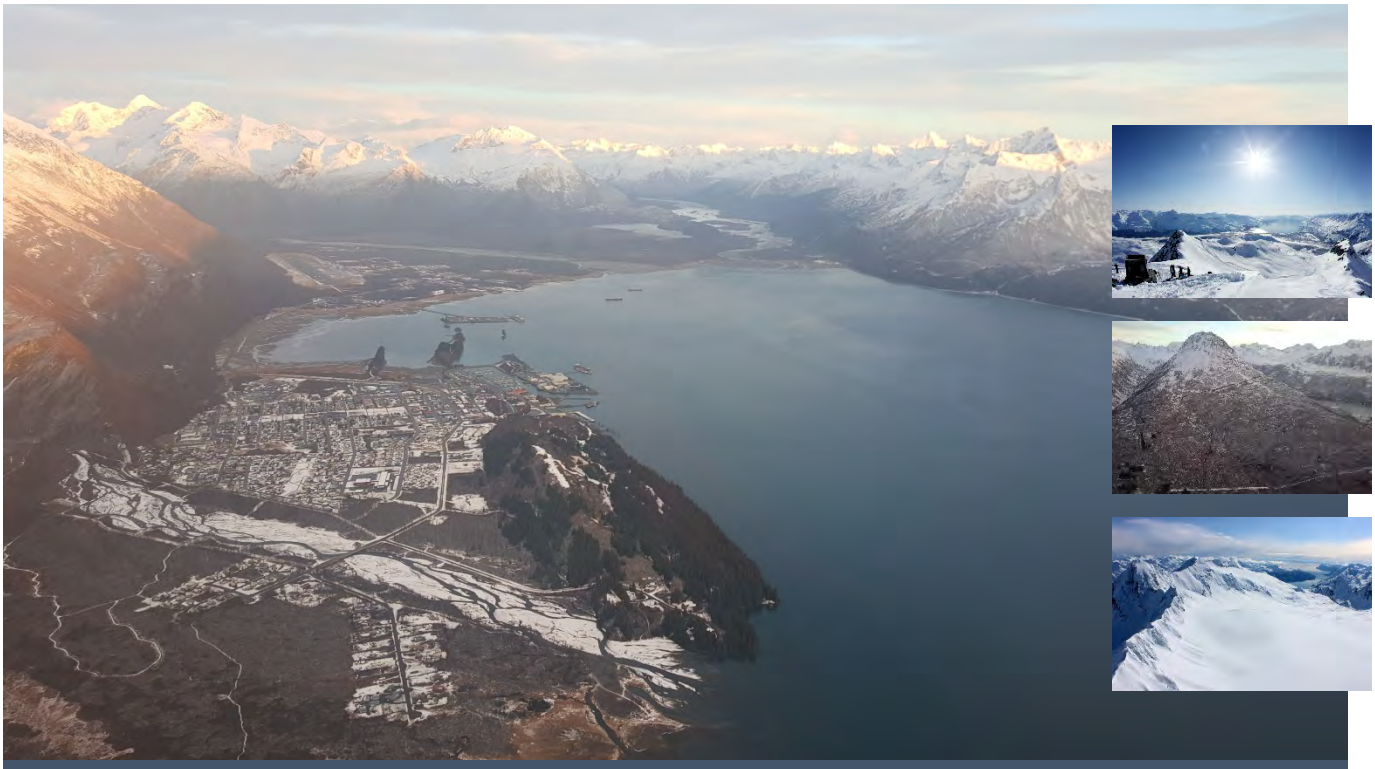

Valdez Year-Round Mountain Recreation Site Study

December 2016

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City of Valdez

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EXECUTIVE SUMMARY

A. INTRODUCTION

In August 2015 SE Group, in association with McDowell Group, RRC Associates and Design Alaska, was retained by the City of Valdez to conduct a Year-Round Mountain Recreation Site Study.

The purpose and goals of the study are to:

- Provide objective market, technical and financial information, and identify the opportunities, challenges, and costs associated with the potential developments.
- Understand if sustainable mountain recreation development in Valdez is reasonably possible, and what steps might be taken to enhance the community's opportunities in this regard.

