails and their surroundings are perceived, and how  
22 their shape affects people. An individual perception of how safe and appropriate the trail is  
23 to use must be balanced with the reality that a certain amount of risk is also a trail attractor in  
24 the context of the trail’s designed and managed uses. Humans have a desire for efficiency  
25 that translates to making sure a trail is easier to use than to bypass, shortcut, or avoid. The  
26 notion that nature’s randomness has a playful quality should be represented in the trail  
27 experience while considering the concept of harmony that is felt when all the core values  
28 work together to support a desired trail experience.

29

### 30 **Trail Design and Development**

31 There are several different philosophies and thought processes that need to be considered  
32 during the development and design phase for any functional trail. AS 41.21.131(a) states that  
33 Kachemak Bay State Park will be managed as a scenic park to protect its exceptional scenic  
34 values. 41.21.140(a) similarly states that Kachemak Bay State Wilderness Park will be  
35 managed as a wilderness park to protect its exceptional wilderness values. This affects trail  
36 location, layout, and design for renovations of current trails and any new trails. This plan puts  
37 forth new direction in the way trails will be designed and managed. Below you will find trail  
38 direction by different categories.

39

40

## 1 **Trail Design Process**

2 Achieving a sustainable trail begins with establishing an integrated design process, which  
3 relies on a multidisciplinary team working collaboratively from the pre-design phase through  
4 construction to ensure that a site is developed in keeping with the spirit of the trail design. A  
5 typical design process entails finding the interesting features that currently exist along a  
6 proposed trail alignment. These features become positive control points that are incorporated  
7 into the trail design, effectively connecting all the interesting features in a linear fashion.  
8

## 9 **Trail Layout**

10 While popular destination trails like the Saddle Trail will always be a major trail type in  
11 Kachemak Bay State Park, the public has indicated a desire to see more loop trails  
12 incorporated within the trail system. Loop trails provide a more diverse experience for park  
13 users and can be an important trail management tool when different elevations and terrain  
14 configurations are incorporated to take advantage of superior park features. Additionally,  
15 greater use can be accommodated using loops in the park’s development zones without  
16 placing greater impact in backcountry areas or wilderness zones. Where appropriate,  
17 construction of connecting links with existing trails or connecting other loops should be  
18 incorporated in future trail design to create more loop options within the existing trail  
19 infrastructure.  
20

## 21 **Re-Vegetation**

22 Native and/or self-sustaining plant materials should be used for re-vegetation of disturbed  
23 areas. Re-vegetation can be used to provide screening and help to stabilize slopes.  
24 Construction techniques to preserve vegetation and trail routing techniques should be used to  
25 minimize visual intrusion. Where possible, plants that are removed from the trail corridor for  
26 clearance should be transplanted to other locations where re-vegetation is necessary. When  
27 possible, native and self-sustaining plant materials will be used for re-vegetation.  
28

## 29 **Clearing**

30 Clearing widths and heights shall conform to the trail class and design parameter  
31 specifications assigned to a trail or trail segment. Deviations to the design parameters may  
32 occur only when the deviation is documented in the trail management objective (TMO) form  
33 for a trail or trail segment (see Appendix F-1 for a sample TMO). Additional clearing may  
34 be done to remove fire or falling hazard trees adjacent to developed areas or to improve  
35 views as guided by park zoning and a trail’s classification.  
36

## 37 **Natural Considerations**

38 Where significant wildlife or other natural features exist, special trail routing, construction  
39 methods and trail use should be used. Trails should have a natural flow and rhythm that  
40 avoids long, straight alignments. Where hazards are present, special trail construction  
41 techniques or locations should be used to mitigate the hazard. Hazardous areas, such as steep  
42 slopes, avalanche prone areas and rockslide areas should either be avoided or be closed  
43 seasonally when hazardous conditions are a problem.  
44  
45

**Historic and Cultural Resource Conditions**

Like natural resources, cultural resources must be considered when planning and constructing trails. There is a Cultural zone on Chugachik Island, but the entire region has the potential to contain cultural sites due to the rich sea life and coastal food resources traditionally found in the area. Resource identification and evaluation should occur early in any trail project and possible impacts assessed. As needed and in consultation with the Office of History and Archaeology, special trail routing and construction techniques should be used to reduce adverse impacts to cultural resources.

**Environmentally Sensitive Sites**

Special location or construction methods may be necessary to reduce impacts and minimize disturbance in environmentally sensitive areas. Examples of environmentally sensitive sites include: wetlands, highly visible hillsides, significant vegetation areas, threatened and endangered species habitat, highly erodible soils, unstable slopes, and ridgelines.

Techniques, such as site specific trail routing, erosion control measures, site specific adjustment of construction standards, and site specific construction practices should be implemented to minimize environmental, visual or construction impacts. Construction methods that should reduce impacts include installing retaining walls to reduce cut and fill slopes on a visually prominent hillside, hand construction of the trail, or stabilizing a hazard that is located within or adjacent to a trail corridor.

Special care should be taken in areas close to streams or wetlands. Trails that cross or are located adjacent to wetlands should be designed for minimal impact. Boardwalks or other techniques may be necessary to impose minimal construction impacts. Wildlife needs should also be considered when setting trails near wetlands. Consider decommissioning underutilized trails in sensitive areas to minimize erosion of sediment into streams.

Connectivity between drainage ditches and streams should be minimized to reduce sediment delivery potential.

**Climatic Trail Use Opportunities**

Many trails in the Kachemak Bay area are used year round and any new trail renovation or new trail construction should take into account the potential for use in different seasons. Identify snow retention areas for possible cross-country ski trails. In open areas, place trail alignment to take advantage of wind protection and shaded canyon areas.

**Signage**

Sign standards will vary according to park zoning and trail classification. All signs will need to be constructed of materials that will stand up to the inclement weather and high humidity and precipitation that the Kachemak Bay has to offer. Generally, all trail signage should be kept to a minimum and include only that needed to convey necessary information. Most current signs within the parks have been in need of replacement for years. Replacement of these should be a priority while maintaining a minimalist approach. Highly developed trails will typically include more directional signage and interpretive information. Locations of signs need to be evaluated on a case-by-case basis and signs should only be posted where necessary to avoid visual pollution.

## **Trail Closures**

Trail closures due to seasonal environmental conditions or trail damage, wildlife considerations, Trail Construction and other DPOR activity is an important management tool that will be utilized when needed within the DPOR managed areas. Trails may be temporarily closed throughout the year due to other hazardous conditions that may threaten visitor safety and park resources. Trail conditions will be closely monitored by staff and when appropriate, closures will be lifted. Trail closures and openings will be public noticed and well signed.

## **Health and Fitness**

The health benefits of exercise derived from recreational activities, such as bicycling and walking, lessen health-related problems and reduce health care costs. Regular, moderate exercise has been proven to reduce the risks of many health problems, such as coronary heart disease, diabetes, certain kinds of cancers, and obesity. Regular exercise can also protect against injury and disability because it builds muscular strength and flexibility. In addition to the health benefits that bicycling, walking and other activities offer, the improvement of physical health reduces health care costs. Trails and greenbelt connecting trails offer adults and children alternative transportation networks that provide an opportunity to integrate moderate, individualized exercise with daily trips to work or school. Health and fitness shall be encouraged throughout the park by looking for opportunities to connect with other trail networks 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.

