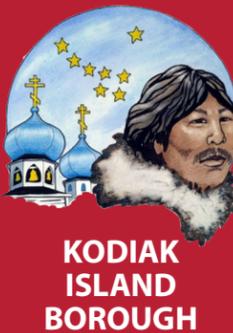




# Kodiak Road System Trails Master Plan November 2011



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## List of Acronyms

ADFG	Alaska Department of Fish and Game
ANILCA	Alaska National Interest Land Act
ANSCA	Alaska Native Settlement Claims Act
APG	Angelo Planning Group
ATV	All Terrain Vehicle
BLM	Bureau of Land Management
CIP	Capital Improvement Program
CPOA	US Coast Guard Chief Petty Officers Association
DNR	(Alaska) Department of Natural Resources
GIS	Geographic Information Systems
GPS	Global Positioning System
HDOP	Horizontal Dilution Of Precision
IMBA	International Mountain Biking Association
ITN	Island Trails Network
KCC	Kodiak City Code
KIB	Kodiak Island Borough
MUTCD	Manual of Uniform Traffic Control Devices
MWR	US Coast Guard Morale, Welfare & Recreation
NOK	Natives of Kodiak
NRCS	National Resource Conservation Service
ORV	Off Road Vehicle
PRC	Parks and Recreation Committee
PSA	Public Service Announcement
TMO	Trail Management Objective

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Appendix A - Stakeholder Interview Summaries

Appendix B - Public Meeting #1 Summary

Appendix C - Public Meeting #2 Summary

Appendix D - Trail User Guide

Appendix E - Kodiak Island Trails Survey (2004)

Appendix F - Cost Assessment of Trail Recommendations

Appendix G - Trail Design Guidelines

Appendix H - Sample Trail User Etiquette Language

Appendix I - Recommended Detailed Kodiak Island Borough Code Changes

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# Kodiak Road System Trails Master Plan



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# 1. Executive Summary

Kodiak Island is home to a diverse outdoor oriented population who take every advantage of the abundant natural beauty and diverse landscapes that the island affords. The Kodiak Road System Trails Master Plan is the culmination of a 2-year planning effort led by the Kodiak Island Borough Parks & Recreation (P&R) Committee. This Trails Master Plan also follows upon the heels of over a decade of debate within the Kodiak community about trails.

Early in the planning process the project vision was established by the P&R Committee: “The purpose of the Kodiak Road System Trails Plan is to ensure continued access and maximum use of trails by all citizens.” With this vision the planning team was directed to provide guidance to the Borough to better manage and plan for trails accessible from the road system without instituting new closures to user groups. A key theme of the planning process was to provide a legacy for future generations, so that they may enjoy the same quality of outdoor experience as current residents do today.

Rather than attempt to restrict use on existing trails, the Trails Master Plan recommends a multi-faceted approach built upon strong partnerships between the Federal, State & Local government, the trail user groups, and the Native Corporations. Specifically, the Trails Master Plan recommends:

## New Trails

New trails have been recommended to serve the Kodiak urban area, and fill several gaps in the road system network coverage. These trails serve existing activity centers such as schools, the Kodiak waterfront, the US Coast Guard Base, and 17b easements that were never developed through Native Corporation Lands.

## Trail Maintenance and Rehabilitation Projects

Many of the trails accessible from the road system are not sustainable and are becoming increasingly damaged from use. The Trails Master Plan recommends maintenance and rehabilitation activities at eleven areas within the road system. Each area can encompass multiple trails within the same vicinity. Several user groups such as the Island Trails Network, the ATV Club and the Kodiak Audubon Society have



*The Kodiak Road System Trail Master Plan is a critical document to ensuring long-term access to sustainable trail recreation and transportation opportunities for future generations.*

hosted trail work days in the past. To implement the Trails Master Plan recommendations, new partnerships will be needed to bring additional resources to bear on many of Kodiak’s least sustainable trails.

## Trailhead Improvements

Improving parking areas, signage, and information will be a huge asset to Kodiak residents and visitors alike. The Trails Master Plan recommends improvements to 17 of the most heavily used trails accessible from the road system.

## Programs

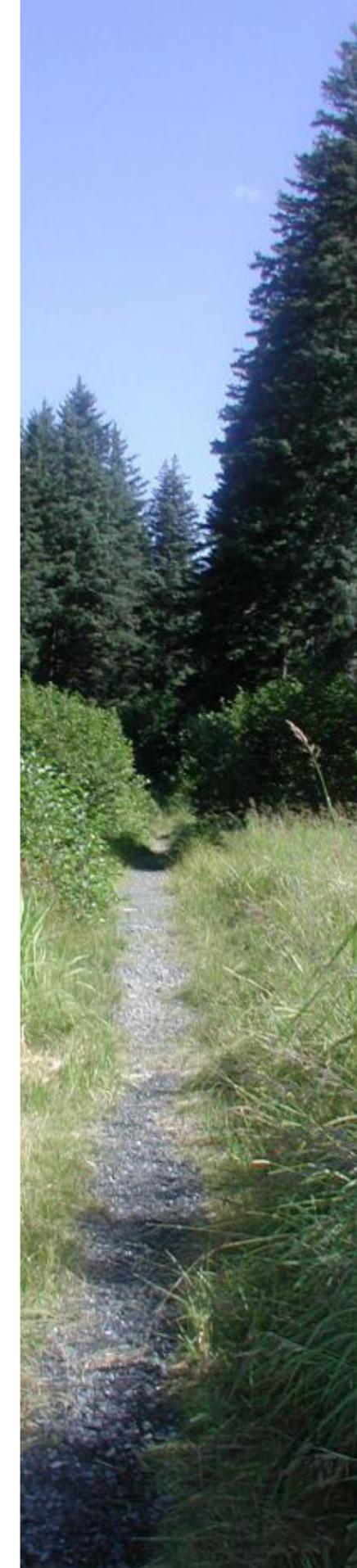
Much of trail user conflict, the environmental damage and vandalism on Kodiak could potentially be mitigated through increased educational and encouragement activities. The Trails Master Plan contains 12 program recommendations to build a broader sense of community with regard to the trail system and promotes greater stewardship of the land through trainings and public service announcements. This is especially important with regard to interaction between motorized and non-motorized users of the trail system.

## Kodiak Island Borough Code Changes

The Trails Master Plan recommends simple changes to the Borough code to increase the ability of the Borough to acquire trail easements through the subdivision process on future development on the island.

## Implementation

This Trails Master Plan was funded and managed through the Kodiak Island Borough. The Borough has limited jurisdiction over the majority of trails used by Borough residents and visitors and does not have the resources to implement all of the recommendations in this Plan. The KIB can act in large part as a coordinator or convener of other trail planning, improvement and maintenance efforts, but ultimately others in the community will need to commit to sharing in the implementation of the Plan. Because of this the Trails Master Plan provides abundant guidance to the Borough and others to form partnerships to achieve the recommendations contained within the Plan.



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## 2. Introduction

### 2.1 History of Trail Planning in Kodiak

The history of trail planning on Kodiak likely goes back to the aboriginal settlement of the Kodiak Archipelago. This review, however, will be limited in scope (the Kodiak Road System) and time frame (roughly 2001 to present).

Trails have always been an essential form of transportation for people wanting to access the land and resources of Kodiak Island. These trails also provide access to destinations for the purpose of transporting material and people to and from destination developments and recreational opportunities located away from the very limited Kodiak Road System. From an economic standpoint, it makes little sense to build (and maintain) roads where there are few occupants and little private land to provide a tax base. As a result, there are many trails leading from the main roads along the north end of Kodiak Island. These trails primarily provide access to public lands, although with the advent of the Alaska Native Claims Settlement Act (ANSCA) and later the Alaska National Interest Land Act (ANILCA) these trails act as a bridge to public and private lands that would otherwise be denied direct access from the road system.

For the most part, the human use of trails on Kodiak Island's north end stretches back from several hundred to several thousand years. During the past several decades however, there has been an increasing concern in the community surrounding the use of road system trails as the number of trails users has increased over the years. This use is further complicated by the advent, evolution and wide spread use of personal motorized vehicles as represented by All Terrain Vehicles (ATV) and Off Road Vehicles (ORV). As a result of these two trends, an increasing number of trail users were able to access the off-road areas of the road system with ever increasing frequency.

In 2001, it was not uncommon to hear trail issues debated on the local "Hotline" call-in radio talk shows on a regular basis. In addition, concerns about the sustainability and usability of the trails, trail user conflicts, and illegal use of ATVs on roads was occasionally mentioned at borough assembly meetings. In 2002, the assembly

authorized the creation of an ad hoc trail planning advisory body to study these issues and make recommendations. Although this group was referred to as the ATV Stakeholder Committee, its composition included trail users of all persuasions. Its mission was to consider the full range of trail issues and render certain recommendations back to the borough assembly for further consideration. After nearly a year of meetings, the ATV Stakeholder Committee was only able to make two firm recommendations for which committee resolutions were adopted. One recommendation dealt with the proposal to create an educational brochure about the importance of crossing anadromous streams only at designated crossings. This brochure was created by one of the committee members and featured the likeness of a new trail mascot who was named Lester Lightfoot. 5,000 brochures were printed by the borough based on the camera ready content produced by this committee member and these were distributed through the Kodiak Coast Guard Base, local ATV dealerships, and other governmental offices.

The other principal recommendation that came out of the ATV Stakeholder Committee had to do with the notion that the bulk of illegal or inconsiderate trail use was the result of ignorance on the part of a minority of trail users. For this reason the concept of ATV registration programs or other means of making trail users accountable were not brought forward as a recommendation. In addition, it was widely recognized that other forms of registration such as for watercraft and snow machines was largely implemented at the state level which had greater resources to regulate such matters on a state-wide rather than a local basis.

After these two recommendations, the ATV Stakeholder Committee was largely unable to reach a consensus on other trail planning issues. About half of the group was ready to terminate their service thinking that they had fulfilled the original mandate. The other half were willing to continue meeting and to consider a wider range of trail planning issues that went beyond the original mandate of simply



Volunteers perform trail assessments in 2004



addressing the trail controversies of the day. The ATV Stakeholder Committee continued to meet on a regular basis to consider the prospects of creating a trail plan for the Kodiak Road System. Although it was not recorded as a formal recommendation, it was conveyed to the Assembly that a trail plan might be one way to put some perspective on these issues and that a trail plan might lead to better trail management and improve the ability of the community to compete for trail improvement dollars.

In 2001 in response to agency concerns about grazing and fish and wildlife resources and trail conflicts, the Natural Resources Conservation Service (NRCS) published a document titled “Assessment of ATV Trails on Kodiak Island”. That document concluded that “ATV trails have developed where footpaths previously existed and in many cases the area that could sustain foot traffic is not capable of sustaining motorized vehicles. It was recommended that if the trails were to remain in the same location that they be hardened with webbed geo-block material to minimize impacts.

After a change of staff in the Community Development Department, then Director Michelle Stearns was instrumental in phasing out the ATV Stakeholder Committee with its “trail only” focus. Due to the interest expressed by some of the remaining committee members, a number of remaining ATV Stakeholder Committee members were rolled into an expanded KIB Parks and Recreation Committee.

The expanded Parks and Recreation Committee is a standing advisory committee of the borough set up to deal with all recreational issues and considered a more appropriate vehicle to initiate and sustain an in-depth trail planning process. During this same time, Director Stearns initiated a number of planning activities aimed at furthering this process including a community wide trail user survey, strategic partnership with the National Park Service, and the acquisition of GPS and Geographic Information System (GIS) hardware and software.

In 2004, Dr. Doug Whittaker was hired to develop and analyze a community trails survey in order to gauge the interests and concerns of the community regarding trail usage (see Appendix E). The Kodiak Island Borough also hired GIS Analyst Ian Moore to assist with documenting trail locations and trail conditions. With the use of a Geographic Positioning System (GPS) he mapped and classified over 200+ miles of existing trails on the road system.

Unfortunately, Director Stearns left the borough’s employ after less

than two years on the job. In the absence of her vision with regard to planning projects, and in recognition of the departments diminished capability with fewer staff members, all of the projects that were initiated by Ms. Stearns, including the trail plan, were proposed in the following fiscal year budget to be addressed by a single borough wide comprehensive plan revision process. This process culminated in the 2008 Kodiak Island Borough Comprehensive Plan Update.

The thought behind the single borough wide comprehensive planning project was to keep the momentum going on the Womens Bay Community Plan Update and other plans that had been initiated by the former Community Development Director Michelle Stearns. This included additional plan processes that had been initiated for Chiniak and Larson Bay, in addition to the Road System Trail Plan. The reality was apparent early on however, that this comprehensive plan process could only address trail issues from an area wide perspective and that it would not provide the kind of policy development or management guidance that a standalone Road System Trail Plan could. The 2008 comprehensive plan update summarized much of the prior trail planning work that had been accomplished during the previous years, but it did little to further the actual trail planning effort itself. As a result, few conclusions could be drawn from this work due to the incomplete trail planning process and information. In the end, it was recognized that the trail planning process for the road system would have to be re-initiated once the larger area wide comprehensive plan was completed.

In early 2009 an request for proposals was issued by the borough and a consultant was selected to begin development of the Kodiak Road System Trails Master Plan. Work commenced in September 2009 and began with stakeholder interviews, field visits, and data transfer. A second interview period was held in February to catalog existing winter trail uses. Through the interview process, a broad variety of stakeholders were given the opportunity to provide information including native corporations, government entities, and trail user groups (for a summary, please see Appendix A).

An early goal of the project was to involve the community through a volunteer trail GPS program however it was quickly realized that a full trail inventory could not be achieved. The project team contracted with Island Trails Network to supplement the 2004 trail inventory with up-to-date conditions to assist with trail planning and project prioritization.

A public meeting was held in May 2010 to review existing conditions

for summer and winter trail use (for a summary, please see Appendix B). It is estimated that over 200 individuals have been involved through the public process.

The borough Parks & Recreation Committee was involved constantly through the planning process and provided oversight and review to all materials produced by the consultant team. Through this comprehensive involvement it was assured that the evolution of the plan accurately represented the desires and needs of Kodiak residents, and provided balanced recommendations for implementation.



*The Trails Planning team walks a trail on Near Island in 2009*

## 2.2 Legacy of Urban and Recreational trails in Kodiak

The Kodiak Road System Trail Master Plan is a critical document to ensuring long-term access to sustainable trail recreation and transportation opportunities for future generations. Trails have historically played a significant role to Kodiak Island and its inhabitants. Erosion, both natural and manmade has taken a toll on Kodiak’s trails over the past two decades. Many Kodiak residents have expressed concern about the state of trail degradation and the desire to see a legacy of sustainable trails left to future generations on the island. The public’s desire, not to just limit future damage, but to rehabilitate trails and make them accessible for multiple users was

a reoccurring theme throughout the planning process. This trail master plan will be the blueprint for maintaining the quality and condition of the current trails, improving trails that need rehabilitation, and expanding the trail network as funding and resources permit. Through the implementation of the policies, goals and objectives detailed in this plan, the Borough can guide the development of the trail network and ensure it remains a lasting community resource for years to come.

## 2.3 Sustainable Trails for the Future

Successful sustainable trail systems should protect the environment, meet the needs of a variety of users, require little maintenance, and minimize user conflicts (IMBA, 2004).

Sustainable trails allow higher numbers of visitors to visit natural areas with less damage to the ecosystem. While the preferred travel mode of these users may vary, the principles for designing sustainable trails are the same (for detailed design guidelines for the implementation of sustainable trails, please see Appendix I). Trails can provide improved fitness, community connections, basis for tourism, and opportunities for economic development. To reap the full benefit of a trail system, it is important that the system provide access to important destinations, provide experiences for users of all abilities, and be developed through public and private partnerships.

Sustainable trails play an important role in reducing impacts on sensitive habitat areas. All trail user groups will create the experience they're seeking if it is not provided within the trail system (Umphress, 2009). Balancing conservation needs with important destinations, such as loved fishing spots and camp sites, may lead to reduced maintenance costs in the future. Sustainably designed trails allow greater numbers of users to pass through environmentally sensitive areas with less impact than user-designed trails. A well implemented trail system:

- Provides reasonably direct access to desired destinations. If short-cutting the trail is faster, users will take the short cut rather than following the trail.
- Works with the surrounding topography and avoids steep grades or alignments that can channel water and focus erosion.
- Does not pass through excessively muddy or rocky areas. Trail users will avoid these areas and widen the tread or create new trails. (Parker, 2004)



Volunteers install Geoblock trail surfacing on the Lake Miam Trail in 2009

Kodiak is in an excellent position to capitalize on the innate benefits of trails in the area – such as access to scenic natural areas and multi-modal user groups – to increase the number of residents and visitors who use the trail system. Recreational tourism has been growing in popularity as outdoor sports such as ATV riding, mountain biking, and birding, continue to gain popularity. There are many long-term benefits to communities and the environment when trail systems are sustainably designed.

Successful trail systems can have benefits to communities beyond tourism. Local residents have the opportunity to experience enjoyable and high quality trails in their own backyard. Trail activities have been shown to improve health in as little as 30 minutes three times per week. Improved health benefits not only the individual and benefits society as a whole through reduced healthcare costs (Indiana, 2000).

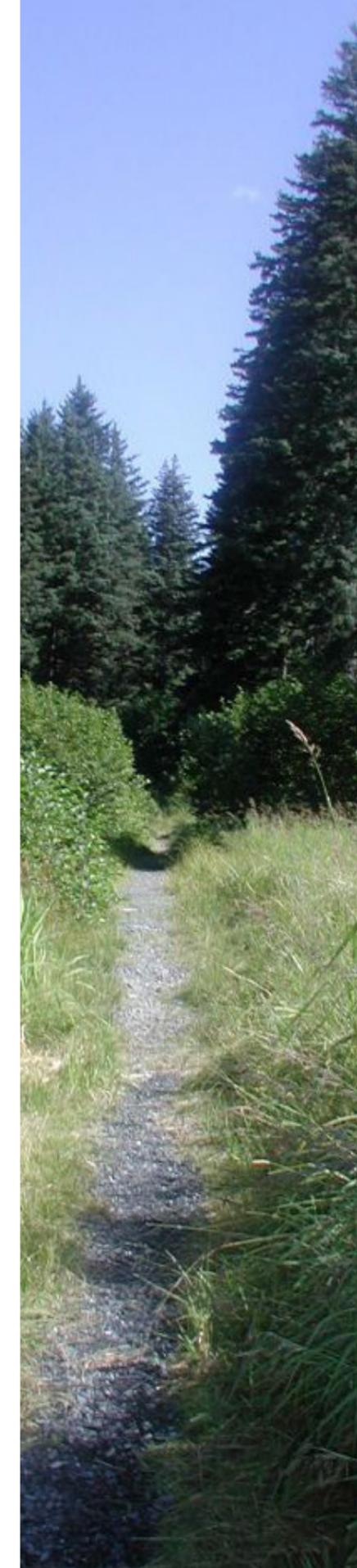
Community moral is often improved through trail projects. Trails build partnerships between landowners, government, and advocacy groups. Residents involved in working on trail projects feel more connected to their community (Warren, 1997). Trail systems are places for entire families, friends, and neighbors to gather and recreate together. In Anchorage, motorized trail users have played

an active part in maintenance, building and advocacy and helped forge public and private partnerships to improve the Anchorage Trail (Madden, 1997).

Through successful implementation of the trail maintenance projects recommended as part of this Plan, Kodiak can restore many of its damaged environmental areas while preserving access opportunities by all trail user groups. Only an involved and concerned community can affect significant, long-lasting change. For partnering strategies, please see Chapter 7.

### References:

- IMBA, 2004. *Trail Solutions: IMBA's Guide to Building Sweet Singletrack*. International Mountain Bicycling Association.
- Umphress, Karen, 2009. *Why do People Leave the Trails? National Trails Training Partnership*.
- Parker, T.S. 2004. *Natural Surface Trails by Design: Physical and Human Design Essentials of Sustainable, Enjoyable Trails*
- State of Indiana, 2000. *Indiana Trails Plan 2000*.
- Warren, N., 1998. *Nova Scotia Hiking Trails Study*. Nova Scotia Federation.
- Madden, J., 1997. "Anchorage Trails System Adds to Quality of Life." *American Pathways: Case Studies in Successful Trails and Greenways*. The American Hiking Society and the National Parks Service.



## 2.4 Visions, Goals and Objectives of the Plan

### 2.4.1 Introduction

The Vision, Goals, and Objectives of the study are principles that will guide the development and implementation of the Kodiak Island Borough Road System Master Plan for years to come. Goals and objectives direct the way the public improvements are made, where resources are allocated, how programs are operated, and how Borough priorities are determined. This plan lays out a framework for creating and expanding programs and improvements to trails in Kodiak now and in the future.

A vision statement outlines the intent of the planning process. It concentrates on the ideal of the project and is a source of inspiration. Goals help guide the Borough towards fulfilling that vision. Objectives are more specific statements under each goal that define how each goal will be achieved. Objectives are measurable and allow tracking and benchmarking to demonstrate the extent of the Borough's progress towards achieving the goals and overall vision.

The vision, goals, objectives and policies have been based on national best practices, interviews with project stakeholders and discussions with the Parks & Recreation Committee and Borough staff.

#### Project Vision

“The purpose of the Kodiak Road System Trails Plan is to ensure continued access and maximum use of trails by all citizens.”

### 2.4.2 Goals & Objectives

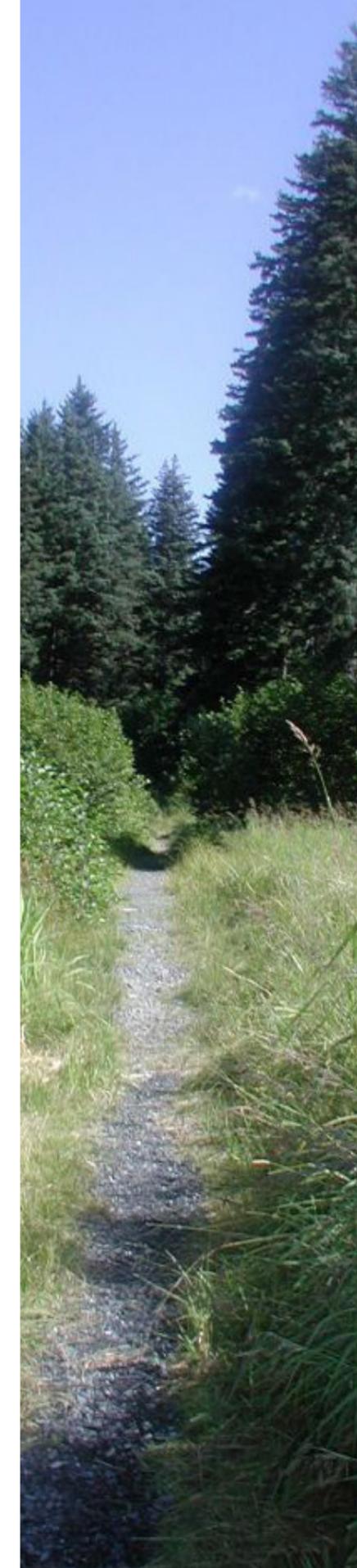
The Kodiak Road System Master Plan will be implemented through a comprehensive program of activities based on the following goals:

1. Trail Sustainability
2. Respect of Private Property
3. Preserve and Expand the Trail Network
4. Trail Conflict Management
5. Health & Safety
6. Enforcement

1. Trail Sustainability	
Goal: Ensure that Kodiak road system trails remain usable and free from permanent damage so that future residents can enjoy the same or a better quality experience than today.	
Objectives:	<p><b>1A:</b> Reroute, harden, or otherwise improve portions of existing trails with severe erosion or trail braiding issues.</p> <p><b>1B:</b> Prevent trail degradation resulting from inappropriate trail use.</p> <p><b>1C:</b> Pursue funding through various means for trail rehabilitation and hardening.</p> <p><b>1D:</b> Form Public/Private Partnerships with local organizations and non-profits to perform trail maintenance and seek grant funding opportunities.</p> <p><b>1E:</b> Protect anadromous creeks and streams from user damage through the use of designated stream crossings.</p> <p><b>1F:</b> Decommission trails that have been rerouted and are no longer in use.</p>
2. Respect of Private Property	
Goal: Provide a trail network that respects the rights of private property owners and native corporations while preserving access to key destinations and public lands.	
Objectives:	<p><b>2A:</b> Establish easements across private and native corporation lands for trails identified in the plan as grants and funding becomes available.</p> <p><b>2B:</b> Minimize the impact of existing and proposed trails to private property owners.</p> <p><b>2C:</b> Avoid private property as a means of avoiding conflicts with private property owners.</p> <p><b>2D:</b> Provide signage and more intense management of trails in areas where legal trails cross private lands.</p> <p><b>2E:</b> Minimize negative impacts on surrounding private property owners by attempting to modify trail user behavior through education and other programs outlined in this plan.</p> <p><b>2F:</b> Consider trail relocation if an equal or better alternative route is readily available or on existing public lands.</p> <p><b>2G:</b> Reduce the likelihood of inadvertent trespass by installing signage near areas of private property directing people to stay on the trail.</p> <p><b>2H:</b> Work with native corporations and other private land owners to publicize procedures for gaining legal or permitted access to private lands.</p> <p><b>2I:</b> Increase public knowledge of legal public trails on Kodiak Island.</p> <p><b>2J:</b> Incorporate the Road System Trails Master Plan into the Kodiak Island Borough's development review process.</p>



3. Preserve and Expand the Trail Network	
Goal: Provide a network of recreational trails suitable for all varieties of trail users including: hikers, skiers, mountain bikers, equestrians and All-Terrain Vehicle (ATV) users.	
Objectives:	<p><b>3A:</b> Work with public and private landowners to obtain more dedicated trails.</p> <p><b>3B:</b> Develop an urban network of improvements for pedestrians and bicycles which connect residential areas to activity centers such as schools and commercial areas.</p> <p><b>3C:</b> Provide Improvements for pedestrians and bicycles along all arterial roads within the Borough.</p> <p><b>3D:</b> Develop extensions of the urban trail network which connect the Kodiak urban area to nearby destinations.</p> <p><b>3E:</b> Promote trail recreational opportunities to residents and visitors.</p> <p><b>3F:</b> Minimize the expense of purchasing private lands for trailheads by using available public right of way where possible.</p> <p><b>3G:</b> Encourage volunteer efforts for trail development and maintenance.</p> <p><b>3H:</b> Obtain funding sources for trail development and maintenance costs without passing the burden directly onto the Borough taxpayer.</p> <p><b>3I:</b> Actively pursue all applicable grant funding for trail easement acquisition, trail development, and maintenance for Kodiak trails as well as the public acquisition of key destinations areas.</p> <p><b>3J:</b> Support and promote a Safe Routes to School Program.</p> <p><b>3K:</b> Support winter activity in Kodiak.</p> <p><b>3L:</b> Ensure that construction projects taking place on existing roads include improvements for non-motorized transportation use where none presently exist or include upgrades to existing non-motorized facilities.</p> <p><b>3M:</b> Identify missing links in an effort to create a connective trail network</p>
4. Trail Conflict Management	
Goal: Minimize conflicts between different types of trail users and avoid trail degradation due to improper use.	
Objectives:	<p><b>4A:</b> Develop sufficient trail opportunities for all user groups so that groups need not rely on trails ill-suited for their trail use.</p> <p><b>4B:</b> Encourage the formation and continued growth of trail user groups such as the Snow Bruins, Emerald Isle Off Road Club, ATV Club, Audubon Society, and Island Trails Network.</p> <p><b>4C:</b> Develop and distribute a 'Trail User Guide' to promote maximum public knowledge of the trail system, trail uses, and to reduce user conflicts.</p> <p><b>4D:</b> Install signage promoting 'rules of the trails' at trailheads and along trails.</p> <p><b>4E:</b> Consider dual use or seasonal use trails where there is high demand and conflicting uses.</p>





5. Health & Safety	
Goal: Reduce the risk of trail related injury and rescue through effective informational programs.	
Objectives:	<p><b>5A:</b> Decrease the likelihood of visitors and residents getting lost by providing adequate marking along popular routes and signage at junctions with other trails. Work with the Alaska Department of Natural Resources to develop uniform signage for trails.</p> <p><b>5B:</b> Install signage with important safety information where applicable at trailhead kiosks.</p> <p><b>5C:</b> Post bear warnings and avoidance strategies at all trailheads.</p>

6. Enforcement	
Goal: Provide effective enforcement to existing trail use restrictions and trespassing on private property.	
Objectives:	<p><b>6A:</b> Work with Alaska State Troopers, Native Corporations, Alaska Department of Fish &amp; Game, Alaska Department of Natural Resources and the U.S. Coast Guard to enforce existing trail restrictions, trespassing on private property, and responsible trail use.</p> <p><b>6B:</b> Promote peer enforcement through existing and future trail user groups to 'self-enforce' improper trail behavior that could lead to trail damage or conflicts with other users.</p> <p><b>6C:</b> Install appropriate signage that encourages proper use of trails.</p>



## 3. Public Involvement Summary

The Borough and project team have used a variety of methods to ensure that Borough residents, trail users and others have had an opportunity to learn about and have a voice in shaping the Trails Master Plan. These activities have included the following which are described in more detail in the following pages.

- Parks and Recreation Committee meetings
- Stakeholder interviews and meetings with Summer and Winter trail users
- Public meetings and workshops
- Project Web site
- E-mail announcements and updates to interested parties
- Additional notification and information via:
  - ◇ Coordination with the Kodiak Daily Mirror and local radio stations (KMXT, KVOK and KRXX)
  - ◇ Meeting flyers posted in local businesses and other gathering places
  - ◇ Public notices

### 3.1 Parks and Recreation Committee Meetings

The Borough's Parks and Recreation Commission has acted as the primary advisory group for this Planning project. The committee is made up of people who represent a variety of public agencies, trail advocacy groups and other interests. A list of PRC members is found in the front of the Plan (see Acknowledgements page). The committee was responsible for providing guidance on nearly all aspects of the Trails Master Plan, including the following:

- Goals, objectives and evaluation criteria
- Trail planning issues, priorities and improvements
- Approaches to resolving conflicts among trail users



Over 100 Kodiak residents attended the May 19th, 2010 Public Workshop

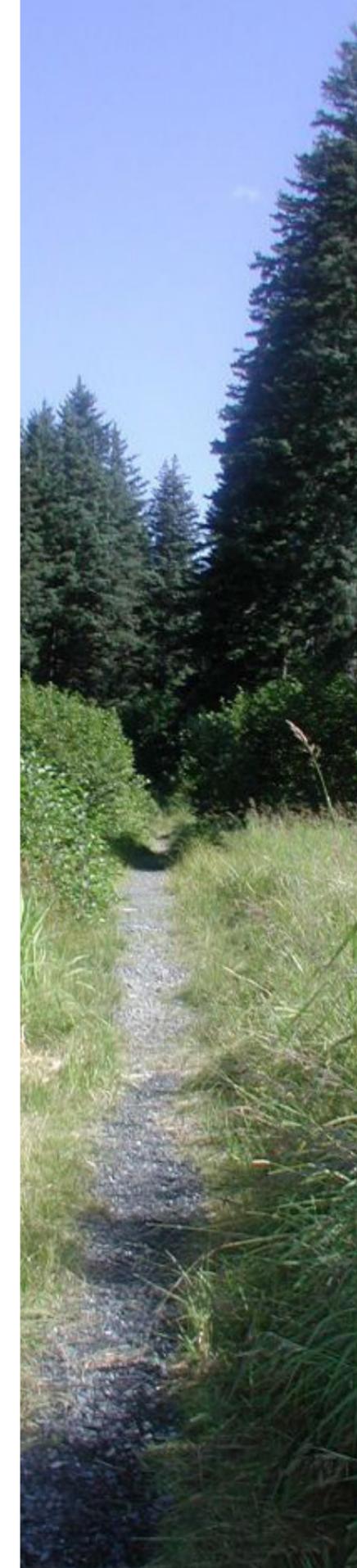
- Locations for future trails or trail improvements
- Approaches for implementing key trail planning recommendations
- Review and comments of all sections of the plan

All meetings of the PRC were open to the general public and several meetings were very well attended by citizens. For example, over 100 people attended the February 9, 2010 PRC meeting. The PRC met to review, discuss and provide guidance on trails planning elements monthly during the summer months and bi-monthly during the other seasons.

In addition to providing guidance on key trails planning issues, the PRC assisted with community outreach activities, including acting as hosts for community meetings, encouraged other KIB residents to participate in those events, and helped encourage local volunteers to assist with trail inventory activities.

### 3.2 Stakeholder Interviews

Consulting team members conducted several groups of stakeholder interviews and meetings. At the outset of the project, Alta and APG personnel held a series of 14 interviews and small group meetings with people and groups with a strong interest and involvement in trails planning. Over 30 people participated in these interviews which were conducted over a two-day period on September 1 and 2, 2009. In addition, on February 9th, 2010 representatives of Alta conducted five interviews and small group meetings with people and groups with a strong interest and involvement in winter recreational use in Kodiak. Over 15 people participated in the winter interviews, including snowmachiners, ATV users, cross country skiers, back country skiers, skate skiers, snow boarders, and snowshoers. Project team members also conducted follow-up interviews with several Native groups in May, 2010 to begin discussing potential strategies to address trail access and other issues.



Stakeholder groups who participated in one or more of the interviews described above included:

- Alaska Department of Fish and Game
- Alaska Department of Natural Resources
- ATV Club and ATV users
- Chiniak residents
- City of Kodiak
- Cross-country skiers
- Emerald Isle Off Road Club
- Equestrian users
- 58 degrees North
- Grazing leaseholders
- Island Trails Network
- Natives of Kodiak
- KIB Park and Recreation Committee members
- Kodiak Audubon
- Kodiak College
- Kodiak Island Borough School District
- Kodiak Soil and Water Conservation District
- Koniag, Inc.
- Leisnoi Native Corporation
- Orion's Sporting Goods
- Ouzinkie Natives Association
- Snow Bruins
- U.S. Coast Guard
- U.S. Department of Agriculture, National Resource Conservation Service
- Warner Motors
- Women's Bay residents

The primary objective of these meetings was to identify a full range of trail planning issues, concerns and ideas. In many cases, multiple members of these groups (e.g., ATV users) participated. A complete list of individuals who participated in these interviews is found in Appendix A of the Plan.

### 3.3 Public meetings and workshops

The project team conducted two community-wide meetings to provide opportunities for KIB residents to learn more about the trails planning process and help shape its outcome. In addition, one of the PRC meetings essentially served as a community-wide meeting, with over 100 people in attendance. These meetings were held on February 9th and May 19th, 2010 and June 1st, 2011. Each of these meetings included a presentation of planning results to date and next steps, and opportunities to comment and ask questions about the planning process. The May, 2010 meeting also included interactive exercises to identify location-specific trails planning issues, needs or proposed improvement projects, as well as feedback on trail user conflict management strategies. The following methods were used to advertise the meetings:

- Announcements and news stories in Kodiak Daily Mirror and on local radio stations (e.g., KMXT, KVOK and KRXX)
- Announcements on the project Web site
- Meeting flyers posted in local businesses, churches and gathering places
- E-mails announcements sent directly to people who expressed an interest in the planning process and/or had attended a previous meeting
- Direct communication with potentially interested residents by Park and Recreation Committee members, District staff and other community members

Summaries of public meetings are found in Appendix B and C.

### 3.4 Project Web site

Alta Planning created a project Web site to help provide people with information about the Trails Master Planning process, comment on draft work products and announce upcoming meetings and other opportunities to participate in the planning process. The Web site included information related to the following topics:

- Overview of the planning process and objectives
- Frequently asked questions about the Master Plan
- Related trail planning resources or documents, including information about 17b easements and existing stream crossing locations
- Draft project reports and maps
- Announcements, agendas and summaries of public, stakeholder and other meetings
- Contact information for planning team members
- Opportunity to be added to the project contact list and/or provide comments

The Web site was updated regularly to provide access to draft maps and other work products, announce upcoming meetings and provide information in response to public comments and concerns about specific trail planning issues.

### 3.5 Email list and updates

As noted above, the project team created, maintained and used a list of people who expressed an interest in the trails planning process to provide updates and announcements about upcoming meetings and other activities. The list included people who participated in stakeholder interviews, attended public meetings, submitted comments via the project Web site, or otherwise contacted the Borough and asked to be added to the list or informed about the process. By the end of the planning process, the list included over 200 people.



Over 100 Kodiak residents attended the February 9th, 2010 P&R Committee Meeting



## 4. Existing Trail Conditions

Providing up-to-date trail inventory information for the production of the Kodiak Road System Trails Master Plan was a priority from the beginning of the project. A significant GPS survey effort was conducted in 2004 that inventoried 207 miles of trail. Since that time a significant amount of new erosion has occurred, most notably through the winter of 2009-2010. It was determined that a more comprehensive trail inventory be undertaken to catalogue these changes, increase the amount of trail related information collected, and to survey trails not previously surveyed. The borough contracted with Island Trails Network to conduct the field survey.

### 4.1 Trail Users and Classification in Kodiak

There are many different types of anticipated trail users within the KIB trail network. Trails attract all types of users including the different types addressed below. Trail width, vertical clearance, surface type and trailhead amenities should be designed to accommodate the expected range of users.

#### 4.1.1 Hikers

Hikers are the most flexible trail users, requiring the least specific trail designs (also in this group, joggers/runners, bird watchers and hunters). Traveling by foot allows hikers to adjust to varying trail conditions. However, considerations must be made about the expected trail user. Hikers are the most versatile of users and are able to travel over trails that are extremely steep or barely evident. Hikers generally prefer trails that offer wide paths of travel, moderate vertical clearances, minimal grades, and non-slip walking surfaces such as decomposed granite or compacted earth. This user group prefers trails with scenic opportunities that provide visual interest with varied terrain.



*Hikers are the most versatile of user groups in Kodiak*

#### 4.1.2 Bicyclists

The needs of trail bicyclists vary based on their experience and familiarity of the trail network. Casual trail bikers might prefer a wide trail that allows passing and side-by-side riding. Bicyclists may also prefer smooth, compact surfaces or paved surfaces with gentle to minimal slopes. Aggressive trail bikers, on the other hand, might enjoy more challenging trail experiences including the thrill of a narrow, single track trail, just wide enough to allow passage of one bicycle. These bikers might also seek rougher, more steep and challenging surfaces to ride on. Most trails that hikers prefer are also suitable for bicyclists.

#### 4.1.3 Equestrians

Equestrians require specific trail characteristics, including, stable surfaces that allow a horse to maintain its footing, easy trail access with space for horse stalling or a parking area with sufficient space for trailers. Equestrians prefer safe roadway crossings and whenever possible, maintaining separation between the horses and the other trail users. Much of the equestrian activity in Kodiak occurs at the Bells Flats/Jack Lakes area.

#### 4.1.4 Cross Country Skiers

There are two types of cross country skiing. Classic or traditional, and Skate-skiing. Classic skiers can typically ski wherever snow exists, but most avoid steep terrain. Skate skiers typically require

groomed trails, however on Kodiak they have taken advantage of frozen lakes and ponds when conditions are ideal. Trails groomed specifically for cross-country skiing typically address both disciplines, a wide compacted surface with a corrugated surface typically six to twelve feet wide. Classic skiers quickly produce a set of tracks that other skiers can utilize. Cross country skiers typically look for loop trails of four to six miles in distance. The most common locations for cross country skiing in Kodiak are on the Coast Guard Base around Buskin Lake and the Golf Course.