B. BACKGROUND

Valdez' visitor industry is well developed and serves a wide variety of markets, mostly concentrated in the summer.

Valdez can be accessed via airplane, ferry, and highway.

Valdez' tourism industry is heavily seasonal, concentrated between Memorial Day weekend and Labor Day weekend. Snowsports bring visitors in March and April. Valdez is internationally recognized as an extreme skiing destination, having hosted the World Extreme Skiing Championships throughout the 1990s.

Valdez' most significant assets in terms of drawing visitors are its scenic beauty and its fishing. Day cruises are very popular. Other common visitor activities include kayaking, hiking, camping, and museums. Thompson Pass attracts snowsport enthusiasts and hikers, berry-pickers, and sightseers in the summer.

Valdez hosts a number of events that bring visitors to the community, and are particularly important in the winter months when visitation drops off. Special events throughout the winter demonstrate the community's investment in attracting visitors throughout the year.

C. CLIMATE CHANGE EFFECTS IN VALDEZ

Snow sports are expected to remain viable for most of the winter in the Valdez area at least through the end of the century. This favorable outlook may provide a comparative advantage relative to resorts in other North American regions that may have less favorable snow sports conditions in the future. The relatively high elevation of potential mountain resort development in the Valdez area may provide greater snow packs at elevation, as a warmer and wetter climate future at sea level may provide for greater snow accumulation at elevation. Any mountain resort in the Valdez area should consider potential climate change impacts in their planning and ensure they are utilizing adaptation strategies to confront warmer weather, such as advanced snowmaking capabilities and a diversification of recreational opportunities.

D. MARKET ASSESSMENT

1. NORTH AMERICAN MOUNTAIN RESORT INDUSTRY TRENDS

a. Skier Visitation

The number of downhill visits in North America has generally remained stable over the past 20 years, with only small fluctuations within the typical 54 to 60 million annual visit range.

b. Capital Investment

Over the longer term, capital investment in U.S. ski areas is down from pre-recession highs of over $400 million annually. Spending on summer-related activities and infrastructure represent about 6% of total capital dollars, with on-mountain improvements and lifts accounting for the majority of the spending in the industry. Summer season revenues account for about 12% of annual revenues in the industry, showing the continued dominance of the winter season to the overall business.

Generally, access to capital is a significant challenge for many ski areas, and capital investment dollars are allocated very deliberately. A potential ski area in Valdez may be faced with similar challenges.

c. Millennials

Millennials would be a critical component to the customer base for a potential ski area at Valdez. Young skiers and snowboarders might be more apt to have the time, inclination, and disposable income to experience the adventure of skiing in Alaska. Young adults are willing to pay for unique and authentic experiences; Valdez would certainly qualify as an authentic ski destination. Adapting products and experiences to better fit Millennial participants is critical for any resort that wants to stay healthy long-term. Valdez would need to devise a marketing plan that targets young adults, and to acknowledge changing demographics and different needs for each age cohort.

d. Emphasis on Summer Activities

To generate year-round income and boost visitation in all seasons, many ski resorts across the nation have been working hard on improving their summer offerings over the past few years. Research indicates that a potential ski area in Valdez may be well-positioned to incorporate summer recreation and activity offerings. Traveling to Valdez for traditional summer recreation opportunities, such as camping and fishing, is popular among some Anchorage and Fairbanks residents. The proportion of visitors who report camping as their accommodations type is very high, indicative of a robust, outdoors-oriented summer market. Though Valdez currently has an abundance of traditional summer recreation activities, a resort could offer summer chairlift rides, mountain biking, and hiking as well as more non-traditional summer recreation.

e. Pass Partnerships

In recent years, reciprocal ski passes created by resort partners have become a popular option for downhill snowsports participants. These pass partnerships allow skiers and snowboarders to visit a variety of resorts nationally and internationally under one comprehensive pass with a one-time purchase. A Valdez resort is a good candidate for a pass partnership, as the partnership would not only generate national awareness about Valdez but would also encourage potential destination visitors to experience a new ski resort without having to pay for

lift tickets. Pass partnerships also offer added appeal by associating a single resort with a variety of other ski areas, thus providing a marketing advantage by expanding the captive audience for the resort. The remoteness of Valdez may, in fact, be a positive asset if Valdez were to be included on a pass partnership and marketed towards hardcore destination skiers seeking an authentic and new experience.

f. Successful Year-Round Mountain Recreation Areas

The following list briefly presents some of the most important factors that generally make a mountain resort a successful business enterprise.