## **Americans with Disabilities Act**

In 1990, Congress passed the Americans with Disabilities Act. Among other provisions, the act prohibits state and local governments from discriminating on the basis of disability and requires government services, programs, and activities to be accessible to people with disabilities. This act attempts to remove the physical and social barriers facing over 43 million Americans with disabilities. The United States Access Board is developing new guidelines covering access to trails, beaches, and picnic and camping areas. The guidelines will supplement those the Board has issued for the built environment and will address unique constraints specific to outdoor developed areas. Until that time every effort will be made to maximize the accessibility of trails while at the same time recognizing and protecting the unique characteristics of the park. While it is clearly not practical for all types of trails in a mountainous environment to be fully accessible, where appropriate, the trail system should comply with the standards set forth in this law. In addition, not all ADA accessible trails will be of the same difficulty. Information on trail grade, cross-slope, width, and surface will allow individuals with disabilities to decide if they have the ability and interest to use that segment of the trail. The Division of Parks and Outdoor recreation will strive to create new opportunities for people with disabilities and while they will not necessarily be able to make every existing and new trail ADA accessible, DPOR will make every effort to remove barriers to access for those park users who wish to attempt more difficult routes.

### **Land Acquisition and Park Additions**

Occasionally lands are purchased or donated for addition to the park. These additions are typically important to provide access or protect areas with special features. Trail development in newly acquired areas may need to go through a site-specific planning process if these areas are not addressed in this plan. Trail development in newly acquired areas shall also consider management recommendations provided in the Kachemak Bay State Park Management Plan.

## **Trail Classification System**

The Division of Parks and Outdoor Recreation through the Trail Management Policy has adopted a new Trail Classification System. The Trail Classification System is a close adaptation of the National Trail Classification System that has been formally adopted by most federal land management agencies. Using this system is an important step towards enhancing partnerships with organizations and agencies that border the park and developing resource efficiencies with the use of consistent trail management terminology and standards. The Trail Classification System is similar to systems used in the past in that the scale of trail development is defined by a particular trail class that identifies applicable design parameters and provides management intent for what maintenance standards apply. This new system differs in that the design parameters for a particular class are further refined by the trail type and designed use of the trail. The new system allows for more thorough assessments of trail conditions, an expanded means to record and communicate intended design and management guidelines, and better planning for trail management and maintenance. Below is a brief description of how the Trail Classification System is organized and functions.

### **Trail Type**

There are three types of trail types and all are used in this plan:

1. Terra Trail.
2. Snow Trail.
3. Water Trail.

Since only one trail type may be used for each trail or trail segment, you may see multiple entries for the same physical location of a trail. For example: trail “X” may have specifications for terra type and different specifications for snow type. The trail is in the same physical location but is described differently for seasonal purposes.

### **Trail Class**

Five trail classes ranging from least developed (Class 1) to highly developed (Class 5) will uniformly apply to all trail types however some trail classes may not be applicable to a trail type (such as Class 5 water trail). The actively managed uses, user preferences, setting, protection of sensitive resources and other management activities were taken into account to determine which trail class to apply. Trail classes describe the typical attributes but

1 exceptions may occur. The trail class that most closely matches the managed objective for a  
2 trail is applied. Only one trail class may be applied to a trail or trail segment. See figure F-1  
3 for the general trail class criteria and figure F-2 for photo examples of each trail class.  
4

Figure F-1: General Trail Criteria

General Trail Criteria					
Trail Attributes	Trail Class 1 Minimal/ Undeveloped	Trail Class 2 Simple/Minor Development	Trail Class 3 Developed/Improved	Trail Class 4 Highly Developed	Trail Class 5 Fully Developed
<b>Tread &amp; Traffic Flow</b>	-Tread intermittent & often indistinct -May require route finding -Native materials only	-Tread discernible & continuous, but narrow and rough -Few or no allowances constructed for passing -Native materials	-Tread obvious & continuous -Width accommodates unhindered one-lane travel, occasional allowances constructed for passing -Typically native materials	-Tread wide & relatively smooth with few irregularities -Width may consistently accommodate two-lane travel -Native or imported materials -May be hardened	-Width generally accommodates two-lane and two-directional travel, or provides frequent passing turnarounds -Commonly hardened with asphalt or other imported material
<b>Obstacles</b>	-Obstacles common -Narrow passages; brush, steep grades, rocks and logs present	-Obstacles occasionally present -Blockages cleared to define route and protect resources -Vegetation may encroach into trailway	-Obstacles infrequent -Vegetation cleared outside of trailway	-Few or no obstacles exist -Grades typically <12% -Vegetation cleared outside of trailway	-No obstacles -Grades typically <8%
<b>Constructed Features &amp; Trail Elements</b>	-Minimal to non-existent -Drainage is functional -No constructed bridges or foot crossings	-Structures are of limited size, scale and number -Drainage is functional -Structures adequate to protect trail infrastructure and resources -Primitive foot crossings and fords	-Trail structures (walls, steps, drainage, raised trail) may be common & substantial -Trail bridges as needed for resources protection and appropriate access -Generally native materials	-Structures frequent and substantial -Substantial trail bridges are appropriate at water crossings -Trailside amenities may be present	-Structures frequent or continuous; may include curbs, handrails, trailside amenities and boardwalks -Drainage structures frequent; may include culverts and road-like designs
<b>Signs</b>	-Minimum required -Generally limited to regulation and resource protection -No destination signs present	-Minimum required for basic direction -Generally limited to regulation and resource protection -Typically very few or no destination signs present	-Regulation, resource protection, user reassurance -Directional signs at junctions, or when confusion is likely -Informational and interpretative signs may be present	-Wide variety of signs likely and present -Informational signs likely -Interpretive signs possible	Wide variety of signage is present -Information and interpretive signs likely

General Trail Criteria					
Trail Attributes	Trail Class 1 Minimal/ Undeveloped	Trail Class 2 Simple/Minor Development	Trail Class 3 Developed/Improved	Trail Class 4 Highly Developed	Trail Class 5 Fully Developed
<b>Typical Recreation Environs &amp; Experience</b>	-Natural, unmodified -Primitive setting	-Natural, essentially unmodified -Primitive to Semi-primitive	-Natural, primarily unmodified -Semi-primitive to roaded natural setting -Transition	-May be modified -Typically roaded natural to rural setting -Transition, rarely present in wilderness	-Can be highly modified -Typically rural to urban setting -Commonly associated with visitor centers or high-use recreation sites -Not present in wilderness
<b>Trail Management</b> Typically managed to accommodate:	-Low level use -Highly skilled users, comfortable off trail -Users with high degree of orienteering skill -Some travel modes & ability levels may be impractical or impossible -Water trail users require high level of navigation/orientation and paddling skills	-Low-to-moderate use levels -Mid-to-highly skilled users, capable of traveling over awkward conditions/obstacles -Users with moderate orienteering skill -Trail suitable for many user types but challenging and involves advanced skills -Water trails: moderate to high level of navigation/orientation and paddling/piloting skills required	-Moderate to heavy use -Users with intermediate skill level and experience -Users with minimal orienteering skills -Moderately easy travel by managed use types -Random potential for accessible use -Water trails: Basic to moderate navigation and paddling/piloting skills required	-Very heavy use -Users with minimal skills and experience -Users with minimal to no orienteering skills -Easy/ comfortable travel by managed use types -Maybe or has the potential to be made accessible -Water trails: Basic navigation and paddling/piloting skills required	-Intensive use -Users with limited trail skills and experience -Trail typically meets agency requirements for accessibility