#### 4.1.5 Snowshoers

Snowshoers typically prefer to walk on snow with at least an 8" base. Snowshoers often travel off trail for a more primitive experience however they also use existing trails to gain access to the backcountry. Snowshoers prefer loop trails of two to eight miles in distance. Snowshoes perform poorly on ice and steep terrain. Therefore, most snowshoers will prefer to walk along trails that have minimal changes in grade or go off-trail to maintain level elevations and avoid ice.

#### 4.1.6 Snowmachiners

While snowmachines technically do not require actual trails to operate, many snowmachiners prefer to operate along trails for orientation and familiarity. It is preferable for snowmachines to operate along trails, minimizing the potential damage to vegetation with thin snow cover. Snowmachine trails consist of heavily compacted snow and are typically 10'-15' in width. From public and stakeholder meetings with snowmachiners any snow covered accessible terrain is currently utilized. General routes have been developed over time, though these routes change frequently due to conditions.

#### 4.1.7 Off-Road Vehicles

While this user category can include snowmachines and full sized four wheel drive vehicles, for the purposes of this trails plan this category is most often applied to All-Terrain Vehicles (ATVs), three wheelers, and motorcycles not licensed for use upon the highways. In Kodiak, the 4-wheel version of the ATV is the predominant off-road vehicle used. Over the years ATV technology has advanced dramatically. The older three-wheeled versions with wide low pressure tires have been superseded with models designed to overcome obstacles with higher clearances, better suspension, increased horsepower, wider track, more drive wheels and more aggressive high pressure



tires. ATV models now also vary by purpose with utility based vehicles designed to carry heavy loads and reach back-country locations. Performance models have also evolved and can specialize in climbing steep slopes and traveling at high-speed. With this performance evolution has come a greater capability to cause environmental damage. The majority of Kodiak is covered in a thin layer of volcanic ash deposited by the 1912 eruption of Novarupta. In most areas this material is generally 6-12 inches thick and acts as topsoil, beneath which lies a rocky base. ATV riders on Kodiak frequent the Jack Lakes trails, Lake Miam Trail, Saltry Cove Road and an assortment of lesser used corridors. Due to their contribution to erosion and effect on plant life, trails supporting ATV use can most benefit from maintenance and rehabilitation features that help the trail maintain its longevity, while minimizing impacts on surrounding natural resources. The 2004 Kodiak Trails Survey noted that 47 percent of ‘trail enthusiasts’ and 30 percent of the general public use off road vehicles.



ATVs are a popular means of transport and recreation in Kodiak

### 4.2 Trail Classification System

For the Kodiak Island trails the United States Forest Service Trail Classification System is applied as a basis. Additional factors unique to Kodiak Island and its trail users have been taken into account and incorporated into the recommended classification system. At the most basic level, any trail on Kodiak Island can be matched to the following:

Table 1: General Trail Criteria

Trail Attributes	Trail Class 1	Trail Class 2	Trail Class 3		Trail Class 4		Trail Class 5
	Minimal/ Undeveloped	Simple / Minor Development	Developed / Improved		Highly Developed		Fully Developed
<b>Sustainable Uses</b>	<ul style="list-style-type: none"> <li>Hiking only</li> </ul>	<ul style="list-style-type: none"> <li>Hiking</li> <li>Off-road bicycles</li> <li>Equestrians</li> <li>Motorcycles</li> </ul>	<b>Class 3A</b> <ul style="list-style-type: none"> <li>Hiking</li> <li>Off-road bicycles</li> <li>Equestrians</li> <li>ATVs &amp; Motorcycles</li> </ul>	<b>Class 3B</b> <ul style="list-style-type: none"> <li>Hiking</li> <li>Off-road bicycles</li> </ul>	<ul style="list-style-type: none"> <li><b>Class 4A</b></li> <li>Hiking</li> <li>Off-road bicycles</li> <li>Equestrians</li> <li>ATVs &amp; Motorcycles</li> </ul>	<ul style="list-style-type: none"> <li><b>Class 4B</b></li> <li>Hiking</li> <li>Off-road bicycles</li> </ul>	<ul style="list-style-type: none"> <li>Hikers / Fitness</li> <li>Bicyclists</li> </ul>
<b>Typical Trail Experience</b>	<ul style="list-style-type: none"> <li>Natural, unmodified</li> <li>Primitive setting</li> </ul>	<ul style="list-style-type: none"> <li>Natural, essentially unmodified</li> <li>Primitive to Semi- primitive</li> </ul>	<ul style="list-style-type: none"> <li>Natural, may be modified in some areas</li> <li>Semi-primitive</li> </ul>	<ul style="list-style-type: none"> <li>May be modified</li> <li>Typically roaded natural to rural setting</li> <li>Transition, rarely present in wilderness</li> </ul>	<ul style="list-style-type: none"> <li>Can be highly modified</li> <li>Typically rural to urban setting</li> <li>Commonly associated with transportation related trails that can also attract recreational /fitness users</li> <li>Not present in wilderness</li> </ul>		
<b>Tread &amp; Traffic Flow</b>	<ul style="list-style-type: none"> <li>Tread intermittent &amp; often indistinct</li> <li>May require route finding</li> <li>Native materials only</li> </ul>	<ul style="list-style-type: none"> <li>Tread discernible &amp; continuous, but narrow and rough</li> <li>Few or no allowances constructed for passing</li> <li>Native materials</li> </ul>	<ul style="list-style-type: none"> <li>Tread obvious &amp; continuous</li> <li>Width accommodates unhindered one-lane travel, occasional allowances constructed for passing</li> <li>Typically native materials</li> </ul>	<ul style="list-style-type: none"> <li>Tread wide &amp; relatively smooth with few irregularities</li> <li>Width may consistently accommodate two-lane travel</li> <li>Native or imported materials</li> <li>May be hardened</li> </ul>	<ul style="list-style-type: none"> <li>Width generally accommodates two-lane and two-directional travel, or provides frequent passing turnarounds</li> <li>Commonly hardened with asphalt or other imported material</li> </ul>		
<b>Obstacles</b>	<ul style="list-style-type: none"> <li>Obstacles common</li> <li>Narrow passages; brush, steep grades, rocks and logs present</li> </ul>	<ul style="list-style-type: none"> <li>Obstacles occasionally present</li> <li>Blockages cleared to define route and protect resources</li> <li>Vegetation may encroach into trailway</li> </ul>	<ul style="list-style-type: none"> <li>Obstacles infrequent</li> <li>Vegetation cleared outside of trailway</li> </ul>	<ul style="list-style-type: none"> <li>Few or no obstacles exist</li> <li>Grades typically &lt;12%</li> <li>Vegetation cleared outside of trailway</li> </ul>	<ul style="list-style-type: none"> <li>No obstacles</li> <li>Grades typically &lt;8%</li> </ul>		
<b>Constructed Features &amp; Trail Elements</b>	<ul style="list-style-type: none"> <li>Minimal to non-existent</li> <li>Drainage is functional</li> <li>No constructed bridges or foot crossings</li> </ul>	<ul style="list-style-type: none"> <li>Structures are of limited size, scale and number</li> <li>Drainage is functional</li> <li>Structures adequate to protect trail infrastructure and resources</li> <li>Primitive foot crossings and fords where sustainable</li> </ul>	<ul style="list-style-type: none"> <li>Trail structures (walls, steps, drainage, raised trail) may be common &amp; substantial</li> <li>Trail bridges as needed for resources protection and appropriate access</li> <li>Generally native materials</li> </ul>	<ul style="list-style-type: none"> <li>Structures frequent and substantial</li> <li>Substantial trail bridges are appropriate at water crossings</li> <li>Trailside amenities may be present</li> </ul>	<ul style="list-style-type: none"> <li>Structures frequent or continuous; may include curbs, handrails, trailside amenities and boardwalks</li> <li>Drainage structures frequent; may include culverts and road-like designs</li> </ul>		



Trail Attributes	Trail Class 1	Trail Class 2	Trail Class 3	Trail Class 4	Trail Class 5
	Minimal/ Undeveloped	Simple / Minor Development	Developed / Improved	Highly Developed	Fully Developed
Trail Signage	<ul style="list-style-type: none"> <li>None, to the minimum required -Generally limited to regulation and resource protection</li> <li>No destination signs present</li> </ul>	<ul style="list-style-type: none"> <li>Minimum required for basic direction</li> <li>Generally limited to regulation and resource protection</li> <li>Typically very few or no destination signs present</li> </ul>	<ul style="list-style-type: none"> <li>Regulation, resource protection, user reassurance</li> <li>Directional signs at junctions, or when confusion is likely</li> <li>Informational and interpretative signs may be present</li> </ul>	<ul style="list-style-type: none"> <li>Wide variety of signs likely and present</li> <li>Informational signs likely</li> <li>Interpretive signs possible</li> </ul>	<ul style="list-style-type: none"> <li>Wide variety of signage is present</li> <li>Information and interpretive signs likely</li> </ul>
Trail Management	<ul style="list-style-type: none"> <li>Low level use</li> <li>Highly skilled users, comfortable off trail</li> <li>Users with high degree of orienteering skill</li> <li>Some travel modes &amp; ability levels may be impractical or impossible</li> </ul>	<ul style="list-style-type: none"> <li>Low-to-moderate use levels</li> <li>Mid-to-highly skilled users, capable of traveling over awkward conditions/ obstacles</li> <li>Users with moderate orienteering skill</li> <li>Trail Suitable for many user types but challenging and involves advanced skills</li> </ul>	<ul style="list-style-type: none"> <li>Moderate to heavy use</li> <li>Users with intermediate skill level and experience</li> <li>Users with minimal orienteering skills</li> <li>Moderately easy travel by managed use types</li> <li>Random potential for accessible use</li> </ul>	<ul style="list-style-type: none"> <li>Very heavy use</li> <li>Users with minimal skills and experience</li> <li>Users with minimal to no orienteering skills</li> <li>Easy/ comfortable travel by managed use types</li> <li>Maybe or has the potential to be made accessible</li> </ul>	<ul style="list-style-type: none"> <li>Intensive use</li> <li>Users with limited trail skills and experience</li> <li>Trail typically meets agency requirements for accessibility</li> </ul>
Maintenance Indicators & Intensity	<ul style="list-style-type: none"> <li>Resource protection or safety commensurate with targeted recreational experience</li> <li>Infrequent or no scheduled maintenance, usually in response to reports of unusual resource problems requiring repair</li> </ul>	<ul style="list-style-type: none"> <li>Resource protection or safety commensurate with targeted recreational experience</li> <li>Maintenance scheduled to preserve trail facility &amp; route location or in response to reports of unusual resource problems</li> </ul>	<ul style="list-style-type: none"> <li>User convenience</li> <li>Resource protection or safety commensurate with targeted recreational experience</li> <li>Trail cleared to make available for use early in use season and to preserve trail integrity</li> <li>Maintenance typically in response to trail or resource damage or significant obstacles to managed use type and experience level</li> </ul>	<ul style="list-style-type: none"> <li>User comfort and ease</li> <li>Resource protection or safety commensurate with targeted recreational experience</li> <li>Trail cleared to make available for use at earliest opportunity in use season</li> <li>Maintenance typically performed at least annually</li> </ul>	<ul style="list-style-type: none"> <li>User comfort and ease</li> <li>Targeted high level of accessibility to key recreational opportunities</li> <li>Safety commensurate with targeted recreational experience</li> <li>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</li> <li>Snow removal within 24 hours of significant snow accumulations (greater than 3 inches)</li> </ul>

Trail Class 1: Minimal/Undeveloped Trail.

Trail Class 2: Simple/Minor Development Trail.

Trail Class 3: Developed/Improved Trail.

Trail Class 4: Highly Developed Trail.

Trail Class 5: Fully Developed Trail.

### 4.3 Trail Inventory Methodology and Classification

The consultant team conducted a field survey of over 354 miles of existing trails within the Kodiak road system utilizing GPS technology and a pre-defined set of existing conditions descriptors shown. The following section describes the data gathering in greater detail.

The consultant team used one data logger, a 2005 Trimble GeoXT owned by the Kodiak Island Borough, and one consistent data dictionary throughout the assessment. The team's goal was to assess no less than one mile of trail per hour including data collection and post-processing, and to obtain position accuracy of one meter or less. This necessarily involved reducing the accuracy and precision requirements of what the Trimble Data logger was capable of, and creating reasonable number of attributes to be simultaneously tracked by one assessor at a reasonable speed. Our minimum requirements for the data logger were 4 satellites with a maximum of 2.0 Horizontal Dilution Of Precision (HDOP) rating.

The data received a differential GPS correction in post-processing, which discarded outliers caused by false echoes. After differential correction, data was cataloged and a comprehensive GIS-compatible summary database was created.





### 4.3.1 Linear Features

This section describes in greater detail the cataloged features of each trail segment

#### Trail Classification

Trail classification was based on the US Forest Service classification system that is commonly used and accepted throughout the Alaska trails community and summarized above. Trails were given a rating of I-V based on certain characteristics including difficulty, tread width, grade, obstacles, and the number and frequency of trail improvements. Categories are defined in the following manner:

Class I: Minimal/undeveloped

Class II: Simple/minor developed

Class III: Moderately developed

Class IV: Developed/improved

Class V: Highly Developed.

This rubric was originally applied to trails for a number of uses, though characteristics needed to optimize the experience of various modes may differ. For instance, the description of Class III trail for motorized use would differ from a Class III trail for hiking/running. For the purposes of this one classification system was used for all trail user groups, with Class III being broken down into “3a” designators for motorized trails and “3b” for non-motorized trails. Since any class IV trail is generally wide enough to accommodate motorized use, and a class II trail is too narrow for such uses, the designator is limited to Class III only.

The trail assessment team made classification assignments based on current conditions. In practice, a trails classification is a trail manager’s tool, reflecting desired trail characteristics and not actual conditions. Therefore the actual trail classification may change from the assessor’s assignment based on the trail management objective written for that trail.

Complete descriptions of trail classifications are included in Chapter 5, Trail Management Objectives. Specific Trail Management Objectives for each trail accessible from the Kodiak road system will be developed in partnership with the Kodiak Island Borough at the semi-annual trail summit recommended in Chapter 6.

#### Surface Type

##### Vegetated

Used if any part of the tread surface was actively supporting vegetation, even if only the center hump between wheel ruts. This generally included grasses and shrubs in sunny areas and mosses in forested areas.

##### Gravel

Imported gravel, usually D-1. Often described urban area trails built and maintained for recreational purposes or old military roadbeds.

##### Loose Rock

Often used on rocky beaches or on high alpine slopes to characterize scree fields. This was generally naturally-occurring rock, not imported.

##### Bedrock (or rock)

Intact, exposed bedrock that was not fragmented into use rock from heavy use. This condition often appeared on steep trail sections with shallow bedrock where the existing topsoil was eroded away. This category was often used to document conditions on ridges and mountaintops.



Geoblock being installed near Lake Miam

#### Bridge

Any structure, regardless of construction style (e.g., professional or unprofessional), which crossed a stream or chasm.

#### Geoblock

A porous pavement made of plastic that is often used to repair degraded motorized trails.

#### Sand

Usually found on beaches. This category was also be used to characterize finely crushed rock that shares many of the same properties as sand.

#### Boardwalk

Boardwalks are found on moderately improved trails class III or higher, and used to span a wetland or marshy area. These are usually several inches off the ground and supported by sills at regular intervals of 3-6’.



Island Lake Trail boardwalk

#### Stairs

These may be of natural materials such as logs or flagstone or of more modern construction such as milled wood, concrete or galvanized grating. Stairs were included as linear features to capture their length.



### Grade

Measurements of grade help a land manager to identify large areas where erosion is likely to be a concern, and where re-routes may be desired. Assessors either estimated or hung surveyors' tape at eye-level and shot grades with a clinometer to evaluate trail grade. For efficiency, grades were divided into four categories.

- Negligible (less than 6%)
- Moderate (6-15%)
- Steep (16-30%)
- Very Steep (>30%)

Generally, grade changes were only recorded if they span ten feet or more except in cases of extreme change, such as steep stream banks where erosion was a concern. This included the crests of short hills, where a moderate climb may quickly transition to a moderate descent. In this case, the entire segment of moderately rolling terrain was labeled as "moderate".



Very steep grade

### Impact

#### Null

No visible impact.

#### Eroded

Used to note locations where the trail had experienced significant erosion, usually caused by natural forces of wind, water, or landslide. As a general rule, this attribute is used when the impact was perpendicular to the direction of travel, or across the trail.

#### Incised

This notation was used when the trail was rutted by foot or wheeled traffic to the point where deep scarring or incisions have formed (6" or more). This condition was usually found on motorized trails and less frequently on hiking trails that also serve as big game and stock trails. In less-impacted areas this usually involved two parallel incisions, with un-impacted soil between the wheel ruts. In severe cases, where these parallel ruts deepen, the center "hump" is worn down as well. As a general rule, this attribute was used when the impact is parallel to the direction of travel, or along the trail.

#### Submerged

Indicated the trail was crossing a stream or intertidal area that is not bridged. This attribute is not to be confused with "ponded".

#### Muddy/ponded

On natural surface trails, this indicated wet, smeary soil that cannot support vegetation and is vulnerable to erosion. This condition also includes standing water caused by poor percolation of impacted soil and usually occurs in areas of negligible grade. Locations may be adjacent to or bracketed by steep, incised trail segments channeling surface water down the trail toward a low point. On imported gravel surface trails, these are often large puddles formed in depressions in the trail and are relatively benign.

#### Collapsed

Was used to note a uniform collapse of the trail surface and vegetative layer.

#### Landslide

An area where run-out from nearby landslide has blocked or completely covered the trail. This attribute should not be confused the "Eroded" notation which may mark the disappearance of the trail downhill. Many of these occurred during the record rainfalls of October, 2009.

### Braiding

This attribute was recorded as a binary "Yes/No" field, and indicates whether alternate and/or parallel routes had appeared to avoid obstacles, impacted soils, or steep areas. This attribute was also used to indicate areas where recreationists have created a racetrack or terrain park. In severe enough cases where multiple braids have dramatically changed the landscape, a negative control point was also nested into the file labeled "severely impacted area". This attribute is subject to error in unfamiliar territory, as long segments of braided trail may be confused with and intersection with an entirely new trail.



Braided trail through a ponded area

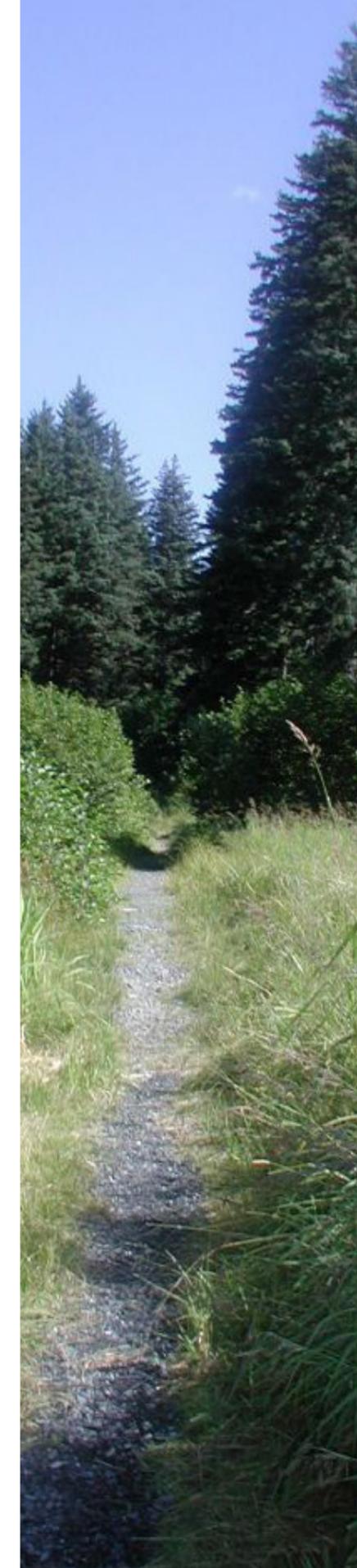
### 4.3.2 Point Features

#### Structures

All major structures along the trail were nested as point features into the file. These included signs, water bars, garbage cans, benches, culverts, gates, restrooms, campsites, and an "other" category allowing manual text entry. When possible, the actual location of the object was obtained, even if it was only a few feet off the trail.

#### Signs

Signs in particular were given special attention, with the content of the sign as well as the agency or landowner who posted it listed. Gates were categorized as locked or open. Campsites were marked wherever evidence could be found that a party had camped overnight, usually identified by a fire ring, suitable shelter, and sometimes by litter.



**Control Points**

A control point was noted anywhere a trail must or should go (a positive control point) and anywhere a trail should avoid (a negative control point). Positive control points usually involve an intersection with another trail, trailhead or overlook. Negative control points include graffiti or dumping areas, or hazards such as abandoned vehicles. These features are often accompanied by manual text entry with additional comments.



2004 GPS inventory near Women's Bay

**4.3.3 Post Processing and Data Compilation**

The trail inventory process was completed after the final installation of survey data was delivered by the trail assessment team. Data installments were aggregated into a single GIS-compatible shape file which was double checked for completeness against a master list of trails targeted for survey. The data was visually inspected to confirm that attributes had been correctly matched to each trail and the results were mapped for review and analysis by the project team.

**Process Challenges**

The section below describes challenges that complicated the data gathering process and offers recommendations to partially or completely mitigate these challenges next time a comprehensive trail inventory is completed.

**Satellite availability**

Tree cover, particularly when wet, combined with constantly changing satellite geometry made positioning very difficult on segments of the assessment. Densely forested areas such as Ft. Abercrombie State Park, Near Island Termination Point and Boy Scout lake area were particularly difficult. Trail assessors followed the rule of thumb that if satellite coverage was lost, wait up to five minutes for satellite geometry to improve, then to gradually move in a zigzag direction down the general trail alignment in the hopes of regaining satellite coverage. Future efforts at trails assessment may choose to start with these areas and equip themselves with external antennae and the most advanced receivers available.



Canopied trails such as Termination Point presented challenges for satellite reception

**Snow cover**

The trails assessment was delayed at times because of snow cover at high elevations. Because of above-average snowfall and a cool summer in 2010 it took ten months from the beginning of the survey in November 2009 to August 2010 for the highest elevation trail at Center Mountain to become accessible.

**Battery life**

The Trimble GeoXT has an internal battery that lasts about 8 hours, a separate cradle that is almost as bulky as the unit itself and requires

a 110-volt AC outlet for charging. This made charging in the field impossible, and prevented multi-day treks. This may be accomplished with smaller, more advanced data loggers that are friendlier to field work.

**Trail conditions**

Although some trails were assessed by all-terrain vehicle, the majority of motorized trails were assessed on foot as many trails were either too narrow for the Polaris Ranger or had impacted areas that were impassible or too risky to negotiate without a second vehicle for towing and/or winching. A smaller ATV with a single rider would have been able to negotiate these trails, but simultaneously collecting data in this way would have been impractical.

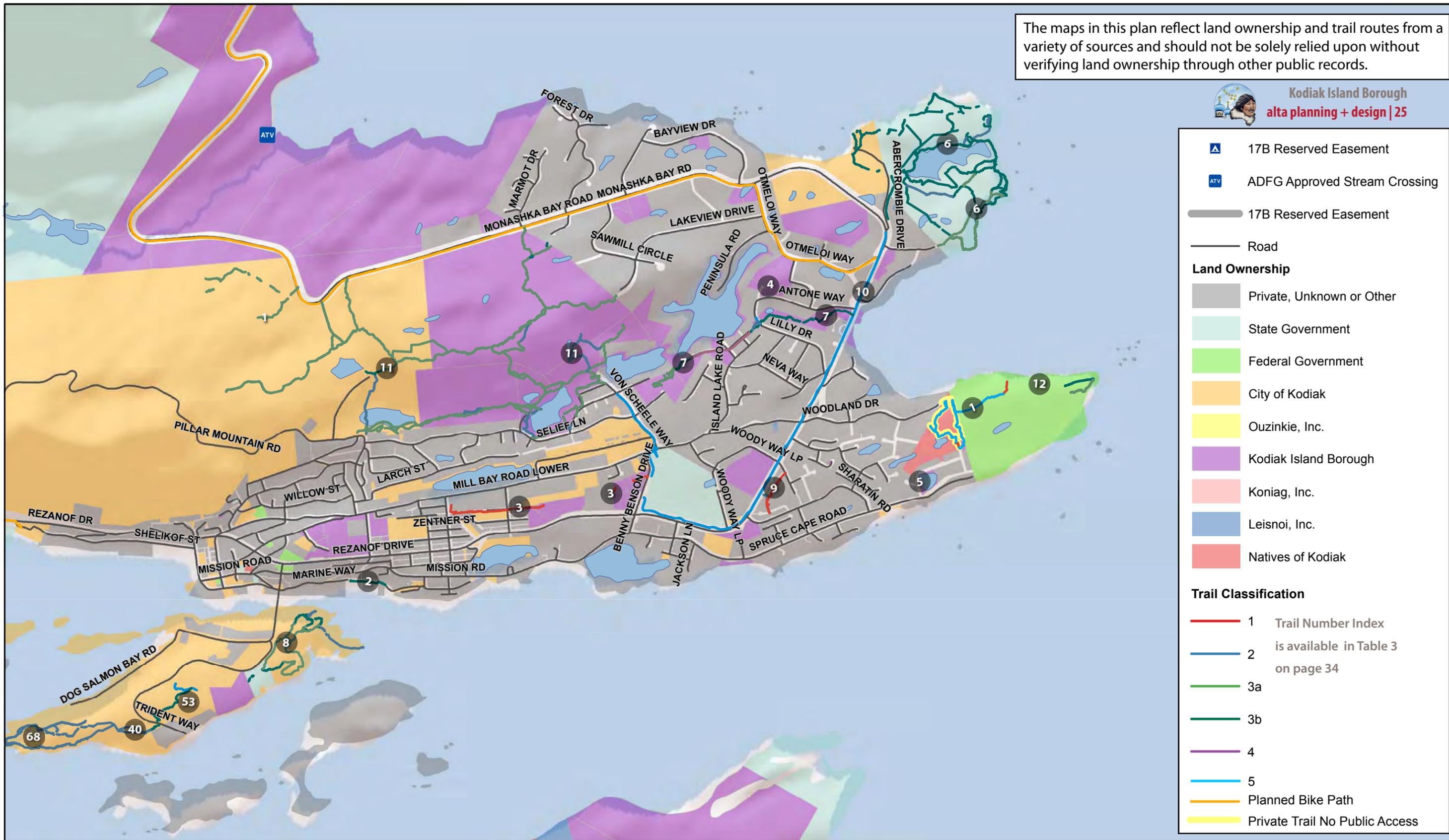
**Table 2: 2010 Trail Inventory by Landowner**

Landowner	Miles of Trails by Landowner
Federal	62.64
State	71.99
Borough	50.36
City	15.02
17b Easement	20.03
Native Corporations	
Koniag	4.74
Leisnoi	44.95
Ouzinkie	21.02
NOK	8.98

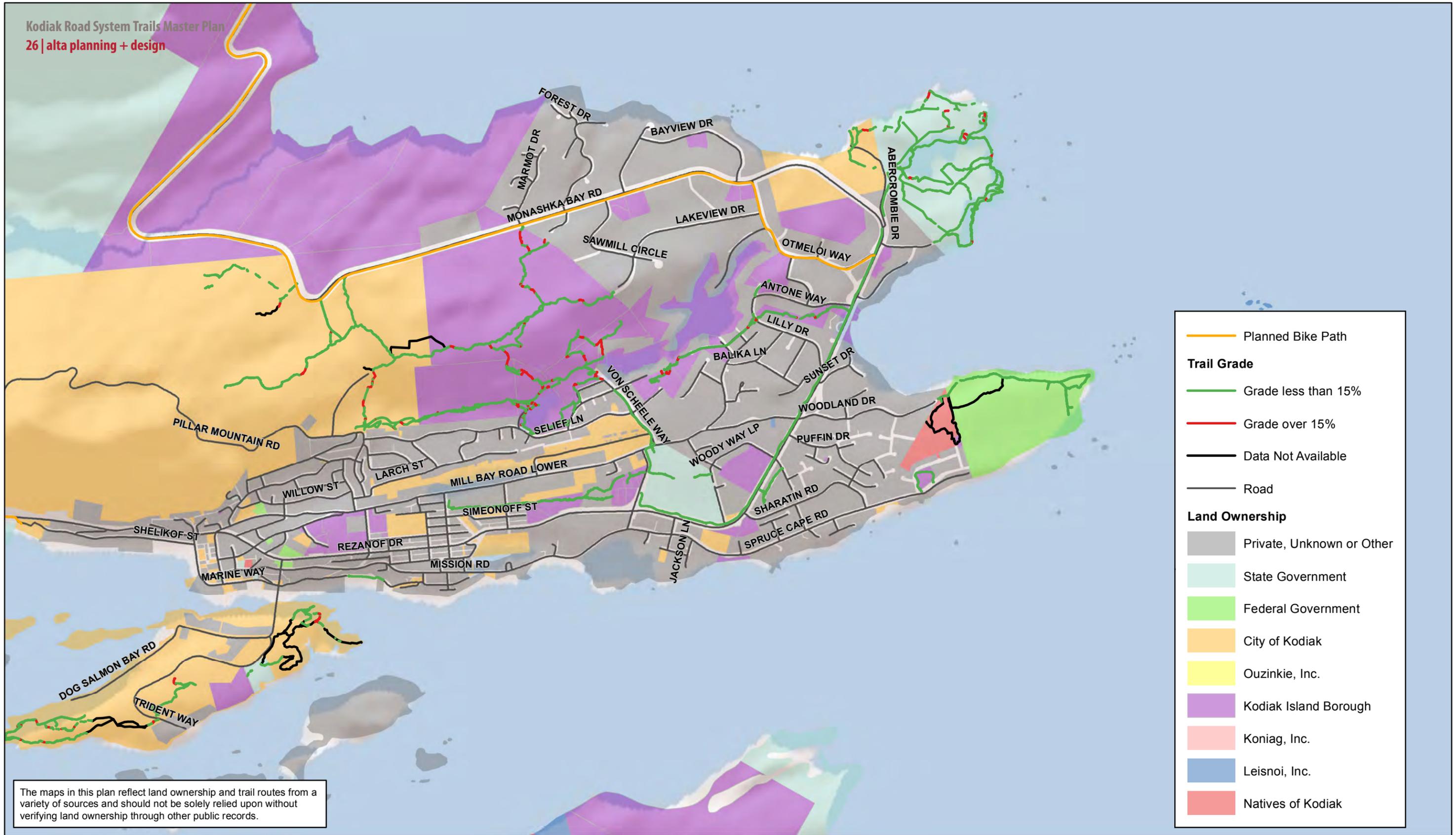
**4.4 Existing Trails**

Based on the 2009-2010 Trail Inventory and the methodology noted in the previous section, more than 350 miles of trail were inventoried. Table 2 above summarizes the miles of trail inventoried by landowner on the Kodiak road system. Maps 1 through 9 on the following pages visually summarize the existing road system trail conditions on Kodiak Island as of early 2011. Maps 1, 4 and 5 provide numbering symbology for the existing trails. Please see Tables 3 and 6 on pages 34 and 35 for the corresponding names for the numbered trails.

The maps in this plan reflect land ownership and trail routes from a variety of sources and should not be solely relied upon without verifying land ownership through other public records.

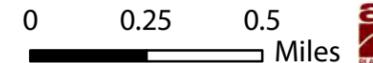


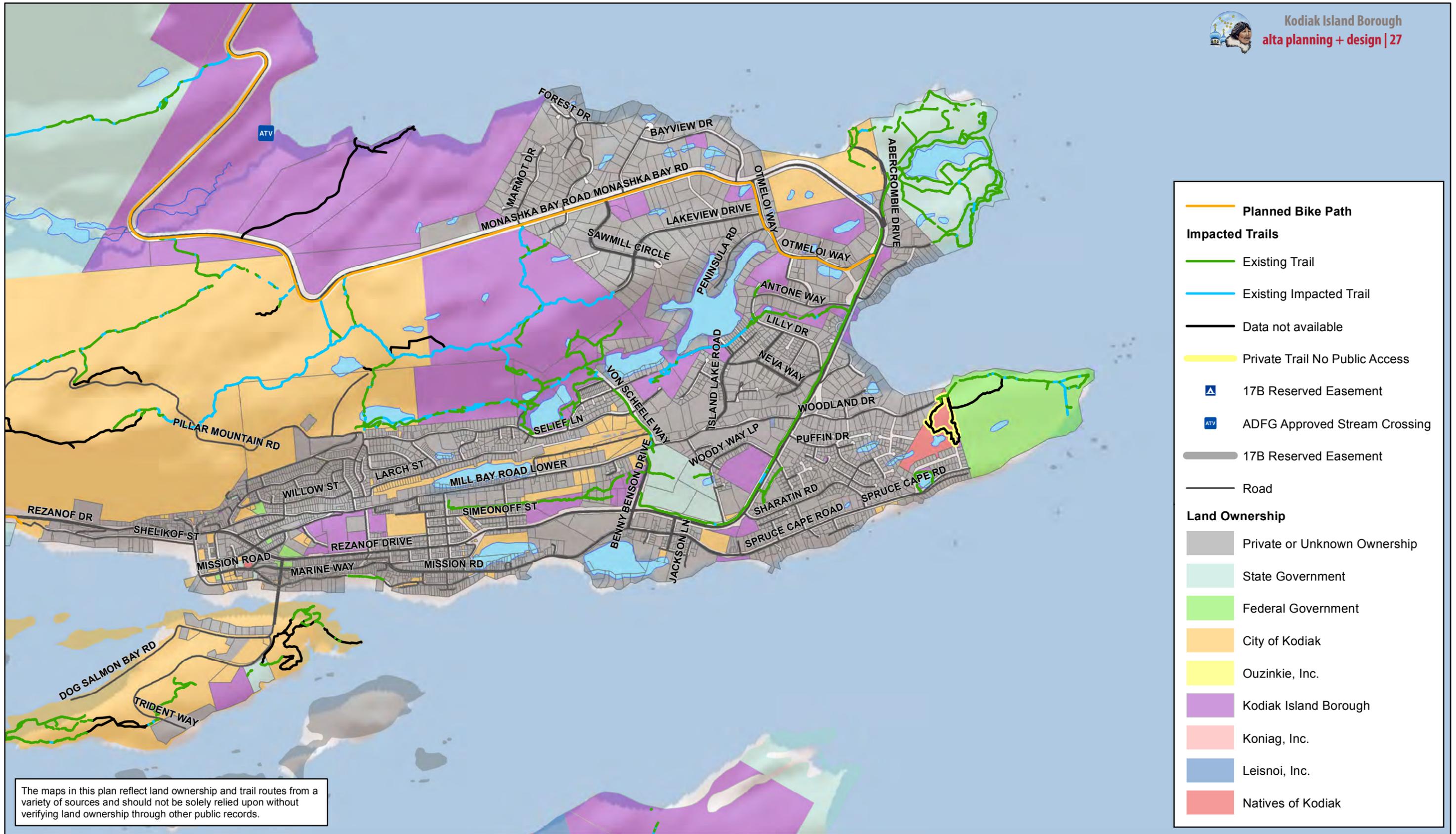
**Map 1. Existing Conditions - Urban System, Trail Classifications**



The maps in this plan reflect land ownership and trail routes from a variety of sources and should not be solely relied upon without verifying land ownership through other public records.

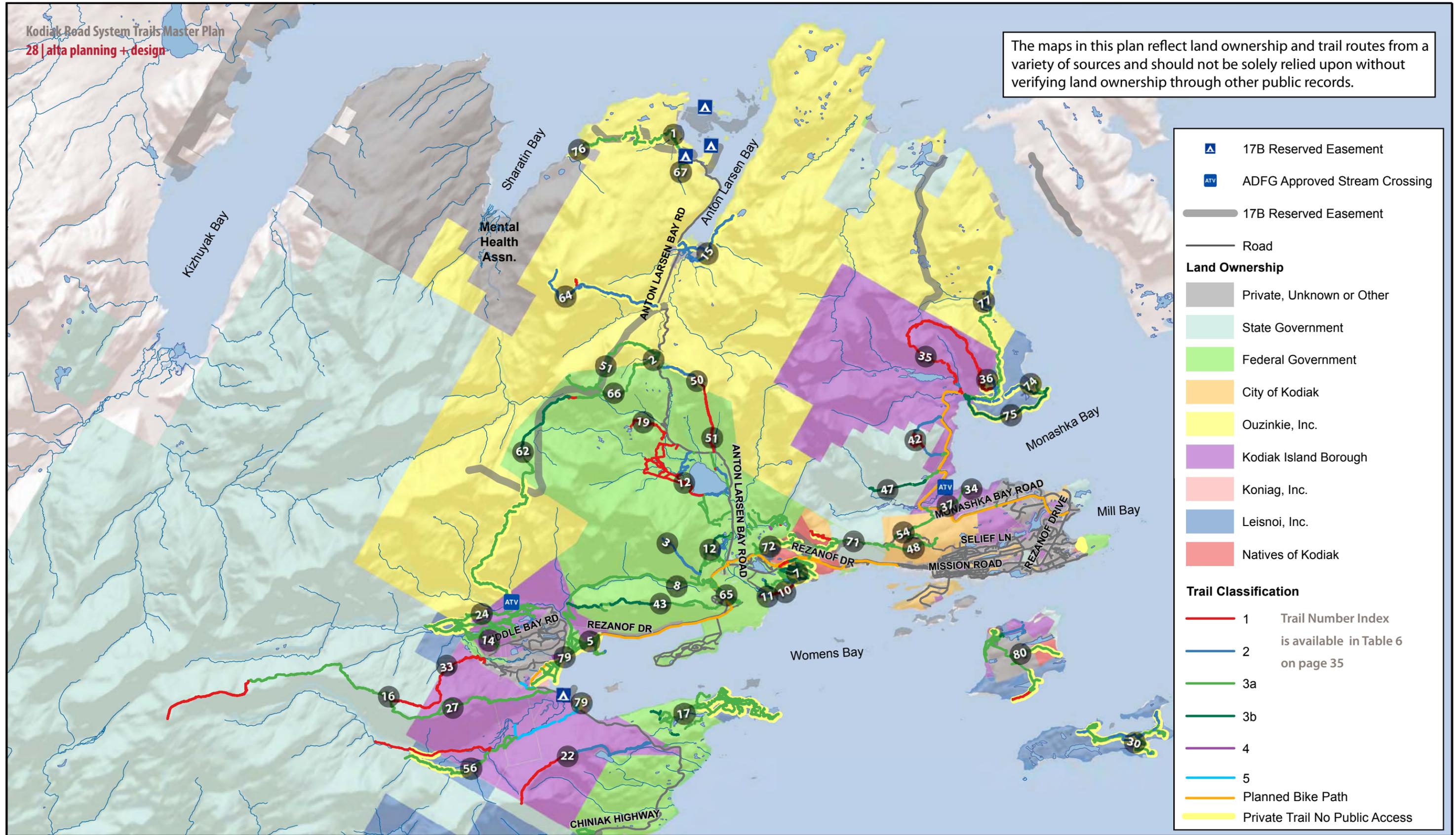
**Map 2. Existing Conditions - Urban System, Trail Grade**





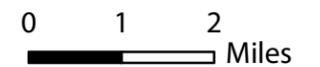
**Map 3. - Existing Conditions - Urban System, Impacted Trails**

The maps in this plan reflect land ownership and trail routes from a variety of sources and should not be solely relied upon without verifying land ownership through other public records.