- Access to Customers
- Adequate Size and Complexion
- Diversity of Bed Base
- Diversity of Revenue Streams
- Access to Capital
- Marketing Budget and Strategy
- Customer Service
- Efficient Management

2. MARKET POTENTIAL

a. Potential Market for Valdez Skiers and Snowboarders

Valdez has some of the best, highest quality snow in North America, it has an incredibly long ski season, and some of the most stunning scenery of any mountain environment in the world. Downhill snowsports in the Valdez area would hold a very strong appeal to a core, dedicated group of skiers and snowboarders, those who currently travel to experience outstanding yet challenging skiing conditions, whether at lift-served ski areas, heli-skiing, or backcountry touring. This group tends to seek out new experiences and is willing to travel to do so.

At the same time, the challenges for bringing visitors to Valdez for downhill skiing are significant. Access is the most important hurdle, particularly for any potential visitors from Europe or Asia; travel times from these offshore locations would be substantial. Related to the access issue is the cost, both in dollars and time, to get to Valdez from potential target market areas (including Anchorage). Additionally, Valdez would have to break into a crowded destination ski marketplace and establish awareness among the target customer base. This limited name recognition could be overcome with investment in creative PR, social media, and marketing campaigns. A third challenge would be the limited lodging and other services currently available in Valdez (though that mix could certainly improve over time). Finally, the number of people participating in skiing and snowboarding in the US has been flat over the past decade, a trend that is not favorable for new ski areas seeking to enter the market and establish a presence by cannibalizing customers from other mountains.

The potential market for skiers and snowboarders at Valdez is the total pool of people who currently ski and snowboard in North America. This group of participants is about 12.5 million people. Only about 1.7 million are reasonably anticipated to be within the group of realistic candidates for a Valdez ski area. The 1.7 million skiers and snowboarders are those who

currently take overnight fly destination ski trips, are of intermediate, advanced or expert ability level, and have a household income of $150,000 or greater. Currently, those 1.7 million snowsports participants are skiing and snowboarding at approximately 120 different ski areas in North America.

While there may be a large number of potential customers for a ski area at Valdez, there is likely a very small proportion that will invest the time and expense to travel to Valdez.

b. Alaska Visitor Industry Indicators

- Alaska hosts nearly 2 million visitors on an annual basis.
- Of the nearly 2 million annual outbound enplanements (residents and non-residents combined) in Alaska, three-quarters enplane at Anchorage Airport.
- Alaska cruise visitation exceeded a million passengers prior to 2010. Abrupt declines in 2010 were attributed to the national recession and a suite of taxes and regulations.
- In the last five years, cruise traffic has steadily rebounded. However, individual communities have very different visitation rates.
- Valdez cruise visitation has been negligible in recent years.

c. Summer Visitors to Alaska – Activities

- Alaska's summer visitors are more oriented towards sedentary activities than towards adventure activities.
- The most popular adventure-oriented activities among Alaska visitors are hiking/nature walk, dog sledding, camping, kayaking/canoeing, rafting, zipline, ATV/4-wheeling, and biking.
- Approximately 12% of Alaska visitors reported taking a tramway or gondola while in the state (200,000 summer visitors).

d. Winter Visitors to Alaska

- Alaska's entire winter visitation is approximately 290,000.
- The vacation/pleasure segment is estimated at 34,000 visitors.
- The most common activities among winter pleasure visitors are shopping, cultural activities, wildlife viewing, and Northern Lights viewing.
- Just one out of ten winter pleasure visitors reported snow skiing or boarding.
- The non-resident ski and snow board market size is extremely small at approximately 3,400 visitors; the estimated number of visitors that experience a tramway or gondola is 1,700.
- Just 2% reported visiting Valdez.

e. Valdez Visitation

- Valdez attracts a small percentage of Alaska's summer visitors (4% or about 57,000 visitors).
- Valdez Airport reports nearly 15,000 enplanements annually, less than 1% of Anchorage enplanements.