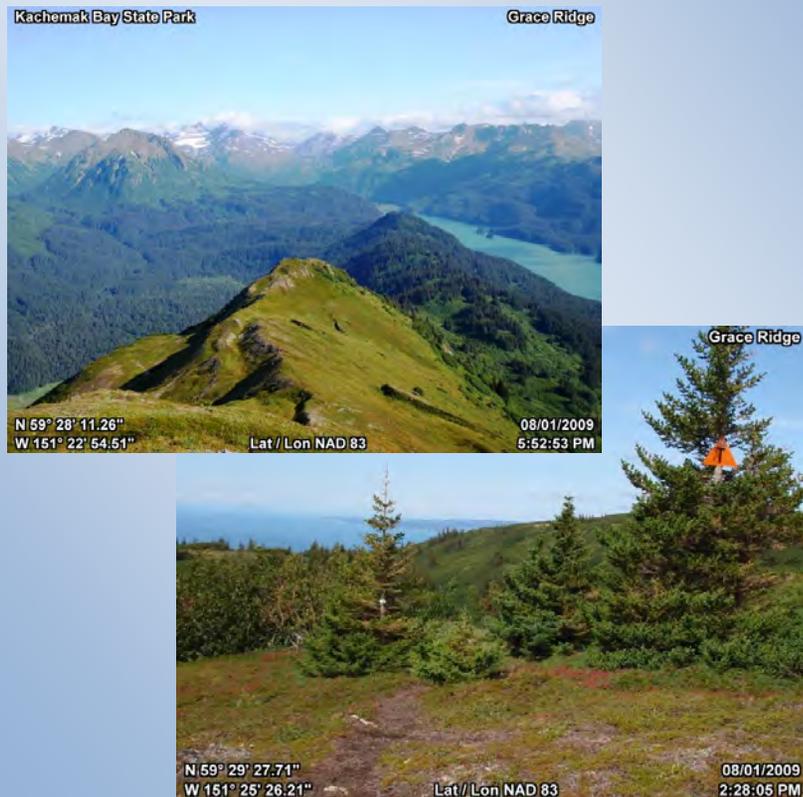
# PUBLIC REVIEW DRAFT

General Trail Criteria					
Trail Attributes	Trail Class 1 Minimal/ Undeveloped	Trail Class 2 Simple/Minor Development	Trail Class 3 Developed/Improved	Trail Class 4 Highly Developed	Trail Class 5 Fully Developed
<b>Maintenance Indicators &amp; Intensity</b>	-Resource protection or safety commensurate with targeted recreational experience -Infrequent or no scheduled maintenance, usually in response to reports of unusual resource problems requiring repair	-Resource protection or safety commensurate with targeted recreational experience -Maintenance scheduled to preserve trail facility & route location or in response to reports of unusual resource problems	-User convenience -Resource protection or safety commensurate with targeted recreational experience -Trail cleared to make available for use early in use season and to preserve trail integrity -Maintenance typically in response to trail or resource damage or significant obstacles to managed use type and experience level	-User comfort and ease -Resource protection or safety commensurate with targeted recreational experience -Trail cleared to make available for use at earliest opportunity in use season -Maintenance typically performed at least annually	-User comfort and ease -Targeted high level of accessibility to key recreational opportunities -Safety commensurate with targeted recreational experience -Maintenance performed at least annually or as needed to meet posted conditions, major damage or safety concerns typically corrected or posted within 24 hours of notice
<b>Additional Criteria</b>	-Typically not managed for Pack and Saddle and Motorized Trails				-Not managed for Pack and Saddle stock, Watercraft or Motorized use.

Figure F-2: Trail Class Photo Examples

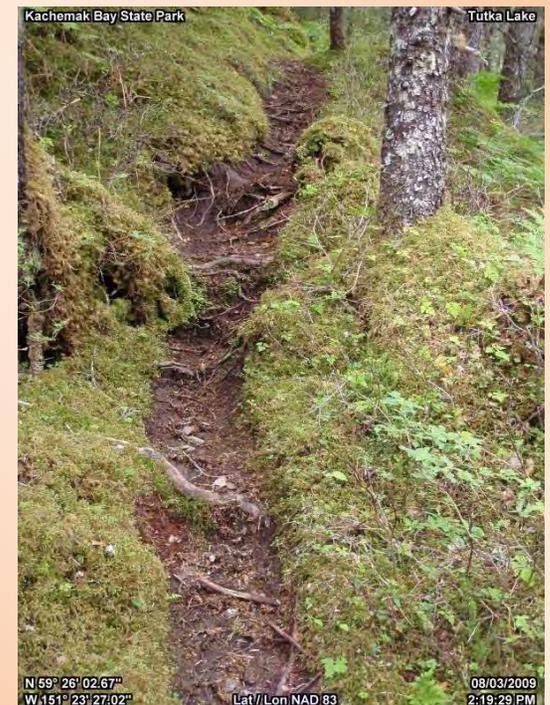
## Trail Class 1

- Low level use
- Highly skilled users, comfortable off trail with high degree of orienteering skill
- Some travel modes may be impractical or impossible



## Trail Class 2

- Low or moderate use levels
- Mid-to-highly skilled users, capable of traveling over awkward conditions/obstacles
- Trail suitable for many types but challenging, involving advanced skills



### Trail Class 3

- Moderate to heavy use
- Users with intermediate skill level and trail experience
- Moderately easy travel by managed use types



### Trail Class 5

- Intensive use
- Users with limited skills and trail experience
- Trail typically meets agency requirements for accessibility



### Trail Class 4

- Very heavy use
- Users with minimal skills and trail experience
- Easy/comfortable travel by managed use types



## **Managed Use**

Managed Use is a term that is used to describe the modes of travel that are actively managed and appropriate on a trail considering the design of the trail. There can be many managed uses per trail or trail segment. Managed Use is applied to indicate a management decision or intent to accommodate or encourage a specific type of use but it does not necessarily mean that other uses are prohibited.

## **Designed Use**

Designed Use is the intended use that controls the desired design of the trail and determines the subsequent maintenance parameters for a trail. There can only be one Designed Use per trail or trail segment. Three different designed uses are applied in this plan. They are:

1. Hiker/Pedestrian
2. Bicycle
3. Cross Country Ski (Classical/Diagonal)

## **Design Parameters**

Design parameters provide guidance for the assessment, survey, design, construction, repair and maintenance of trails. While the five trail classes apply, the specific design parameters vary under each trail class depending on the designed use. Site-specific circumstances may demand some exceptions or variances to the Design Parameters based on trail-specific conditions, topography, or other factors, if the deviations are consistent with the general intent of the applicable trail class. Trail design parameters are provided in figures F-3 – F-5 for the designed uses used in this plan.

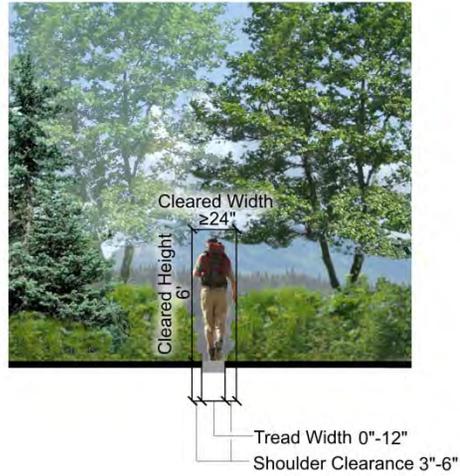
## **Trail Management Objectives**

Trail Management Objectives (TMOs) are the mechanisms that link the Trail Classification System and direction given in this plan to on-the-ground trail management. TMOs synthesize and document in one form the management intention for the trail while providing basic reference information for any subsequent trail planning, management, condition surveys, and reporting. A TMO is required for each trail or trail segment as a pre-requisite for completing trail condition assessment surveys and subsequent prescriptions for work needed to meet standard. Each TMO is approved by management staff to ensure that the objectives for the trail are consistent with this plan and anticipated future land management actions. After approval, the TMOs provide the mechanism for trail maintenance staff and volunteers to know how to maintain and bring a trail or trail segment up to standard as needed. A sample TMO is provided in Appendix F-1.