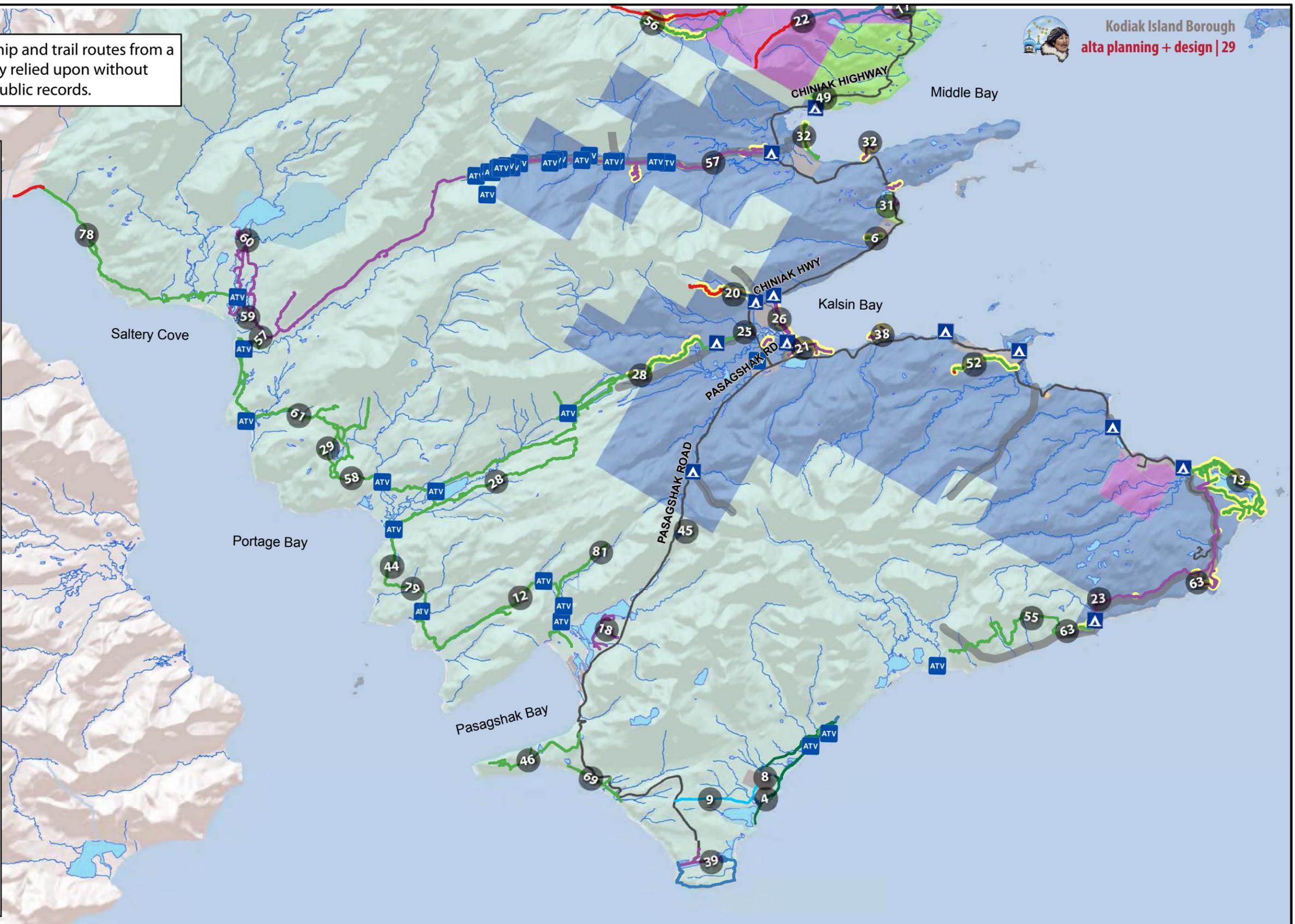
	17B Reserved Easement
	ADFG Approved Stream Crossing
	17B Reserved Easement
	Road
<b>Land Ownership</b>	
	Private, Unknown or Other
	State Government
	Federal Government
	City of Kodiak
	Ouzinkie, Inc.
	Kodiak Island Borough
	Koniag, Inc.
	Leisnoi, Inc.
	Natives of Kodiak
<b>Trail Classification</b>	
	1 Trail Number Index is available in Table 6 on page 35
	2
	3a
	3b
	4
	5
	Planned Bike Path
	Private Trail No Public Access

**Map 4. Existing Conditions - Road System, Trail Classifications North**

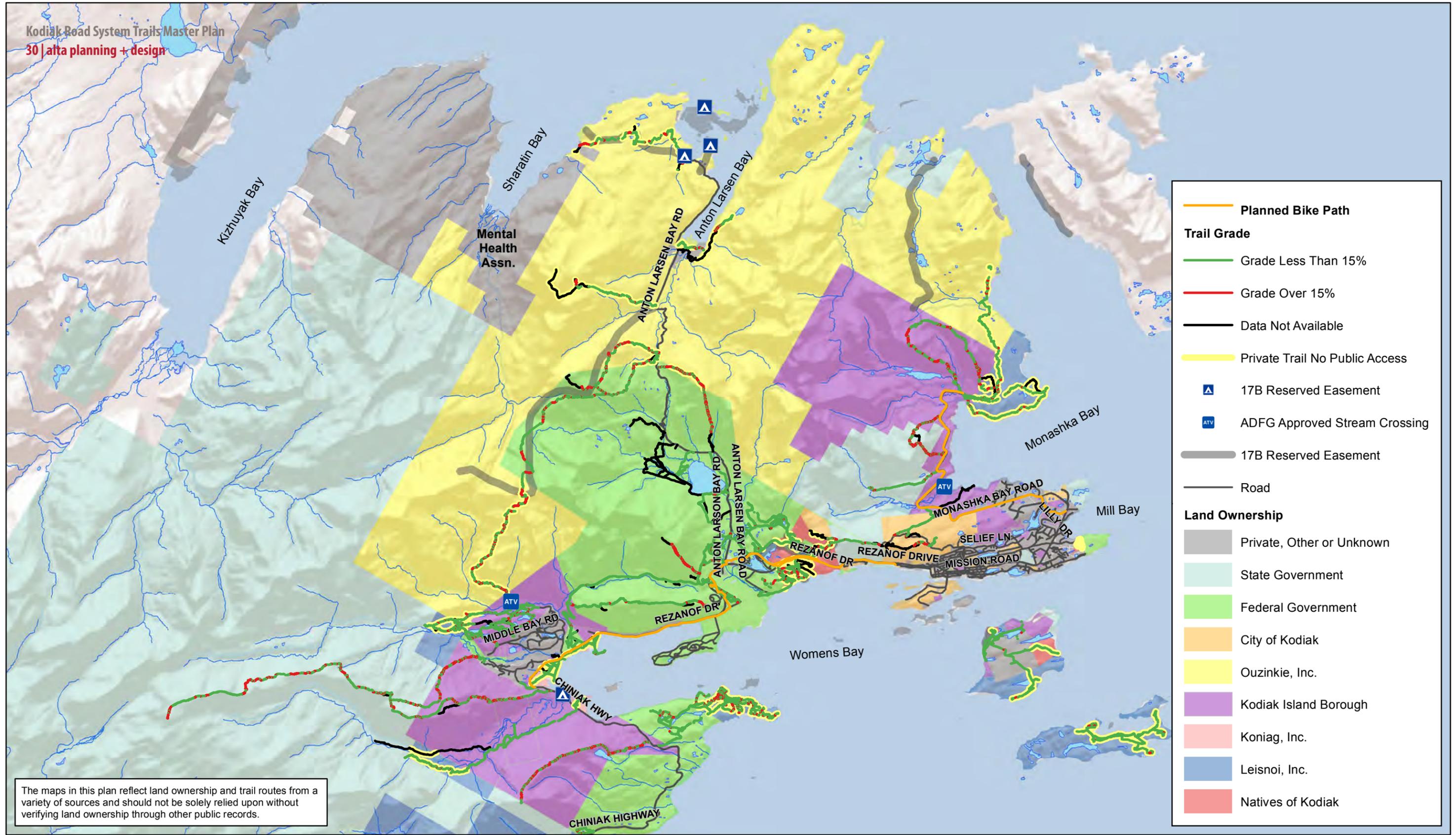


The maps in this plan reflect land ownership and trail routes from a variety of sources and should not be solely relied upon without verifying land ownership through other public records.

	17B Reserved Easement
	ADFG Approved Stream Crossing
	17B Reserved Easement
	Road
<b>Land Ownership</b>	
	Private, Unknown or Other
	State Government
	Federal Government
	City of Kodiak
	Ouzinkie, Inc.
	Kodiak Island Borough
	Koniag, Inc.
	Leisnoi, Inc.
	Natives of Kodiak
<b>Trail Classification</b>	
	1 Trail Number Index is available in Table 6 on page 35
	2
	3a
	3b
	4
	5
	Planned Bike Path
	Private Trail No Public Access

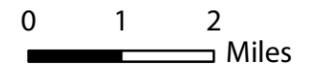


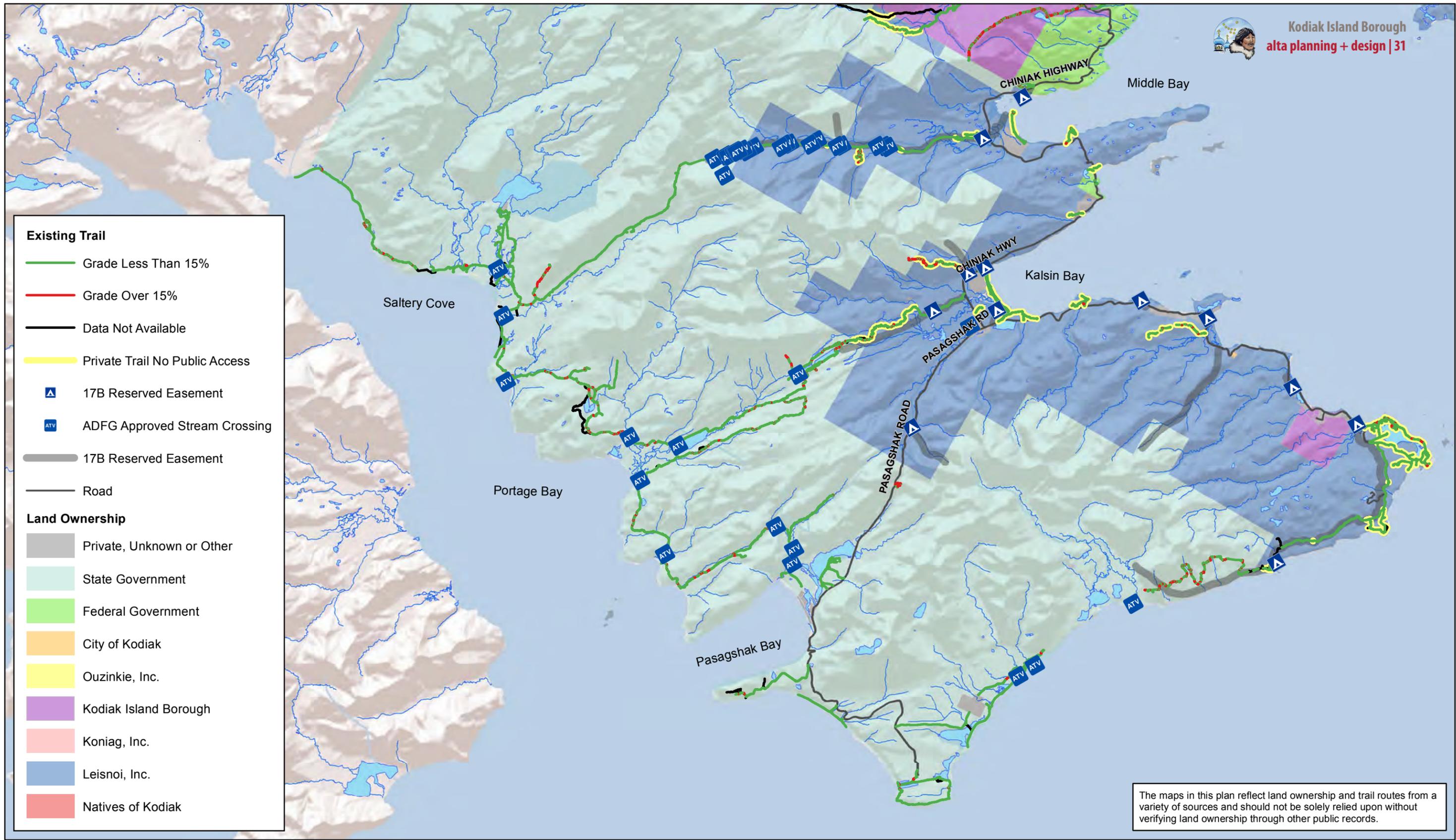
**Map 5. Existing Conditions - Road System, Trail Classifications South**



The maps in this plan reflect land ownership and trail routes from a variety of sources and should not be solely relied upon without verifying land ownership through other public records.

**Map 6. Existing Conditions - Road System, Trail Grade North**





**Existing Trail**

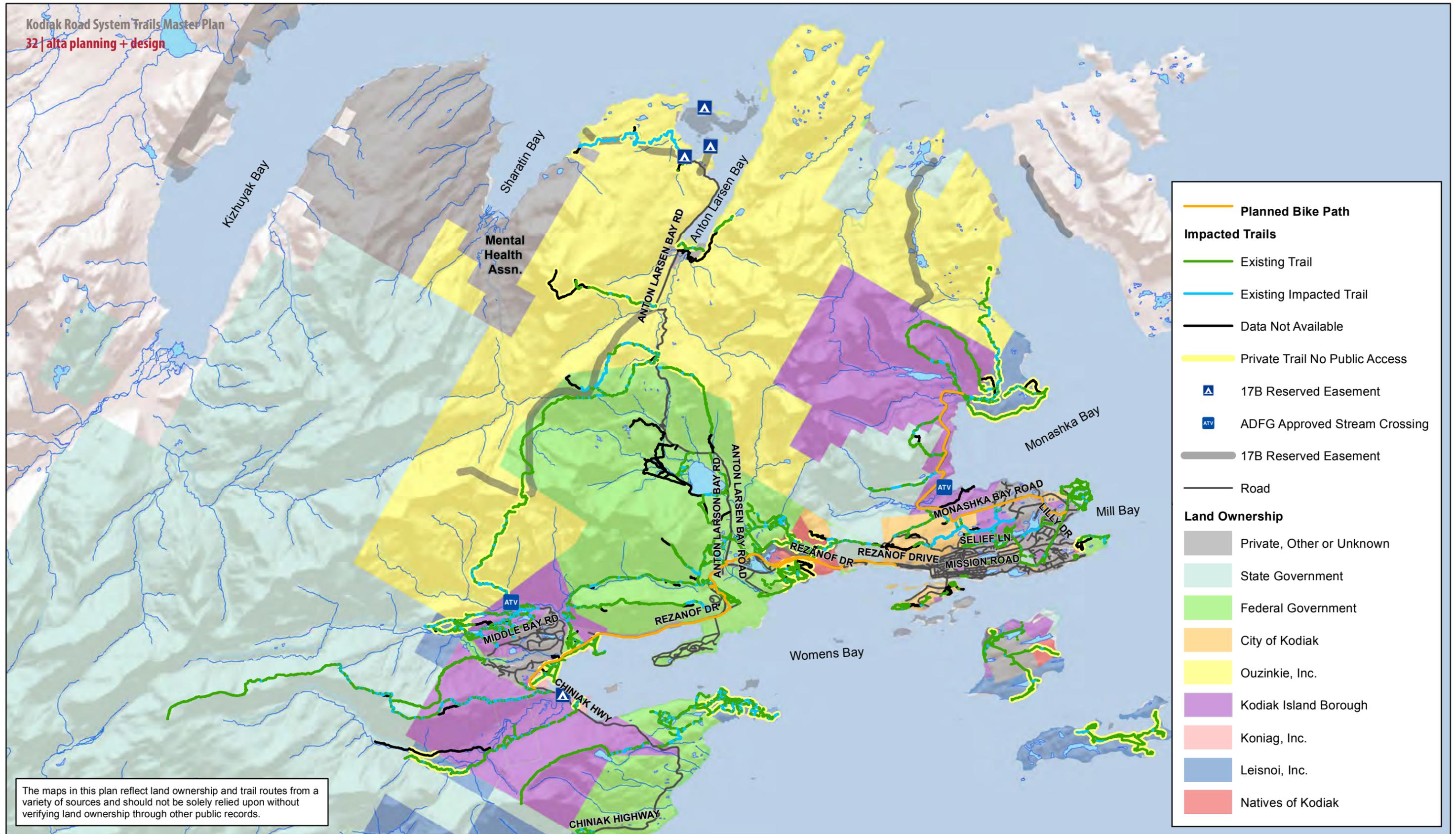
- Grade Less Than 15%
- Grade Over 15%
- Data Not Available
- Private Trail No Public Access
- ▲ 17B Reserved Easement
- ▲ ADFG Approved Stream Crossing
- 17B Reserved Easement
- Road

**Land Ownership**

- Private, Unknown or Other
- State Government
- Federal Government
- City of Kodiak
- Ouzinkie, Inc.
- Kodiak Island Borough
- Koniag, Inc.
- Leisnoi, Inc.
- Natives of Kodiak

The maps in this plan reflect land ownership and trail routes from a variety of sources and should not be solely relied upon without verifying land ownership through other public records.

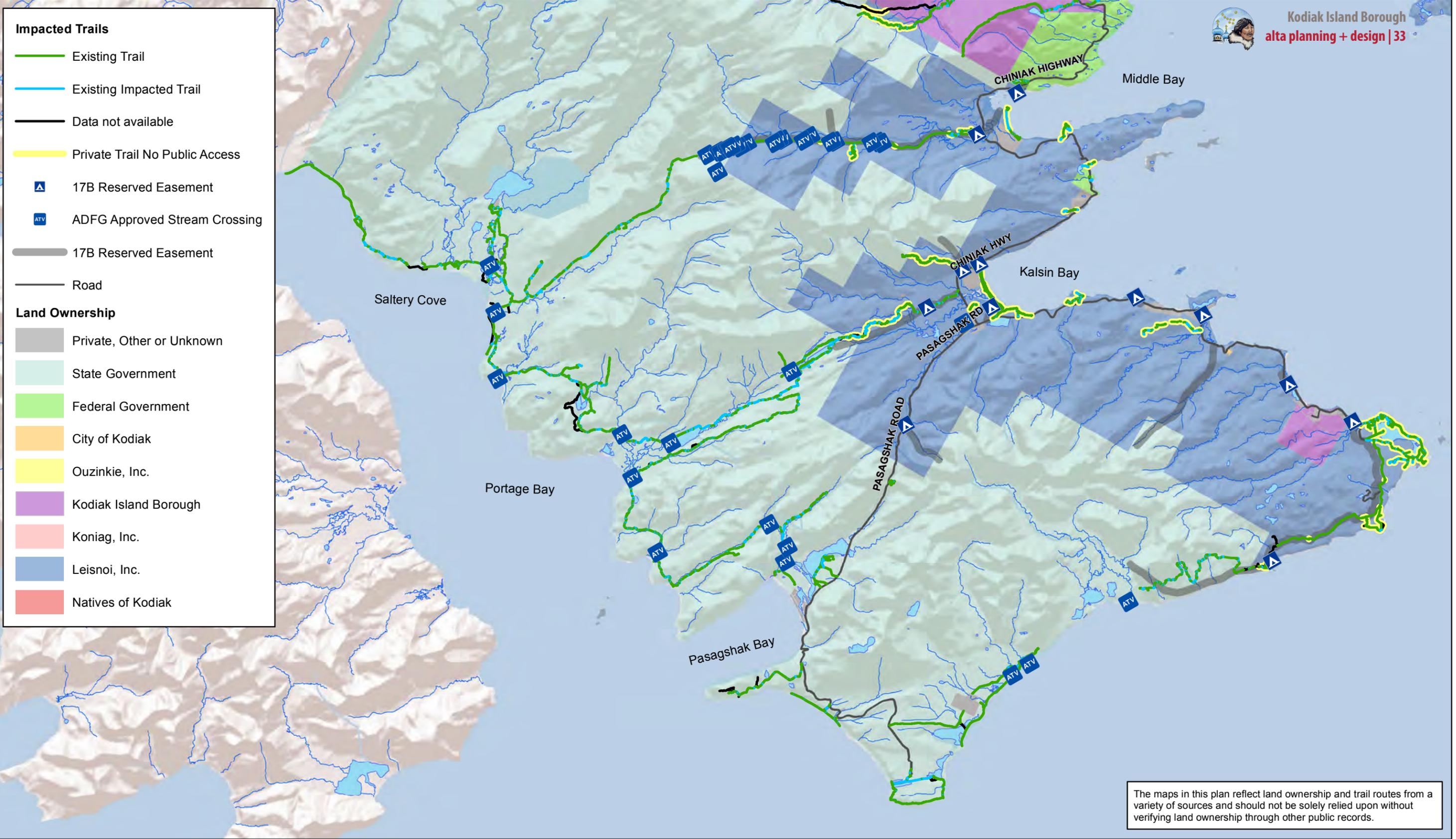
**Map 7. Existing Conditions - Road System, Trail Grade South**



The maps in this plan reflect land ownership and trail routes from a variety of sources and should not be solely relied upon without verifying land ownership through other public records.

**Map 8. Existing Conditions - Road System, Impacted Trails North**





**Impacted Trails**

- Existing Trail
- Existing Impacted Trail
- Data not available
- Private Trail No Public Access
- ▲ 17B Reserved Easement
- ADFG Approved Stream Crossing
- 17B Reserved Easement
- Road

**Land Ownership**

- Private, Other or Unknown
- State Government
- Federal Government
- City of Kodiak
- Ouzinkie, Inc.
- Kodiak Island Borough
- Koniag, Inc.
- Leisnoi, Inc.
- Natives of Kodiak

The maps in this plan reflect land ownership and trail routes from a variety of sources and should not be solely relied upon without verifying land ownership through other public records.

**Map 9. Existing Conditions - Road System, Impacted Trails South**

## 4.5 Trail Condition Summary

### 4.5.1 Introduction

This trail plan is a policy document and references to “urban” and “road system” trails may not match up exactly with similar references in other plans and codes adopted by the Kodiak Island Borough referencing urban, suburban and rural geographic areas. While this document is intended to conform to other Borough plans and codes generally, in those exceptional instances where that is not the case, the intent of this trail plan should be followed regardless of these potential mismatches in terminology.

### 4.5.2 Urban trails

Urban trails in and around Kodiak offer ‘close-to-home’ opportunities for healthy exercise, transportation connections, and improved safety over streets. Urban trails in Kodiak currently range from primitive foot paths within forested areas to hard surface corridors like the Rezanof Drive Bike Path, which is suitable for use by many non-motorized uses, and to steep rocky trails leading to the summit of Pillar Mountain. Throughout the public process urban trails were a widely supported and requested as priorities for network expansion in the future.



The Rezanof bike path is an urban trail

### Summary of system by miles of trail

The urban trail system includes approximately 28 miles of existing trails and sidewalks, with nearly 23 miles surveyed during the 2010 effort. As shown in Table 3 and Maps 1 and 2, most trails in the urban area are part of a network within a larger area such as Spruce Cape Trail system or the trails within Fort Abercrombie. These trail systems account for most of the mileage within the urban area and serve a dual recreation and transportation purpose. Other trails that connect destinations to surrounding areas (e.g., the East Elementary Path) are typically shorter and are primarily used for transportation.

Table 3: Summary of Existing Urban Trails

ID #	Trail Name	Classification	Length
2	Boatyard Path	3b	0.16
3	Chichenof Trace and ROW	1, 4	1.68
4	North Star Elementary Path	4	0.10
5	Eli Waselie Trail	4	0.22
6	Fort Abercrombie S.P. Trails	2, 3a, 3b	7.03
7	Island Lake Creek Trail	2, 3a, 3b, 4, 5	1.62
8	North End Park	2, 3a, 3b	1.71
9	Perenosa Trail	1, 2	0.48
10	Rezanof Bike Path	5	2.48
11	Russian Ridge Trails	2, 3a, 3b	10.06
1 & 12	Spruce Cape Trails	1,3a, 3b, 4	2.36
68	South End Park	2	1.20

### Trail Types within the Urban Area

As shown in Table 4, approximately forty percent of the urban trail system is comprised of class 3a facilities. These soft surface trails will generally accommodate most user types, though they may be impacted by higher use in winter weather months when many other trail options are unavailable, which can lead to substantial wear in the trail tread as well as braiding where users detour around wet, muddy patches. These trails provide a hiking and semi-primitive experience near homes and other urban destinations.

Many trails within the urban trail system offer several types of experiences. For example the Island Lake Creek Trail is paved in some locations while in other locations the tread is natural and essentially unmodified.

Table 4: Trail Classification by Facility Length

Trail Classification	Length (Miles)	Percent of Total
1	1.9	7%
2	2.3	8%
3a	11.8	42%
3b	7.0	25%
4	0.3	1%
4b	2.4	9%
5	2.5	9%

### Primary Impacts Observed in Urban Area

As shown in Table 5 and Map 3, some sort of trail impact or maintenance need was observed on approximately 25 percent of the urban trail system surveyed in 2010. These observed trail impacts indicated a different level of severity. For example, encroaching vegetation next to a trail simply requires brush removal while a submerged trail may require modification to drainage or complete reconstruction. A typical factor that contributes to impacted segments is the facility’s grade. By acting as a convenient channel for run-off, the trail can become muddy, eroded, or submerged. Map 2 provides an overview of steep trail segments in the urban area.

Table 5: Observed Impact of Urban Trail

Observed Impact	Length	Percent of Total
None	16.90	73%
Encroach Vegetation	0.07	0%
Eroded Trail	2.47	11%
Incised Trail	1.78	8%
Muddy/puddled Trail	1.78	8%
Submerged Trail	0.15	1%

### Opportunities and Constraints

During the field survey a number of opportunities and constraints were cataloged. In the urban area opportunities include picnic sites, overlook platforms, formalized road crossings, fence, gates, existing parking locations and intersections with other trails. These positive trail features have been considered as potential destinations and opportunities in developing project recommendations (see Chapter 6). Negative points that were cataloged include trail segments that are most significantly impacted and locations with litter, or other types of damage. These locations also have been considered in develop short and long term project prioritization.



### 4.5.3 Road system trails

The road system trails serve as primary transportation network for visitors and residents of Kodiak Island. The road system trails augment the existing roadway network by connecting sparsely settled areas to the paved roadway network and providing access to large swaths of public land. The road system trails provide a diverse set of experiences, ranging from the primitive conditions at Sequel Point to the heavy use of Saltery Cove Road. Like the urban trails system, many of these trails and trail networks serve both a transportation and recreation function, though user types tend to be more diverse and cater to a larger variety of modes including ATVs and equestrians.

#### Summary of system by miles of trail

The road system trails, which is exclusive of the urban trails system, is comprised of approximately 368 miles and 82 trails or trail systems, shown on Maps 4 and 5 and in Table 6. Approximately 330 miles were surveyed during the 2010 survey effort. The system is comprised of both short trails providing access to viewpoints and other attractions and long trails that provide access to more distant and inaccessible locations. The longest facility in the system, Saltery Cove Road, provides access for all types of users, including ATVs, to more remote portions of Kodiak, while shorter trails such as the Black Canyon Creek Trail and the Mayflower Beach Trails provide access to the shoreline and viewpoints.



The Cape Chiniak bunkers are accessed from the road system

Table 6: Road System Trails

ID #	Trail Name	Classification	Length (Miles)
1	Anton Larsen Bay to Three Pillar Point Trail	3a	3.97
2	Anton Larson Pass Loop	3a	0.28
3	Barometer Mountain	2 and 3a	1.96
4	Barry/Sacramento Trail	2 and 3a	0.61
5	Bells Flats Trails	3a and 4	1.10
6	Black Canyon Creek Trail	3a	0.41
7	Boyscout Lake Trails	1 thru 4	6.74
8	Burma Road/Burton Blvd	3a	6.77
9	Burton Ranch Trails	2 to 3b, 5	7.62
10	Buskin Beach Trails	1 thru 2, 3b	1.11
11	Buskin Lake Trails	1 thru 3a	11.29
12	Buskin Valley Trails	3a-b	4.36
13	Cape Chiniak Trails	3a and 4	8.97
14	Caroline Lake Trail	3a	0.32
15	Cascade Lake Trail	2	3.42
16	Center Mountain Trail	1 and 3a	8.95
17	Cliff Point Trails	3a thru 4a	15.61
18	Coplee Ranch Trails	4a	2.91
19	Cross Fox Lake Trail	1	1.30
20	Deadman Creek Trail	1	2.21
21	Frank Creek Trails	4a	1.37
22	Heitman Mountain to Raymond Peak	1 thru 2	4.80
23	Hidden Lakes Trail	4	0.33
24	Jack's Lakes Trails	2 and 3a	15.01
25	Kalsin Bay to Summit Lake Trails	3a	11.41
26	Kalsin Beach Trails	4	3.17
27	Kashevarof Mountain Trail	3a	3.54
28	Lake Miam New Trail	3a	10.89
29	Lefty Lake Trail	3a	3.28
30	Long Island	2 and 3a	6.65
31	Mayflower Beach Trails	4a	0.46
32	Middle Bay Trails	3a-b and 4	2.08
33	Mike Milligan's Trail	1	3.84
34	Monashka Bay Viewpoint Trail	3a	0.35

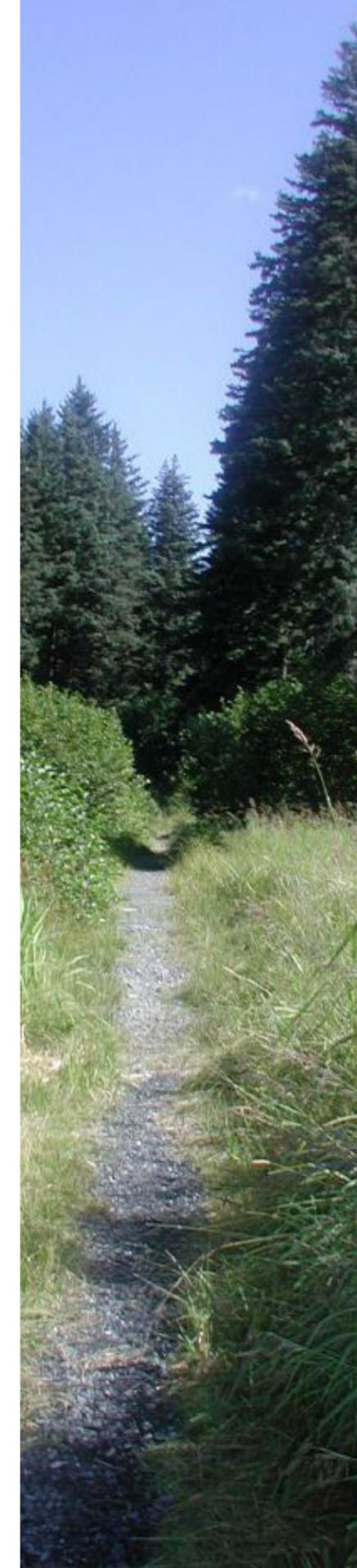


Table 6: Road System Trails (continued)

ID #	Trail Name	Classification	Length (Miles)
35	Monashka Mountain Loop	1 thru 3b	6.78
37	Monashka Range Trail	3a	0.77
38	Myrtle Creek Trails	4a	1.06
39	Narrow Cape Loop	2 and 4-4a	4.60
40	Near Island South End	2	0.55
41	North Sister	1 thru 3a	0.82
42	North Sister North Side	1	0.36
43	Old Woman Mountain	3a-b	4.66
44	Pasagshak Bay to Portage Bay Trail	3a	11.44
45	Pasagshak Pass Trail	2	0.50
46	Pasagshak Point Trail	3a	3.37
47	Pillar Creek Bench Trail	3a-b	1.91
48	Pillar Mountain Ridge Trail	1 and 3a	2.82
49	Powerline Loop	3a	0.85
50	Pyramid Mountain	1 thru 3a	2.82
51	Pyramid Mountain South	1 and 3a	1.20
52	Roslyn Creek Trail	1 and 3a	1.25
53	Rotary Park Trails	3b and 5	0.51
54	Russian Ridge Trails	3a	2.48
55	Sacramento River Trail	3a	6.26
56	Salonie Creek Trail	1, 3a, 5	8.75
57	Saltery Cove Road	4 thru 4a	18.29
58	Saltery Cove to Lake Miam Trails	3a	8.12
59	Saltery Cove Trails	3a and 4	1.17
60	Saltery Lake Trails	3a and 4-4a	7.02
61	Saltery to Lake Miam Trails	3a	5.34
62	Sargent Creek to Ski Chalet Trail	1 and 3a-b	8.89
63	Sequel Point Trail	3, 3a, 4, 4a	9.19
64	Sharatin Mountain Trail	1 and 2	3.74
65	Signal Hill Trails	3a	3.51
66	Ski Chalet Bowls	3a	5.68
67	Small Creek Trail	3a	0.29
69	Surfer's Beach	3a	1.73
70	Swampy Acres	3a and 4a	0.18
71	Swampy Acres to Pillar Mountain Trail	3a	1.84

ID #	Trail Name	Classification	Length (Miles)
72	Swampy Acres Trails	1, 3a, 4a	11.74
73	Termination Point ATV Route	2	0.25
74	Termination Point Inland Trail	3a	0.68
75	Termination Point Loop	2 thru 3b	4.15
76	Three Pillar Point Trail	3a	0.38
77	Two Bear Cove Trail	2, 3a	4.37
78	Wild Creek Trail	1 and 3a	8.71
79	Womens Bay Trails	2, 3a, 5	7.93
80	Woody Island	1 thru 3b	6.98
81	Zentner Creek Spur	3a	1.77

Table 7 summarizes trails within the system by classification. Type

3a trails account for about 60 percent of system miles, followed by Class 4 facilities (13.8 percent), which are more developed and accessible by most user types and which generally exist at the transition of natural to rural settings. Class 1 and 2 trails make up a combined 17.5% of trails in the inventory.

**Primary Impacts observed in road system trails**

Table 8 summarizes the impacts commonly seen on the road system trails, shown on Maps 8 and 9. Similar to the distribution of conditions observed on urban trails, impacts were observed on approximately 23 percent of the road trail system surveyed in 2010. The most common impacts are incised trails and stretches of muddy/puddled trail. These impacts were observed throughout the system and do not appear to be associated with either a geographic pattern or a facility type. These impacts are more likely associated with trail use, surface material and topography. Maps 6 and 7 show steep trail segments in the road system trail network.

Table 7: Trail Mileage by Classification

Classification	Length (Miles)	Percent
1	32.4	8.8%
2	32.0	8.7%
3	0.9	0.2%
3a	217.2	59.0%
3b	20.6	5.6%
4	7.0	1.9%
4a	50.7	13.8%
5	7.0	2.0%

Table 8: Observed Impact on Road System Trails

Observed Impact	Length	Percent of Total
None	241.55	78%
Collapsed	0.04	0%
Encroach Vegetation	2.69	1%
Eroded	3.37	1%
Incised	39.12	13%
Landslide	0.17	0%
Muddy	0.53	0%
Muddy/puddled	18.69	6%
Other	0.09	0%
Submerged	3.33	1%

Note: Impacted trail information is only available for 2010 trail survey data



### Summary of Opportunities and Constraints

Positive and negative points were cataloged for the road system trail network. Noted opportunities include views of streams and rivers, trail and roadway intersections, waterfalls, natural bridges, ponds, recreation opportunities and access to wildflowers. Neutral points included spur trails that could provide access to new locations, or unsustainable demand trails where closure should be considered. Negative points included litter, portions of trail that have been most significantly impacted, abandoned vehicles, and potential hazards such as barbed wire. Both positive and negative points are a critical resource used to develop a list of recommended trail improvements and maintenance projects in Chapter 6.

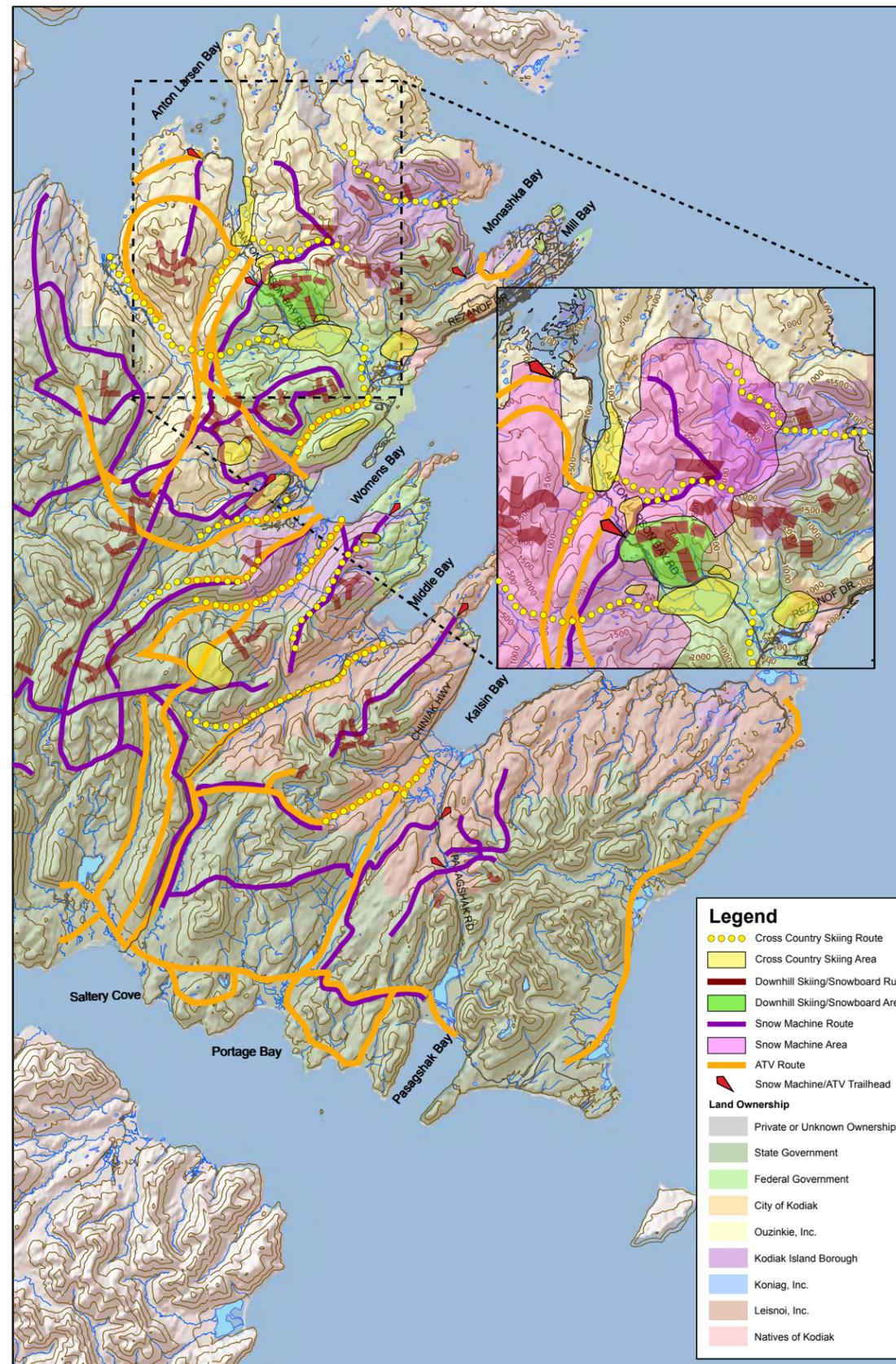
### 4.5.4 Winter Trail Use

During the winter months the conditions in Kodiak change dramatically from the summer. Daylight is in short supply and variable and dynamic weather patterns bring snow to the mountain peaks and alternating snow and melt to the coastal elevations. Not surprisingly, Kodiak residents adjust their recreational habits and take full advantage of the different activities that the winter season affords. Skiing (downhill and cross-country), snowshoeing, and snowmachining are popular winter activities. Because of the freedom of movement that snow provides, recreational routes are harder to define as they are not bound by the tread of the trail as with conventional trails.