- Very few cruise ships currently call directly at Valdez. Valdez attracted a modest number of cruise passengers about 15 years ago (between 56,000 and 83,000 passengers). Cruise passengers travel through Valdez on pre- and post-cruise overnight packages, although the volume is small (6,500) and passengers remain for just a few hours.
- The drop in cruise visitation to Valdez is largely a reflection of increased travel in Alaska's "railbelt." Cross-gulf ships embark and disembark their passengers in Whittier and Seward.
- Valdez position as the gateway to glacier excursions in Prince William Sound has been eclipsed by significant investment in glacier sightseeing in Kenai Peninsula and other areas.
- Closure of the Trans Alaska Pipeline to visitors is often cited as a major factor in the loss of cruise visitation in Valdez. While that change reduced the array of tours available to Valdez passengers, it was a small factor compared to the shifting cruise itineraries.

f. Valdez Visitor Profiles

- Valdez' summer visitor market is largely road-based. These independent visitors have inherent flexibility in their itineraries, and are usually on a larger Alaska itinerary.
- Visitors are currently participating in wildlife viewing, scenic cruises, and visiting museums. A participation rate of 15% to a tramway/gondola excursion would result in approximately 9,000 riders.
- Valdez' summer visitors are fairly affluent with an average household income of $101,000.

g. Valdez Visitor Industry Infrastructure

- Valdez' lodging inventory is limited. Valdez visitor industry representatives have expressed frustration with the limited lodging capacity as well as less-than-ideal standards of service and cleanliness.
- The RV market represents significant capacity in terms of Valdez lodging.
- Valdez' lodging industry has fluctuated somewhat over the last decade, in terms of sales, with the most recent year ending slightly above average for the decade.

3. VISITATION CHALLENGES FACING VALDEZ

The primary challenge for a ski area in Valdez would be generating enough volume of business (skier visits) to make the ski area financially viable. Related to this overall challenge are the specifics of remoteness/difficulty of traveling to Valdez and the small size of the local population.

a. Remoteness

- Anchorage represents a six-hour drive; other populous communities require at least five hours of driving—or at least one flight segment.
- Valdez has stunning natural beauty, but is hard to get to. Other ski areas where this theme is a dominant factor in their operating business include Silverton (CO), Mt. Sima (Yukon), Mt. Bohemia (Michigan), Mt. Eyak (AK), and several heli-ski or cat-ski operations such as Mt. Bailey (OR) or Irwin Guides (CO). These ski areas do not

generate large volumes of business, so they need to attract a core group of dedicated skiers and riders. Some are more successful than others from a profitability standpoint, but all generate a modest number of skier visits (typically less than 10,000).

- Valdez and Thompson Pass have a cachet among skiers and snowboarders throughout the world. Special events and the film industry have helped educate and perpetuate market awareness. However, actual visitor volume is extremely small. Estimated winter visitation by non-residents is approximately 1,000 to 2,000 people.
- Alaska itself is remote and expensive for most North American (and international) markets. The additional transportation time, cost, and frequent weather delays add further constraints.

b. Small Local Population

- The size of the local population is a limiting factor for any potential ski area at Valdez. Of the approximately 4,000 residents of Valdez, perhaps 400 are active skiers and snowboarders. The Anchorage/Mat-Su region, a five- to six-hour drive away, with about 390,000 residents, and Fairbanks, with 100,000 residents (also 5 hours away), would represent the only substantial drive markets for Valdez.