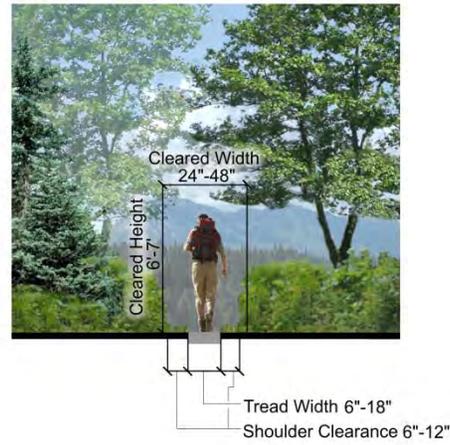
Figure F-3: Hiker/Pedestrian Design Parameters

Designed Use HIKER/PEDESTRIAN		Trail Class 1	Trail Class 2	Trail Class 3	Trail Class 4	Trail Class 5
Design Tread Width	Single Lane	0" – 12"	6" – 18"	18" – 36"	24" – 60"	36" – 72"
	Double Lane	36"	36"	36" – 60"	48" – 72"	72" – 120"
	Structures (Minimum Width)	18"	18"	18"	36"	36"
Design Surface	Type	Native, ungraded  May be continuously rough	Native, limited grading  May be continuously rough	Native, with some on-site borrow or imported material where needed for stabilization and occasional grading  Intermittently rough	Native with improved sections of borrow or imported material, and routine grading  Minor roughness	Likely imported material, and routine grading  Uniform, firm, and stable
	Protrusions	≤ 24"  Likely common and continuous	≤ 6"  May be common and continuous	≤ 3"  May be common, not continuous	≤ 3"  Uncommon, not continuous	No protrusions
	Obstacles (Maximum Height)	24"	14"	10"	8"	No obstacles
Design Grade	Target Grade	5% – 25%	5% – 18%	3% – 12%	2% – 10%	2% – 5%
	Short Pitch Maximum	40%	35%	25%	15%	5% – 12%
	Maximum Pitch Density	20% – 40% of trail	20% – 30% of trail	10% – 20% of trail	5% – 20% of trail	0% – 5% of trail
Design Cross Slope	Target Cross Slope	Natural side slope	5% – 20%	5% – 10%	3% – 7%	2% – 3% (or crowned)
	Maximum Cross Slope	Natural side slope	25%	15%	10%	3%
Design Clearing	Height	6'	6' – 7'	7' – 8'	8' – 10'	8' – 10'
	Width	≥ 24"  Some vegetation may encroach into clearing area	24" – 48"  Some light vegetation may encroach into clearing area	36" – 60"	48" – 72"	60" – 72"
	Shoulder Clearance	3" – 6"	6" – 12"	12" – 18"	12" – 18"	12" – 24"
Design Turn	Radius	No minimum	2' – 3'	3' – 6'	4' – 8'	6' – 8'

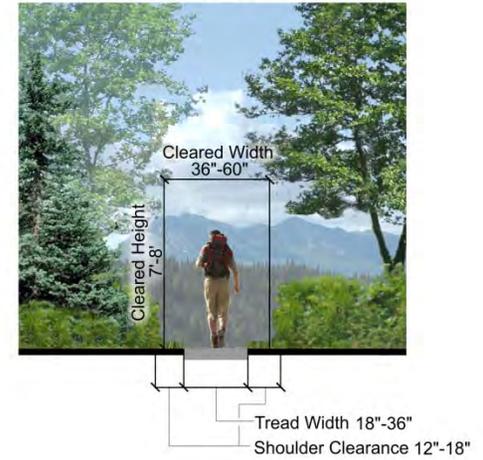
### Class 1



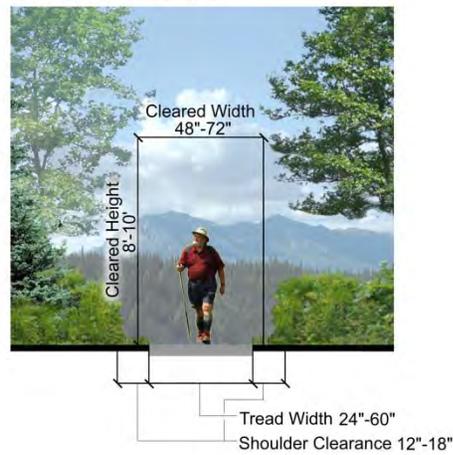
### Class 2



### Class 3



### Class 4



### Class 5

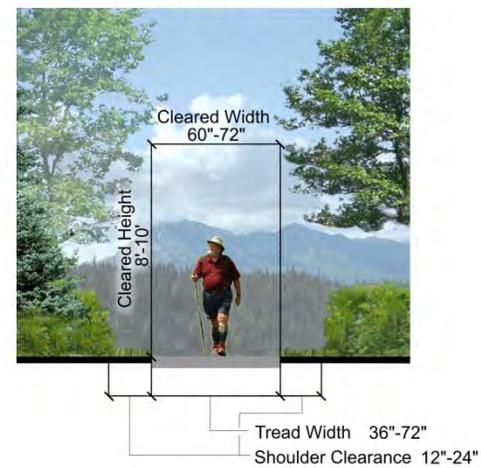


Figure F-4: Bicycle Design Parameters

Designed Use BICYCLE		Trail Class 1	Trail Class 2	Trail Class 3	Trail Class 4	Trail Class 5
Design Tread Width	Single Lane	6” – 12”	12” – 24”	18” – 36”	24” – 48”	36” – 60”
	Double Lane	36” – 48”	36” – 48”	36” – 48”	48” – 84”	72” – 120”
	Structures (Minimum Width)	18”	18”	36”	48”	60”
Design Surface	Type	Native, ungraded  May be continuously rough  Sections of soft or unstable tread on grades < 5% may be common and continuous	Native, with limited grading  May be continuously rough  Sections of soft or unstable tread on grades < 5% may be common	Native, with some on-site borrow or imported material where needed for stabilization and occasional grading  Intermittently rough  Sections of soft or unstable tread on grades < 5% may be present, but not common	Native, with improved sections of borrow or imported materials and routine grading  Stable, with minor roughness	Likely imported material and routine grading  Uniform, firm, and stable
	Protrusions	≤ 24”  Likely common and continuous	≤ 6”  May be common and continuous	≤ 3”  May be common, but not continuous	≤ 3”  Uncommon and not continuous	No protrusions
	Obstacles (Maximum Height)	24”	12”	10”	8”	No obstacles
Design Grade	Target Grade	5% – 20%	5% – 12%	3% – 10%	2% – 8%	2% – 5%
	Short Pitch Maximum	30%  50% on downhill segments only	25%  35% on downhill segments only	15%	10%	8%
	Maximum Pitch Density	20% – 30% of trail	10% – 30% of trail	10% – 20% of trail	5% – 10% of trail	0% – 5% of trail
Design Cross Slope	Target Cross Slope	5% – 10%	5% – 8%	3% – 8%	3% – 5%	2% – 3%
	Maximum Cross Slope	10%	10%	8%	5%	5%
Design Clearing	Height	6’	6’ – 8’	8’	8’ - 9’	8’ - 9’
	Width	24” – 36”  Some vegetation may encroach into clearing area	36” – 48”  Some light vegetation may encroach into clearing area	60” – 72”	72” – 96”	72” – 96”
	Shoulder Clearance	0” – 12”	6” – 12”	6” – 12”	6” – 18”	12” – 18”
Design Turn	Radius	2’ – 3’	3’ – 6’	4’ – 8’	8’ – 10’	8’ - 12’