The project team met with winter stakeholder groups in February 2010 to determine the existing locations of winter trail use (please see Appendix A for a full summary). Most notable from the winter stakeholder interviews and public workshop is the current state of cooperation between winter users at Pyramid Mountain. Skiers mostly use the terrain to the east of Anton Larsen Road while snowmachiners generally use the terrain to the west. Based on the winter stakeholder and public interviews existing winter trail use is summarized in Map 10.



The Pyramid Mountain Ski Chalet is a popular destination

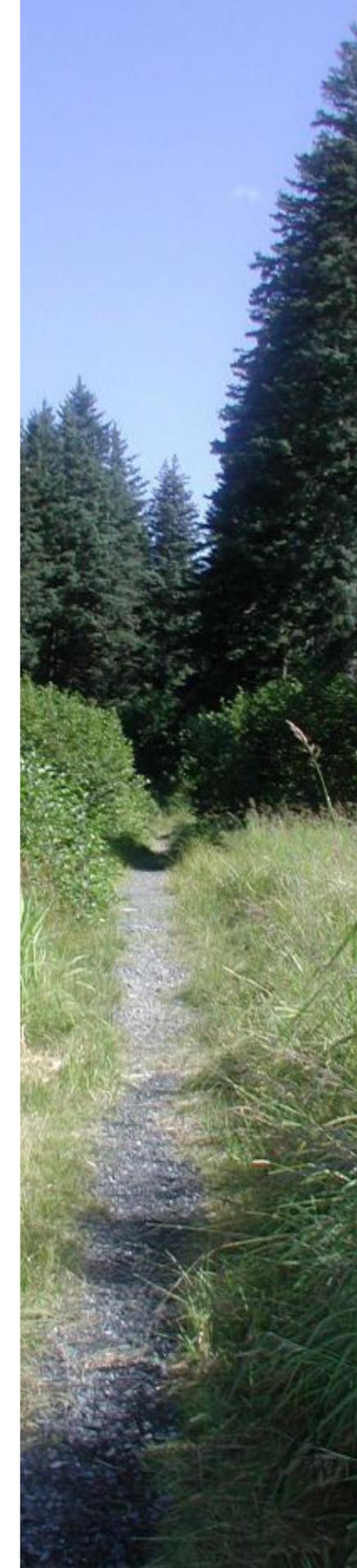


Map 10. Existing Winter Recreational Use

Kodiak Island Borough  
Road Trails System Master Plan  
Source: Alaska Department of Natural Resources, Kodiak Island Borough  
Author:  
Date: November 2009



0 2 4 Miles





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# 5. Trail Management Objectives

Trail Management Objectives (TMOs) help define how an individual trail functions, its level of development, its intended user groups, maintenance, and the range of experiences it provides. The overall goal of the TMOs is to provide a framework that can eventually be applied to existing and future trails accessible from the Kodiak Island road system. By matching these TMOs to Kodiak's existing and future trails a range of trail experiences that cater to all trail user groups can be provided. Over time, the Kodiak Island Borough Parks & Recreation Committee should identify specific TMOs for popular trails accessible from the Kodiak road system. As noted in Chapter 6, some of the recommended projects may vary in complexity and cost according to the standard to which the trail is developed or maintained.

As an output to the TMO process, the physical characteristics of a trail and its intended experience must be tied to the trail classification system and maintenance standards introduced in Chapter 4. To summarize, the trail classifications are as follows:

- Trail Class 1: Minimal/Undeveloped Trail.
- Trail Class 2: Simple/Minor Development Trail.
- Trail Class 3: Developed/Improved Trail.
  - 3A: Suitable for Equestrians, ATVs and Motorcycles
  - 3B: Hiking and Bicycling only
- Trail Class 4: Highly Developed Trail.
  - 4A: Suitable for Equestrians, ATVs and Motorcycles
  - 4B: Hiking and Bicycling only
- Trail Class 5: Fully Developed Trail.

Table 1: General Trail Criteria in chapter 4 summarizes Kodiak trail classifications and characteristics.

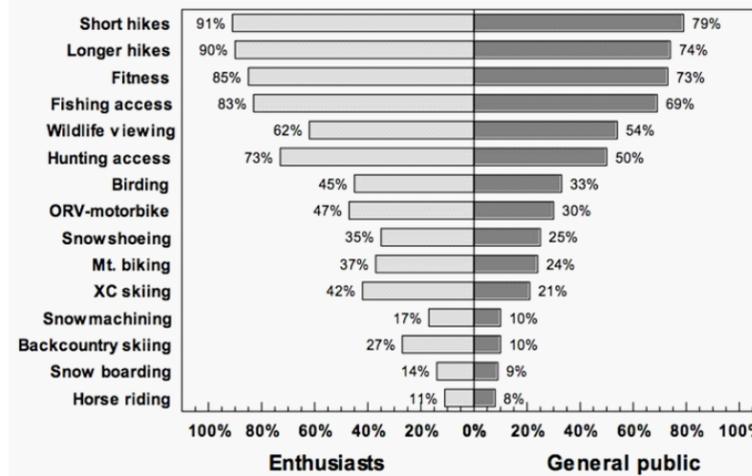
## 5.1 Trail Purpose

Perhaps one of the most important pieces of information to consider when defining a TMO for a particular trail is the nature of its intended use. A trail that provides access to public lands via a 17b easement will have a much different user group than a paved trail in Kodiak that links schools to neighborhoods. A trail's intended purpose can also provide insight into what user groups use the trail. Trails can have multiple purposes that provide a variety of functions and benefits to the community. Examples of trail purpose categories can include the following:

- Access to Public Lands
- Access to Fishing
- Access to Hunting
- Recreational/Camping/Cabin Access
- Scenic/Historical
- Fitness
- Transportation (between communities, schools, parks)

### 5.1.1 Trail Activities

Once the purpose of a trail is determined, the activities that may suit the trail's purpose can be identified. As the chart below illustrates, Kodiak Island has a diverse and active population that partakes heavily in a variety of activities that each have their own needs and constraints.



Percent of trail users reporting participation in specific trail activities.

Source: Kodiak Island road-accessible trails: A survey of residents and trail enthusiasts, Whitaker, 2004

Each of the above trail activities should be considered when establishing the TMOs for existing and future trails. Allowed uses for trails must not be determined solely based on desired activities, but with consideration of additional factors as discussed below:

### 5.1.2 Location Appropriateness

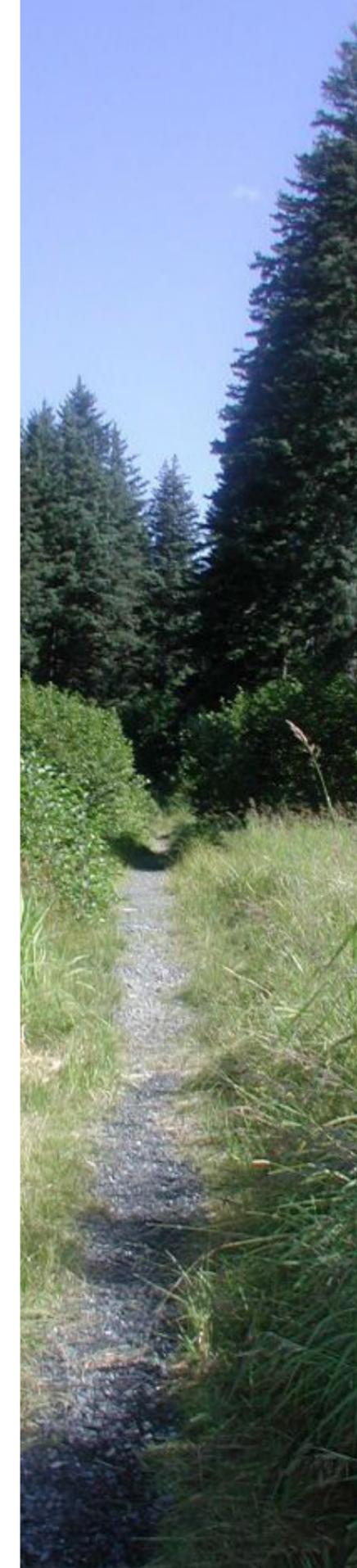
Each desired or traditional activity for a particular trail should be considered, but all trail activities may not always be appropriate for all trails. For example, trails close to urban areas that experience heavy recreational and fitness activities may not be compatible with motorized use. Similarly, some trails with steep gradients on poor soils will not hold up well to equestrian, bicycle, or ATV use without extensive modifications. Such trails should be managed in certain cases based on the desired trail experience or purpose, as well as the activities that can sustainably use the trail.

### 5.1.3 Other Factors

Because of the unique demands and requirements that each activity places on a trail, each trail should be designed, or reconfigured to be sustainable to that activity. For example, a trail that is intended for equestrian use should have vegetation cleared for greater height clearance than one designated just for hiking. Similarly, a trail that experiences frequent use by ATVs should have grades, switchbacks, trail hardening, and a trail tread that supports such use over the long term.



This geoblock installation has rendered this trail more sustainable for ATV traffic





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# 6. Recommendations

This chapter outlines proposed new trails, and trail maintenance/rehabilitation projects identified throughout the trails planning process. The projects identified in this chapter are a culmination of public feedback through the first public workshop and multiple Kodiak Island Borough Parks & Recreation Committee meetings, field work conducted during the trail condition inventory, and consultation with project stakeholders. Planning level cost estimates are provided for each recommendation in Appendix F. Planning level cost estimates are not exact estimates, however they should be sufficient to guide the Borough in making decisions and pursuing external funding sources for project development. All cost estimates presented involve design and construction by professionals. If volunteer labor, or donated materials are utilized associated project costs will decline substantially. More detailed cost estimates should be calculated with individual project development.

## 6.1 New Trail Connections

### 6.1.1 Trail Selection Criteria

The development of the proposed system of trail routes took into account the Plan's Project Vision, Goals & Objectives. In particular, the purpose of the Kodiak Road System Trails Master Plan is to ensure continue access and maximum use of trails by all citizens. In particular, goals of the project that were considered during development of the proposed trails system map include:

#### Trail Sustainability

Trails should be free from permanent damage so future residents can enjoy the same or an improved quality of experience compared to residents today. Specific objectives include improving portions of existing trails with severe erosion or trail braiding; preventing trail degradation resulting from inappropriate trail use; installing design stream crossings to protect anadromous creeks and streams; and decommissioning trails that are no longer in use.

#### Respect Private Property

The proposed trails system should balance access to key destinations and public lands with the rights of private property owners, including native corporations. In general, the impact of existing and

proposed trails should not adversely affect private property owners.

#### Connectivity

The network of recreational trails should be preserved and expanded. The trails should be suitable for all varieties of trail users including: hikers, skiers, mountain bikers, equestrians, and All Terrain Vehicle (ATV) users. The proposed system provides connections between urban areas and nearby destinations. Further, an urban network of improvements will help connect pedestrians and bicycles in residential areas to activity centers such as schools and commercial areas. Pedestrian and bicycle route conditions should be improved along arterial roads within the Borough. Missing links were identified and specific projects have been recommended to close these gaps in an effort to create a connective trail network.

#### Trail Conflict Management

Conflicts between different trail user groups can be partially managed through upgrades to the existing trail network. Sufficient trail opportunities for all user groups should be developed so groups do not rely on trails ill-suited for their use.

## 6.2 Urban Trails

This section describes the proposed urban trails recommended in and around the City of Kodiak. The proposed system was developed based on the public outreach efforts and field observation. These recommendations include a comprehensive and diverse set of urban multi-use trail and sidewalk facilities connecting to key destinations in and around Kodiak's urban area. System improvements are aimed at closing network gaps and upgrading existing trails to a higher-level classification, as described in Chapter 5 - Trail Management Objectives. All of these recommendations are aimed at creating a system that is both fiscally and environmentally sustainable, while meeting the needs of users.

The following criteria and design parameters were used in developing the proposed system of urban trails and the priority list of urban trails projects.

### 6.2.1 Urban Trails

As shown in Table 9, this Plan proposes approximately 15 miles trail improvements and upgrades in the urban area. The recommended network of urban trails connects residential areas to nearby destinations. Pedestrians and bicyclists will use the network to connect to schools, the library, and commercial areas.

Table 9: Proposed Facilities by Type

Trail Class	Length (Mi.)
Class 3a trail	0.43
Class 3b trail	1.83
Class 4 or 5 trail	1.40
Class 4 trail	6.01
Class 5 trail	4.00
Sidewalk	1.25
Grand Total	14.92

The majority of new facilities and proposed upgrades are on public land, or within the existing right-of-way as shown on Map 11. Notable exceptions (proposed facilities longer than 1,000 feet) include:

- A system of Class 3b and 5 trails that provide access to Spruce Cape.
- A portion of the proposed pathway under Alimaq Drive.

Project details are included in Table 10; nearly 9 miles of recommendations represent new projects, while approximately five miles represent trail upgrades. These trail upgrades are proposed mainly within the Russian Ridge Forest, in order to improve connectivity between the City of Kodiak and Monashka Bay (Map 12). Proposed projects range in complexity and scale from small projects such as the Von Scheele safety upgrades to the half mile long proposed North Star Elementary connection along Antone Way. Several projects cross land in private ownership and may require coordination with affected landowners to develop and plan for project completion. Some projects are fairly straightforward and may require smaller planning efforts (e.g., the sidewalk rehabilitation along Powell Avenue while several projects may require additional study prior to implementation (e.g., portions of the Russian Ridge Trail System). Strategies for project and plan implementation can be found in Chapter 7.



Table 10: Project Improvement Details

Street	From	To	Length (Feet)	Class	Ownership	Comment
<b>New Sidewalk</b>						
Library Access	Rezanof Dr	Egan Way	1,170	Sidewalk	Public	Access to proposed library from Rezanof
Mission	Kashevaroff Ave	Erskine Ave	284	Sidewalk	Public	Need pedestrian access to Senior Center
Selief Ln	City limits	Von Scheele	6,464	Sidewalk	Public	Significant east-west route through Kodiak
<b>New Trail</b>						
Antone	Rezanof Dr	Lilly Dr	2,627	4	Public	Connection to North Star Elementary
Benny Benson	Rezanof Dr	Spruce Cape Rd	390	5	Public	Spruce Cape Road to Rezanof
KANA Connector	Rezanof Dr	Benny Benson	1,485	4/5	Public	Civic amenity connector
KANA Connector	Rezanof Dr	Benny Benson	1,859	4/5	Public	Civic amenity connector
Mallard	Otmeloi Way	Antone Way	24	4	Public	Connection to North Star Elementary
Mallard	Otmeloi Way	Antone Way	1,346	4	Public	Connection to North Star Elementary
Marine	Tagura Rd	Mission Beach	30	5	Private	Need ped trail along Mission to Mission Beach
Mission Rd	Tagura Rd	Mission Beach	5,850	5	Public	need ped trail along Mission to Mission Beach
Mission Road Connector	Coastal Footpath	Mission Rd	117	3b	Private	Connection between Coastal Footpath and Mission Rd
Mission Road Connector	Coastal Footpath	Mission Rd	89	3b	Native	Connection between Coastal Footpath and Mission Rd
Mission Road Connector	Coastal Footpath	Mission Rd	198	3b	Public	Connection between Coastal Footpath and Mission Rd
Monashka Bay	Otmeloi Way	Abercrombie	3,480	5	Public	add bike lanes
Rezanof Dr Connector	Rezanof Dr	Boatyard Path	130	3b	Public	Connection between Rezanof Drive and Boatyard Path
Rezanof Dr Connector	Rezanof Dr	Boatyard Path	127	3b	Native	Connection between Rezanof Drive and Boatyard Path
Rezanof Dr Connector	Rezanof Dr	Boatyard Path	1,813	3b	Public	Connection between Rezanof Drive and Boatyard Path

Street	From	To	Length (Feet)	Class	Ownership	Comment
Russian Ridge Connector	Monashka Bay Rd	Russian Ridge Connector	157	4	Private	Alignment needs to be confirmed
Russian Ridge Connector	Monashka Bay Rd	Russian Ridge Connector	8,901	4	Public	Alignment needs to be confirmed
Russian Ridge Connector	Monashka Bay Rd	Russian Ridge Connector	36	4	Public	Alignment needs to be confirmed
Selief Connector	Selief Ct	Larch St cul-de-sac	366	4	Private	Alignment needs to be confirmed
Spruce Cape	Benny Benson	Mill Bay Rd	8,366	5	Public	Path along roadway
Spruce Cape Trails	Benny Benson	Mill Bay Rd	2,719	5	Native	Path along roadway
Spruce Cape Trails	Spruce Cape Rd	Woodland Dr	2,564	3b	Native	Natives need access
Spruce Cape Trails	Spruce Cape Rd	Woodland Dr	321	3b	Private	Provides connectivity
Spruce Cape Trails	Spruce Cape Rd	Woodland Dr	4,349	3b	Native	Provides connectivity
Spruce Cape Trails	Spruce Cape Rd	Woodland Dr	12	3b	Public	Provides connectivity
Under Island Bridge	Mission Rd	Marine Way	79	4	Public	Trail b/w Mission and Marine/Tagura
Under Island Bridge	Mission Rd	Marine Way	132	4	Native	Trail b/w Mission and Marine/Tagura
Under Island Bridge	Mission Rd	Marine Way	136	4	Public	Trail b/w Mission and Marine/Tagura
Von Scheele	Beaver Lake	Beaver Lake LP	287	5	Public	Safe way
<b>Upgrade Existing Sidewalk</b>						
Powell	Mill Bay Rd	Rezanof Dr	964	Sidewalk	Public	Rehab sidewalks near MS and HS
<b>Upgrade Existing Trail</b>						
Dog Salmon Bay	Rotary Bay Park	South End Park	1,928	4	Public	Swampy trail needs boardwalks
Russian Ridge Trail	Russian Ridge Trails	Hillside Dr	4,085	4/5	Public	Part of Russian Ridge trail system
Russian Ridge Trails	Monashka Bay Rd	Monashka-Pillar Mtn	2,272	3a	Public	Repair ATV damage
Russian Ridge Trails	Monashka Bay Rd	Monashka-Pillar Mtn	16	3a	Public	Repair ATV damage
Russian Ridge Trails	Monashka Bay Rd	Pillar Mountain	8,204	4	Public	Monashka Road to town; improve existing trails
Russian Ridge Trails	Monashka Bay Rd	Pillar Mountain	9	4	Public	Monashka Road to town; improve existing trails



Table 10: Project Improvement Detail (continued)

Street	From	To	Length (Feet)	Class	Ownership	Comment
Russian Ridge Trails	Monashka-Pillar Mtn	Lakeview	1,774	4	Public	Monashka Road to town; improve existing trails
Russian Ridge Trails	Monashka-Pillar Mtn	Lakeview	91	4	Public	Monashka Road to town; improve existing trails
Russian Ridge Trails	Monashka-Pillar Mtn	Beaver Lake	2,325	4	Public	Monashka Road to town; improve existing trails
Russian Ridge Trails	Russian Ridge Trails	Beaver Loop Ln	2,250	4	Public	Part of Russian Ridge trail system
Russian Ridge Trails	Russian Ridge Trails	Beaver Loop Ln	7	4	Public	Part of Russian Ridge trail system
Russian Ridge Trails	Russian Ridge Trails	Beaver Loop Ln	1,275	4	Public	Part of Russian Ridge trail system

### 6.3 Road system trails

As mentioned in Chapter 2, “many of the road system trails within the Kodiak area have served the transportation and recreation need of area residents for thousands of years. As a result, the Kodiak Island Borough already has a robust network of trails that serve a variety of purposes and the need for new trails is relatively minimal in comparison to many other areas without such systems. This observation is supported by the recommendations received during the public involvement process, which focused primarily on maintenance and user conflicts.

Despite the preexisting trail network system, there are several locations where new trails could benefit and enhance the existing system. Circumstances that may have precluded development of these trails in the past include land ownership issues, a lack of necessary easements, lack of available resources, and/or changes in user needs and trends.

#### 6.3.1 New Trail Recommendations

Many of the existing Kodiak Road System trails have been developed over an extended period of time, with a large portion dating to the 1940s and before. Community trail needs seem to be largely met by the existing road system trail network with a few notable exceptions. The bulk of community comments received during the planning process regarding the road system trails dealt with trail access, maintenance and rehabilitation issues. These issues are addressed through the following recommendations.

#### 6.3.2 17b Easements

Within the Kodiak Island Borough and in other parts of Alaska, the Bureau of Land Management has established “17b easements” across land owned by native corporations as part of the Alaska Native Claims Settlement Act (ANCSA) (PL 92-203 - 85 Stat. 688). These easements allow people to use the easements for travel or short-term camping (depending on the type of easement). No permit is required to use a 17b easement but there are restrictions on the use of such easements, depending on the type and width of the easement. Several of the existing 17b easements accessible from the Kodiak road system are listed as ‘proposed trails’ with no visible trail development. Others are listed as ‘existing trail’ even though the field inventory found either no such trail, or a trail in a nearby location. The BLM which manages these easements has provided the following information about them:

- All 17b easements recorded in the Kodiak Island Borough Public Access Atlas convey a public right to access.
- 17b easements were defined before GPS was available and may not accurately describe the location of the existing trail. If a nearby inventoried trail (within the same section of land) is present, the empty 17b easement may be describing this trail.
- If a 17b easement does not correspond to an existing trail or a nearby trail, one may be established. BLM would prefer to visit the location and mark the trail corridor before establishing the

final trail. Trails should follow sustainable alignments.

- If a 17b easement is desired to be relocated to better serve the public, a ‘dedication and relinquishment’ process can be initiated with BLM. The applicant should work with the applicable native corporation (whose land the easement crosses) and BLM.
- New 17b easements can be established with letter from Native Corporation requesting ‘dedication and relinquishment’. This process may involve a public meeting. BLM would prefer to visit the location and mark the trail corridor before establishing the final trail. Trails should follow sustainable alignments.

The above information suggests that the Kodiak Island Borough, Native Corporations and BLM must work together closely to either establish new, relocate existing, or to provide a new trail within an existing 17b easement. Early and persistent communication should be attempted with Native Corporations where these types of actions are recommended. Table 11 summarizes recommendations for existing 17b easements accessible from the Kodiak Road System.



Saltery Cove Road is a 17b easement through native corporation land

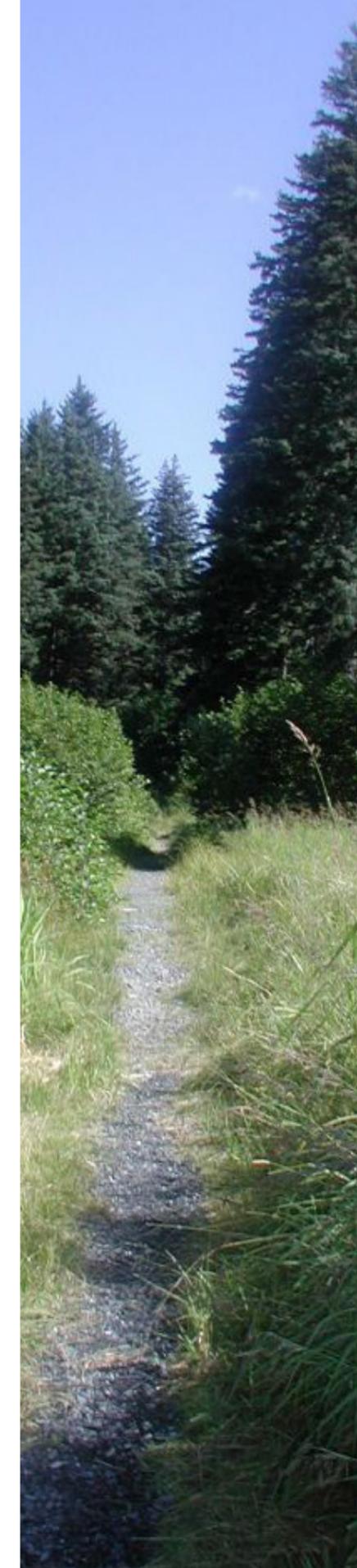


Table 11: 17b Easement Recommendations

ID#	From	To	Length	Easement type	Ownership	Recommendation
EIN 31	Neva Cove	North edge of KIB Lands	20,500	25 foot trail	Ouzinkie	Trail surveyors could not locate this trail. Public comment during the planning process indicates a desire to see this trail developed. Borough should work with BLM and Ouzinkie Native Corporation (Ouzinkie) to develop trail.
EIN 108	Chiniak Road at Isthmus Bay	South to State Land	17,000	25 foot trail	Leisnoi	Noted as 'existing and proposed' by the BLM, though the trail could not be located. A nearby trail to the north that does not reach state land is a possible candidate. Public support for this connection was strong during the planning process. The Borough should work with BLM and Leisnoi Native Corporation (Leisnoi) to develop the trail.
EIN 48a	Pasagshak Point Road	State Land at top of Sacramento River Valley	6,000	25 foot trail	Leisnoi	Noted as 'existing' by the BLM but could not be identified during the field inventory. This easement was not commented on by the public during the planning process, but may still provide utility. The Borough should further explore interest for developing as a trail and coordinate with Leisnoi as needed.
EIN 106	Saltery Cove Road	State land to the north	6,000	25 foot trail	Leisnoi	Noted as 'proposed' trail by the BLM. This easement was not commented on by the public during the planning process, but may still provide utility. The Borough should further explore interest for developing as a trail and coordinate with Leisnoi as needed.

### 6.3.3 Proposed Bicycle Path

Strong public support was shown during the trails planning process for the development of an 8 to 10 foot wide paved (class 5) bicycle path paralleling Rezanof Drive and Monashka Bay Road. This project will serve many purposes including providing a separated trail facility connecting the City of Kodiak and the community of Womens Bay with the US Coast Guard Base, Boy Scout and Buskin River Recreation areas, and White Sands Beach. The project is envisioned to be split into three phases and total approximately 19.4 miles when fully developed.

- Phase 1A: Pier 2 in Kodiak to Deadman's Curve (1.3 miles)
- Phase 1B: Deadman's Curve to USCG Main gate (6.0 miles)
- Phase 2: USCG Main Gate to Panamarof Creek (4.7 miles)
- Phase 3: Otmeloi Road to White Sand's Beach (7.4 miles)

Phase 1A of the project (that within the Kodiak city limit) has been integrated into the 2010 City of Kodiak Capital Improvement Project list and Phase 1B within Kodiak Island Borough was also included in the 2010 Borough CIP list to extend the trail to the USCG main gate. Phase 1A may be under development at the time of this Plan's adoption. The entire 7.3 mile Phase 1 is also rated high with the Alaska State Transportation Improvement Project list and is gaining support at the state administrative and legislative levels of government.

### 6.3.4 Other Road System Trails

In addition to the bicycle path project and 17b related projects several trail corridors were noted during the stakeholder and public outreach that may warrant future development. Table 12 summarizes these recommendations.

### 6.3.5 Trail Rehabilitation & Area Improvements

As described in Chapter 3, approximately 23 percent of the road system trails are presently heavily impacted in one way or another. That represents approximately 68 miles of trail that could be in need of some level of rehabilitation. Recent history has proven that a large amount of environmental change can occur in a short amount of time as evidenced between the 2004 and 2009-2010 trail condition inventory efforts. Table 13 contains a list of 11 trail rehabilitation/

maintenance projects that are likely to have the greatest impact to the road system trails and to the residents of Kodiak. These projects address the most popular and sensitive trails on the road system. The Kodiak Island Borough can act as a partner to help secure grant funding, acquire or trade lands with Native Corporations for public trail access, and/or procure trail construction equipment that can be utilized by the full spectrum of trail user groups to assist with maintenance of the road system trails. To do this, the Borough will need to consult and partner with multiple entities to help achieve many of the recommended improvements. For specific implementation strategies related to these efforts, please see Chapter 7. Table 13 summarizes impacts for the recommended trail rehabilitation and area improvements. A description of each area and some recommended actions follows.



This trail requires improved drainage and trail hardening to be sustainable

Table 12: Proposed Road System Trails

Trail	From	To	Length (Feet)	Class	Ownership	Comment
Broad Point Trails	Chiniak Hwy	Broad Point	Unk	3b	Leisnoi	High number of public comments requesting trails
Sacramento Trail	Narrow Cape	Sequel Point	16,000	3a	State	Project will formalize trail along the coast over the Sacramento River. Trail will have environmental challenges, but will focus use in one location and prevent wider damage.
North Kalsin Bay Trail	Chiniak Hwy (from existing inventoried trail)	Summit of mountain	10,000	3b	Leisnoi	Public interest in seeing this trail developed. A small portion of it currently exists



**Table 13: Trail Impacts by Area Improvement Location (miles)**

Area Name:	Encroach Veg	Eroded	Incised	Landslide	Muddy	Muddy/puddled	Collapsed	See Comments	Submerged	No Impact	Grand Total
Burma Road Trail:		0.1	0.78	0.1	0.3			0.1	0.02	4.3	5.72
Cliff Point:			3.50				1.4		0.11	10.6	15.6
Jack Lakes Area:	0.39	0.3	3.22			1.8			0.18	11.4	17.4
Lake Miam/Summit Lakes Area			5.72			2.5			0.48	13.7	22.4
Old Woman Trail (North):		0.3	0.61						0.03	3.6	4.58
Russian Ridge Trail System:	0.07	2.8	1.76			1.1			0.07	8.91	14.7
Saltery Cove Road:			1.36			1.7			0.23	14.6	17.8
Sequel Point to Sacramento River Trail:			1.14				0.4		0.03	6.12	7.74
Swampy Acres / Boy Scout Lake:	0.05	0.6	1.82		0.1	0.6			0.51	26.1	29.7
Termination Point:			0.46			0.4			0.16	5.92	6.93

**Burma Road Trail:**

This trail is an old Military road that connects the Buskin River Valley trails to Old Woman Mountain and the Womens Bay Community. The Trail runs through land owned by the Borough, Leisnoi and the US Coast Guard. It saw extensive damage in the 2009 rains. Like Saltery Cove Road, this trail has a wide and sturdy enough tread surface to support heavy equipment.

**Recommended Actions:**

- Coordinate a large scale volunteer effort to perform much needed spot improvements and repairs. This effort (organized or coordinated by the Borough) could encompass multiple user groups.
- Consider re-grading with a bulldozer to address general ponding and grade issues along its length.
- Coordinate efforts with the Coast Guard Base.

**Cliff Point:**

This trail network encompasses an extensive system of trails bridging Coast Guard and Leisnoi lands. ATVs are prohibited on Leisnoi land. The main routes of this trail system are WWII era roads that have narrowed over time to be suitable for Class 3a trails. This

area supported motorized use for many years prior to closure by the Leisnoi Native Corporation. Its unique location on a peninsula and away from anadromous streams makes it a desirable location for a trail system managed exclusively for motorized use.

**Recommended Actions:**

- Borough should facilitate discussions with the Coast Guard and Leisnoi to establish a designated motorized recreation area. Easements, purchase of land, or other strategies may be employed.
- Make the following minimal improvements if motorized use is to be allowed:
  - ◇ A designated loading/parking area.
  - ◇ Trailhead signage or kiosk explaining permitted uses.
  - ◇ Construction of any necessary bridges or other improvements.
  - ◇ Relocate trails away from archeological sites.

**Jack Lakes Area:**

Used primarily by Womens Bay residents, this trail system is also critical to recreational needs of the community. There is currently extensive damage to this trail system. This trail system lies mostly on Borough land and as such is not eligible for the same Natural Resource Conservation Service (NRCS) funding that has been applied to the Summit Lake and Anton-Sharatin easement trails.

**Recommended Actions:**

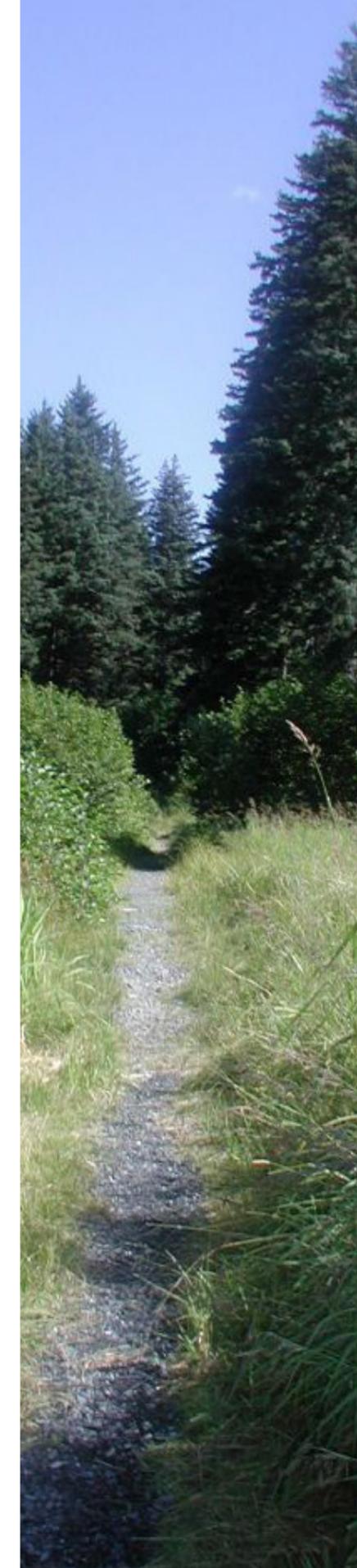
- Borough Revisit the Womens Bay comprehensive plan (2007/2008) to clarify the community intent for management of these trails.
- Fund trail hardening activities / rerouting in impacted areas (6.1 miles or approximately 38 percent of the total trail length).
- Limit trail improvements to previously impacted areas.



The Jack Lakes area has eroded trails and other impacted areas like this one with an abandoned vehicle

**Lake Miam/Summit Lakes Area:**

This is one of the most heavily impacted trail systems in the Kodiak road system. The trails are more difficult, and attract many more sport ATV riders than other trails such as Saltery Cove Road. Although the entire 17b easement segment (Leisnoi owned segment) is scheduled to be hardened by geoblock by 2011, this also will likely succeed in attracting more traffic to the public lands beyond the 17-b easement—those lands between Summit Lake, Lake Miam and Portage Bay. Previous efforts by the Kodiak Soil and Water Conservation District (KSWCD) to improve the trail between Summit Lake and Lake Miam have been successful (with several



bridges built), but more impacted areas have appeared and some bridges in the area are in need of repair.

**Recommended Actions:**

- Continue to involve local trail user groups to continue maintaining this trail system.
- Focus impacts by establishing designated camping sites & encouraging groups to use them on state land.
- Install limited signage along trail including “Wetland – Do Not Disturb” signs in impacted wetlands
- Improve signage at stream crossings.
- Pursue maximum funding available for trail hardening. Hardening should be focused on previously impacted segments of trail.



The US Coast Guard was a partner in the Lake Miam Trail hardening in 2010. The geoblock used was airlifted by this MH-60J/T Jayhawk

**Old Woman Trail (North):**

This trail was constructed during WWII by the military and runs from the Aviation Hill Coast Guard housing subdivision and ascends northeast to the ridge of Old Woman Mountain. This trail also suffered significant damage in the 2009 storms. Landslides rendered this trail impassible for some time afterwards. Extreme water borne

erosion has so badly incised this trail that it will be difficult to repair without mechanized equipment.

**Recommended Actions:**

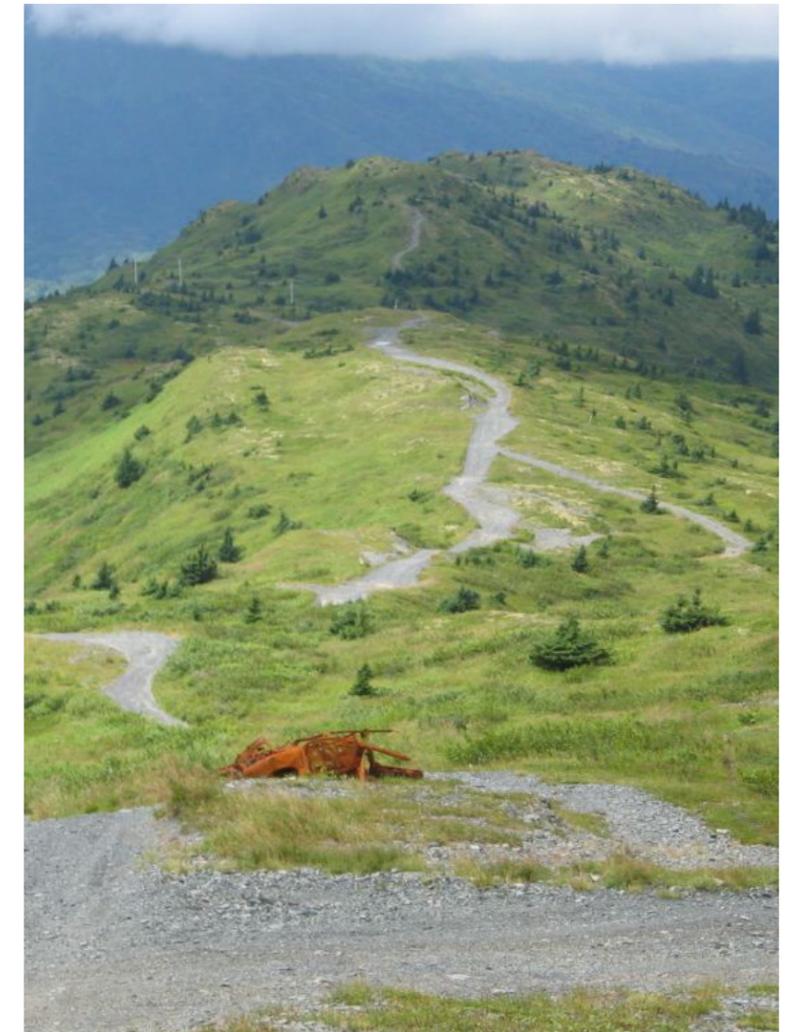
- Parks & Recreation Committee should develop a Trail Management Objective for this trail
- Coordinate trail repair using mechanized equipment. Native materials are available on site.
- Abandon braided trail sections in middle section of trail. There is one to each side of the main trail.
- Coordinate efforts with the Coast Guard and Leisnoi Native Corporation.