4. COMPETITIVE POSITION IN ALASKA

- Alyeska represents the largest degree of infrastructure and investment among competitive Alaska destinations. Alyeska is significantly more accessible than Valdez, only a 40-mile drive from Anchorage. Even so, it has struggled to attract non-Alaska markets in the winter: 85 to 90% of their skier-visits are attributable to Alaska residents. Alyeska draws more visits in the summer than in the winter. Its potential summer (non-resident) market is many times larger than Valdez', considering that Anchorage is the third-most visited community in Alaska (Valdez is #21), and the number one overnight destination.
- In contrast, only the Tsaina Lodge (24 rooms available seasonally in Thompson Pass), offers the ambiance associated with a resort. Most of the remaining 450 rooms, dining, and entertainment in Valdez are two-star at the most.
- Haines is very similar to Valdez in terms of skiing quality and cachet, very small market size, remote location, and limited visitor amenities.
- Anchorage residents frequent Turnigan Pass and Hatcher Pass for year-round recreation including hiking, skiing, snow machining, rafting, and fishing.

E. VISITATION POTENTIAL

All projected visitation represents initial market penetration. Valdez visitation could reasonably be expected to grow at least at the pace that the associated markets grow and perhaps faster, to the extent that name recognition grows, quality visitor experiences are developed and marketed, and the community in general sees increased visitation through cooperative marketing efforts.

1. POTENTIAL VISITOR (NON-ALASKA RESIDENT) MARKET: SUMMER

Cruise-related and independent markets together offer potential Valdez Alaska non-resident visitation of 80,000 to 146,000 during summer months (this is in comparison to the 50,000 to 60,000 total Alaska non-resident visitor volume to Valdez currently).

Of this total, it is estimated that a mountain recreation venue could capture 13,000 to 39,000 Alaska visitors during summer months. These visitors would be expected to purchase a 1-day ticket; therefore estimates of numbers of visitors are equivalent to mountain recreation visitor-days.

2. POTENTIAL ALASKA RESIDENT MARKET: SUMMER

It is estimated that between 34,000 and 48,000 of Alaska's 740,000 residents travel to Valdez to fish, hike, see glaciers, visit friends/family, and explore the Alaska highway system.

Of this total, it is estimated that a mountain recreation venue could capture 3,000 to 10,000 Alaska residents during summer months. The vast majority would purchase a 1-day ticket.

3. POTENTIAL SNOWSPORTS MARKET: WINTER

The potential market for skiing and snowboarding at Valdez was segmented into three groups, as follows:

- Out of state skiers and riders (Destination Visitors) who are intermediate and expert skiers/snowboarders, who currently fly to reach their ski destination(s), and who earn in excess of $100,000 in household income annually.
- Non-local Alaska Residents (Regional Visitors) who are intermediate and expert skiers/snowboarders.
- Local Residents of Valdez, regardless of skiing/boarding ability level.

It is estimated that a mountain recreation venue in Valdez may realize a skier visit potential (visitor days) of between 15,200 and 27,400 per winter if the ski area attracts Destination Visitor experts only (and local skiers), and between 21,600 and 39,900 for the intermediate, expert, and local segments combined.

4. POTENTIAL ANNUAL VISITATION

The total annual visitation potential for a mountain recreation venue in Valdez, including summer and winter visitation from residents and visitors to the state, is estimated to be 31,600 to 89,000.

F. COMPLEXION OF MARKET-BASED OPPORTUNITY

Given the marketplace, and the visitation potential, a "Market-based Scenario" was developed to illustrate the size and complexion of a mountain recreation destination for Valdez. This Market-based Scenario seeks to balance both visitation potential and visitation capacity to appropriately respond to market conditions and effectively capitalize on the mountain resort potential in Valdez. The complexion of the Market-based scenario provides an example of the types of activities that have the right variety, attraction, and capacity to meet market demand, but do not necessarily represent the only configuration of activities that would match the market opportunities.

Any year-round mountain recreation site constructed in the Valdez area would face the same market conditions described in this study, and would be limited to the level of visitation that can be captured from this market. As a result, the potential for the development of such a destination may best be understood through the analysis of the Market-based Scenario, as this alternative was developed based on market demand. This potential is summarized as follows:

- Annual visitation of approximately 89,000 (40,000 snow sports visitation and 49,000 multi-season (spring/summer/fall) visitation)
- Total capital costs of approximately $23.3 million.
- Annual operating costs of approximately $3.3 million annually (excluding debt service).
- Annual revenues of approximately $3.6 million.
- Total annual construction-related employment of approximately 100 and total labor income of $11.6 million annually, over a two-year construction period.
- Direct annual average operations-related employment of 30, peak season employment of 40, and total annual labor income of $1.3 million.
- Including multiplier effects, approximately 45 new jobs (annual average) in the community and $1.8 million in total annual labor income, associated with routine mountain recreation facility operations.
- Total annual visitor spending in Valdez of approximately $7.7 million. This spending would generate approximately 95 jobs and $3.9 million in annual labor income, including all direct, indirect, and induced effects.
- Total annual average employment of approximately 140, with total annual labor income of $5.7 million, including all direct, indirect, and induced impacts associated with facility operations and visitor spending in Valdez.