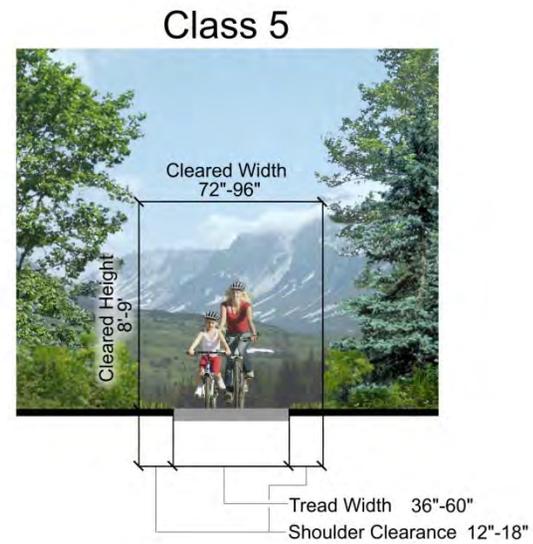
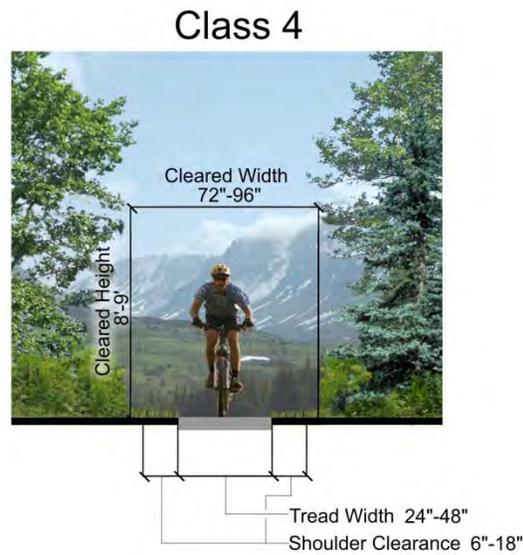
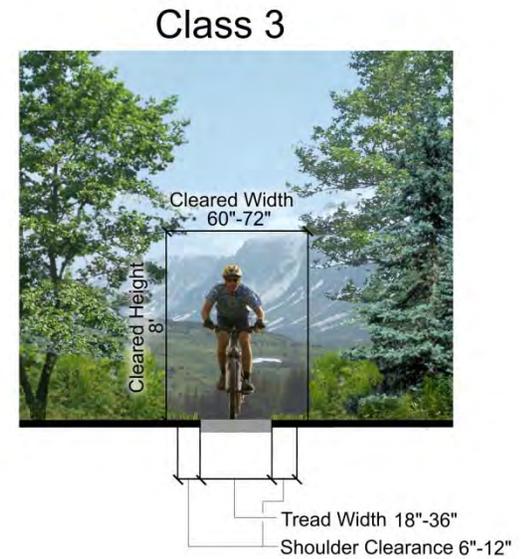
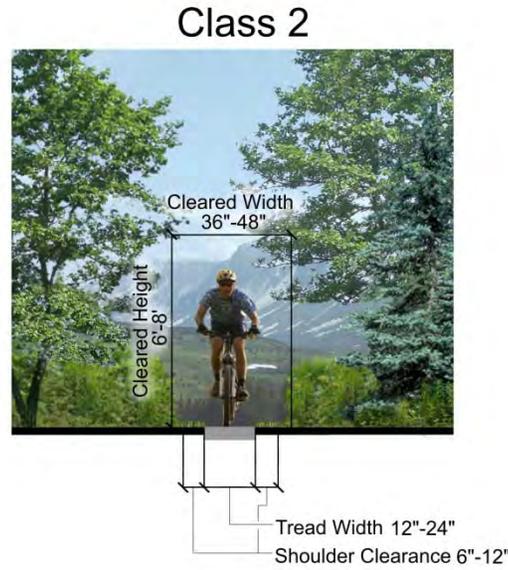
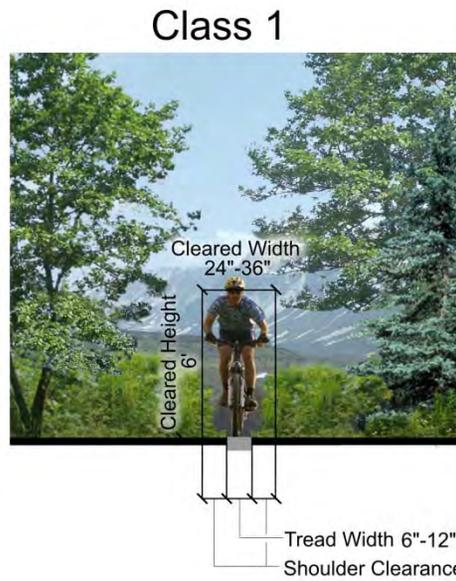
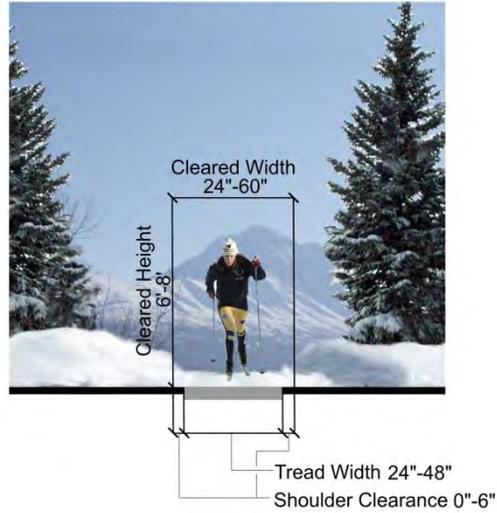


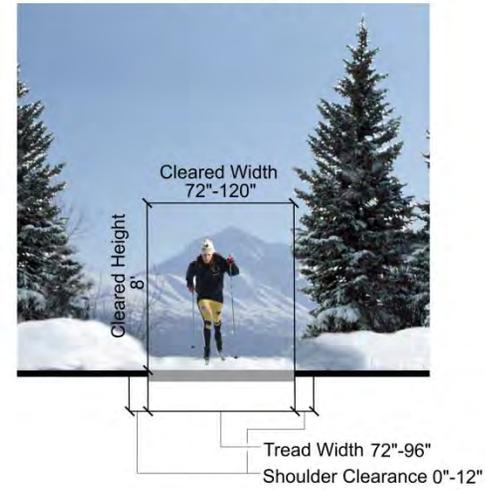
Figure F-5: Cross-Country Ski (Diagonal/Classical) Design Parameters