**Russian Ridge Trail System:**

This area has been discussed for future park designation by the Kodiak Island Borough Parks & Recreation Committee and mostly lies within existing Borough lands. The Russian Ridge trails provide access to Pillar Mountain from neighborhoods north of the city of Kodiak. Adjacent city-owned lands on Russian Ridge ban motorized access by city ordinance; the section on Borough land carries no explicit restriction. There is a large perceived user conflict here between motorized and non-motorized users. New social trails have recently been formed in previously pristine areas. Public and stakeholder comments indicate that the majority of impacts in this area are caused by a minority of users.

**Recommended Actions:**

- Trail Management Objective should be developed for this trail during the biannual “Trails Summit”
- Close and re-vegetate unsustainable spur trails .
- Clarify Borough policies related to trail use and land boundaries in this area.
- Work with City of Kodiak Police to enforce existing city ordinance.
- Further develop and sign urban trails that provide access to Russian Ridge trails (see Urban Trail Recommendations for additional information).



Trails on Pillar Mountain have spur trails that could be re-vegetated

**Saltery Cove Road:**

This corridor is one of the most popular and heavily used routes for ATVs and ORVs on the Kodiak road system. This corridor is also used by residents of Saltery Cove and is seeing increased commercial use by several commercial lodges at Saltery Cove. This is one of the few trails that could be successfully managed as a Class 4 trail in Kodiak. The popularity and success of this trail goes back to its original construction by the military which included numerous built-in drainage features and imported rock and gravel.



**Recommended Actions:**

- Trail user groups should work with the State of Alaska to schedule and fund periodic grading and repair of Saltery Cove Road by heavy equipment (excavator and bulldozer).
- Consider installation of drainage features to reduce instances of standing water and erosion on the trail surface along lower elevation segments of the trail (near Saltery). Porous pavement at impacted areas may be effective.
- Improve signage pertaining to stream crossings.
- Form group of stakeholders specific to Saltery Cove Road including residents, lodge owners, ATV enthusiasts and outfitters/commercial operators.

**Sequel Point to Sacramento River Trail:**

This trail has impacts related to sensitive wetlands, trail braiding and submerged areas. It is mostly within existing 17b easements and on state lands. Approximately 0.8 miles or 5 percent of the 13.8 mile trail system were cataloged as muddy, submerged or braided. This trail has fewer users and less environmental impacts than other areas of the island. However increased use and the attention given to this link during the public process have elevated the need for trail rehabilitation.

**Recommended Actions:**

- Install geoblock trail hardening in muddy or frequently ponded sections of trail.
- Replace log stringer bridges with sturdier bridges of treated wood
- Prevent trail from impacting the Sacramento River as it is an anadromous stream.
- Provide trailhead and other limited signage along the trail including ‘Wetland – Do Not Disturb’ carsonite signs in impacted wetlands.

**Swampy Acres / Boy Scout Lake:**

This trail system is currently on both Coast Guard and Natives of Kodiak (NOK) lands. Nearly all of this trail system is currently closed to ATV use with the exception of the 17 (B) easements. Main trail routes consist of WWII era roads that have narrowed over time to become suitable class 3a trails. This area also sees a large amount of winter recreation use.

**Recommended Actions**

- Trail Management Objectives for this trail system should be defined with respect to the uses desired.
- If it is desired to allow ATV access to Swampy Acres as a local option for off-road enthusiasts, bridges need to be constructed to cross tributary streams of the Buskin River.
- If the desire to restore ATV periodic pruning of Alder will be necessary to keep a wider tread.
- An agreement with landowners will need to be reached to open these trails to ATV access

**Termination Point:**

This system of trails is historically very popular among Kodiak residents and convenient to the Kodiak urban area. Most of Termination Point is now owned by the Leisnoi Native Corporation and although Leisnoi lands are private property, they can be accessed by obtaining a permit for access from Leisnoi. Termination Point was noted by several public workshop participants as a high priority for acquisition by the Borough. The trailhead area at the end of Monashka Bay Road requires some maintenance as the restroom structure has been heavily vandalized. Trails leading from this trailhead need to be consolidated and revegetated as there is a great deal of braiding.

**Recommended Actions:**



Termination Point Trails alongside Monashka Bay

- Borough should work with the Leisnoi Native Corporation to secure legal non-motorized access to all members of the public.
- Repair the restroom structure at the termination of Monashka Bay Road.
- Install trailhead signage to provide user information.
- Consolidate braided trails, with damaged areas closed and revegetated.

**Pyramid Mountain Ski Chalet**

This winter recreation area once provided a popular focal point to winter activities near the Anton Larsen Pass. The Coast Guard Morale, Welfare & Recreation (MWR) unit used to operate the Ski Chalet with food service and a warming fire. The ski runs behind the chalet were lit with flood lights and there was an operating rope tow that was used to get skiers and snowboarders up the mountain. Operation of the chalet was halted after a ski lift was purchased by MWR and shipped to Kodiak sometime in the mid-1990s. The MWR desired to expand the operations of the chalet into a more formalized ski operation, but this was not included in its insurance policy. As a result the lift was not ultimately installed and its disposition is not known at this time. The Coast Guard briefly explored the possibility of having the ski chalet operated by a separate entity; however no candidates were interested. Re-opening the chalet was a popular concept with Kodiak residents during the public involvement process.

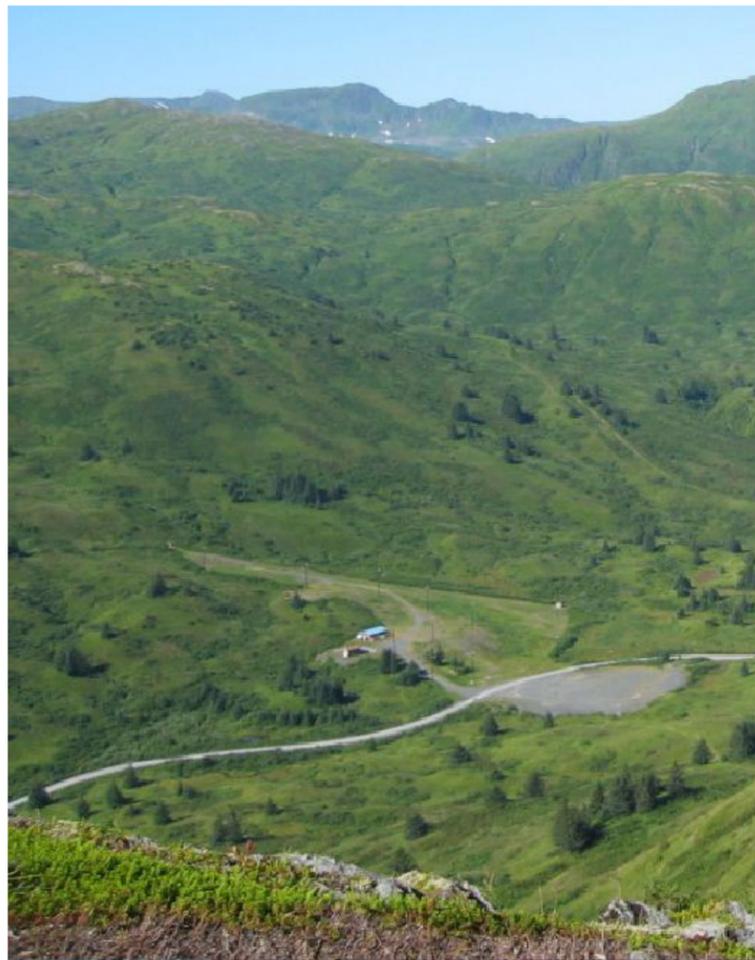
The chalet was recently handed over to the Chief Petty Officers Association (CPOA) by the Base Facilities Department, which could elect to open it to the public for events or on a limited schedule as part of its fundraising activities. CPOA has its own insurance policy that may allow operation of the chalet.

Reinstatement of the ski chalet should be a priority for the Borough. The land that the chalet resides on serves as the northern boundary of the US Coast Guard Base and reportedly serves no other military purpose. It is possible that the land and chalet could be released by the Coast Guard through a process known as ‘Devestature’. This process can be long and difficult. Strong support from State elected officials could help accelerate the process. The Borough should open a dialogue with the Coast Guard to discuss options.



**Recommended Actions:**

- The Borough should approach the Coast Guard base commander about the issue and determine if there is any interest in a cooperative effort to reopen the chalet to the public.
- The Snow Bruins could approach the CPOA to open the chalet on a limited basis (for example, Saturdays from 10am to 2pm).
- Grants and/or volunteer labor should be sought to improve the chalet ski hill.
- The Borough could assist in acquiring the chalet and the ski hill lands to a third party if interest exists (long term).



*The Ski Chalet and Pyramid Mountain parking area from the summit*

**6.3.6 Stream Crossing Locations**

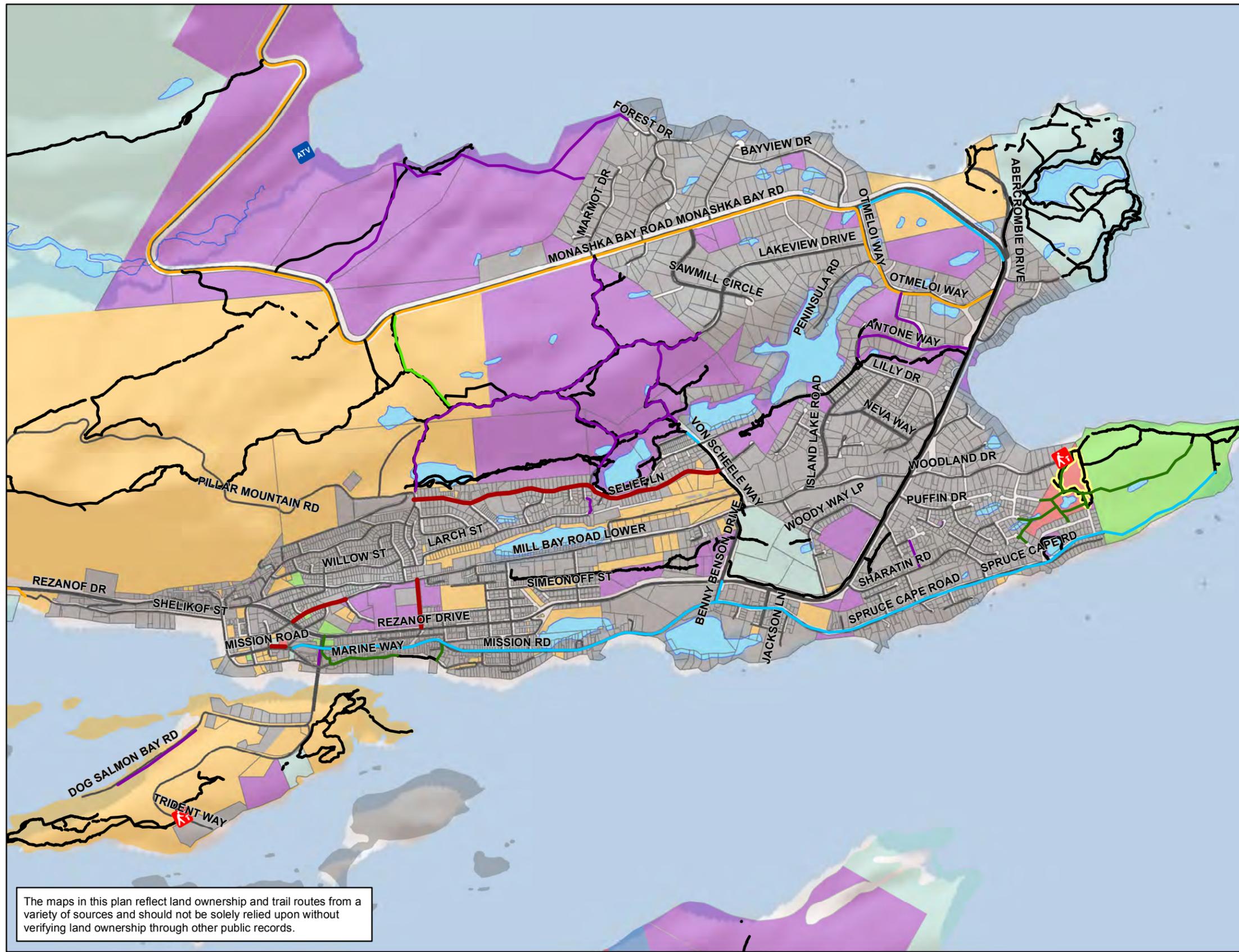
Each year the Alaska Department of Fish and Game (ADF&G), Division of Habitat issues stream crossing permits for Kodiak Island. These permits authorize the movement of wheeled or tracked vehicles weighing less than 5,000 pounds on the bed and banks of anadromous streams and rivers. As of June 2011, there are 38 approved crossings locations of anadromous streams.

Data points collected during the trail inventory are described in Chapter 3. Data points collected cataloguing the points of trail crossings of anadromous streams were compared with Alaska Department of Fish and Game (ADF&G) approved crossing locations. It became clear that there are many more existing crossing locations than there are currently approved sites. This assessment was confirmed by cross-referencing the inventoried ADF&G anadromous streams on Kodiak with the unpermitted crossings noted on the 2004 and 2010 trail inventory efforts. Approximately 90 locations may exist on trails accessed from the Kodiak road system.

ADF&G has an interest in the impacts of trail use where they cross fish-bearing streams and would like to help reduce these impacts. They have completed inventory work within the Borough, including along Saltery Creek and the American River to inventory the condition of culverts, bridges, fords and other stream crossings and also have done some inventory work related to presence of anadromous fish. ADF&G performed an updated assessment in September and October 2011 which will help with the re-issue of general permits for fish crossings. The general permits are for fish-bearing streams, although a fairly limited number of streams have actually been inventoried and designated as fish-bearing. Surveys to identify anadromous streams were predominantly collected by aerial surveys in Kodiak.

Applicants can apply for new permits on a case-by-case basis. However ADF&G would prefer to have locations reviewed by staff personally before issuing a permit. Permits may be denied if significant damage has occurred.

It is recommended that ADF&G conduct a more thorough survey of existing ATV trail crossings as they relate to anadromous streams. ADF&G should partner with the Kodiak Island Borough or other local entity to procure funding for the survey. Each ATV crossing location should be evaluated thoroughly and permits issued if needed. Alternative projects could include new bridges such as aluminum 'Baily' bridges that may be relatively inexpensive to install.



**Trailhead Improvement**

**Proposed Trail Class**

- Class 3a trail
- Class 3b trail
- Class 4 trail
- Class 5 trail
- Sidewalk
- Planned Bike Path
- Existing Inventoried Trail
- Private Trail No Public Access

**Other Features**

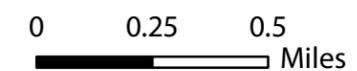
- 17B Reserved Easement
- ADFG Approved Stream Crossing
- 17B Reserved Easement
- Road

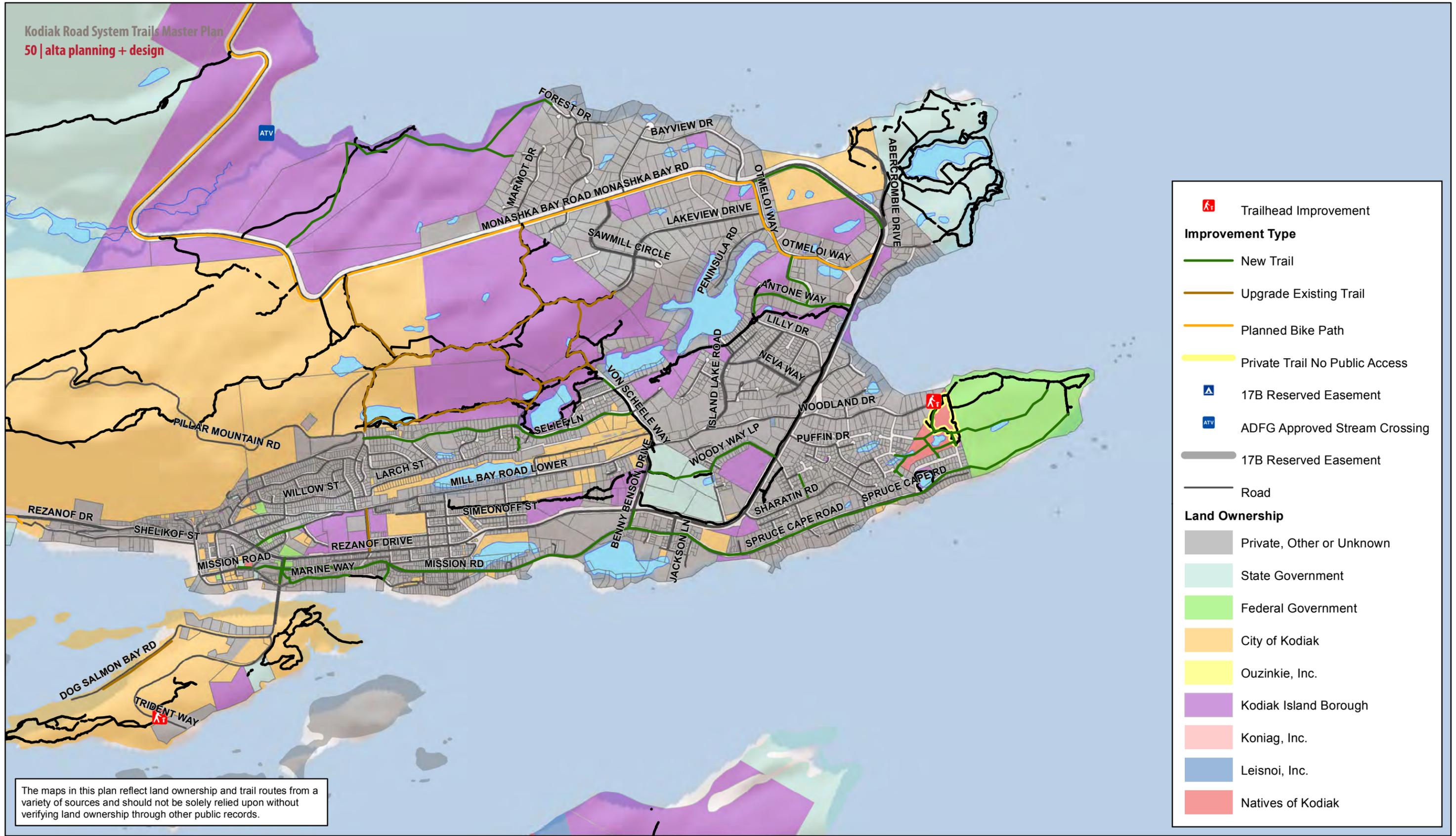
**Land Ownership**

- Private, Other or Unknown
- State Government
- Federal Government
- City of Kodiak
- Ouzinkie, Inc.
- Kodiak Island Borough
- Koniag, Inc.
- Leisnoi, Inc.
- Natives of Kodiak

The maps in this plan reflect land ownership and trail routes from a variety of sources and should not be solely relied upon without verifying land ownership through other public records.

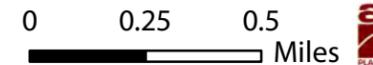
**Map 11 Proposed Improvements - Urban System, Proposed Trail Classification**



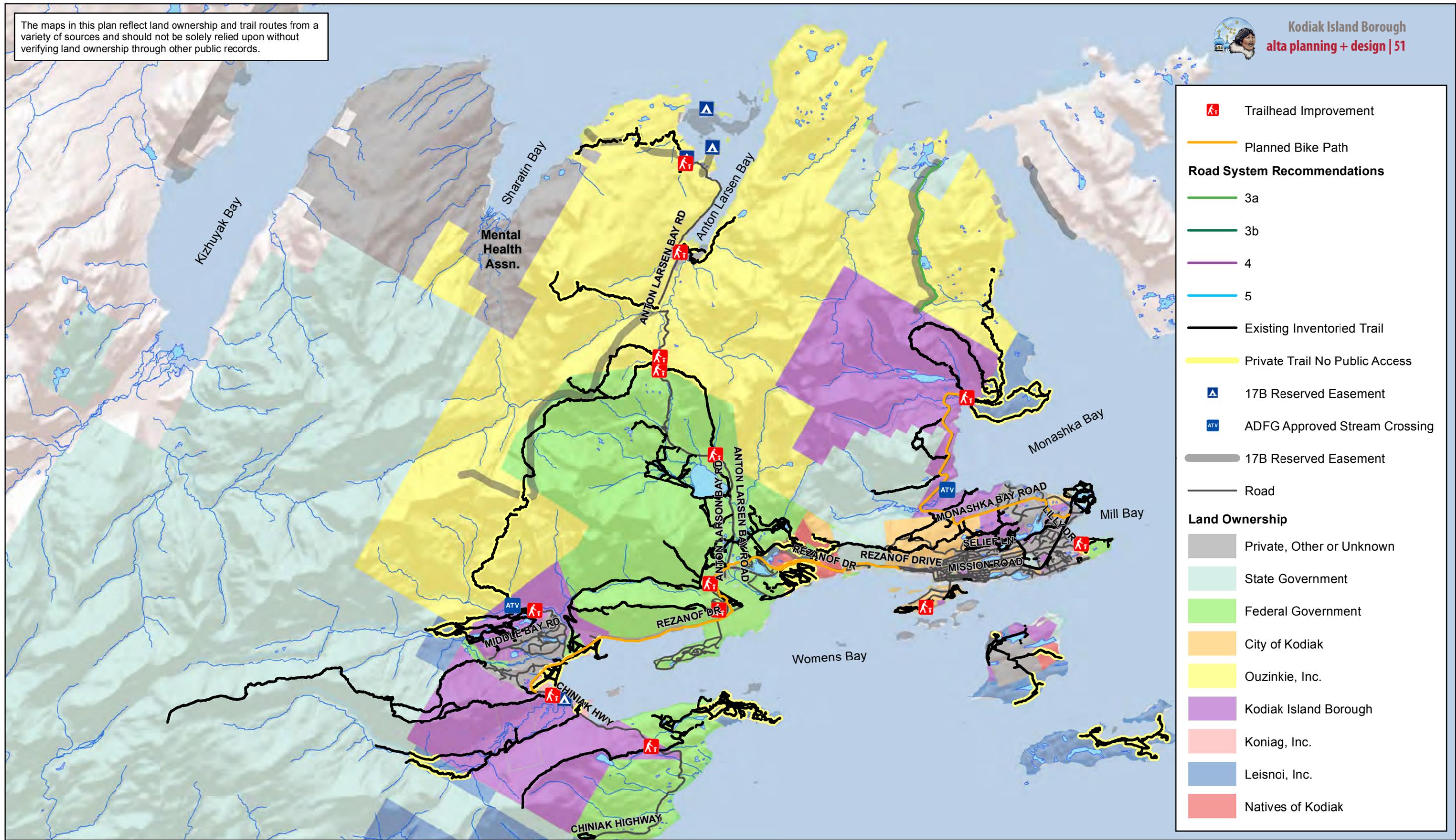


The maps in this plan reflect land ownership and trail routes from a variety of sources and should not be solely relied upon without verifying land ownership through other public records.

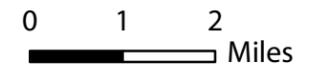
**Map 12. Proposed Improvements - Urban System, Type of Improvement**

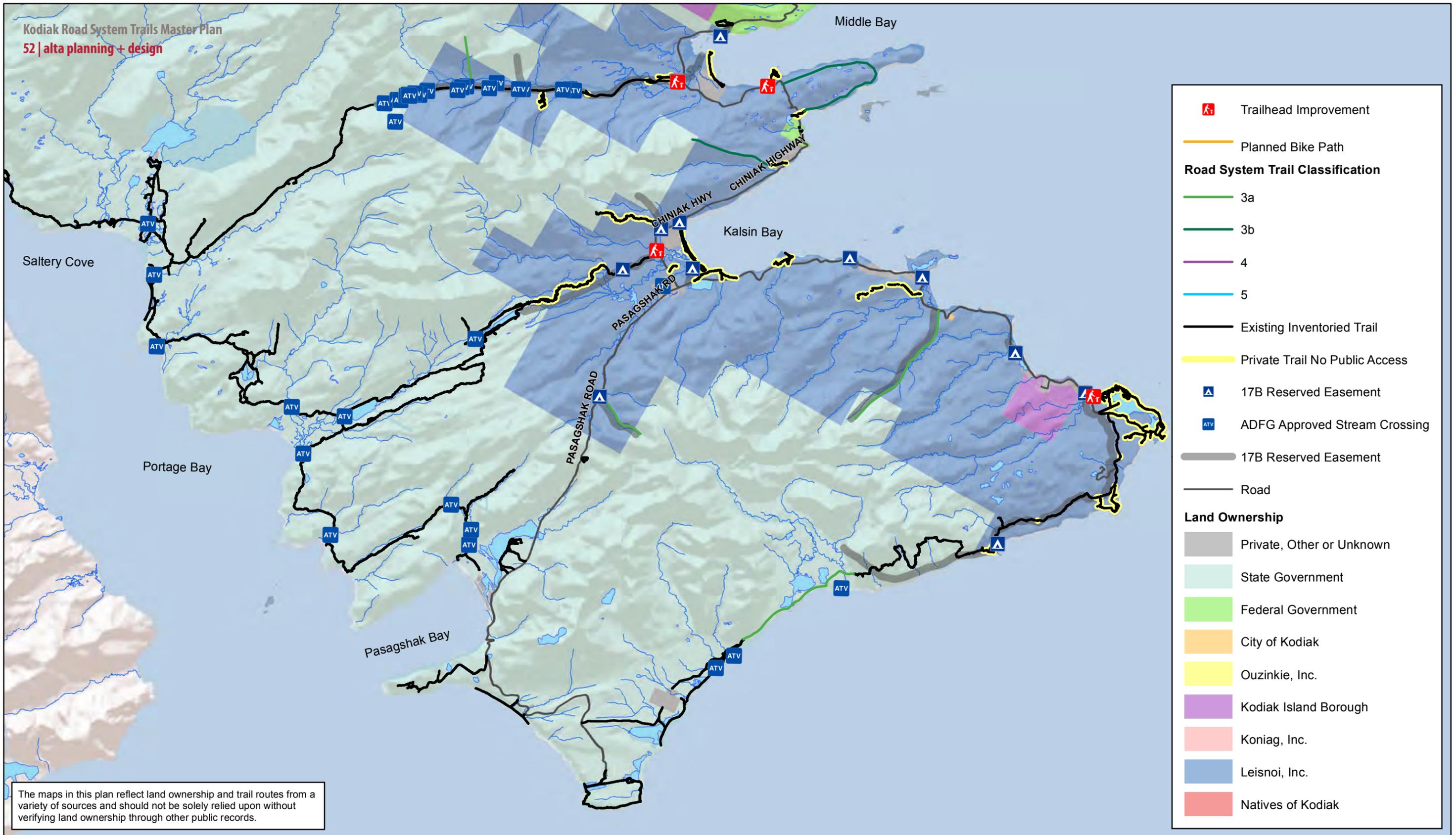


The maps in this plan reflect land ownership and trail routes from a variety of sources and should not be solely relied upon without verifying land ownership through other public records.



**Map 13. Proposed Improvements - Road System, Proposed Trail Classification North**

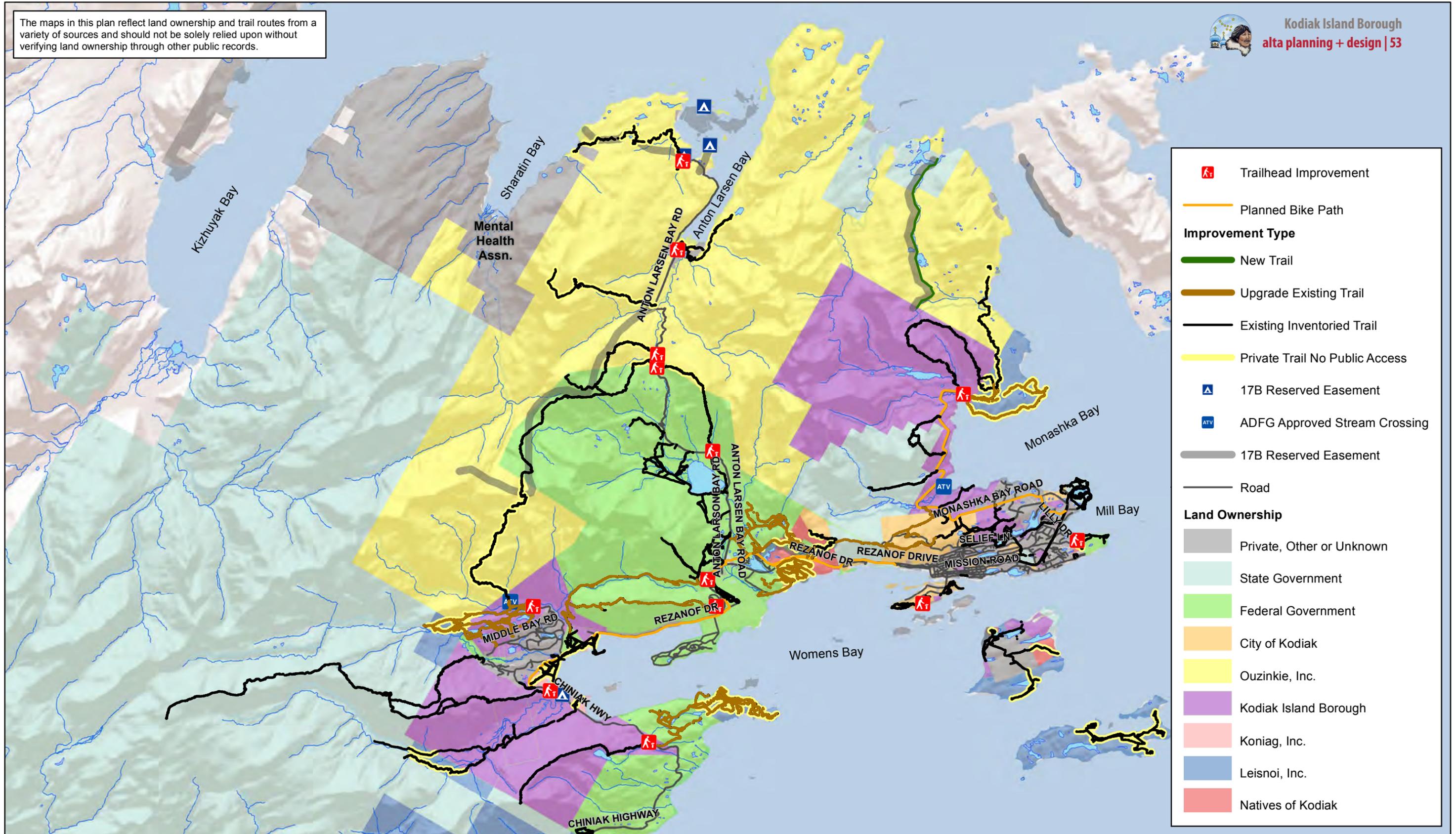




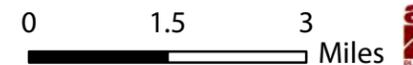
**Map 14. Proposed Improvements - Road System, Proposed Trail Classification South**

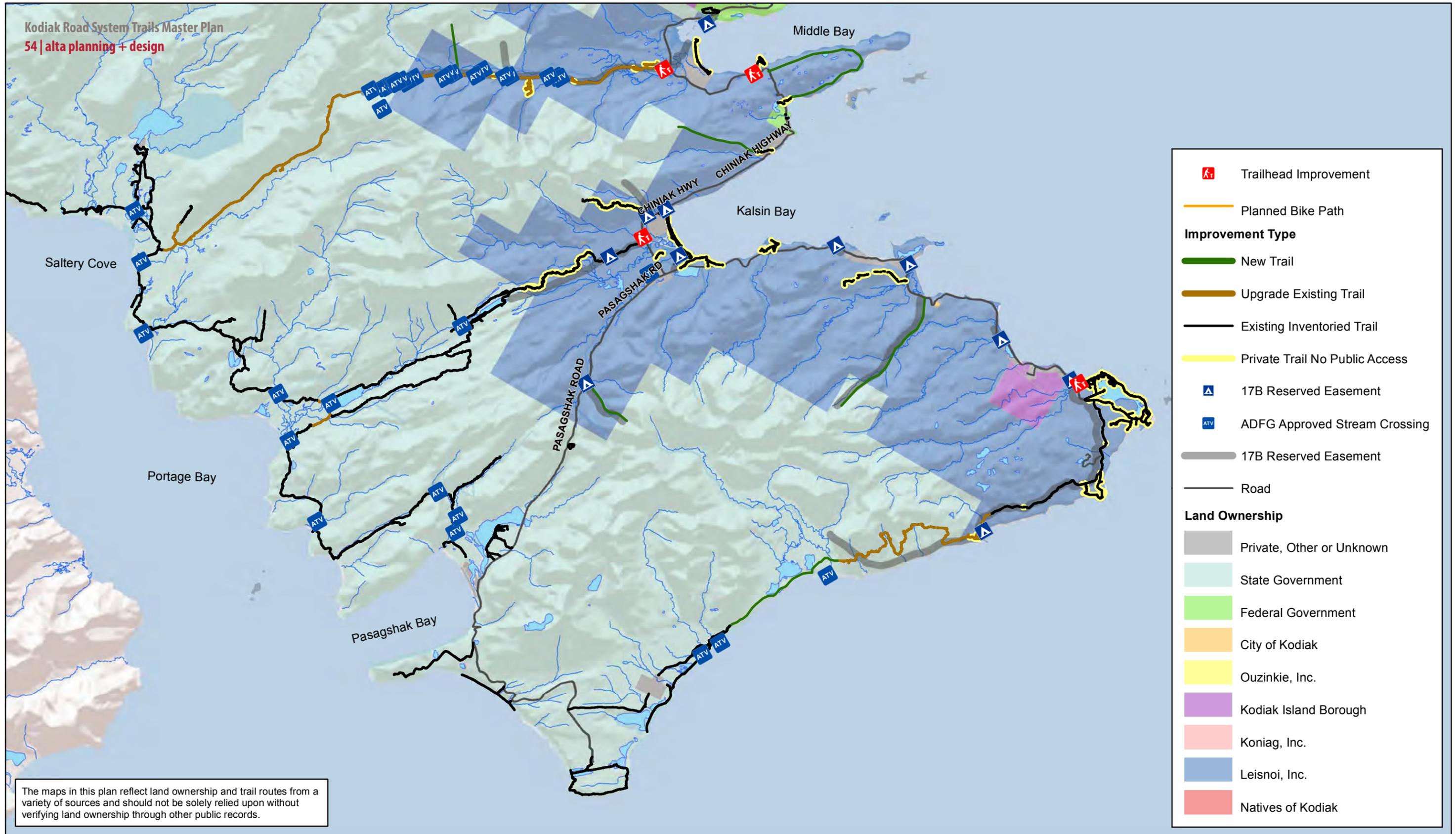


The maps in this plan reflect land ownership and trail routes from a variety of sources and should not be solely relied upon without verifying land ownership through other public records.



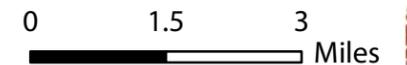
**Map 15. Proposed Improvements - Road System, Type of Improvement North**





The maps in this plan reflect land ownership and trail routes from a variety of sources and should not be solely relied upon without verifying land ownership through other public records.

**Map 16. Proposed Improvements - Road System, Type of Improvement South**



## 6.4 System-Wide Improvements

### 6.4.1 Signing Recommendations

Landmarks, natural features, civic destinations, and other visual cues help residents and visitors navigate through Kodiak and its road system trails. Placing signs throughout the city and out on the road system indicating to trail users their direction of travel, location of destinations, and the distance to those destinations will increase users' comfort, convenience and safety. It should be noted that trail system signage and wayfinding implementation will need to occur with the recognition and collaboration of a variety of jurisdictions and in recognition of other signage systems already in place. Partnering agencies may including the City of Kodiak, the Kodiak Island Borough, the United States Coast Guard, Native Corporations, Alaska Department of Fish & Game, Bureau of Land Management and others.

#### Information Categories

The wayfinding system needs to convey five categories of information:

- Category 1: Identification
- Category 2: Orientation
- Category 3: Safety and Regulatory
- Category 4: Brand Identity
- Category 5: Interpretive or Desired

#### Category 1: Identification

- Portal and trailhead entrances
- Parks that include trail access
- Indication of transitions between Borough, city, state, federal and/or private land ownership
- Seasonal trail types
- Landmarks, historical sites or other points of interest along the trail

#### Category 2: Orientation

- “You are Here” maps placed at trailheads and major entrances to the trail
- Maps placed along the path to help users gauge their progress along the trails

- Signs pointing to major destinations
- “Distance to...” and length of trail information
- Mile and/or Kilometer markers
- Cardinal directions and GPS coordinates



Example of trail intersection sign with location identification

#### Category 3: Safety and Regulations

- Stated rules and regulations
- Trail Access Information
- Signage on trails warning users of upcoming roadway crossings
- Roadway signage to inform drivers of an upcoming trail crossing (within Kodiak City Limits)
- Vehicular guides on surrounding roadways directing to parking areas

#### Category 4: Brand Identity

- Unifying identity element or elements serve as the “brand”
- Consistent aesthetic standard communicates brand
- Private or organizational sponsorship information where needed

#### Category 5: Interpretive

Provide visitors with historic, scenic or interesting information along the trail (may be appropriate at historic WWII, wildlife viewing areas or at native sites of significance).

Design should coordinate visually with the wayfinding signage

#### Use of Symbols

Throughout the system, many recreational opportunities, amenities, regulatory messages and safety warnings must be conveyed. A comprehensive vocabulary of symbols will allow much of this information to be conveyed through the use of single images as needed. Symbols offer quick recognition, are cross-cultural and, when used throughout the system, will offer character and consistency. Symbols should be consistent with The Manual of Uniform Traffic Control Devices (MUTCD) standards



Standard Recreational Symbols

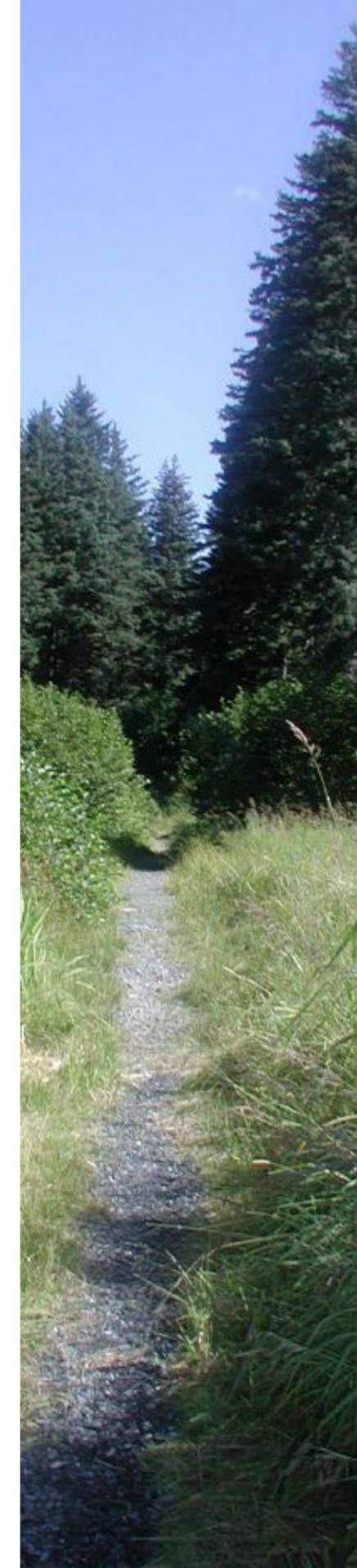
#### Distance Markers

Mile markers are important to visitors and residents as they not only provide distance information, but aid search and rescue by providing a common frame of reference. We recommend placing the zero point (labeled 'zero') at the main portal or trailhead of each existing trail, counting upward along the trail; it may be advisable to always number trails up heading in a north or east direction, so users understand that if the numbers are going down, they are generally headed south or west. Any trails that branch off of the main trail can be numbered starting at zero as well and working upward as they progress away from the parent trail, or according to the cardinal direction. The mile marker system on the connecting loop should count upward along the trail. A Trail Guide sign would be positioned at the intersection to identify the loop and provide directions together with total miles of the loop and other primary destinations from that point.