Again, these visitation figures and related economic impacts represent initial market penetration. Valdez visitation could reasonably be expected to grow at least at the pace that the visitor markets grow and perhaps faster, to the extent that name recognition grows, quality visitor experiences are developed and marketed, and the community in general sees increased visitation through cooperative marketing efforts. Future increases to annual visitation will in turn positively affect economic impact.

G. COMMUNITY IMPACT ASSESSMENT AND GAP ANALYSIS

All of the proposed projects will have access and utilities infrastructure costs associated with development. In some instances a portion of these costs might be borne by local government, because investment in the project would be expected to directly or indirectly pay off in terms of local economic development and diversification.

Other local government costs associated with mountain recreation facility operations could include emergency services (search and rescue, emergency medical services, fire suppression). Valdez has well-equipped, well-trained emergency response capability. At the Market-based level of visitation, mountain recreation development is not expected to increase demand for local emergency services beyond its existing capacity.

An increase in visitation to Valdez could also place additional demands on public health care providers. Again, however, at the Market-based level of visitation, existing facilities and services should meet demand.

A large private sector gap lies within the lodging sector. Snow sports destination visitors are in general accustomed to high-quality accommodations. Valdez's competitiveness as a snow sports destination will be constrained by lack of accommodations consistent with the quality of facilities and services available at other destinations. However, public sector involvement in supporting development of higher quality lodging would require carefully considered policies that would not be perceived as attracting competition for established hotels and other lodging establishments.

Recently initiated planning efforts to enhance the built environment are compatible with efforts to increase visitation from the mountain recreation sector. As with lodging, existing dining and entertainment options are not consistent with competitive destinations.

Mountain recreation development has the potential to create new jobs and attract new residents to Valdez. Lack of affordable housing is already a challenge for Valdez. The Market-based economic impact analysis indicates an annual average of approximately 140 new jobs would be created, with higher employment during peak season. Current residents would fill some of these jobs, but some in-migration would be required to fully meet labor demand. These jobs would primarily generate service sector-level wages (along with some management-level wages), which has implications on housing affordability. The City will need to work closely with mountain recreation facility developers to plan for and meet the housing needs of the new workforce.

Efforts to develop a new Valdez brand and marketing strategy are integral to project success. Like many Alaska communities, Valdez leverages the statewide tourism marketing program. With dramatic cuts to the state-funded program (dropping from $17 million in recent years to $1.5 million in 2016) core elements of the marketing program have been eliminated or dramatically reduced including the Official State Vacation Planner, advertising and direct mail programs, and international marketing contractors. Initiatives to develop an industry-funded program are in their infancy. Even if former state budget levels were available, Valdez and mountain recreation project developers will still face significant challenges reaching into new national and international target markets.

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CONTENTS

I. INTRODUCTION

In August 2015 SE Group—in association with McDowell Group, RRC Associates, and Design Alaska—was retained by the City of Valdez to conduct a Year-Round Mountain Recreation Site Study. Three potential locations for development of a year-round mountain recreation area (East Peak, Mineral Creek, and Sugarloaf) are being championed by private individuals in Valdez, and the City wants to ensure that potential developers and community leaders have objective information about these mountain recreation development opportunities from a market, technical, and financial perspective.

The purpose and goals of the study are to:

- Provide objective market, technical and financial information, and identify the opportunities, challenges, and costs associated with the potential developments. The study will examine summer and winter recreation market opportunities and challenges common to the Valdez area, as well as the economic feasibility and local costs/benefits associated with mountain recreation development.
- Understand if sustainable mountain recreation development in Valdez is reasonably possible, and what steps might be taken to enhance the community's opportunities in this regard.