Designed Use CROSS-COUNTRY SKI (Diagonal/Classic ski)		Trail Class 1	Trail Class 2	Trail Class 3	Trail Class 4	Trail Class 5
Design Groomed Width	Single Lane	Typically not designed or actively managed for cross-country skiing, although use may be allowed	24" – 48"	72" – 96"	96" – 120"	Typically not designed or actively managed for cross-country skiing, although use may be allowed
	Double Lane		Typically not groomed	Or width of grooming equipment	Or width of grooming equipment	
	Structures (Minimum Width)		72" – 96"	96" – 144"	144" – 192"	
Design Grooming and Surface	Type		Generally no machine grooming	May receive occasional machine grooming for snow compaction and track setting	Regular machine grooming for snow compaction and track setting	
	Protrusions Obstacles (Maximum Height)		No protrusions	No protrusions	No protrusions	
			12"	8"	No obstacles	
			Uncommon	Uncommon (no obstacles if machine groomed)		
Design Grade	Target Grade		5% – 15%	2% – 10%	0% – 8%	
	Short Pitch Maximum		25%	20%	12%	
	Maximum Pitch Density		10% – 20% of trail	5% – 15% of trail	0% – 10% of trail	
Design Cross Slope	Target Cross Slope	0% – 10%	0% – 5%	0% – 5%		
	Maximum Cross Slope (For up to 50°)	20%	15%	10%		
Design Clearing	Height (Above normal maximum snow level)	6' – 8'	8' Or height of grooming equipment	8' – 10'		
	Width	24" – 60" Light vegetation may encroach into clearing area	72" – 120" Light vegetation may encroach into clearing area	96" – 168" Widen clearing at turns or if increased sight distance needed		
	Shoulder Clearance	0" – 6"	0" - 12"	0" – 24"		
Design Turn	Radius	8' – 10'	15' – 20' Or to accommodate grooming equipment	≥ 25'		

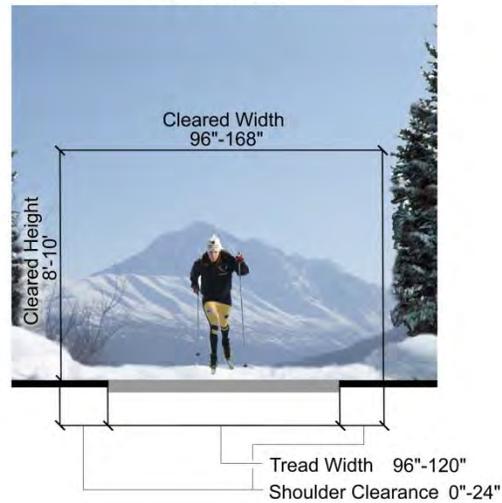
Class 2



Class 3



Class 4





## Trail Management Recommendations

In the Kachemak Bay State Park and Kachemak Bay State Wilderness Park Trail Management Plan, the park trail system has been divided into nine management units which correspond roughly with important geographic regions. Each unit will have a brief description and a trail table that will describe the specific management intent for each trail or trail segment within the unit. Due to the extreme precipitation levels and moderate climate in the area, grasses and understory vegetation grows extremely fast and a trail can become completely impassable within a single season. DPOR trail crews work as efficiently as possible to maintain the existing trails, but the Implementation Section will discuss strategies to keep existing trails in better condition with increased community involvement.

### Routes and Unmanaged Trails

The recommendations in the following trail tables pertain to trails where DPOR has identified clear management intent for their future development. Some commonly used areas are not included in these tables. These areas are typically social trails or hunting routes that the park is consciously choosing not to commit resources to or manage for visitor use. This may be for resource protection purposes or to preserve a level of challenge or experience for those with the skills and desire to use these areas. Most of this use occurs in alpine areas of KBSP and in Kachemak Bay State Wilderness Park.

### Proposed Coast to Coast Trail

An 85-mile long “Coast to Coast Trail” from Mallard Bay on the south side of Kachemak Bay to Gore Point on the Outer Coast could be formed by linking existing and proposed trails. The Coast to Coast Trail would start in the Northern Management Unit; pass through the Grewingk Glacier, Halibut Cove – China Poot, and Sadie-Tutka Units; and continue over the mountains on the Tutka Taylor Trail to end in the Outer Coast Unit. This trail would be a world-class asset (particularly if it were supported with appropriately-spaced huts and cabins), attracting visitors from around the globe to trek on Alaska’s longest hiking trail.

### Trail Tables

Trail tables showing existing and proposed trails are included for each management unit (except for Overlook Park) below.

#### **KBSP and KBSWP Management Units**

- Cottonwood/Eastland Unit
- Diamond Creek SRS Unit
- Eveline SRS Unit
- Grewingk Unit

# PUBLIC REVIEW DRAFT

- Halibut Cove/China Poot Unit
- Northern Unit
- Outer Coast Unit
- Overlook Park Unit (no DPOR-managed trails exist or are proposed)
- Sadie/Tutka Unit

## Cottonwood - Eastland Unit

This unit includes the newer portion of Kachemak Bay State Park added after the EVOS settlement and is located on the north side of Kachemak Bay near East End Road and includes portions of the Cottonwood Creek and Eastland Creek drainages. It is surrounded mainly by private homes to the west and north, and Kachemak Bay to the south. It also includes 2 parcels of DPOR managed lands adjacent to the park that can be used for future access and facilities. No DPOR constructed or maintained trails currently exist in this unit.

Trail #	Map #	Trail Name/Segment	Trail Type	Trail Class	Designed Use	Managed Use	Approx. Distance
CE-07a	F-1	Proposed	Terra	3	Bicycle	Bicycle; Hiker	2.2 Miles
CE-07b	F-1	Proposed - ADA	Terra	4	Bicycle	Bicycle; Hiker	1 Mile
CE-07c	F-1	Proposed	Snow	3	Ski	Ski; Hiker	3.2 Miles
CE-08a	F-1	Proposed	Terra	3	Bicycle	Bicycle; Hiker	8.7 Miles
CE-08b	F-1	Proposed	Snow	3	Ski	Ski; Hiker	8.7 Miles

**Map F-1.1 – Cottonwood Eastland Unit Terra Trails**



**Map F-1.2: Cottonwood Eastland Unit Winter Trails**



# PUBLIC REVIEW DRAFT

## Diamond Creek Unit

This unit includes the mouth of Diamond Creek where it enters Cook Inlet along a bluff. It is a State Recreation Site on donated land with access at the end of Diamond Ridge Road.

Trail #	Map #	Trail Name/Segment	Trail Type	Trail Class	Designed Use	Managed Use	Approx. Distance
Existing	F-2	Beach Access	Terra	3	Hiker-Pederstrian	Hiker	0.6 Miles
Existing	F-2	Diamond Creek Single Track	Terra	3	Bicycle	Bicycle; Hiker	2.2 Miles
Existing	F-2	Old Access Road	Terra	4	Hiker-Pederstrian	Hiker	0.75 Miles
DC-04	F-2	Beach Access (redevelop)	Terra	4	Bicycle	Bicycle; Hiker	0.6 Miles
DC-05	F-2	Proposed Looped Trails	Terra	3	Bicycle	Bicycle; Hiker	3.5 Miles



# PUBLIC REVIEW DRAFT

## **Map F-2: Diamond Creek Unit Terra Trails**



# PUBLIC REVIEW DRAFT

## Eveline Unit

This is a small unit that is a State Recreation Site on donated land and is primarily used as a nature trail in the summer and Nordic skiing trails as a part of a larger community trails network in the winter.

Trail #	Map #	Trail Name/Segment	Trail Type	Trail Class	Designed Use	Managed Use	Approx. Distance
Existing	F-3	Eveline Schuster Trails	Terra	4	Hiker-Pedestrian	Hiker	1.75 Miles
Existing	F-3	Eveline Schuster Trails	Snow	4	Ski	Ski; Hiker	3.1 Miles
EV-02a	F-3	Eveline Schuster Trails (redevelop)	Terra	4	Hiker-Pedestrian	Hiker	1.75 Miles
EV-02b	F-3	Eveline Schuster Trails (redevelop)	Snow	4	Ski	Ski; Hiker	3.1 Miles



**Map F-3.1: Eveline Unit Terra Trails**



**Map F-3.2: Eveline Unit Snow Trails**



# PUBLIC REVIEW DRAFT

## Grewingk Glacier Unit

This Unit extends from Mallard Bay to the entrance of Halibut Cove Lagoon. With numerous homes and lodges in the Halibut Cove community and ready access from Homer Spit, this area sees a lot of use. This area has several existing and several planned loop trails and includes access to Grewingk Lake and Grewingk Glacier. It is anticipated to remain the busiest area of the park.