When new sections of trails are added, mile marking will continue up the trail in this fashion, or they may need to be readjusted if existing sections of trail are newly connected.

#### GIS/GPS

Geographic Information Systems (GIS) and Global Positioning



Systems (GPS) play a central role in the trails planning process and in the daily life of many Kodiak residents; the possibility of delivering wayfinding system information to handheld device users on the trail system should be explored. The GIS department of the Kodiak Island Borough would be the natural choice to develop or coordinate development of these resources as it is currently custodian of the 2004 and 2010 GPS trail surveys.

These systems offer a number of advantages, the foremost being safety. In the event of an accident or injury, stated GPS coordinates can allow users to call for help and provide their exact location to emergency responders.

#### Trail Naming

Trails are easier to find if the name of the trail is carefully defined. Using trail names that are familiar to and comfortable for people and tying each name to a nearby road that supports primary access to the trail or to a famous landmark in or near the trail will help users develop a mental map of trail locations relative to the surrounding environment.

#### Strategic Implementation Plan

To successfully implement the new signing system the Kodiak Island Borough Parks & Recreation Committee may be the ideal body to oversee the project with a trail specialist or non-profit group leading the field inventory, sign design and bidding process. The following schedule of activities/tasks should be completed:

- Inventory existing and legacy signage systems(s) and evaluate their desirability for potential inclusion in a new system or removal from field.
- Confirm access points
- Develop a destination list with naming recommendations
- Approve of all informational aspects of the program
- Develop and review initial design concepts
- Select sign designs and further develop the system further
- Develop and refine a Sign Message Schedule and Sign Location Plans
- Discuss implementation of the plan with all participating jurisdictions and agencies

- Decisions about signage should be discussed at the annual “Trails Summit” to gather public input on signage location and type.
- Once the above actions are complete, the following activities are required to finalize the implementation of a comprehensive wayfinding system:
  - ◇ Document the signage system for pricing and fabrication
  - ◇ Solicit bids for sign fabrication and installation
  - ◇ Fabricate signs
  - ◇ Install signs
  - ◇ Prepare a final signage reference document (and update as needed as the system is enhanced or expanded)

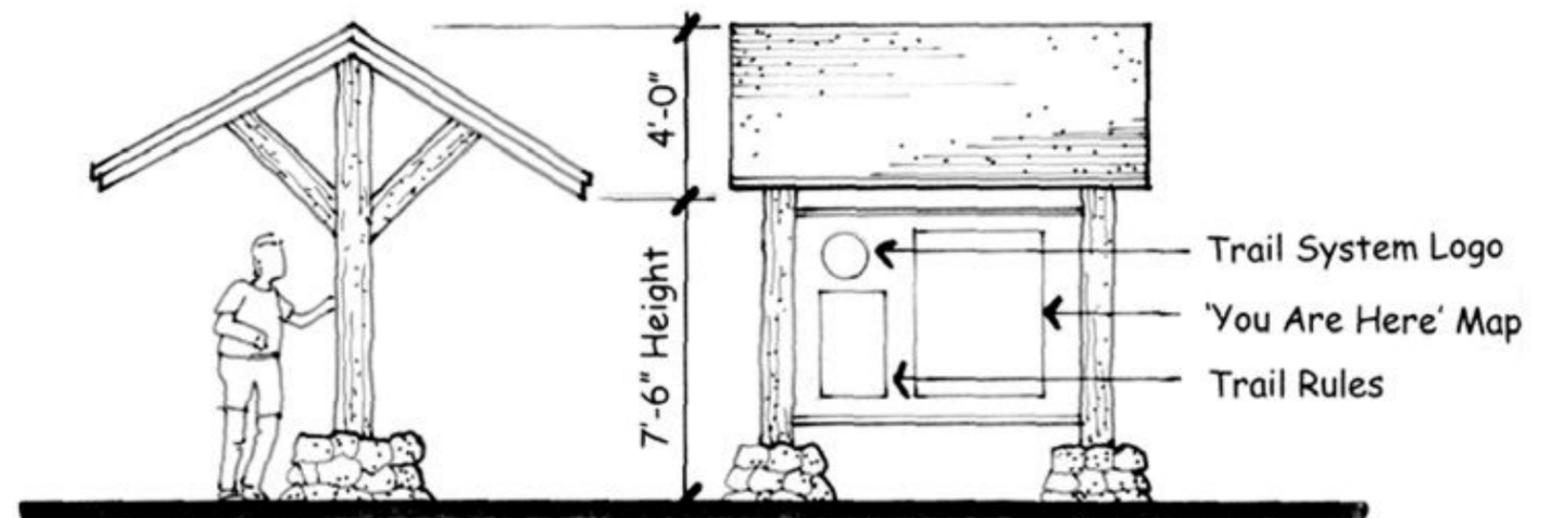
Exact timing would be determined by the progress and complexity of the project as it develops along with scheduled reviews by the project team. Typically, the bidding, fabrication and installation activities take thirteen to fifteen weeks.

Each sign installed on the trail system should have its location recorded with GPS to manage the inventory and help locate signs in the future.

#### 6.4.2 Trailhead Improvements

Some formal trailheads currently exist both in the City of Kodiak and on road system trails. Existing facilities include parking areas, restrooms, trailhead signage and kiosk signs. Trailheads provide needed access to the trail system and typically incorporate essential facilities including parking, restrooms, and orientation and information signage for trail users. Trailheads are typically developed on public lands or within public rights-of-way. A trailhead kiosk is an informational structure at the entrance to a park or trail. Trailhead kiosks can vary from a single sign with trail map and rules to a multi-paneled structure containing a variety of information. Trailhead kiosks frequently contain a large park(or overall system or larger area map) and individual trail map, emergency contact information, and park rules and regulations. They might also have information about the area’s natural and cultural resources, volunteer projects, or a message board. Trailhead kiosks can also serve as a place for distribution of portable maps or fliers about upcoming events.

- Primary trailheads that are the major access points. They should include all types of signage: informational, regulatory, and educational. Primary trailheads see users of all abilities, and often those new to the trail system. This provides an opportunity to educate users not only about trail etiquette, but also about the history and environment of the site. Primary trailheads should have a place for portable maps and information boxes and if possible formal parking areas. If a



Example of Primary Trailhead Sign



primary trailhead serves equestrians or motorized users, ample maneuvering space for vehicles with trailers is desirable.



Example of Primary Trailhead kiosk at Pasagshak Bay

- Secondary trailheads are smaller and less developed than primary trailheads, but serve similar functions. Secondary trailheads can have parking areas and a kiosk with trail information, including: “You are here” location information, maps, basic rules and regulations, and emergency contact information.



Example of Secondary Trailhead kiosk at Buskin Lake

- Access points are lightly developed locations where users can enter the trail system. Signs at access points should include basic rules/yield information.

### Recommended Trailhead Improvements

Kodiak stakeholder groups and members of the public repeatedly suggested trailhead improvements as a meaningful way to encourage responsible trail use and to provide information to users. Several trails

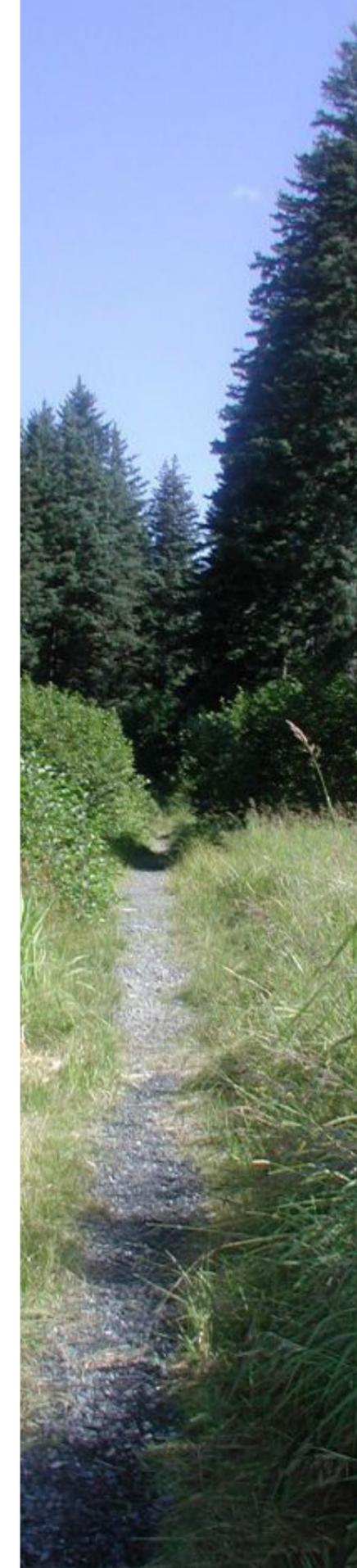


Access Point Sign

were noted as needing improved parking accommodation, particularly if frequent users include equestrians or motorized vehicles. The following table summarizes recommended trailhead improvement types by trail. Trailhead recommendations on private lands will require close cooperation with landowners for development and access. For Native Corporations that allow public access via permits, a trailhead provides an opportunity to educate the public about the process and direct them as to how to obtain or purchase permits. Table 14 summarizes recommended trailhead improvements on the Kodiak road system.

Table 14: Proposed Trailhead Improvements

Trail	Parking improvements	Kiosk needed	Current Ownership	Comment
Cascade Lake Trail	No	Secondary	Ouzinkie	Minor improvements recommended
Termination Point	No	Secondary	Leisnoi	This trailhead has ample parking and bathrooms. Kiosk and bathroom repair needed
Kashevaroff Mountain	Yes	Secondary	KIB	Noted numerous times by public
Heitman Lake	Yes	Secondary	KIB	Noted by public
Middle Bay Beach Trails	Yes	Secondary	Leisnoi	Noted by public
Old Women's Mountain	Yes	Secondary	USCG	Noted by public
Barometer Mountain Trail	Yes	Secondary	USCG	Noted numerous times by public
Jack Lakes Trails	Yes	Secondary	KIB	Trailhead to be located at Birch Circle
Near island Trails	Yes	Secondary	City	New trailhead where trails cross Trident Way
Spruce Cape Trails	Yes	Secondary	NOK	Popular request for urban trailhead
Chiniak Loop Trail	Yes	Secondary	Leisnoi	Historical access to WWII bunkers and vistas
Saltery Cove Road	No	Secondary	Leisnoi	17b easement, large parking area currently. Kiosk and other formalizing improvements could be beneficial
Anton Larsen Pass	Yes	Secondary	Ouzinkie	Snowmachiners use these trails to head west and south from Anton Larsen Pass. Multiple requests for parking area to load equipment.
Pyramid Mountain	No	Secondary	USCG	Kiosk needed to relay information about winter and summer activities.
Lake Miam / Olds RiverTrail	Yes	Secondary	Leisnoi	17b easement. Parking suitable for loading equipment and trailhead kiosks needed
Three Pillar Point Trail	No	Secondary	Ouzinkie	17b easement. Kiosk would be beneficial.
American River/ Saltery Cove Trail	Yes	Secondary	Leisnoi	17b easement. Large vehicle & trailer improvements needed. Trailhead kiosk showing approved stream crossing and other ATV information would be beneficial.



### 6.4.3 Trail Maintenance

The successful design, construction, and management of natural soft-surface trails are critical to ensuring the facilities area year-round recreational amenity to both residents and visitors.

The following guidelines are not a “how-to” for maintaining trails, rather they offer a framework for management and decision-making to help maintain the trail system in and around Kodiak. For more detailed guidance on trail design to address maintenance issues, please see Appendix F – Trail Design Guidelines.

#### Maintenance Guidelines

A high level of trail maintenance is critical to the overall success and safety of the trail system. Maintenance includes such activities as surface repair, landscape maintenance, facility upkeep, sign replacement, fencing, mowing, snow removal, snow grooming, litter removal, painting, and pest/weed control. However, the benefits of a good maintenance program are not limited to the physical and biological features of the trails:

A high standard of maintenance will help advertise and promote trails as a regional and state recreational resource;

- The psychological effects of good maintenance can be an effective deterrent to vandalism, litter, and encroachments;
- Good maintenance is necessary to preserve positive public relations between adjacent land owners and government;
- Good maintenance can help make enforcement of regulations on the trails more efficient. Trail users, local organizations and service groups will take pride in “their” trail and will be more apt to assist in protection of the trail system.
- A proactive maintenance policy will help improve safety along the trails.

A successful maintenance program requires continuity and a high level of citizen involvement. Regular, routine maintenance on at least a year-round basis will not only improve trail safety, but will also prolong the life of the trails. Maintenance activities required for safe trail operations should always receive top priority.

#### Multi-Use Path Maintenance

##### Summer / Fall Maintenance

Cracks, ruts and water damage will have to be repaired periodically. In addition, vegetation control will be necessary on a regular basis.

Where drainage problems exist along the trails, ditches and drainage structures will need to be cleared of debris to prevent wash outs. Checks for erosion along the trails should be done immediately after any storm that brings flooding to the local area.

The trail surface should be kept free of debris, especially broken glass and other sharp objects, as well as stray branches. Trail surfaces should be monitored periodically to keep them clear of large debris.

#### Winter (Snow) Maintenance

Snow maintenance typically takes place after snowstorms and periodically between storms to condition the snow surface for a variety of winter activities. Snow clearing or grooming machine operators, who are most familiar with the segments in their care, should identify and report any additional maintenance needs while they are in the field.

The decision to clear, groom, or leave a paved multi-use path unmaintained should be the result of a public decision making process



Groomed trails for cross country skiers and snow machines

involving KIB officials, residents, and stakeholders. The decision will be based on the demand for different activities on each segment and the physical and budgetary constraints associated with winter pathway maintenance. Any changes to winter maintenance operations along trails should be made by early spring so that the appropriate changes can be made to maps and signage in time for the upcoming winter season. The following paragraphs describe the different levels of winter maintenance on multi-use pathways.

#### Snow Removal or Clearing

After snowfalls, urban pathways may be cleared of most of the snow, providing a path useable by foot traffic. Cleared pathways may also be used for winter bicycle use. Snow removal is best for path segments that provide connections to key pedestrian destinations.

#### Trail Grooming

Winter trail ‘grooming’ involves compacting the snow surface so that it can be more easily used for typical winter activities. Winter trail grooming typically varies based on the intended use of the trail. Winter trails intended for both motorized and non-motorized use generally have a wider groomed area and typically follow an existing roadway or occur over natural areas such as parks and golf courses. Non-motorized trails may also have a very wide groomed area if expected levels of use are high. Groomed winter trails can be used for a wide variety of winter recreation activities, including winter walking, snowshoeing, and dog-sledding and to connect facilities to winter vistas, snow play areas, and backcountry activities. Trails groomed specifically for cross-country skiing typically have two elements, a wide compacted surface with a corrugated surface typically six to twelve feet wide for ‘skate skiers’, and a narrow pressed set of tracks for ‘classic’ or ‘traditional’ cross-country skiing. Typically, grooming equipment is towed behind a wide variety of vehicles from snow mobiles to full sized tracked vehicles. Grooming frequency is determined by use and snowfall events. Grooming is typically carried out after at least four inches of new snowfall.

On Kodiak, the bulk of cross-country skiing activity is focused at the Buskin lake/Coast Guard Golf Course area. Winter stakeholders noted that the Coast Guard may be in possession of grooming equipment that has not been used in many years. The Borough should work with the Snow Bruins to ascertain the current disposition of this equipment and work with the Coast Guard to allow organized grooming efforts in the Buskin Lake/ USCG Golf Course area.



#### 6.4.4 Issues Related to Use of Off Road Vehicles (ORVs)

One of the issues identified earlier in the Trails Planning process, as well as in previous trails planning processes in the Borough has to do with conflicts between different user groups. Planning participants say that it is very important to resolve conflicts between users, particularly motorized users (e.g., ATVs, and motorcycles) and non-motorized users (e.g., hikers and cross-country skiers). The word “conflicts” is used here in a very broad sense. While few people reported actual physical conflicts between trail users, they noted that the use and enjoyment of different types of trail users can be conflicting. Non-motorized trail users seeking quiet, solitude or wildlife viewing experiences can have a difficult time meeting these goals in areas where motorized use is prevalent. Similarly, safety issues can arise when non-motorized and/or motorized users meet on narrow trails where visibility is limited. Borough residents have made progress in addressing these issues but more resolution is needed in order to ensure an inclusive, sustainable trails system which all users can enjoy.

A second issue associated with motorized trail users is the potential for environmental degradation. While most motorized trail users act in a responsible, thoughtful manner, it takes just a few users or overuse of a specific area to cause damage to the natural environment, particularly in stream corridors, wetlands or other wet areas, those where the topsoil is relatively thin and those where steep grades exacerbate the potential for erosion. This is particularly problematic in Kodiak where heavy rains and dynamic hydrological conditions make it difficult to maintain trails corridors in the same location over time. Kodiak trails users have noted that overuse or inappropriate use of trails has caused damage to natural resources and areas in a number of places in the Borough, including streams, wetlands, sloped areas and alpine meadows. Creation, improvement, proper use and management of trails is needed to reduce these impacts now and in the future.

A third issue for both motorized and non-motorized use has to do with access over or trespass on private land. Many trails located on public land in the Kodiak area can only be accessed via private property. In many cases a “17b easement” provides this access across private property within a defined corridor. As noted in Chapter 6, these easements are named after the section of the Federal Regulation, Alaska Native Claims Settlement Act (ANCSA) (PL 92-203 - 85 Stat. 688). This Federal Regulation allows for reserving easements on lands which were to be conveyed to Alaska Native

Village and Regional Corporations in order to allow public access to public land and water. The 17b easements are intended to provide access across private Native lands and along public waterways. They are intended to be used primarily for access as opposed to recreational purposes. Because many easements were never marked or surveyed, over time use has flowed outside of the original easement. For example, while travel may be permitted within a 25-foot corridor in a given location, people have ultimately used or impacted an area much larger than this (e.g., reportedly up to 250 feet wide in some cases in the Kodiak area). This has resulted in trespass and environmental degradation on privately owned land in a number of areas.

#### Current ORV Access Limitations and Regulations

Currently ORVs are allowed to use trails in a number of areas but restricted or prohibited from using or creating trails in other areas. Access policies include the following.

#### Native Owned Land

As noted previously, “17b easements” provide access across private property within defined corridors. ORVs are allowed to use these easements, which were created and are governed by the Alaska Native Claims Settlement Act (ANCSA) (PL 92-203 - 85 Stat. 688) and related federal regulations. The right to use the easement is usually limited to transportation purposes although some easements allow for loading, parking, short-term camping (no more than one day) or similar uses. Long-term camping is prohibited within easements.

Outside of the 17b easements, some Native Corporations in the Borough do not allow ATV use on their land.

- The Leisnoi Native Corporation, which is the largest Native landowner of lands adjacent to the road system, does not allow for motorized vehicle access (including ATVs) outside of 17b easements.
- The Natives of Kodiak, Afognak Native Corporation and Ouzinkie Native Corporation have created a consolidated permit system for access to their lands on Afognak Island, Kodiak Island, Raspberry Island, and Whale Island. Spruce Island is off-limits to all non-shareholder activities except visiting Monk’s Lagoon for religious purposes. Native shareholders may access these areas with a valid shareholder’s card. Non-shareholders are required to obtain a land use application to access land in these areas. ATV use is either prohibited in these areas (Afognak, Raspberry and Whale Islands) or allowed only for Native shareholders (Native owned areas on Kodiak

Island).

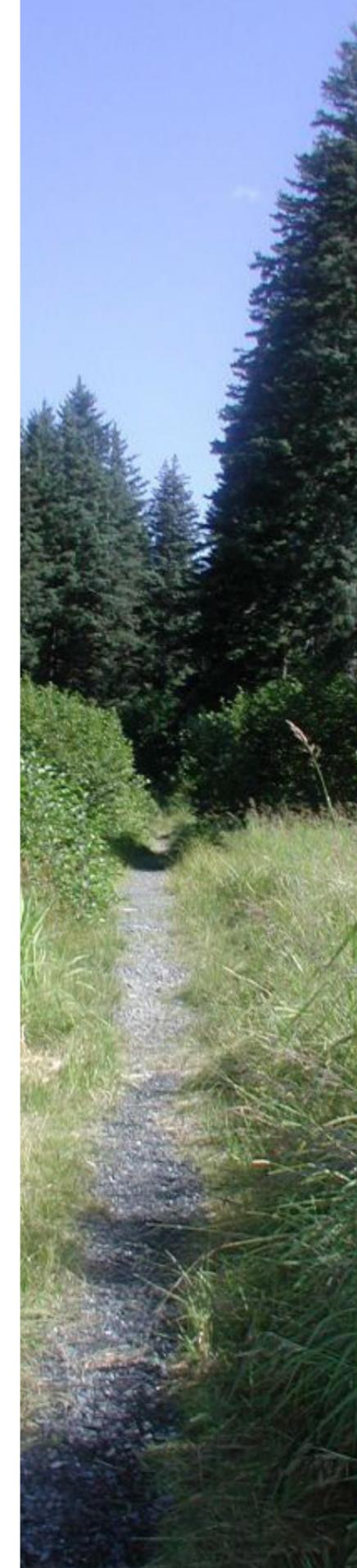
- Koniag, Inc., the regional Native Corporation in the Kodiak area, owns and manages surface land rights within the Borough primarily in the vicinity of Karluk and Larsen Bay and on the south side of Womens Bay. Koniag entered into a conservation easement with the State of Alaska and the US Fish and Wildlife Service in 2002 along the Karluk River. The conservation easement provides opportunities for both guided and unguided users to recreate on KWA lands. The easement does not identify restrictions on ATV use.

More detailed information about permit systems can be found in Chapter 7.

#### Federal and State Land

Access management regulations for ATVs include the following:

- 17b easements on Native-owned land. As noted above, these easements have been established by the Bureau of Land Management as part of the ANCSA process. They allow people to use the easements for travel or short-term camping (depending on the type of easement). No permit is required to use a 17b easement but there are restrictions on the use of such easements, depending on the type and width of the easement. ATVs are generally allowed to use these easements.
- Federal Land – Kodiak National Wildlife Refuge. Much of the land in Kodiak (1.9 million acres) is within the Kodiak National Wildlife Refuge, with access managed by the federal government and subject to federal rules and regulations. Permits are required for commercial operators to access land and trails within the Refuge, including commercial guiding and outfitting operators (hunting, fishing, wildlife watching, and river trips). A permit is not required for the general public to visit the wildlife refuge to engage in wildlife-dependent recreational activities such as wildlife watching, hunting, fishing, photography, environmental education, interpretation, hiking, and camping. Visitors must comply with all pertinent refuge regulations, State and Federal laws, and State hunting and fishing regulations. The refuge Web site indicates that motorized vehicle use is restricted in some areas, including some areas designated as wilderness. While the Kodiak National Wildlife Refuge is accessible by trails originating from the Kodiak road system, it is considered too remote to be considered as part of the planning area for this Road System Trails Master Plan.





- Federal Land – US Coast Guard. The US Coast Guard owns approximately 26,000 acres of land within the Borough, including land on the US Coast Guard base itself, as well as areas surrounding the Buskin Lake and along Anton Larson Bay Road. This land provides access to a number of popular trails and other areas used by hikers, cross-country skiers and four-wheelers, including Old Woman’s Mountain, Barometer Mountain and the area near the Coast Guard ski chalet, among others. The Coast Guard is currently establishing formal public access policies as there are many areas within base lands that have unique uses and may require differing access policies. In general, public ATV access is prohibited.
- State of Alaska. Most trails on state owned land in the Borough are found in state parks such as Fort Abercrombie State Park. These trails are open to the public with no formal permitting or access requirements. Trails in state parks are designated for non-motorized use only. Outside of state parks, the Alaska Department of Natural Resources generally allows the use of ATVs and the creation of trails for their use on other state land that is managed by the State Division of Mining, Land and Water. In order to reduce impacts on wildlife and fishery resources in some areas in Kodiak, including the Olds and American River drainages, the Alaska Department of Fish and Game has identified and established specific locations for crossing fish-bearing streams. These locations and associated restrictions have been established through a series of General Permits for vehicle stream crossings that pertain to vehicles weighing less than 10,000 pounds, including ATVs. Vehicles are required to use these stream crossing locations. Restrictions and maps of the vehicle crossing locations are specified in the General Permits. Beyond these specific requirements, ATVs cannot generally be prohibited on state land unless it is designated as a wilderness or other special use area through an action by the Alaska State Legislature.

**City of Kodiak**

The use of ATVs within the city limits of Kodiak is governed primarily by Title 10 – Vehicles and Traffic of Kodiak City Code (KCC). KCC 10.28.030 states that no person shall operate or ride upon an off-road vehicle within the city limits within a park or other city owned property or on private property without the express permission to do so by the owner or authorized occupant of the property.

KCC 10.28.040 states that ATVs may only be driven on a roadway, bike trail or highway shoulder if the ATV is crossing the highway or traversing a bridge or culvert on a highway (the ATV must drive at the extreme right-hand edge of the bridge or culvert and only when the traverse can be completed with safety and without interfering with other traffic on the highway). ATVs may also be operated if use of the highway by other motor vehicles is impossible because of snow or ice accumulation or other natural conditions, or when the highway is posted or otherwise designated as being open to travel by off-road vehicles. ATVs may be driven on the right-of-way of a highway which is not a controlled access highway outside of the roadway shoulder, and no closer than six feet from the nearest edge of the roadway. No snowmobile or other off-road vehicle may cross or travel on a sidewalk, a location intended for pedestrian or other non-motorized traffic, an alley or a vehicular way or area which is not open to snowmobile. Pillar Mountain Road is considered a road and ATVs may not be operated on it.

KCC 10.28.100 states that snowmobiles may only be operated in portions of US Survey 3945 lying northwesterly of Pillar Mountain Road and southwesterly of the upper reservoir.

Title 18 – Public Property also discusses access to public lands within the City of Kodiak. KCC 18.32.020 states that Pillar Creek, Monashka Creek, and city reservoir system including the drainage area, catchment area, or basin are all defined as watersheds by the City and KCC 18.32.105 states that no person in a watershed shall operate or have in their possession a vehicle (including snowmobiles and ATVs).

**Kodiak Island Borough Land**

Kodiak Island Borough code does not specifically address ATVs in its code. However some information is generally available in chapter 18.35 trespass. This section indicates that public lands within the Borough are open to the public unless posted as being closed. This policy does not distinguish between uses and applies to ATVs.

Table 15 summarizes information related to ATV access regulations and restrictions.

**Table 15: Summary of Access Requirements and Restrictions**

Land Owner	Level of Access Allowed	Comments
Leisnoi Native Corporation	R	ATVs are prohibited on Leisnoi land outside of 17b easements
Natives of Kodiak, Ouzinkie and Afognak Native Corps.	R/P	Prohibited on Spruce Afognak, Raspberry and Whale Islands Allowed for shareholders only on Native owned land on Kodiak Island
Other private lands	P	Varies by landowner
Kodiak National Wildlife Refuge	R/P	Prohibited in wilderness areas Allowed subject to permits and/or conditions in other areas
US Coast Guard	P	Policies related to access under development as of publication of this Plan. The Coast Guard does have an area of the base open to Public ATV use between Rezanof Drive and the Main Runway of the Kodiak Airport on the south side. The Burma Road Trail is also open to ATV use. No other portions of the base are open to ATV use.
State of Alaska, State Parks	R	Prohibited in State Parks
State of Alaska, other lands	A/P	Generally allowed but restricted to specific stream crossing locations in some areas
City of Kodiak	P	Prohibited on roads and highways (except to cross) or in city parkland
Kodiak Island Borough	A	Allowed unless area is specifically posted as being closed

A = Allowed; R = Restricted/prohibited; P = Partially restricted

### Future ATV Access Limitations and Restrictions

The previous section reviewed existing ATV access on a variety of private and public lands on Kodiak Island. One of the main sources of concern for ATV users throughout the trails planning process has been the prospect of new restrictions. Most concerns were focused on State land accessed by 17b easements and other trails. To restrict ATV access on state land the Alaska Department of Natural Resources would have to designate an area a ‘Special Use Area’, a process that would require legislative approval and would require an extensive public participation process. This process is not considered to be a likely outcome or recommendation of this trails planning process.

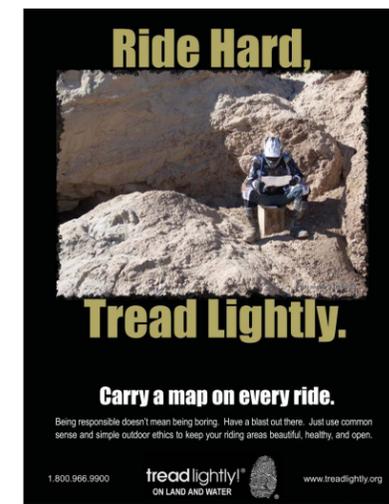
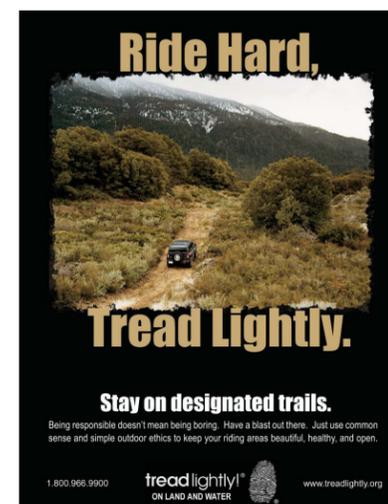
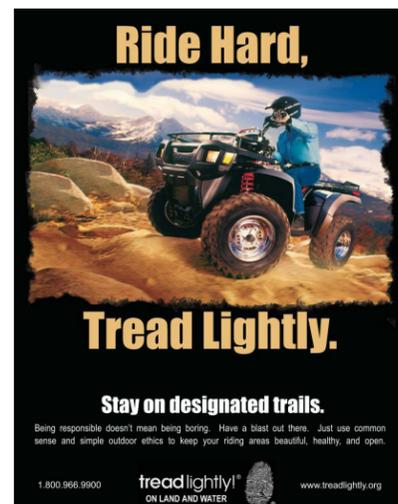
### Current and Future Trail Maintenance and Stewardship

ATV users note that they currently assist in maintaining and improving ATV trails, although the majority of these efforts appear to be conducted primarily by individuals. They also note that many ATV users use trails in a responsible and courteous manner, recognizing that the bad behavior of a smaller number of individuals can result in environmental damage and user conflicts. In coordination with Island Trails Network (ITN), the ATV Club and others, ATV users can participate in more organized trail maintenance and improvement efforts, particularly for those trails identified as highest priority for restoration or enhancement. ATV users also have expressed an interest in and will be encouraged to distribute information about proper stewardship of trails and surrounding areas. Such information could be distributed by ATV dealers, guides who use ATVs to access fishing and hunting areas and lodges, any organized ATV user groups and others.

### Strategies to Address ATV Use Issues

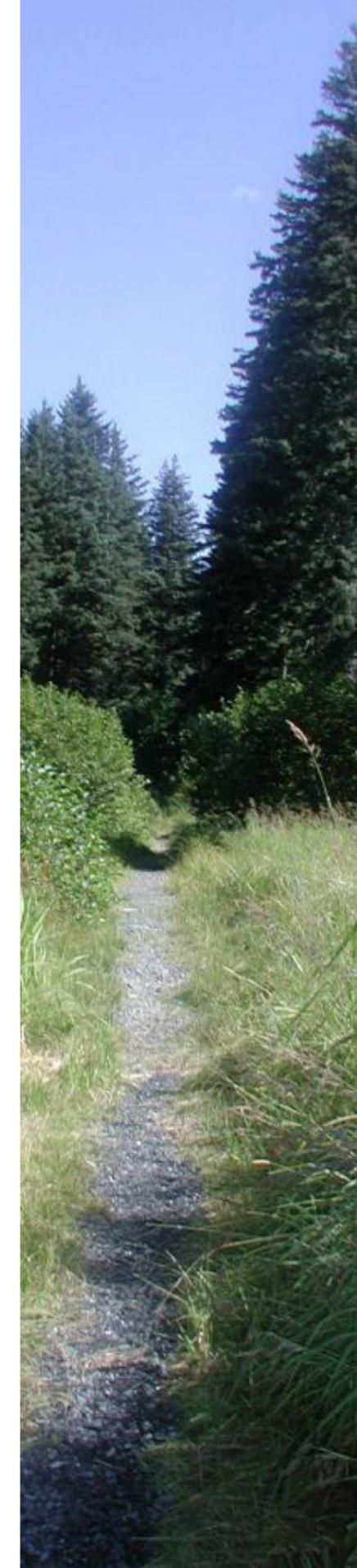
A variety of strategies related to trail access, management, use, improvement and education are included as a part of this plan. Many are relevant to ATV use and include:

- Support efforts by the Bureau of Land Management and Native organizations to mark, manage and enforce use of 17b easements.
- Continue to improve trail users’ awareness of requirements associated with 17b easements through coordinated distribution of information from BLM, the Borough, Native property owners, ATV user groups or clubs, the US Coast Guard and others.



Free downloadable posters ([www.treadlightly.org](http://www.treadlightly.org))

- Continue to support efforts to improve 17b easements through trail hardening or other projects in coordination with the Island Trail Network, Kodiak Soil and Water Conservation Service, NRCS, BLM and others.
- Coordinate with Native Groups in providing information about permitting or other systems for using trails on privately owned land. Such information could be included on the Borough’s Web site, in trail users handbook, disseminated to trail user groups and others.
- Continue to update trail maps as information about the location and condition of publicly accessible trails is provided, highlighting information about land ownership associated with trails and surrounding areas and any restrictions for specific types of trail users.
- Provide information about permitting processes and use restrictions by providing Web site links or contact information for Native Corporations, state and federal agencies and others.
- Continue to work with partnering agencies and groups to prepare and provide educational materials related to trail access, private property owner rights and responsible stewardship of trails and surrounding areas.
- Develop a set of procedures for managing or permitting trail access or use on any Borough-owned trails.
- Coordinate with the Alaska Department of Natural Resources and the Alaska Department of Fish and Game regarding appropriate measures associated with trail access and use on state lands, including trail routing, permitting, signage and design; document the results of these efforts; and communicate the results to trail users and other residents and visitors in Kodiak.
- Work closely with ATV users and user groups to encourage participation in recommended communication and stewardship programs identified in the KIB Trails Plan, including the following:
  - ◇ Community Trails Summits
  - ◇ Trail Issues Reporting
  - ◇ Trail User Etiquette Guidelines
  - ◇ Share the Trail PSAs
  - ◇ Youth Mentoring Programs
  - ◇ Snowmachine/ATV Safety Class
  - ◇ Tread Trainers Program
  - ◇ Trail Work Days
- Work with the US Coast Guard to implement strategies designed to improve Coast Guard personnel understanding of trail impacts, regulations and strategies and to reduce their impact on trails and surrounding areas. This will require ongoing, annual efforts to inform and educate new Coast Guard members as they arrive in Kodiak.



### Conflict Management Strategies/Programs

This section contains program recommendations to support the Kodiak Island Borough Road System Trails Master Plan (Plan). These recommendations have been designed to support the following Plan objectives found on pages 14-16:

- 1D: Form Public/Private Partnerships with local organizations and non-profits to perform trail maintenance and seek grant funding opportunities.
- 2E: Minimize negative impacts on surrounding private property owners by attempting to modify trail user behavior through education and other programs outlined in this plan.
- 2I: Increase public knowledge of legal public trails on Kodiak Island.
- 3E: Promote trail recreational opportunities to residents and visitors.
- 3H: Encourage volunteer efforts for trail development and maintenance.
- 3K: Support and promote a Safe Routes to School Program.
- 4B: Encourage the formation and continued growth of trail user groups such as the Snow Bruins, Emerald Isle Off Road Club, ATV Club, Audubon Society, and Island Trails Network.
- 4C: Develop and distribute a 'Trail User Guide' to promote maximum public knowledge of the trail system and reduce user conflicts.
- 6B: Promote peer enforcement through existing and future trail user groups to 'self-enforce' improper trail behavior that could lead to trail damage or conflicts with other users.

Programs were chosen based on input from the community through the first public meeting, project stakeholder interviews, and numerous KIB Parks & Recreation Committee Meetings.

### 6.4.5 Program Recommendations

#### Community Trails Summits

The Borough Parks and Recreation Committee should organize semi-annual Community Trails Summits to allow all trail users to share ideas, coordinate activities, identify issues, and brainstorm solutions. The Community Trails Summits will take advantage of the

relationships formed during the writing of this Plan, and will be an important tool for continued progress on implementing this Plan. All Kodiak residents should be invited to attend, and trail user groups (the Snow Bruins, Emerald Isle Off Road Club, ATV Club, Audubon Society, Island Trails Network and representatives of the Native Corporations) should attend to promote their group and to develop work plans and identify grant opportunities. It is envisioned that the summits would focus on summer and winter trail related activities and issues in April and October respectively. Summits should be designed and organized to make progress in addressing and implementing specific plan recommendations (as opposed to more general discussion of issues that have already been resolved through this planning process). Small group work sessions are recommended to meet this objective.

#### User Groups Targeted:

- All trail users

#### Trail Issues/Conflicts Reporting

Allowing trail users to report problems will help to identify issues that need further work and resolution. The Kodiak Island Borough should provide a phone hotline supported by an answering machine and a web form that is publicized on trailhead signs, in the Trail User Guide, and through the KIB website. Reported issues should be reviewed monthly by the Borough Parks & Recreation Committee and if necessary be shared with appropriate user groups for immediate action (e.g. reports of an abandoned vehicle could be forwarded to the Emerald Isle Off Road Club with support from the Borough, locations of trail damage could alert Island Trails Network or other group to focus the efforts of trail crews and work days). Records of user conflicts should be tracked anonymously and shared with local user groups. Responsible use of lands (private and public) may guarantee continued and expanded use, while irresponsible actions could lead to trail closures by public agency land managers and private landowners. A summary of issues and conflicts should be reviewed during the Community Trails Summits to identify trends and develop preferred solutions and partnerships. Large numbers of similar complaints should be discussed by the Parks & Recreation committee and a strategy developed for resolution.

#### User Groups Targeted:

- All trail users

### Growing Snowmachine and ATV clubs

Snowmachine/ATV clubs are an important voice for motorized trail users. In Kodiak, the Snow Bruins, the Kodiak ATV club, and the Emerald Isle Off-road Club would benefit from more members and volunteers. Clubs have the opportunity to promote responsible trail use, self-police undesirable trail etiquette, help members understand and minimize negative environmental outcomes, marshal members to volunteer at work days, and to reach out to new and potential members. Common club activities include trail building, grooming & maintenance; peer outreach and education; youth mentoring programs; and teaching snowmachine/ATV safety. Club representatives should be invited to become Tread Trainer certified trainers.