The study includes five main tasks:

1. Background Research
2. Market Assessment
3. Project Analysis
4. Market-Based Opportunities Assessment
5. Economic Impact and GAP Analysis

The proposed projects—East Peak, Mineral Creek, and Sugarloaf—are in various stages of concept development, and elements of each project are expected to evolve over time depending on current conditions. Additionally, this analysis is focused on the development of the mountain recreation venue rather than possible future real estate or commercial development, estimating standard mountain resort metrics and market conditions across the projects based on the proponents' descriptions of their envisioned operations.

Next steps for the proposed projects should further refine the development concepts with the preparation of a comprehensive resort master plan. As the project(s) move toward implementation, more detail will be required for the development of environmental analysis and permitting documents. A resort master plan, regulatory entitlements, and a strategic business plan with associated financial analysis will be necessary to fully understand the future opportunity, and will be requirements for soliciting and securing future project funding.

II. BACKGROUND

A. COMMUNITY CONTEXT

1. ACCESS

Valdez can be accessed via airplane (Ravn Air provides service to/from Anchorage), ferry (the Alaska Marine Highway System connects Valdez to Whittier and Cordova), and highway (the Richardson Highway connects Valdez to the Alaska road system).

2. SEASONALITY

Valdez' tourism industry is heavily seasonal, concentrated between Memorial Day weekend and Labor Day weekend. Snowsports, particularly skiing, snowboarding, and snowmachining, bring visitors in March and April. Valdez is internationally recognized as an extreme skiing destination, having hosted the World Extreme Skiing Championships throughout the 1990s. Both air and ferry services are more limited in winter months.

3. ACTIVITIES AND ATTRACTIONS

Valdez' most significant assets in terms of drawing visitors are its scenic beauty (including glaciers, waterfalls, mountains, and Prince William Sound) and its fishing. Day cruises are very popular, showcasing the Sound's marine life and glaciers. Other common visitor activities include kayaking, hiking, camping, and museums. The very scenic Thompson Pass (approximately 20 miles away via Richardson Highway) attracts snowsport enthusiasts in the winter and hikers, berry-pickers, and sightseers in the summer.

4. EVENTS

Valdez hosts a number of events that bring visitors to the community, and are particularly important in the winter months when visitation drops off. The list below highlights the larger events, with attendance indicated where available.

- Valdez Qaniq Challenge (Nordic ski race), January 17 and 18. Around 35 participants.
- Valdez Ice Climbing Festival, February 12–15. Around 140 participants.
- Fat Bike Festival, March 11–13. New event in 2016.
- Thompson Pass Snowkite and AirSports Festival, March 28 to April 6.
- Tailgate Alaska, April 3–12. Around 400 participants.
- Mountain Man Snowmachine Hillclimb, April 17–19.
- Valdez Fly-In Air Show, May 8–10.
- Valdez Rock Climbing Festival, Memorial Day Weekend. Around 200 participants.
- Salmon Fishing Derby, July and August. Several thousand non-resident participants.

Implications for Valdez Year-Round Mountain Recreation

- Valdez' visitor industry is well developed and serves a wide variety of markets, mostly concentrated in the summer.
- Special events throughout the winter demonstrate the community's investment in attracting visitors throughout the year.

B. CLIMATE CHANGE EFFECTS IN VALDEZ

Mountain resort tourism is often identified as being particularly vulnerable to the impacts of climate change. While many resorts are implementing adaptation strategies for dealing with the impacts of climate change, such as expanded snowmaking capacity and offering multi-season recreation opportunities, it is important for mountain resorts to understand the magnitude of climate change they can expect in order to plan for the future.