Trail #	Map #	Trail Name/Segment	Trail Type	Trail Class	Designed Use	Managed Use	Approx. Distance
Existing	F-4	Alpine Ridge	Terra	2	Hiker-Pedestrian	Hiker	1.9 Miles
Existing	F-4	Glacier Lake	Terra	3	Bicycle	Bicycle; Hiker	1.9 Miles
Existing	F-4	Glacier Lake	Snow	2	Ski	Ski; Hiker	1.9 Miles
Existing	F-4	Grewingk Glacier	Terra	3	Hiker-Pedestrian	Hiker	2.4 Miles
Existing	F-4	Blue Ice Trail	Terra	3	Bicycle	Bicycle; Hiker	1.9 Miles
Existing	F-4	Blue Ice Trail	Snow	2	Ski	Ski; Hiker	1.9 Miles
Existing	F-4	Saddle	Terra	3	Hiker-Pedestrian	Hiker	1.0 Miles
Existing	F-4	Saddle	Snow	2	Ski	Ski; Hiker	1.0 Miles
Existing	F-4	Lagoon	Terra	3	Hiker-Pedestrian	Hiker	2.0 Miles
GG-08	F-4	Alpine Ridge (redevelop)	Terra	3	Hiker-Pedestrian	Hiker	1.9 Miles
GG-09	F-4	Glacier Lake (redevelop + extension)	Terra	3	Bicycle	Bicycle; Hiker	4.5 Miles

# PUBLIC REVIEW DRAFT

<b>Trail #</b>	<b>Map #</b>	<b>Trail Name/Segment</b>	<b>Trail Type</b>	<b>Trail Class</b>	<b>Designed Use</b>	<b>Managed Use</b>	<b>Approx. Distance</b>
GG-10	F-4	Grewingk Glacier (redevelop)	Terra	3	Bicycle	Bicycle; Hiker	2.4 Miles
GG-11	F-4	Rusty’s Lagoon (redevelop)	Terra	3	Hiker-Pedestrian	Hiker	0.4 Miles
GG-12	F-4	Saddle Trail (redevelop)	Terra	3	Hiker-Pedestrian	Hiker	1.0 Miles
GG-13	F-4	Proposed – Lower Glacier Flats	Terra	3	Bicycle	Bicycle; Hiker	Indeterminate
GG-14	F-4	Proposed – Dead Valley	Terra	3	Hiker-Pedestrian	Hiker	2.2 Miles

**Map F-4.1: Grewingk Unit Terra Trails**



**Map F-4.2: Grewingk Unit Snow Trails**



# PUBLIC REVIEW DRAFT

## Halibut Cove – China Poot Unit

This unit extends from Halibut Cove Lagoon west to Anisom Point and includes the trails in the China Poot Bay area and along the Wosnesenski River. There is the Ranger Station and several PUCs and tent areas and some private yurts in the area for rent. Fishing is great around here and it is surrounded by the community of Halibut Cove.

Trail #	Map #	Trail Name/Segment	Trail Type	Trail Class	Designed Use	Managed Use	Approx. Distance
Existing	F-5	China Poot Lake	Terra	3	Hiker-Pedestrian	Hiker	2.6 Miles
Existing	F-5	Coalition Loop	Terra	3	Hiker-Pedestrian	Hiker	5.5 Miles
Existing	F-5	Goat Rope Spur	Terra	2	Hiker-Pedestrian	Hiker	1.5 Miles
Existing	F-5	Lagoon	Terra	3	Hiker-Pedestrian	Hiker	6.2 Miles
Existing	F-5	Moose Valley	Terra	3	Hiker-Pedestrian	Hiker	6.7 Miles
Existing	F-5	Poot Peak	Terra	2	Hiker-Pedestrian	Hiker	4.6 Miles
Existing	F-5	Wosnesenski River	Terra	3	Hiker-Pedestrian	Hiker	11.3 Miles
HC-14	F-5	Proposed – Woz Lake	Terra	3	Hiker-Pedestrian	Hiker	3.6 Miles
HC-15	F-5	Proposed – Halibut Spur	Terra	3	Hiker-Pedestrian	Hiker	2.9 Miles
HC-16	F-5	China Poot Lake Trail (redevelop except tidal flats segment)	Terra	3	Hiker-Pedestrian	Hiker	1.3 Miles

# PUBLIC REVIEW DRAFT

<b>Trail #</b>	<b>Map #</b>	<b>Trail Name/Segment</b>	<b>Trail Type</b>	<b>Trail Class</b>	<b>Designed Use</b>	<b>Managed Use</b>	<b>Approx. Distance</b>
HC-17	F-5	Proposed – Lagoon Trail Bypass – Hand Tram	Terra	3	Hiker-Pedestrian	Hiker	1.0 Miles
HC-18	F-5	All other existing trails (redevelop)	Terra	3	Hiker-Pedestrian	Hiker	Indeterminate

**Map F-5.1: Halibut Cove - China Poot Unit Terra Trails**



# PUBLIC REVIEW DRAFT

## Northern Unit

This unit is the northernmost portion of the original park on the south side of Kachemak Bay and goes from Bear Cove to Mallard Bay. There are many private parcels along the coastline and this is adjacent to the community of Bear Cove.

Trail #	Map #	Trail Name/Segment	Trail Type	Trail Class	Designed Use	Managed Use	Approx. Distance
Existing	F-6	Mallard Bay	Terra	3	Bicycle	Bicycle; Hiker	0.6 Miles
Existing	F-6	Mallard Bay	Snow	2	Ski	Ski; Hiker	0.6 Miles
Existing	F-6	Humpy Creek	Terra	3	Bicycle	Bicycle; Hiker	5.1 Miles
Existing	F-6	Humpy Creek	Snow	2	Ski	Ski; Hiker	5.1 Miles
Existing	F-6	Emerald Lake Loop Trail	Terra	3	Hiker-Pedestrian	Hiker	5.9 Miles
Existing	F-6	Emerald Lake Spur	Terra	3	Hiker-Pedestrian	Hiker	0.2 Miles
Existing	F-6	Emerald Lake Camp	Terra	3	Hiker-Pedestrian	Hiker	0.1 Miles
Existing	F-6	Grewingk Glacier Trail	Terra	3	Hiker-Pedestrian	Hiker	6.2 Miles
Existing	F-6	Mallard/Emerald Connector	Terra	3	Hiker-Pedestrian	Hiker	1.3 Miles
NO-05	F-6	Proposed – Humpbike	Terra	3	Bicycle	Bicycle; Hiker	2.0 Miles
NO-06	F-6	Proposed – Portlock River	Terra	3	Hiker-Pedestrian	Hiker	1.4 Miles

# PUBLIC REVIEW DRAFT

Trail #	Map #	Trail Name/Segment	Trail Type	Trail Class	Designed Use	Managed Use	Approx. Distance
NO-07a	F-6	Proposed – Martin Portlock Connector	Terra	3	Bicycle	Bicycle; Hiker	5.5 Miles
NO-07b	F-6	Proposed – Martin Portlock Connector	Snow	2	Ski	Ski; Hiker	5.5 Miles
NO-08	F-6	Proposed – Kachemak Bay Access	Terra	3	Hiker-Pedestrian	Hiker	1.4 Miles

**Map F-6.1: Northern Unit Terra Trails**



**Map F-6.2: Northern Unit Snow Trails**



# PUBLIC REVIEW DRAFT

## Outer Coast Unit

This Unit includes Kachemak Bay State Wilderness Park and the Nuka Passage area of Kachemak Bay State Park. It includes portions of Tutka Bay where some of these trails originate.