#### User Groups Targeted:

- Winter: Snowmachines
- Summer: ATVs, off-road vehicle enthusiasts

#### Sample Programs:

- Anchorage Snowmobile Club
- Curry Ridge Riders (South Denali)
- Alaska ATV club



Anchorage Snow Machine Club meeting



### Trail User Etiquette Guidelines

Develop trail user etiquette guidelines (including skiers, snowmachine users, ATV riders, mountain bikes, dog walkers, hikers, etc.) and post on visible trail locations such as trailheads as well as in the Trail User Guide. Clubs should be encouraged to share the guidelines with their members, such as by posting them on their websites. See Appendix H for sample Trail User Etiquette Guidelines that can be modified for Kodiak. These etiquette guidelines could be framed to build on the 'Lester Lightfoot' materials already in existence.

#### User Groups Targeted:

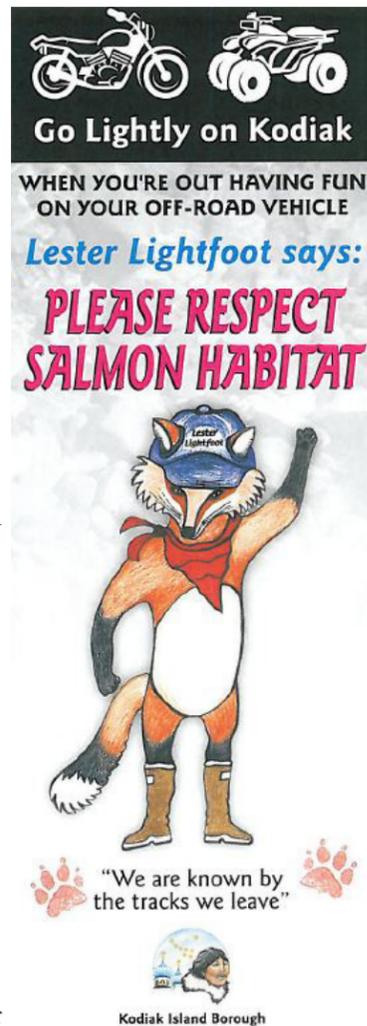
- Winter: Skiers, snowshoers, snowmachine users
- Summer: ATVs, hikers, bicyclists, equestrians, dog walkers

#### Sample Programs:

- US Forest Service, Central Oregon

### Kodiak Trail User Guide

A Kodiak Trail User Guide will be developed containing maps, trail user etiquette guidelines, safety tips, and a list of resources (such as information about the Borough Parks and Recreation Committee and the trail issues reporting hotline). The Trail User Guide should be considered a living document and should live on the Borough web site. An abbreviated version of the Trail User Guide should be printed and distributed through snowmachine and hiking clubs, the Coast Guard, schools, at the Community Trails summit, at snowmachine/ATV safety classes, through city programs (e.g. at library & city hall), and at retailers that sell outdoor equipment.



Lester Lightfoot brochure in Kodiak

#### User Groups Targeted:

- Winter: Skiers, snowshoers, snowmachines
- Summer: ATVs, hikers, bicyclists, equestrians, dog walkers

#### Share the Trail PSAs

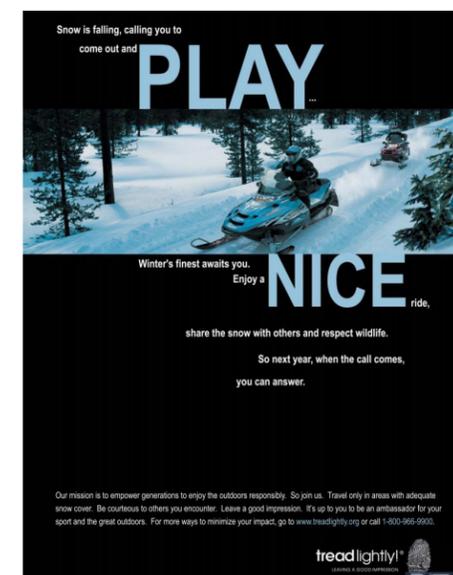
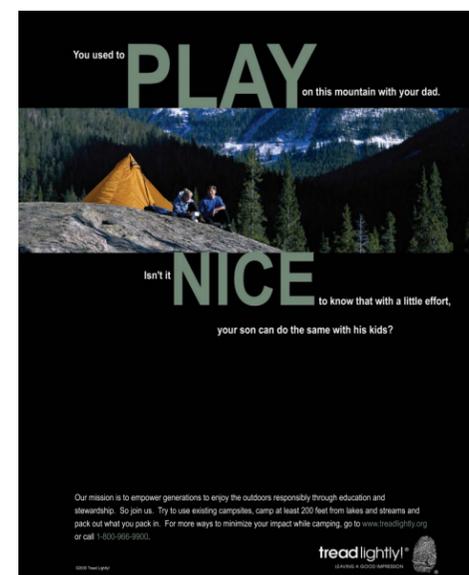
Multiple organizations have created Public Service Announcements (PSAs) for TV, radio & print that are free and ready for distribution. Alaska Trails, Tread Lightly, and the International Snowmobile Manufacturers Association all have many resources that could benefit Kodiak trail users. Kodiak Borough Parks and Recreation should consider airing radio PSAs on KMXT, KRXX, and KVOK, TV PSAs on and KMXT-LP, and print ads in the Kodiak Daily Mirror. Print-ready posters are also available and should be distributed at city buildings, at local outdoor recreation shops, and to local clubs.

#### User Groups Targeted:

- Winter: Skiers, snowshoers, snowmachines
- Summer: ATVs, hikers, bicyclists

#### Sample Programs:

- Alaska Trails PSAs
- Tread Lightly PSAs
- Snowmobile.org PSAs



"Play Nice" PSA Posters downloadable at [www.treadlightly.org](http://www.treadlightly.org)

### Youth Mentoring Programs

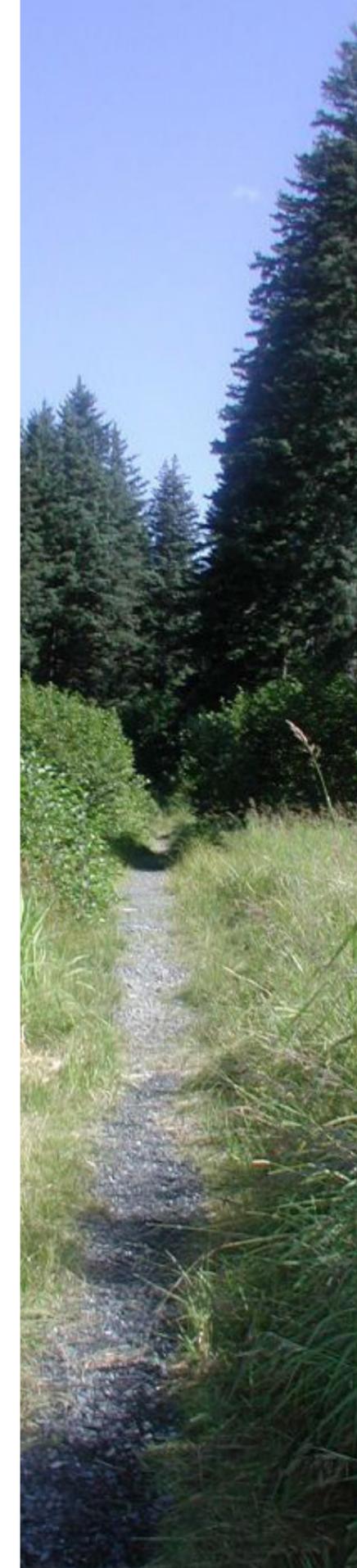
Mentoring programs are an excellent way to model responsible snowmachine and ATV use through teaching kids. The most likely groups to implement this will be the Snow Bruins, the Emerald Isle Off Road Club, and the ATV Club. Clubs should work through youth clubs and afterschool activities, and should teach children about trail user codes of conduct, snowmachine/ATV rules and responsibilities, and safe handling skills, followed by group excursions to practice skills. Similar mentoring programs can be developed for mountain biking or skiing if local volunteers are available. Tread Lightly! has existing youth outreach materials and videos that can be used for many different activity types. See also Snowmachine/ATV Safety Class, below.

#### User Groups Targeted:

- Winter: Snowmachines
- Summer: ATVs

### Snowmachine/ATV Safety Class

Because snowmachines and ATVs are powerful vehicles, it is important to teach potential users about how to handle these machines safely. Snowmachine/ATV safety classes teach participants about vehicle parts, maintenance and operations; riding skills and risk avoidance; dealing with emergencies; rules, regulations, trail user



codes of conduct; and safe interactions with other trail users. The International Snowmobile Manufacturers Association also has created a Safe Riders! campaign that includes a 22-minute safety training video. Campaign materials can be ordered from the Snowmobile.org web page. Classes are usually aimed at adults, but youth classes can be taught as well. The class also should be offered to Coast Guard personnel.

**User Groups Targeted:**

- Winter: Snowmachines
- Summer: ATVs

**Sample Programs:**

- Minnesota State safety class
- Wisconsin Snowmobile Safety certification
- Snowmobile.org operator education



*Patch to signify training in Minnesota*

**Coast Guard program**

Trail recreation is a popular recreation activity for Coast Guard personnel stationed in Kodiak. Because the base population changes over regularly, it is important to ensure that they receive proper information and training about winter and summer trails recreation. Kodiak Borough Parks and Recreation should work with the Coast Guard Morale, Welfare & Recreation (MWR) program to distribute the Trail User Guide, to publicize Snowmachine/ATV safety classes, and to share information about existing trail user clubs. This could be done as part of the welcome packet provided to all new Coast Guard personnel, as well as at other regular intervals. The Trail User Etiquette Guidelines should be shared with partners on base, and the Coast Guard should be invited to develop similar trail user guidelines (see Northern Lights Snowmobile Club for an example of Base Snowmachine Regulations). MWR staff should be invited to participate in the Tread Trainers program, and to attend the Community Trails Summits.

**User Groups Targeted:**

- All user groups

**Sample Programs:**

- Northern Lights Snowmobile Club (Eielson AFB)

**Tread Trainers Program**

Tread Lightly! offers a highly-regarded 8-hour Tread Trainer course designed to provide a crash course on outdoor ethics focusing on motorized recreation. Participation in the course qualifies individuals to present the Tread Lightly! message to others in their state or region. Participants will work with Master Trainers or Tread Lightly! staff on understanding the role outdoor ethics plays in the recreation community, learn the Tread Lightly! principles of responsible recreation, and be provided with the tools to conduct workshops and coordinate community outreach. The Tread Trainer course is designed to help volunteers promote the message of responsible recreation where lands are protected, safety is a top priority, and everyone enjoys the experience of being outdoors. Courses discuss different communication strategies to spread the message in situations from one-on-one trail meetings to presentations and promotions at events. There are seven current Tread Trainers in Alaska. Members of trail user clubs and Coast Guard MWR representatives should be invited to participate in the Tread Trainers program.

**User Groups Targeted:**

- All user groups

**Sample Programs:**

- Tread Lightly!



*Tread Trainer program materials available at [www.treadlightly.org](http://www.treadlightly.org)*

**Trail Work Days**

Volunteer groups (such as the Snow Bruins, Emerald Isle Off Road Club, ATV Club, Audubon Society, and Island Trails Network) often organize trail work days to build and maintain trails, pick up litter, and check for environmental damage. It may be beneficial to schedule

regular volunteer work days where the whole community is invited to participate in improving the trails network. These work days would provide a good opportunity for trail users to get to know each other, for clubs to publicize their mission and reach potential members, and for Borough Parks and Recreation to publicize programs and resources (such as the Trail User Guide or upcoming safety classes). Partnerships may also be formed with Native Corporations where trail users could work on trails on privately owned land. Such event could showcase trails on native lands, and potentially generate permit sales and more responsible use.

**User Groups Targeted:**

- All user groups



*Island Trails Network installs geoblock*

**Safe Routes to School**

Safe Routes to School is a national movement that helps children walk and bicycle to school to improve their health. Kodiak area trails offer an opportunity for more children to be active through education and encouragement activities. Statewide funding is available for local Safe Routes to School efforts.

The Kodiak Borough Parks and Recreation should initiate a project with the Kodiak Island Borough School District to begin a Safe Routes to School effort. Suggested next steps include:



- The Borough should host a Safe Routes to School training and invite school administrators, staff and teachers; parents and neighbors; transportation engineers and planners; community health professionals; and community and nonprofit groups who may be interested. The goal of the training should be to give participants the knowledge they need to identify school champions and form school teams who can take the lead on Safe Routes to Schools planning and implementation at each school.
- As school teams mature, the Borough should serve as a resource to help identify appropriate funding sources and assist in seeking funding.



Safe Routes to School program participants

- The Borough should consider hosting a regular coordination meeting and/or a steering committee for all parties in the region who are working on Safe Routes issues. The Borough could work with the KIB School District to track efforts and participant contact information and maintain an e-mail list for dissemination of meeting notices and reports, funding opportunities, event coordination, etc.
- Eventually, the Borough should create or assist with the development of a School Transportation Plan for each school.

A walkabout (also known as a bicycle and pedestrian audit) should be used to assess walking and biking conditions of streets adjacent to elementary schools. Parents, students, neighbors, and city planners and/or traffic engineers should be invited to join in the walkabout. Safety concerns, issues, and ideas should be recorded.

- After each bicycle and pedestrian audit is conducted, maps for each elementary school showing recommended routes to reach school, along with high-traffic intersections and routes to avoid, should be produced and distributed to students and parents.
- As a final step, an initial infrastructure improvement plan should be produced for each elementary school, including cost estimates and a prioritized project list. This infrastructure improvement plan will serve as a blueprint for future investments, and can be used to apply for further grant funding.

**User Groups Targeted:**

- Schoolchildren and their parents

**Sample Programs:**

- Alaska Safe Routes to School Program

**6.4.6 Private Property Issues and Acquisition Opportunities**

One of the most important issues to be addressed in implementing the Trails Master Plan will be how to address issues related to access via and impacts on private property adjacent to trails. This encompasses a number of specific issues, including:

- Access via 17b easements that cross private land
- Access across private land where no 17b or other easement exists

Many trails located on public land in the Kodiak area can only be accessed via private property. In many cases a “17b easement” provides this access across private property within a defined corridor. Federal regulations (43 CFR 2650.4-7) describe the guidelines used to establish the easements which are maintained by the federal government (Bureau of Land Management).

17b easements are intended to provide access across private Native lands and along public waterways. New 17b easements can be created according to ANILCA SEC 903 (b) ACQUISITION OF FUTURE

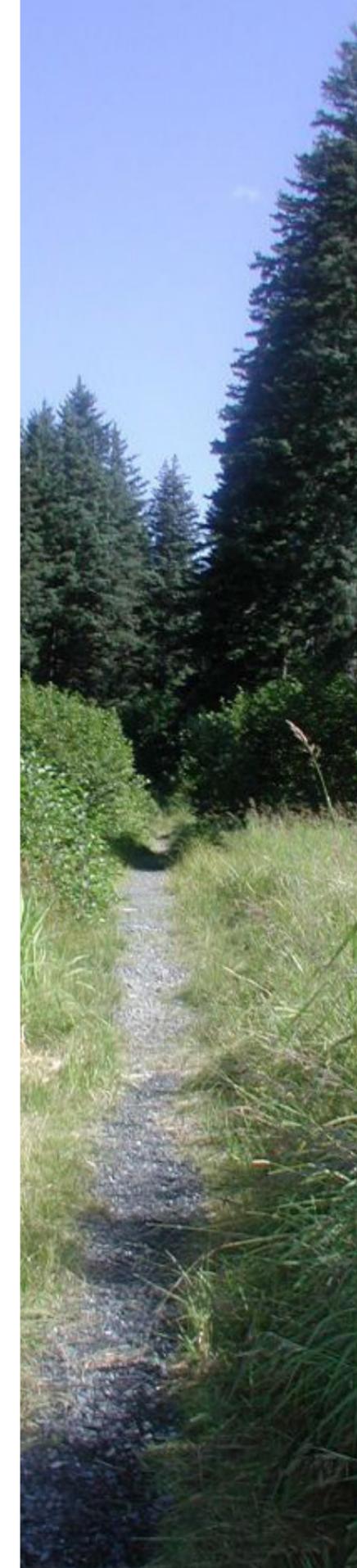
EASEMENTS. 17b easement categories include:

- 25-foot Trail: Uses allowed on a 25-foot wide trail easement are travel by foot, dogsled, animals, snowmobiles, two and three-wheel vehicles, and small all-terrain vehicles (under 3,000 lbs. gross vehicle weight).
- 50-foot Trail: Uses allowed on a 50 foot wide trail easement are travel by foot, dogsled, animals, snowmobiles, two and three-wheel vehicles, small and large all-terrain vehicles, track vehicles and four-wheel drive vehicles.
- 60-foot Road: Uses allowed on a 60 foot wide trail easement are travel by foot, dogsled, animals, snowmobiles, two and three-wheel vehicles, small and large all-terrain vehicles, track vehicles, four-wheel drive vehicles, automobiles, and trucks.
- 1-Acre Site: The uses allowed on a site easement are: vehicle parking (such as aircraft, boats, all-terrain vehicles, snowmobiles, cars, and trucks), temporary camping, and loading or unloading. Temporary camping and loading or unloading is limited to 24 hours.

Because many easements were never marked or surveyed, over time use has flowed outside of the original easement. For example, while travel may be permitted within a 25-foot corridor in a given location, people have ultimately used or impacted an area much larger than this (e.g., reportedly up to 250 feet wide in some cases in the Kodiak area). Because many easements are located in stream corridors or other wet areas, this has caused environmental degradation and other adverse impacts on private land adjacent to the easements (littering, damage, etc.). Areas with state grazing leases such as Narrow Cape, Pasagshak, and Saltery Cove also experience erosion from livestock such as cattle, bison, and horses.

Several strategies are recommended to address the issues associated with 17b easements described above:

- Support efforts by the Bureau of Land Management and Native organizations to mark, manage and enforce use of 17b easements.
- Continue to improve trail users’ awareness of requirements associated with 17b easements through coordinated distribution of information from BLM, the Borough, Native property owners, ATV user groups or clubs, the US Coast Guard and others.





- Continue to support efforts to improve 17b easements through trail hardening or other projects in coordination with the Island Trail Network, Soil and Water Conservation Service, BLM and others.

As noted previously, 17b easements were created through the Alaska Native Claims Settlement Act (ANCSA). In addition to trails associated with 17b easements, there are many other trails within the Borough located on privately owned land (primarily Native owned land) that people have historically used for recreational purposes but which have no public easement. A number of these trails are located on land owned by the Leisnoi Corporation which has begun to enforce use of its lands through a permitting, monitoring and enforcement program, following a recent legal decision that confirmed Leisnoi's status as a Native Corporation.

From the public's perspective, these have become commonly used trails which many people would like to continue to use. From the landowner's perspective, use of these trails represents trespassing on private property. Some have compared it to walking or driving through someone's front yard. While the Borough does not have any direct authority or jurisdiction of use of trails on private property, it can help work with landowners, trail users and others to try to resolve these issues in a way that strengthens opportunities for trail use and creation of a trail system in the Borough. These strategies may include:

- Coordinate with Native groups in providing information about permitting or other systems for using trails on privately owned land. Such information could be included on the Borough's Web site, in the trail users handbook, disseminated to trail user groups and others.
- Pursue Borough acquisition of land or public easements for high priority trails. During the Trails Master Planning process, Native groups have expressed a willingness to discuss potential land sales, easements or land exchanges for trails. For example, the Borough currently owns land near Chiniak within Leisnoi land that could be potentially swapped for Leisnoi sites that have more pressure for public access such as Termination Point. Decisions about such issues would typically made by the Native Corporation Board based on a proposal by the Borough. In general, the decision-making process would entail:
  - ◇ Borough submittal of a proposal for acquisition of land or an easement over Native-owned land.

- ◇ Review and discussion by the Native Corporation Board at its next available meeting (Boards typically meet monthly or quarterly).
- ◇ Request for more information about the proposal and possibly a presentation by or further negotiation with Borough staff.
- ◇ Additional discussion and a recommendation by the Native Corporation Board.
- ◇ Process to formalize and adopt any resulting agreement by both the Native Corporation Board and the Borough, possibly through an action by the Borough Assembly.

To the extent the Borough identifies high priority trails or trail connection where acquisition of land or a public easement is recommended, the Borough should initiate this process with the relevant Native Corporation. A similar process could be undertaken with other non-Native landowners.



Termination Point was listed as a priority for many at the public workshops

Thirteen preliminary private property acquisition sites were identified by the KIB PRC. Of the 13 sites, only Termination Point (Leisnoi) was rated a top priority. The remainder should be pursued as interest and resources allow. The full list includes the following (not currently

listed in order of priority with the exception of Termination Point):

1. Termination Point (Leisnoi)
2. Boy Scout Lake (half way between the City of Kodiak and the USCG base – Natives of Kodiak)
3. Broad Point (the point of land between Middle Bay and Kalsin Bay- Leisnoi)
4. Cascade Lake (Anton Larson – Ouzinkie Native Corp)
5. Chiniak Lake (at the eastern tip of Chiniak - Leisnoi)
6. Cliff Point (just past Womens Bay - Leisnoi)
7. Long Island (off-shore City of Kodiak – Leisnoi)
8. Mayflower Beach (in Kalsin Bay – Leisnoi)
9. Middle Bay Flats (head of Middle Bay – Leisnoi)
10. Penenga Bay – (just north of Termination Point - Leisnoi)
11. Salonie Creek (a thin sliver of land just beyond Borough owned land T29S, R21 W- Leisnoi)
12. Sequel Point (more land around this 17b site easement- Leisnoi)
13. Swampy Acres (between town and Coast Guard Base – Natives of Kodiak)



Working with landowners can help trails continue past land boundaries



### 6.4.7 Recommended Kodiak Island Borough Code Changes

The Borough's Zoning and Subdivision ordinances regulate the use and division of land within the Borough, including on privately owned land (including Native Corporation lands), as well as land owned cities and the Borough. The Borough's ordinances can support implementation of the KIB Trails Plan in the following ways:

- Recognize the KIB Trails Plan as the operative policy document associated with construction, improvement and maintenance of trails in the Borough
- Make sure trails are listed as a permitted (or at a minimum conditional) uses along with parks and open space in all zones
- Require proposed trail locations or easements to be shown on land division plats as part of the subdivision and platting processes
- Refer to the KIB trails plan (or other relevant document) for design standards and guidelines associated with trail construction and improvements
- Consider requiring trails to be constructed or easements to be granted as part of the development process, consistent with proposed trail improvements identified in the Trails Plan

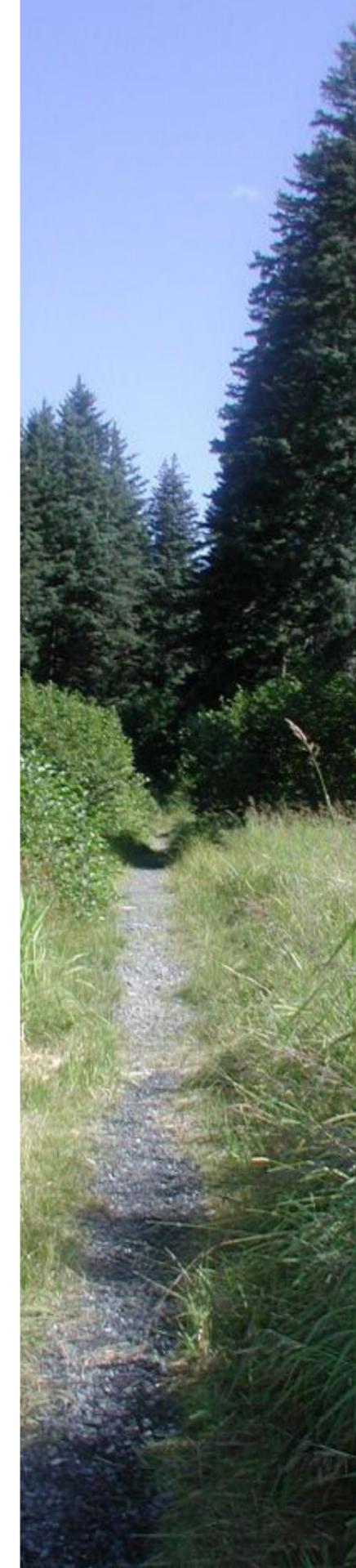
A number of potential revisions to the ordinances will be needed to address these objectives, given the degree to which the existing code language does (or doesn't) already meet them.

- Update informational requirements in sections 16.40 and 16.50 to require inclusion of information about the location of proposed trails and/or easements. These sections currently require that a variety of types of information be included on preliminary and final plats. While requirements include information about roads, other rights-of-way and easements generally, they do not make any mention of trails or easements for trails. It is recommended that specific references to trails or easements for trails be included in these sections (e.g., sections 16.40.040.F, 16.40.040.G, 16.50.020.D). It is also recommended that trails be included in language related to dedications in section 16.50.050.

- Add trails to the list of potential dedication requirements in Section 16.40.070. Currently, this section states that the Borough may require dedication of easements for "rights-of-way and sewer, water, utility and access easements within the subdivision as a condition of approval." While rights-of-way would be expected to include roads and trails, we recommend this section be updated to specifically list roads, trails and other public rights-of-way.
- Update Section 16.70 to add trails to the list of potential improvements required. Trails should be added to the list of potential improvements in 16.70.010. Specific language regarding when trails would be required and the extent to which applicants would be responsible for constructing or paying for trails also should be addressed in this section. This language should reference the KIB Trails Plan and address issues related to the nexus between requirements for trails and benefits to residents of new subdivisions to ensure that the Borough addresses potential takings issues.
- Update section 16.80 or add a new section to reference or include design standards for trails. This section currently includes standards for road improvements. It could be updated to include standards for construction of new trails or improvements to trails or could simply reference standards in the KIB Trails Plan. Typically, we would recommend the latter approach. That way the code will not need to be updated if the Borough decides to make changes to trail design or construction standards.
- Update lists of permitted and conditional uses within section 17.10 to include trails as permitted uses. Currently many of these sections list parks and playgrounds as permitted or conditional uses (e.g., section 17.100.020). These provisions should be updated to identify "parks, trails and playgrounds" as permitted or conditional uses. Generally, it is recommended that trails be outright permitted uses in all zones (even if parks and playgrounds are conditional uses in those zones) unless trails would be considered an incompatible use in any of those areas.

- Update section 17.155 (Additional Setback Requirements) as needed to identify setbacks for trails. This section of the code currently applies only to property adjoining Mill Bay Road between Center Avenue and Rezanof Drive East or Mission Road between Center Avenue and Benny Benson Drive. If needed, a new subsection could be added to address any needed setbacks from trails or trail corridors.

Update Definitions sections (sections 16.20 and 17.25) to include definitions for trails and any related terms included as part of the code amendments identified above. Any new terms not already defined in these sections should be added.





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# 7. Implementation Plan

## 7.1 Roles and Responsibilities

While this Kodiak Road System Trails Master Plan has been prepared with KIB guidance and resources, it cannot be implemented without the actions of a variety of community partners. The Borough has limited jurisdiction over the majority of trails used by Borough residents and visitors and does not have the resources to implement all of the recommendations in this Plan. The KIB can act in large part as a coordinator or convener of other trail planning, improvement and maintenance efforts, but ultimately others in the community will need to commit to sharing in the implementation of the Plan. Following is a summary of actions proposed for other agencies and community groups. Inclusion of these efforts in this plan does not obligate other entities to complete these actions but serves as a framework and starting point for further discussion between the Borough and others about how best to implement this Plan.

### 7.1.1 Trail Planning and Mapping

Having taken the lead in preparing this Plan, the Borough is a logical choice for coordinating future trail planning and mapping efforts. While the KIB may be responsible for constructing or maintaining a fairly limited number of trails (those directly under its jurisdiction), the Borough should continue to play in a role in coordinating future trail planning and mapping efforts based on the guidance provided in this plan. Proposed Borough responsibilities towards this end include:

- Serve as a clearinghouse for information about proposed trail planning or improvement plans being undertaken by other entities, including the Island Trails Network, US Coast Guard, Alaska Department of Natural Resources and Native groups. The Borough should regularly communicate with these groups, solicit information about their activities and compile and communicate them to trail users and partnering groups
- Continue to update trail maps as information about the location and condition of publicly accessible trails is provided. This could be done in a variety of ways

- ◊ Creation and publication of maps by the KIB GIS department
- ◊ Creation of a Trail Map and Conditions Web site that incorporates mapping data, as well as photos or other information uploaded by trail users
- ◊ Publication of a regular trails planning newsletter (e.g., quarterly or semi-annually) that summarizes recent or proposed upcoming trail planning or improvement activities
- Continue to update the KIB Trails Plan as needed to address changing conditions, policy refinements, new trail standards, development of new trail or user conflict management strategies or other development; the Borough should establish a timeline for minor and major Plan updates.

Other groups in the Borough can support the KIB in these efforts. Examples include:

- The Island Trails Network (ITN) may continue to support the Borough in trail mapping efforts. Its members also can provide invaluable help in documenting and describing trail conditions and the need for future trail improvements. As the ITN completes trail improvement efforts, it can provide relevant information to the Borough to help improve mapping and descriptive data about those trails.
- The Audubon Society currently publishes one of the most comprehensive Trails Maps available to Borough residents and visitors. This map helps inform people about the location of trails in Kodiak and is an important source of revenue for Audubon. Borough trail mapping efforts are not meant to supplant or replace the Audubon Society's map; however, the trail location data collected through this Plan is more accurate and may help map users locate trails more efficiently. The Borough and Audubon Society should work together to enhance the Audubon Society's map where possible (e.g., improving descriptive information about how to access specific trailheads, something that would be particularly useful for visitors to Kodiak). The Borough can continue to support distribution of the Audubon Society's map. As with ITN, Audubon Society members can provide invaluable help in documenting trail conditions and issues.

### 7.1.2 Trail Maintenance and Stewardship

While the Borough can help promote and coordinate some maintenance and stewardship efforts, it does not have the resources or the jurisdiction to take the lead in maintaining trails within the Borough in the absence of a new, dedicated, stable and ongoing source of funding. As a result, it will have to rely on a variety of trail user groups and land owners or other public agencies to lead these efforts. Stewardship and maintenance by these groups will help foster a sense of ownership and pride in trails in Kodiak, creating an added incentive for them to continue these efforts.

A number of groups already take an active role in such efforts, regularly organizing members and volunteers to participate in maintenance and improvement projects. These include the Audubon Society, ATV Club, Island Trails Network, US Coast Guard, Snow Bruins and the Emerald Isle Off-Road Club. Native groups also are actively engaged in promoting good stewardship of the 17b easements that traverse their property and in maintaining or improving these trails. The US Coast Guard and Alaska DNR and ADF&G should also play a role in these efforts.

Specific actions and responsibilities could include:

- The ITN should continue to work with other community partners to plan for and implement trail improvement projects, consistent with its Strategic Plan, previous and ongoing efforts. Recent projects have included creation and improvement of trails on Near Island and trail hardening on the Lake Miam trail.
- The Audubon Society currently organizes regular hikes, primarily during the summer months during which members engage in trail maintenance activities. Audubon could continue to conduct these activities and possibly expand them to organize some dedicated trail maintenance work parties during the summer. Audubon also prepares and distributes pamphlets on stream and wetland impacts from trail use. This is an important element of trail stewardship efforts.
- ATV users note that they currently assist in maintaining and improving ATV trails although the majority of these efforts appear to be conducted primarily by individuals or small groups. In coordination with ITN and others, ATV users should participate in more organized trail maintenance and improvement efforts, particularly for those trails identified as highest



priority for restoration or enhancement. ATV users are also encouraged to distribute information about proper stewardship of trails and surrounding areas. Such information could be distributed by ATV dealers, guides who use ATVs to access fishing and hunting areas and lodges, any organized ATV user groups and others. This topic is also addressed in the Communication section.

- The US Coast Guard should be a key player in promoting good stewardship of trails on the Island. The Coast Guard has a constantly changing population which accesses trails to destinations all over the island, including from Coast Guard-owned property near the Coast Guard base. A variety of stakeholders commented that improving understanding and stewardship among members of the Coast Guard is one of the most important strategies for managing trail use in the Borough. Specific opportunities include:
  - ◇ Continue to actively participate on the KIB Park and Recreation Committee.
  - ◇ Provide information about trail use and management in Coast Guard welcome packets.
  - ◇ Provide additional information about trail use and stewardship during Coast Guard orientation activities.
  - ◇ Provide trail use information as part of the Coast Guard's health and wellness program activities.
  - ◇ Create opportunities for Coast Guard members to participate in trail maintenance or improvement opportunities as part of any community service requirements or optional activities.
  - ◇ Establish a Coast Guard trails advisory committee that could provide feedback to the Coast Guard's PRC representative regarding other opportunities for the Coast Guard to participate in trail stewardship, maintenance and educational activities.
  - ◇ Specific requests can be made directly (in writing) to the Base Commander by the Borough or other organizations to hold events, perform trail maintenance, or other activities.
- Native groups have a vested interest in maintaining trails and surrounding lands. They can be expected to continue to monitor trail use on and near their lands, particularly in

conjunction with existing 17b easements. They can assist in stewardship through management and enforcement of trail use and access requirements, distribution of information about the importance of trail stewardship and minimizing impacts to natural resources and private property, and partnering with the Borough and others to help coordinate trail maintenance activities as needed.

- Kodiak College and Kodiak Island Borough School District. One of the keys to improving future use and stewardship of trails is to instill these values in young people. Educational programs can have a significant impact in promoting and modeling good behavior among young people and their parents and creating habits and ideals that last into adulthood. Towards this end, the Borough should encourage the College and School District to develop educational programs that focus on the importance of using trails in a sustainable manner and incorporate opportunities for students to help maintain and improve trails through field trips, in-class activities and volunteer efforts. Examples could include trash pickup, design of trailhead signs, student trail maintenance work parties or a trail ambassador program. All of these efforts will promote a sense of ownership by young people of Kodiak's trails and help them encourage their peers and others to treat trails and associated land and resources in a respectful manner.
- The Alaska DNR and ADF&G should continue to help monitor conditions of trails on state lands and assist in trail maintenance in these areas in coordination with user groups and the Borough.

### 7.1.3 Trail Use – Management and Permitting

As noted elsewhere in the Trails Master Plan, the majority of trails in the Borough are not located on Borough-owned land and the Borough does not have jurisdiction or authority over use or access to them. More typically, trails are located on privately owned land (the majority of which is owned by Native corporations) or state or federally owned land. These entities typically implement some type of system to allow for the access to and use of trails on their land. Following is a summary of current programs that govern trail use and access.

- 17b easements on Native-owned land. These easements have been established by the Bureau of Land Management as part of

the ANCSA process. They allow people to use the easements for travel or short-term camping (depending on the type of easement). No permit is required to use a 17b easement but there are restrictions on the use of such easements, depending on the type and width of the easement as described in Chapter 6 of this Plan. Native land owners typically do not allow use of areas outside the 17b easement without authorization through a permitting system or other means.

- Other private land. In some cases, Native Corporations or other private land owners allow for use of trails on their land through a permitting or other process. Following is a brief summary of such programs as of the date of preparation of this plan:
  - ◇ The Leisnoi Native Corporation has recently established a permitting system to use and access its land. Leisnoi requires preparation and submittal of a permit form (brief, one-page form), with fees of \$5 per day, \$15 per quarter or \$60 per year for day use access, and \$15 per day for camping in designated areas only. These permits only cover non-motorized use outside 17b easement areas. Leisnoi does not allow for motorized vehicle access (including ATVs) outside of 17b easements.



Leisnoi signs posted in 2009 along their boundary with the road system

- ◊ The Natives of Kodiak, Afognak Native Corporation and Ouzinkie Native Corporation have created a consolidated permit system for access to their lands on Afognak Island, Kodiak Island, Raspberry Island, and Whale Island. Spruce Island is off-limits to all non-shareholder activities except visiting Monk's Lagoon for religious purposes. Native shareholders may access these areas with a valid shareholder's card. Non-shareholders are required to obtain a land use application to access land in these areas. Applications are available online at the Afognak Native Corporation Web site at [https://www.afognak.com/pages/land\\_use\\_application.php](https://www.afognak.com/pages/land_use_application.php). The cost of these permits varies by duration, proposed use of the permit and whether or not the applicant is an Alaska resident. Three-day land use permits (excluding overnight camping) cost \$50 while annual permits which also allow for overnight camping and deer hunting cost \$125. Elk and or bear hunting permits range from \$150 for an annual elk hunting permits for Alaska residents to \$1,625 per year for permits for bear and elk hunting for non-residents. Land use permits subject users to a variety of rules and regulations.
- ◊ Koniag, Inc., the regional Native Corporation in the Kodiak area, owns and manages surface land rights within the Borough primarily in the vicinity of Karluk and Larsen Bay and on the south side of Womens Bay. Koniag also owns subsurface rights on a more substantial area within the Borough generally coincident with local Native Corporations' surface land ownership. Koniag entered into a conservation easement with the State of Alaska and the US Fish and Wildlife Service in 2002. Terms of that agreement include development restrictions and use regulations for Koniag, as well as allowing the US Fish and Wildlife Service the right to manage all unguided (i.e. private) use upon the land. The conservation easement provides opportunities for both guided and unguided users to recreate on Koniag lands. Koniag charges fees for guided users ranging from \$150 per person for fishing and other recreation (excluding hunting) to \$1,500 per person for guided bear hunting. For unguided use in the Karluk and Larsen Bay areas, the US Department of Fish and Wildlife requires prospective users to complete a permit application form but there is no charge for the permit.



Koniag sign

- ◊ The Ouzinkie Native Corporation owns and manages a large area of land including area to the north of Termination Point, Pyramid Mountain, Anton Larsen Bay and reaching back to the south near the Jack Lakes Area. Access by non shareholders or descendents is prohibited on Ouzinkie lands. The property is patrolled by air and enforced. As noted above, access to Afognak Island can be granted by permit.
- Federal Land – Kodiak National Wildlife Refuge. Much of the land in Kodiak (1.9 million acres) is within the Kodiak National Wildlife Refuge, with access managed by the federal government and subject to federal rules and regulations. Permits are required for commercial operators to access land and trails within the Refuge, including commercial guiding and outfitting operators (hunting, fishing, wildlife watching, river trips). A permit is not required for the general public to visit the wildlife refuge to engage in wildlife-dependent recreational activities such as wildlife watching, hunting, fishing, photography, environmental education, interpretation, hiking, and camping. Visitors must comply with all pertinent refuge regulations, State and Federal laws, and State hunting and fishing regulations. Information about special use permits and regulations for use of land within the refuge can be found at the Refuge's Web site (<http://alaska.fws.gov/nwr/kodiak/index.htm>) and at the Refuge office at 1390 Buskin River Road. While the Kodiak

National Wildlife Refuge is accessible by trails originating from the Kodiak road system, it is considered too remote to be considered as part of the planning area for this Road System Trails Master Plan.