Trail #	Map #	Trail Name/Segment	Trail Type	Trail Class	Designed Use	Managed Use	Approx. Distance
Existing	F-7	Tutka Alpine Traverse or Backdoor	Terra	2	Hiker-Pedestrian	Hiker	12 Miles
OC-14a	F-7	Proposed – Hazel Lakes	Terra	2	Hiker-Pedestrian	Hiker	5.1 Miles
OC-14b	F-7	Proposed – Hazel Lakes	Snow	2	Ski	Ski; Hiker	5.1 Miles
OC-15a	F-7	Proposed – Port Dick	Terra	2	Hiker-Pedestrian	Hiker	7.9 Miles
OC-15b	F-7	Proposed – Port Dick	Snow	2	Ski	Ski; Hiker	7.9 Miles
OC-16a	F-7	Proposed – Slide Creek	Terra	2	Hiker-Pedestrian	Hiker	6.4 Miles
OC-16b	F-7	Proposed – Slide Creek	Snow	2	Ski	Ski; Hiker	6.4 Miles
OC-17a	F-7	Proposed – Port Dick Lake	Terra	2	Hiker-Pedestrian	Hiker	4.8 Miles
OC-17b	F-7	Proposed – Port Dick Lake	Snow	2	Ski	Ski; Hiker	4.8 Miles
OC-18a	F-7	Proposed – Gore Ridge	Terra	2	Hiker-Pedestrian	Hiker	13.7 Miles
OC-18b	F-7	Proposed – Gore Ridge	Snow	2	Ski	Ski; Hiker	13.7 Miles

# PUBLIC REVIEW DRAFT

<b>Trail #</b>	<b>Map #</b>	<b>Trail Name/Segment</b>	<b>Trail Type</b>	<b>Trail Class</b>	<b>Designed Use</b>	<b>Managed Use</b>	<b>Approx. Distance</b>
OC-19a	F-7	Proposed – Tonsina Bay	Terra	2	Hiker-Pedestrian	Hiker	3.1 Miles
OC-19b	F-7	Proposed – Tonsina Bay	Snow	2	Ski	Ski; Hiker	3.1 Miles
OC-20a	F-7	Proposed – Port Dick Byway	Terra	2	Bicycle	Bicycle; Hiker	3.3 Miles
OC-20b	F-7	Proposed – Port Dick Byway	Snow	2	Ski	Ski; Hiker	3.3 Miles
OC-21	F-7	Proposed – Taylor Petrof Trail	Terra	2	Hiker-Pedestrian	Hiker	7.8 Miles

**Map F-7.1: Outer Coast Unit Terra Trails**



**Map F-7.2: Outer Coast Unit Snow Trails**



# PUBLIC REVIEW DRAFT

## Sadie - Tutka Unit

This unit extends from Anisom Point to the head of Tutka Bay and includes Sadie Cove, Grace Ridge and Tutka Bay Lagoon. There are several new trails planned for the area and some of the proposed facilities mentioned elsewhere in the Kachemak Bay State Park Management Plan will support access to these trails.

Trail #	Map #	Trail Name/Segment	Trail Type	Trail Class	Designed Use	Managed Use	Approx. Distance
Existing	F-8	Grace Ridge	Terra	3	Hiker-Pedestrian	Hiker	9.3 Miles
Existing	F-8	Hatchery	Terra	3	Hiker-Pedestrian	Hiker	0.8 Miles
Existing	F-8	Sadie Knob	Terra	2	Hiker-Pedestrian	Hiker	6.3 Miles
Existing	F-8	Tutka Lake	Terra	3	Hiker-Pedestrian	Hiker	2.9 Miles
Existing	F-8	Tutka/Jakalof	Terra	3	Hiker-Pedestrian	Hiker	2.0 Miles
ST-19	F-8	Proposed – Woz Grace	Terra	3	Hiker-Pedestrian	Hiker	6.3 Miles
ST-20	F-8	Proposed – Groovey	Terra	3	Hiker-Pedestrian	Hiker	4.6 Miles
ST-21	F-8	Proposed – Tutka Bay	Terra	3	Hiker-Pedestrian	Hiker	4.7 Miles
ST-22	F-8	Proposed – Tutka Lagoon	Terra	3	Hiker-Pedestrian	Hiker	1.1 Miles
ST-23	F-8	Grace Ridge (redevelop)	Terra	3	Hiker-Pedestrian	Hiker	9.3 Miles
ST-24	F-8	Tutka Ascent (redevelop)	Terra	3	Hiker-Pedestrian	Hiker	5.4 Miles

**Map F-8.1: Sadie - Tutka Unit Terra Trails**

## **Implementation**

### **Recommended Regulation Changes**

The trail management recommendations made in this plan represent the desired future condition for trails within the park and the general trail policies provide the direction for achieving the desired future condition. Many of the Design Uses identified for a trail or trail segment in this plan represent a standard that may require a change in park regulations to fully facilitate. Other unanticipated changes to regulations may also be needed to implement this plan. These regulation changes will be promulgated over time as the Division of Parks and Outdoor Recreation updates park regulations.

### **Phasing**

When trails are part of a phased project, the phasing of various trail segments will follow a logical sequence. Some trail construction may be required through an entire project to provide completed trail connections at an early phase in the project. Further improvements can be made as funding and staffing allow.

### **Priorities**

The purpose of the Kachemak Bay State Park and Kachemak Bay State Wilderness Park Trail Management Plan is to create a strategic tool to plot the course of trail management in the coming years. The main priorities addressed by the plan include: the design of a trail system which allows for optimum recreational use of the area while protecting the natural resources of the park; a consistent set of principles and policies for trail management; a basis for future funding; and a roadmap for the trail building and maintenance efforts.

With uncertain economic times, funding for new trail construction should be secondary to maintaining the existing trail network. Maintenance is a huge expense, both in labor hours and in dollars. There is often grant funding to construct new trails and this should be explored as much as possible. A solution to the maintenance issue may be to involve the local community more. During the summer, DPOR publishes a weekly trail conditions report on KBSP on their website. This lets the public know where maintenance needs are greatest – volunteers can be solicited to work on those areas. With some training on basic brush clearing and trail water management techniques, volunteers could sign a liability release and be given the Trail Management Objectives (TMOs) of the trail they are interested in. With a very limited scope of work, volunteers could assist in brushing out the trail system. Since the area has such rapid vegetation growth, many of these trails can become overgrown in less than a year. Trail clearing uses the largest amount of trail staff resources and having more volunteer involvement would allow the DPOR staff to work with trail crews and/or volunteer crews to focus on more detailed work like maintaining and rebuilding trail surfaces and structures like stairs and bridges. Community involvement in this process creates a sense of ownership with the participating individuals and will lend to more public support of DPOR trails initiatives.

There has been a lot of interest in the Kachemak Bay area in volunteering to assist DPOR with trail maintenance over the years. A persistent problem has been allowing the

community to help on the trails and to do so safely. With proper training and a scope limited to brushing out existing trails, much of this volunteer work could be done without supervision. This will allow DPOR to maintain more trails and with the addition of new trails, keep the backlog of trail maintenance to a minimum. Another issue in the past has been getting volunteers to the trails to perform the work. DPOR is now allowed to transport volunteers in state vehicles and watercraft, and with this proposal to allow unsupervised volunteers with a limited scope, they would be allowed to use their own watercraft and work on their own schedule. With more feet on the ground, more can be done and there would also be a much more realistic picture of park wide trail conditions.