- Federal Land – US Coast Guard. USCG-Kodiak Base is the largest US Coast Guard Base in the United States, encompassing approx 22,000 acres spread over non-contiguous lands that includes Main Base, Aviation Hill, Buskin Lake area, Spruce Cape, Sergeant Creek aggregate, Russian Creek aggregate, Happy Beach, Holiday Beach, Narrow Cape, and some portions of Anton-Larsen area, Buskin Recreation area, Cliff-Point, Cape Chiniak Cape & Sitkinak Island. This land provides access to a number of popular trails and other areas used by hikers, cross-country skiers and four-wheelers, including Old Woman's Mountain, Barometer Mountain and the area near the Coast Guard ski chalet, among others. The Coast Guard is currently establishing formal public access policies as there are many areas within base lands that have unique uses and may require differing access policies. In general, public ATV access is prohibited. Hiking, skiing and other non-motorized access may be acceptable uses provided users adhere to 'tread lightly' ideals and do not enter posted or gated restricted areas. Hunting and shooting are not permitted on base. The US Coast Guard also provides their base property at Spruce Cape to the US NAVY SEALS. Public access is not permitted to this property.



The US Coast Guard has a large number of advisory signs along base property



- Other Federal Land. The BLM manages approximately 24,000 acres of land within the Borough. There are no access restrictions or permitting requirements for BLM lands.
- State of Alaska. Most trails on state owned land in the Borough are found in state parks such as Fort Abercrombie State Park. These trails are open to the public with no formal permitting or access requirements. Trails in state parks are designated for non-motorized use only. The Alaska Department of Natural Resources also identifies a number of generally allowed uses of state land in a fact sheet published by the Division of Mining, Land and Water. Generally allowed uses include “hiking, backpacking, skiing, climbing, and other foot travel; bicycling; traveling by horse or dogsled or with pack animals.” They also include “Using a highway vehicle with a curb weight of up to 10,000 pounds, including a four-wheel-drive vehicle and a pickup truck, or using a recreational-type vehicle off-road or all-terrain vehicle with a curb weight of up to 1,500 pounds, including a snowmobile (or other tracked vehicle), motorcycle or ATV, on or off an established road easement, if use off the road easement does not cause or contribute to water quality degradation, alteration of drainage systems, significant rutting, ground disturbance, or thermal erosion. (Curb weight means the weight of a vehicle with a full tank of fuel and all fluids topped off, but with no one sitting inside or on the vehicle and no cargo loaded. Most highway rated sport utility vehicles are within the weight limit as are most small ATVs, including a basic Argo.)”
- City of Kodiak. The 23 miles of existing Urban trails within Kodiak City Limits are described in Chapter 3. Trails are open to the public. The use of Off-road vehicles is prohibited within City limits on roads, trails and within watershed locations (including drainage areas, catchment areas and basins).
- Kodiak Island Borough. Trails within Borough land are generally open to the public with no restrictions unless posted. Popular trail areas within Borough lands include the Russian Ridge area, Jack Lakes and the back end of Womens Bay.

In a number of other areas, public access easements have been created for trails on state land. These include Saltery Cove Road and trails in the vicinity of Sequel Point and Kizhuyak Bay, among others. Requirements associated with public access easements are governed by Alaska Revised Statutes (RS) 2477 and Alaska Administrative Code Division 11, Section 51 (11 AAC 51). In addition the Kodiak

Area Plan, adopted by the Alaska Department of Natural Resources in 2004 includes policies associated with public access and trails on state land. The Plan includes general policies that apply to all areas governed by the Plan, as well as policies specific to geographic sub-areas.

For example, the Plan’s general goals related to trails and public access are:

*Trails. Maintain, enhance or provide adequate access within areas of development and between areas of current or future development.*

*Public Access. Maintain, enhance, or provide adequate access to public and private lands and resources. Provide for future trail and access needs. Protect or establish trail corridors to ensure continued public access.*

The Plan also includes a number of more specific guidelines associated with trails and public access that are applicable to all areas of Kodiak. In addition, the Plan describes conditions in and management guidelines for specific areas, including the Pasagshak, Lake Miam and Saltery Drainages. In describing these areas, the Plan notes that “(this) area has experienced intense dispersed recreation pressure, and this is expected to worsen over time. Most of this is associated with the use of All Terrain Vehicles (ATV) trying to access the wildlife and fishery resources of this area for the purposes of hunting and fishing. Much of this activity occurs along the old Saltery Cove Road, which traverses areas of private land along the American River for the first 4-5 miles before entering state land and then continuing through a valley before ending at Saltery Cove and Saltery Creek/Lake. Other less intense areas of ATV use include the drainage of the Olds River and its extension southward to Lake Miam and Portage Bay. This activity has resulted in increasing pressure for remote recreational cabins, hardened campsites, and various other types of public recreation facilities. It has also resulted in the development of a multitude of individual ATV trails, some of which cross and degrade anadromous fish stream spawning and rearing habitat, and in increasing conflicts between recreation and commercial grazing.”

The Kodiak Area Plan states that “Management units within these drainages ... are to be managed to maintain this balance (of dispersed recreation and grazing) and are co-designated Grazing and Public Recreation – Dispersed. Grazing operations and recreational uses are to be conducted to avoid conflict between recreational uses and livestock operations, and to avoid impacts to wildlife, sensitive fisheries, and habitat. State land is to be retained, land disposals of all types (residential, commercial, and industrial) are prohibited, and authorizations for residential, general commercial and industrial uses are considered inappropriate with certain exceptions. Lakes Pasagshak, Miam, and Saltery, as well as certain streams, are to be protected through setback and non-disturbance requirements.

*In those areas where a recreational use could affect grazing and if the use requires an authorization from DNR, such authorizations are to address the actual and/or potential conflict between recreational users and grazing operations. These authorizations shall include best management practices designed to preclude such conflict or mitigate impacts to levels that permit the existing and reasonable levels of new recreation uses to continue.”*

In describing specific management strategies for these areas, the Plan also states that “Navigation, public safety, some forms of communication facilities, and materials extraction for the purpose of improving ATV trails are permitted. The use of ATVs is recognized as a traditional means of access to and within this unit and their future use is considered appropriate if consistent with state regulations and statutes pertaining to their operation. DNR will coordinate with the Kodiak Island Borough in the development of a comprehensive trails plan and should implement those recommendations pertinent to routing, signing, and design, to the extent consistent with statute and state administrative code. All other Generally Allowed Uses of state land are authorized.”

In order to reduce impacts on wildlife and fishery resources in this area, the Alaska Department of Fish and Game has identified and established specific locations for crossing fish-bearing streams in these and other drainages within the Borough. These locations and associated restrictions have been established through a series of General Permits for vehicle stream crossings that pertain to vehicles weighing less than 10,000 pounds, including ATVs. Vehicles are required to use these stream crossing locations. Restrictions and maps of the vehicle crossing locations are specified in the General Permits. Beyond these restrictions, the state does not currently provide for any other specific permitting or access requirements associated with the use of public access easements within Kodiak. Existing permitted stream crossings are shown on all maps.

Understanding how to access trails within the Borough and the limitations on use in certain areas will be extremely important to trail users including both residents and visitors. While the Borough generally does not control access to most trails, it can help inform people about trail access and management issues and help ensure that people access and use trails and surrounding areas in a responsible manner. Borough responsibilities could include the following, some of which are described elsewhere in this plan in more detail.

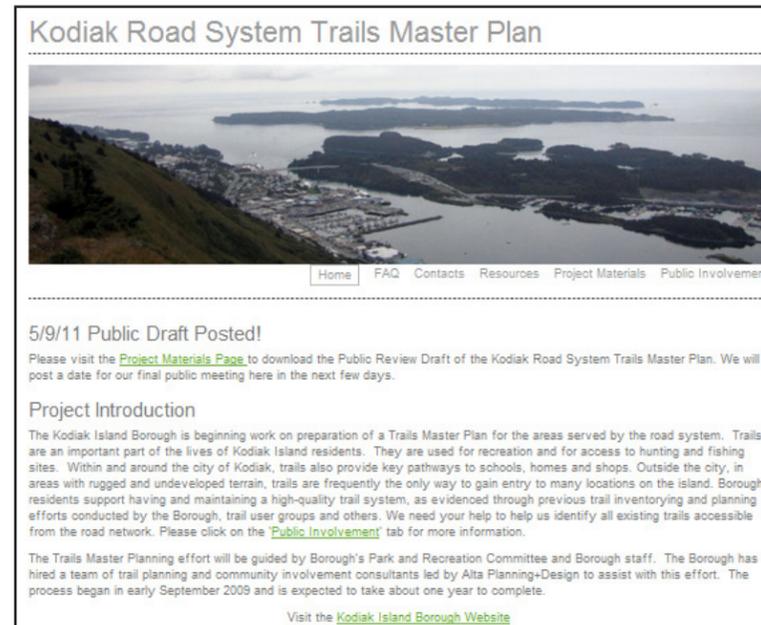
- Continue to update trail maps as information about the location and condition of publicly accessible trails is provided, highlighting information about land ownership associated with trails and surrounding areas.

- Provide information about permitting processes and use restrictions by providing Web site links or contact information for Native Corporations, state and federal agencies and others.
- Continue to work with partnering agencies and groups to prepare and provide educational materials related to trail access, private property owner rights and responsible stewardship of trails and surrounding areas.
- Develop a set of procedures for managing or permitting trail access or use on any Borough-owned trails.
- Coordinate with the Alaska Department of Natural Resources and the Department of Fish and Game regarding appropriate measures associated with trail access and use on state lands, including trail routing, permitting, signage and design; document the results of these efforts; and communicate the results to trail users and other residents and visitors in Kodiak. State land is going to be where the brunt of the activity will occur. Having a clear understanding and discussion with the state on issues of multiple trails, damage to trails and improvement to trails is needed.

#### 7.1.4 Communication

Communication about trail planning, maintenance and stewardship activities will be essential to successful implementation of the KIB Trail Plan. A variety of ideas related to communication have already been discussed in the preceding section in terms of trail mapping, public education and stewardship activities. A variety of stakeholders in the trails planning process recommended that the Borough take the lead as a convener and communicator in implementing the Trails Plan. While the Borough may not take the lead in building and maintaining trails, it makes sense for the Borough to lead communication efforts as the entity responsible for preparing and ultimately updating the KIB Trails Plan. Specific communication strategies may include:

- Continue to maintain a Trails Plan Web site and use it as a repository of information about trail use and conditions. It could include updated trails maps prepared by the Borough or others, photos showing trail conditions or trail use or management issues, proposals for new trails or trail improvements, and links to trail access information or requirements by Native groups or state or federal agencies. This website should also link to popular lists, and online forums where current Kodiak



The Trails Master Plan Project Website could be a template for the Borough to follow

residents are already sharing trail information such as ‘The Kodiak Snow Report (<http://kodiaksnow.proboards.com/>) where forum topics already cover winter trails, summer trails, and kayak, raft and surf conditions.

- Work closely with partnering groups such as ITN, the Audubon Society, ATV user groups, Native organizations, the Coast Guard and others to maintain a file or repository of information prepared and distributed by those groups which can then be distributed to other interested parties on request.
- Prepare a quarterly or semi-annual electronic newsletter that summarizes current and future proposed trail planning, improvement or maintenance activities. Distribute the newsletter through an interested parties e-mail list and through liaisons within partnering organizations.
- Work with the Kodiak Daily Mirror and local radio stations to publicize information about trail planning and improvement issues and activities.
- Conduct Trails Summit meetings twice yearly to resolve trail conflicts and make further progress in implementing the Trails Plan. If a trails conflict originated on KIB lands, the problem will be identified during the Summit, then taken to the Parks

& Recreation committee, to Planning & Zoning and then on to the Assembly. Results of the Trails Summits should be distributed via the Trails Plan Web site, regular newsletters and other venues discussed above and elsewhere in this Plan.

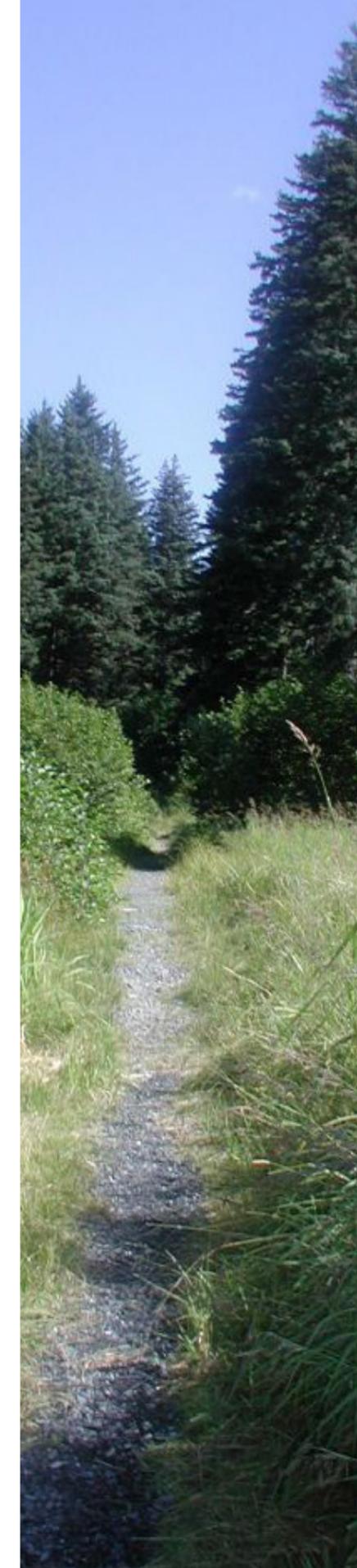


The trails planning process proved that hundreds of Kodiak residents are interested in improving the trail system.

## 7.2 Project Prioritization

The project recommendations presented in Chapter 6 represent a complete and rehabilitated trail network that fulfills the project vision: “The purpose of the Kodiak Road System Trails Plan is to ensure continued access and maximum use of trails by all citizens.” As noted previously in this chapter, while the Kodiak Island Borough does not have direct control over trail development on Kodiak, it can assist in other ways to develop projects.

This section summarizes the methodology for prioritizing recommended improvements to the Kodiak Island Borough urban and road system trail network. Prioritizing these projects will assist the community in identifying high priority projects and provide a foundation for implementation phasing. This prioritization methodology does not constitute a suggested CIP list. Instead, it applies standardized criteria and customized weighting (provided by the KIB Parks and Recreation Committee) to identify projects that may provide the most positive impact to Kodiak residents. Actual implementation will likely vary in priority or timing to some degree as specific funding sources or community priorities arise. This prioritization framework relies upon facility-based criteria, i.e. where the trail is and how it relates to its surroundings. The trail prioritization is broken



down into two main categories: Urban Trails within and nearby the Kodiak city limits, and Road System Trails. It is important to rank and score these trail-groups separately because of the intrinsic differences in how the trails function, are used, and relate to the Kodiak community.

### 7.2.1 Scoring Criteria: Urban Trails

Urban trails are the trails that serve the urban core of Kodiak and its immediate residential and commercial properties.

#### Proximity to Schools

To encourage more students to walk and bicycle to school, proposed facilities that connect to/or travel within ¼ mile of schools would qualify for this prioritization criteria.

#### Connectivity to Existing Facilities

Bicycling, walking/hiking and general recreation is usually greater along areas where the activity is supported by a formalized trail or facility. Creating connectivity to an existing trail/ facility enables more trips to be made and provides multiple routes for reaching their destination. Facilities that connect to an existing trail will receive this scoring criterion.

#### Connectivity to Proposed Facilities

In addition to the existing trail network, the Kodiak Road System Trails Master Plan will be proposing the addition of many projects throughout the island (adjacent to the road system). While not as immediately effective for trail continuity, facilities that connect to proposed facilities will help create a robust network. Proposed facilities that intersect with other proposed facilities will be awarded this criterion.

#### Connections to Activity Centers

Activity centers are the major trip-driving destinations within Kodiak (e.g. parks, commercial districts, large employment centers, etc.). By increasing trail accessibility to major activity centers, the Trail Master Plan can reduce traffic and support residents and visitors who choose to bicycle or walk for transportation. Projects that connect to these centers qualify for this prioritization criteria.

#### Level of Effort

Many factors contribute to the overall cost to implement a trail. Length, materials, topography, natural features, labor and design all factor into the overall level of effort. Less complicated trail projects will score higher for this criterion.

#### Public Input

The Kodiak Trail Master Plan has engaged the public through the public workshops and mapping exercises. Feasible recommended projects with demonstrated public endorsement will qualify for these prioritization criteria.

#### Use-Intensity

Some road system trails support higher levels of use than others. Because of their popularity, these trails are a more significant component of the Kodiak trail system and can serve a greater amount of people through their improvement. Trails with a projected high use-intensity will qualify for this scoring criterion.

#### Land Ownership

The feasibility of developing a trail can vary dramatically depending on the existing underlying land ownership. Trails within public lands or within public rights-of-way will generally be easier to implement than trails over private lands or military lands. Trail projects in public lands will be rated higher for this criterion.

### 7.2.2 Scoring Criteria: Road System Trail Maintenance Recommendations

Road System trails are facilities that branch off of the road network serving areas of the island not directly connected to the urban core of Kodiak. Criteria listed below will be used to rank impacted sections of existing trails for future maintenance and reconstruction.

#### Excessive Grade

Trails can have a variety of grade changes based on existing and proposed alignments. Excessive grades can lead to an increased need for maintenance and difficulties in construction. Trails that do not feature excessive grade (above 15 percent) will meet this criterion.

#### Eroded Trail

Some trails are prone to erosion based on layout, design, or frequency of use. In order to mitigate the adverse impacts of trail use on the immediate environment, trails must be designed and maintained to withstand erosion. Trails that have higher levels of erosion will meet this criterion.

#### Impacted Wetland

Many of the Road System Trails in Kodiak are located in close proximity or adjacent to Kodiak's wetlands. Wetlands are inherently sensitive to the environmental impacts of trail use. When a trail is not maintained or designed to support frequent use, it can have negative consequences for the surrounding environment. If a Road System Trail's alignment will likely affect a wetland area, it will meet this criterion.

#### Muddy/Inundated

Because of Kodiak's unique coastal/tropic climate, trails have a tendency to become muddy/inundated without proper design and maintenance. Trails in this condition discourage use and provide less value to the trail network. Trails that are prone to these conditions will rate high in this area so that they can be addressed and corrected to promote active use.

#### Cost of Effort

Previously discussed in the Urban Trails section – same criterion to be used for Road System Trails.

#### Public Input

Previously discussed in the Urban Trails section – same criterion to be used for Road System Trails.

#### Use-Intensity

Previously discussed in the Urban Trails section – same criterion to be used for Road System Trails.

### 7.2.3 Scoring Measures

The criteria discussed in the previous section will be applied to each facility based on its trail group. The project will be assigned a numeric value to the degree it meets the criteria requirements. The criteria values are outlined in Table 16 and Table 17. The criteria scoring (multipliers) can be modified by Borough preference to emphasize, or de-emphasize its relationship to the overall trail network. Table 16 and Table 17 show the prioritization ranking according to the scoring criteria.



Table 16: New Trail Project Criteria Scoring and Weight

Criteria	Score	Multiplier	Total	Description
Proximity to Schools	2	2	4	Direct access to a Kodiak school.
	1	2	2	Secondary access to a Kodiak school (within 1/4 mile).
	0	2	0	Does not directly or indirectly access a Kodiak school.
Connectivity - Existing	2	3	6	Direct access to an existing trail.
	1	3	3	Secondary connectivity to an existing trail.
	0	3	0	Does not directly or indirectly access an existing trail.
Connectivity - Proposed	2	1	2	Direct access to a proposed trail.
	1	1	1	Secondary connectivity to a proposed trail.
	0	1	0	Does not directly or indirectly access a proposed trail.
Connectivity - Activity Centers	2	3	6	Connects to a major trip-driving destination in Kodiak.
	1	3	3	Secondary connectivity to a major trip-driving destination in Kodiak.
	0	3	0	Does not directly or indirectly connect to a major trip-driving destination in Kodiak.
Public Input	2	1	2	Trail was identified by the public as desirable for a future facility (multiple times).
	1	1	1	Trail was identified by the public as desirable for a future facility (once).
	0	1	0	Was not identified by the public as desirable for a future facility.
Level of Effort	2	2	4	Trail will be relatively easy to fund.
	1	2	2	Trail will require minor funding.
	0	2	0	Trail will require major funding.
Use Intensity	2	3	6	Trail will be heavily used.
	1	3	3	Trail will be moderately used.
	0	3	0	Trail will be used sparingly.
Land Ownership	2	3	6	Trail lies on Public lands
	1	3	3	Trail lies on military (USCG or USN) property
	0	3	0	Trail lies on Private land

Table 17: Trail Maintenance Rehabilitation Criteria Scoring and Weight

Criteria	Score	Multiplier	Total	Description
Public Input	2	2	4	Trail was identified by the public as desirable for a future facility (multiple times).
	1	2	2	Trail was identified by the public as desirable for a future facility (once).
	0	2	0	Was not identified by the public as desirable for a future facility.
Excessive Grade	2	2	4	Trail does not have excessive grade.
	1	2	2	Trail has minor grade change.
	0	2	0	Trail has major grade change.
Eroded Trail	2	2	4	Trail has major portions of erosion.
	1	2	2	Trail has minor portions with erosion.
	0	2	0	Trail does not have erosion.
Impacted Wetland	2	3	6	Trail will have major impact on wetlands.
	1	3	3	Trail will have minor impact on wetlands.
	0	3	0	Trail will not impact wetlands.
Muddy/Inundated	2	2	4	Trail is majorly susceptible to muddy conditions
	1	2	2	Trail is minimally prone to muddy conditions.
	0	2	0	Trail is not prone to muddy conditions.
Cost of Effort	2	1	2	Trail will be relatively easy to fund.
	1	1	1	Trail will require minor funding.
	0	1	0	Trail will require major funding.
Use Intensity	2	3	6	Trail will be heavily used.
	1	3	3	Trail will be moderately used.
	0	3	0	Trail will be lightly used.
Connectivity Existing	2	2	4	Direct access to an existing trail.
	1	2	2	Secondary connectivity to an existing trail.
	0	2	0	Does not directly or indirectly access an existing trail.

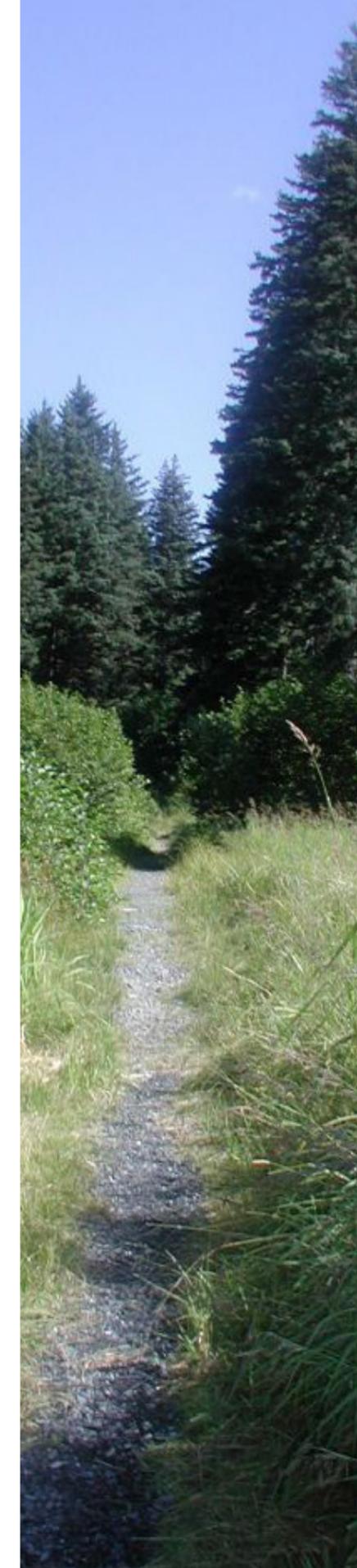


Table 18: Urban Trails Prioritization

Category	Corridor	Limit 1	Limit 2	Length (Ft)	Schools	Connectivity - Existing	Connectivity - Proposed	Activity Centers	Cost of Effort	Public Input	Use-Intensity	Score Total
				WEIGHT	2	3	1	3	2	1	3	
New Sidewalk	Antone	Rezanof	Lilly	2627	1	2	2	2	1	2	1	23
New Sidewalk	KANA Connector	Rezanof	Benny Benson	1485	1	2	2	1	1	0	2	21
New Trail	KANA Connector	Rezanof	Benny Benson	1859	1	2	2	1	1	0	2	21
New Trail	Mallard	Otmeloi	Antone	24	2	1	2	1	2	2	1	21
New Trail	Mallard	Otmeloi	Antone	1346	2	1	2	1	2	2	1	21
New Trail	Spruce Cape	Benny Benson	Mill Bay	8366	0	1	2	2	1	2	2	21
New Trail	Powell	Mill Bay	Rezanof	964	2	0	1	2	2	0	2	21
New Trail	Under Island Bridge	Mission	Marine	79	0	0	2	2	2	2	2	20
New Trail	Under Island Bridge	Mission	Marine	132	0	0	2	2	2	2	2	20
New Trail	Under Island Bridge	Mission	Marine	136	0	0	2	2	2	2	2	20
New Trail	Mission	Kashevaroff	Erskine	284	1	0	2	1	2	2	2	19
New Trail	RezanofDr Connector	Rezanof	Boatyard Path	130	0	0	2	2	2	1	2	19
New Trail	RezanofDr Connector	Rezanof	Boatyard Path	127	0	0	2	2	2	1	2	19
New Trail	RezanofDr Connector	Rezanof	Boatyard Path	1813	0	0	2	2	2	1	2	19
New Trail	Library Access	Rezanof	Egan	1170	2	0	0	1	2	1	2	18
New Trail	Benny Benson	Rezanof	Spruce Cape	390	0	1	2	2	2	0	1	18
New Trail	Marine	Tagura	Mission Beach	30	1	0	2	2	1	0	2	18
New Trail	Marine	Tagura	Mission Beach	5850	1	0	2	2	1	0	2	18
New Trail	Mission Road Connector	Coastal Footpath	Mission Road	117	0	0	2	2	0	1	2	15
New Trail	Mission Road Connector	Coastal Footpath	Mission Road	89	0	0	2	2		1	2	15
New Trail	Mission Road Connector	Coastal Footpath	Mission Road	198	0	0	2	2	0	1	2	15
New Trail	Monashka Bay	Otmeloi	Abercrombie	3480	0	0	0	2	0	2	2	14
New Trail	Spruce Cape Trails	Spruce Cape	Woodland	12	0	0	2	1	2	1	1	13
New Trail	Russian Ridge Trails	Monashka Bay	Pillar Mountain	8204	0	0	2	1	0	2	2	13
New Trail	Russian Ridge Trail	Russian Ridge Trails	Hillside Drive	4085	0	0	2	1	0	1	2	12
New Trail	Russian Ridge Trails	Monashka-Pillar Mtn	Lakeview	91	0	0	2	1	0	1	2	12
New Trail	Russian Ridge Trails	Russian Ridge Trails	Beaver Loop Ln	2250	0	0	2	1	0	1	2	12



Table 18: Urban Trails Prioritization (continued)

Category	Corridor	Limit 1	Limit 2	Length (Ft)	Schools	Connectivity - Existing	Connectivity - Proposed	Activity Centers	Cost of Effort	Public Input	Use-Intensity	Score Total
				WEIGHT	2	3	1	3	2	1	3	
New Trail	Russian Ridge Trails	Russian Ridge Trails	Beaver Loop Ln	1275	0	0	2	1	0	1	2	12
New Trail	Spruce Cape Trails	Spruce Cape	Woodland	321	0	0	2	1	1	1	1	11
New Trail	Von Scheele	Beaver Lake	Beaver Lake LP	287	0	0	1	1	2	0	1	11
Upgrade Existing Sidewalk	Dog Salmon Bay	Rotary Bay Park	South End Park	1928	0	0	0	2	1	0	1	11
Upgrade Existing Trail	Russian Ridge Trails	Monashka-Pillar Mtn	Lakeview	1774	0	0	2	1	0	2	1	10
Upgrade Existing Trail	Spruce Cape Trails	Benny Benson	Mill Bay	2719	0	0	2	1	0	1	1	9
Upgrade Existing Trail	Spruce Cape Trails	Spruce Cape	Woodland	2564	0	0	2	1	0	1	1	9
Upgrade Existing Trail	Spruce Cape Trails	Spruce Cape	Woodland	4349	0	0	2	1	0	1	1	9
Upgrade Existing Trail	Russian Ridge Trails	Monashka Bay	Monashka-Pillar Mtn	2272	0	0	2	1	0	1	1	9
Upgrade Existing Trail	Russian Ridge Trails	Monashka Bay	Monashka-Pillar Mtn	16	0	0	2	1	0	1	1	9
Upgrade Existing Trail	Russian Ridge Trails	Monashka Bay	Pillar Mountain	9	0	0	2	1	0	1	1	9
Upgrade Existing Trail	Russian Ridge Trails	Monashka-Pillar Mtn	Beaver Lake	2325	0	0	2	1	0	1	1	9
Upgrade Existing Trail	Russian Ridge Trails	Russian Ridge Trails	Beaver Loop Ln	7	0	0	2	1	0	1	1	9
New Sidewalk	Selief Ln	City Limits	Von Scheele	6400	0	0	1	1	1	0	1	9
Upgrade Existing Trail	Russian Ridge Connector	Monashka Bay LF	Russian Ridge Connector	157	0	0	1	1	0	1	1	8
Upgrade Existing Trail	Russian Ridge Connector	Monashka Bay LF	Russian Ridge Connector	8901	0	0	1	1	0	0	1	7
Upgrade Existing Trail	Russian Ridge Connector	Monashka Bay LF	Russian Ridge Connector	36	0	0	1	1	0	0	1	7
New Trail	Selief Connector	Selief Ct	Larch St cul-de-sac	300	0	0	1	0	2	0	0	5

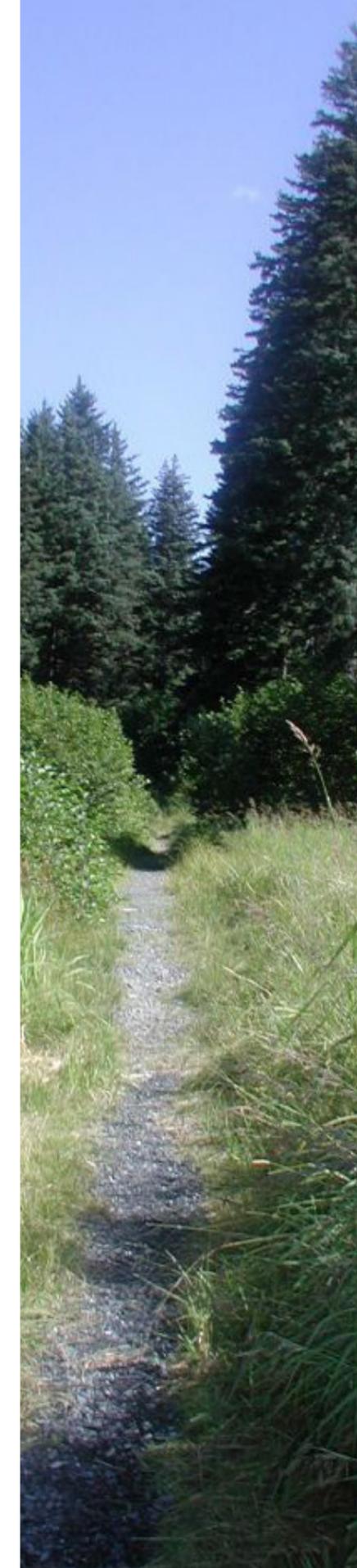


Table 19: Road System Trails Prioritization

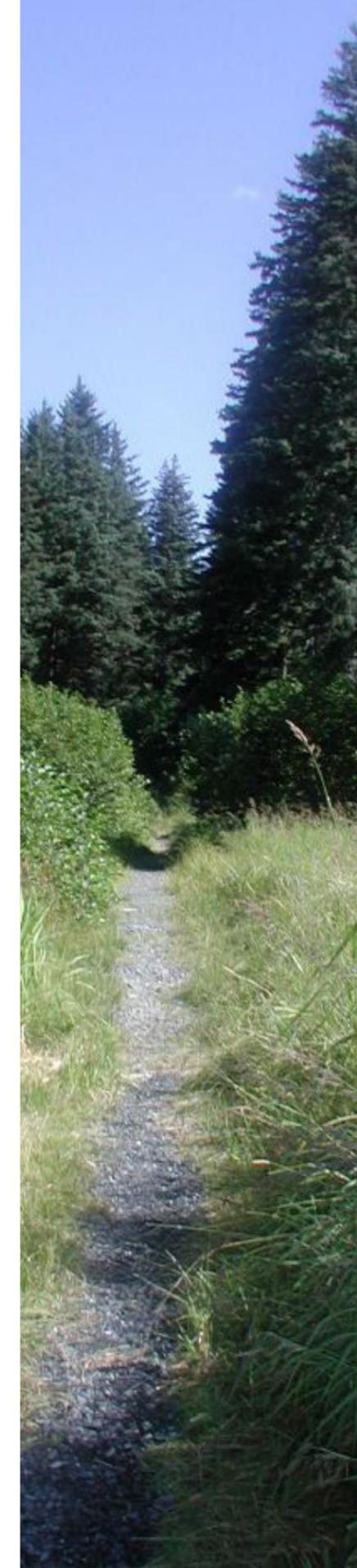
Project Name	Connectivity - Existing	Public Input	Use-Intensity	Excessive Grade	Eroded Trail	Impacted Wetland	Muddy/Inundated	Cost of Effort	Score Total
WEIGHT	3	1	2	2	2	2	2	3	
Sequel Point to Sacramento River Trail	0	1	1	1	1	2	2	2	21
Jack Lakes Area	0	0	1	1	2	2	1	1	17
Russian Ridge Trail System	1	1	2	1	1	0	1	1	17
Swampy Acres/ Boy Scout Lake	0	0	1	1	1	2	2	1	17
Termination Point	0	2	2	1	1	0	1	1	15
Lake Miami/ Summit Lakes Area	0	2	2	0	2	0	2	0	14
Saltery Cove Rd	0	2	2	0	2	1	1	0	14
Cliff Point	0	0	1	1	0	2	1	1	13
Burma Rd Trail	0	1	1	1	1	0	1	1	12
Old Woman Trail (North)	0	0	1	1	2	1	0	0	10
Pyramid Mountain Ski Chalet	0	2	1	0	0	0	0	1	7



## 7.3 Potential Funding Sources

Table 20: Potential Funding Sources

Funding Source	Information	Requirements	Deadline	Contact
<b>Federal</b>				
Forest Legacy Program	The Forest Legacy Program protects environmentally important forest lands threatened with conversion to non-forest use, such as a residential subdivision or commercial development. Allow continued use of regular forest activities, such as timber harvesting, hunting, fishing, recreation and other traditional uses.	75 percent of the costs associated with acquiring land. Remaining 25% must come from a non-federal government source	varies	Steve Neel Alaska State Parks 550 W. 7th Ave., Suite 1380 Anchorage, AK 99501-3561 Phone: (907) 269-8709 Fax: (907) 269-8907
Land and Water Conservation Fund (LWCF)	Provides partial funding for the acquisition of outdoor recreation lands and/or development of outdoor recreation facilities. LWCF can provide up to 50% matching assistance for the cost of a project.	applications of no less than \$100,000 and no more than \$500,000 federal share will be accepted	End of April	Jean Ayers Alaska State Parks 550 W 7th Ave., Suite 1380 Anchorage AK 99501-3561 phone: (907) 269-8694 fax: (907) 269-8907
<b>State</b>				
Recreational Trails Program	The Recreational Trails Program (RTP) provides reimbursable, matching funds to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. The RTP program also provides funds for trail related environmental protection, safety and educational projects.	n/a	End of November	Bill Luck, State Trails Coordinator Alaska State Parks 550 W 7th Ave Suite 1380 Anchorage AK 99501-3561 907-269-8699; Fax 907-269-8907 william.luck@alaska.gov
Alaska Trails Initiative	Senator Stevens brings the Alaska Trails Initiative to Alaska for Trail funding. Competitive Alaska Trails Initiative grants are available for development and reconstruction of trails and related facilities.	No funding request limits, requests should be made in manageable increments of \$50,000-\$100,000 each.	June of each year	Grants Administrator (907) 269-8709 Alaska Division of Parks and Outdoor Recreation 550 W 7th Ave., Suite 1380 Anchorage AK 99501-3561 Fax: (907) 269-8907



Snowmobile Trails Program	Provides matching grant funds for trail easement acquisition, development and maintenance of trails and trail-related facilities for snowmobile use.	n/a	June 10 – Due date for posting the Public Notice  July 1, 2010	Grants Administrator (907) 269-8709 Alaska Division of Parks and Outdoor Recreation 550 W 7th Ave., Suite 1380 Anchorage AK 99501-3561 Fax: (907) 269-8907
Transportation Enhancement (TE) Program -Alaska Department of Transportation & Public Facilities (ADOTPF)  TE is integrated into the Statewide Transportation Improvement Program (STIP)	There is no formal application for TE funds per se. The STIP process includes nominations for community road and trail projects. The nominations are scored and the highest ranked projects are included in the STIP. The State looks for opportunities to use its TE funds on portions of STIP projects that are eligible for transportation enhancement funding.	Local match is generally 10% but can be up to 20% for some projects. To be considered for funding, a project must have a resolution committing to provide the match, or a match waiver signed by the Commissioner.	Two year cycle. Next cycle 2012-2013	Alaska Peter Christensen Capital Improvement Manager Division of Program Development Dept. of Transportation & Public Facilities 3132 Channel Drive Suite 220 Juneau, AK 99801-7898 Tel: (907) 465-6988 Fax: 907-465-6984 <a href="mailto:peter.christensen@alaska.gov">peter.christensen@alaska.gov</a>  <a href="http://www.dot.state.ak.us/stwdplng/cip_stip/index.shtml">http://www.dot.state.ak.us/stwdplng/cip_stip/index.shtml</a>
Alaska Safe Routes to School	SR2S funds can support both infrastructure and noninfrastructure projects in the vicinity of schools.	Safe Routes to School funding is 100 percent federal through SAFETEA-LU, SEC 1404; no match is required. Applications are awarded by Alaska Department of Transportation & Public Facilities (ADOTPF)	Submissions accepted in December and July	Steve Soenksen Alaska Safe Routes to School Coordinator: <a href="mailto:Steve.Soenksen@alaska.gov">Steve.Soenksen@alaska.gov</a>  <a href="http://www.dot.state.ak.us/stwdplng/saferoutes/grants.shtml">http://www.dot.state.ak.us/stwdplng/saferoutes/grants.shtml</a>
<b>Local</b>				
Kodiak Island Borough	Parks & Recreation General Fund. \$30,000 is available annually. Funds could be directed to assist with trail maintenance projects.	n/a	n/a	Bud Cassidy, CDD Director (907) 486-9360
Kodiak Island Borough Recreation Tax	Through ballot measures, KIB can pass a recreation tax to help fund the construction and maintenance of trails	n/a	Local elections typically conducted in March/ April	Alyce Houston <a href="mailto:alyce.houston@alaska.gov">alyce.houston@alaska.gov</a> Phone: (907) 465-3021 Toll-Free: (866) 948-8683 Fax: (907) 465-2289



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