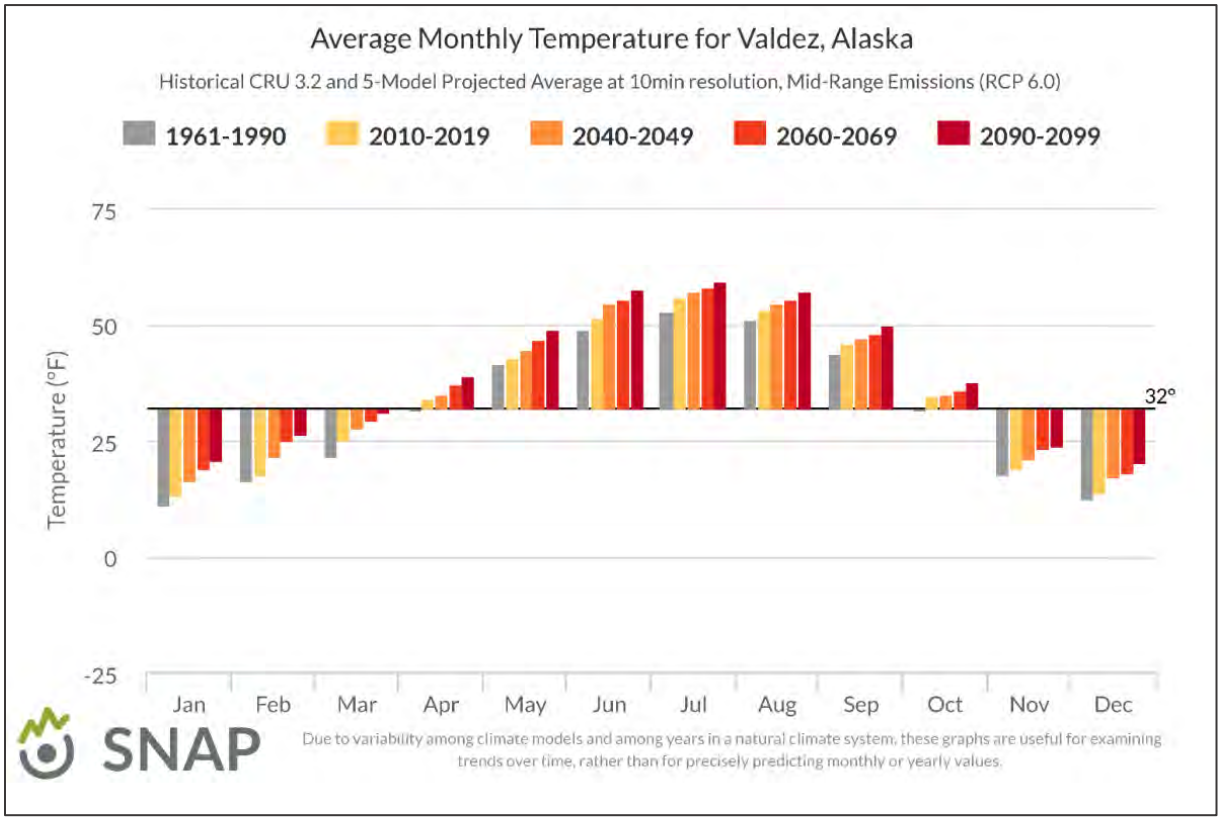
Two of the most important considerations for mountain resorts with respect to climate change are long-term changes in Average Monthly Temperatures and Average Monthly Precipitation. This discussion considers the expected impacts on these two data points for the area surrounding Valdez, Alaska using the Scenarios Network for Alaska + Arctic Planning (SNAP) System from the University of Alaska Fairbanks.[1] The Mid-Range Emission Scenario (Medium RCP 6.0), as defined by the International Panel on Climate Change, was utilized for this analysis. The Climatic Research Unit (CRU) 3.2 time-series dataset was used to form the historical baseline temperatures for the area.

According to the U.S. Environmental Protection Agency (EPA), "over the past 60 years, the average temperature across Alaska has increased by approximately 3°F. This increase is more than twice the warming seen in the rest of the United States. Warming in the winter has increased by an average of 6°F and has led to changes in ecosystems, such as earlier breakup of river ice in the spring. As the climate continues to warm, average annual temperatures in Alaska are projected to increase an additional 2 to 4°F by the middle of this century. Precipitation in Alaska is projected to increase during all seasons by the end of this century. Despite increased precipitation, the state is likely to become drier due to greater evaporation caused by warming temperatures and longer growing seasons."[2]

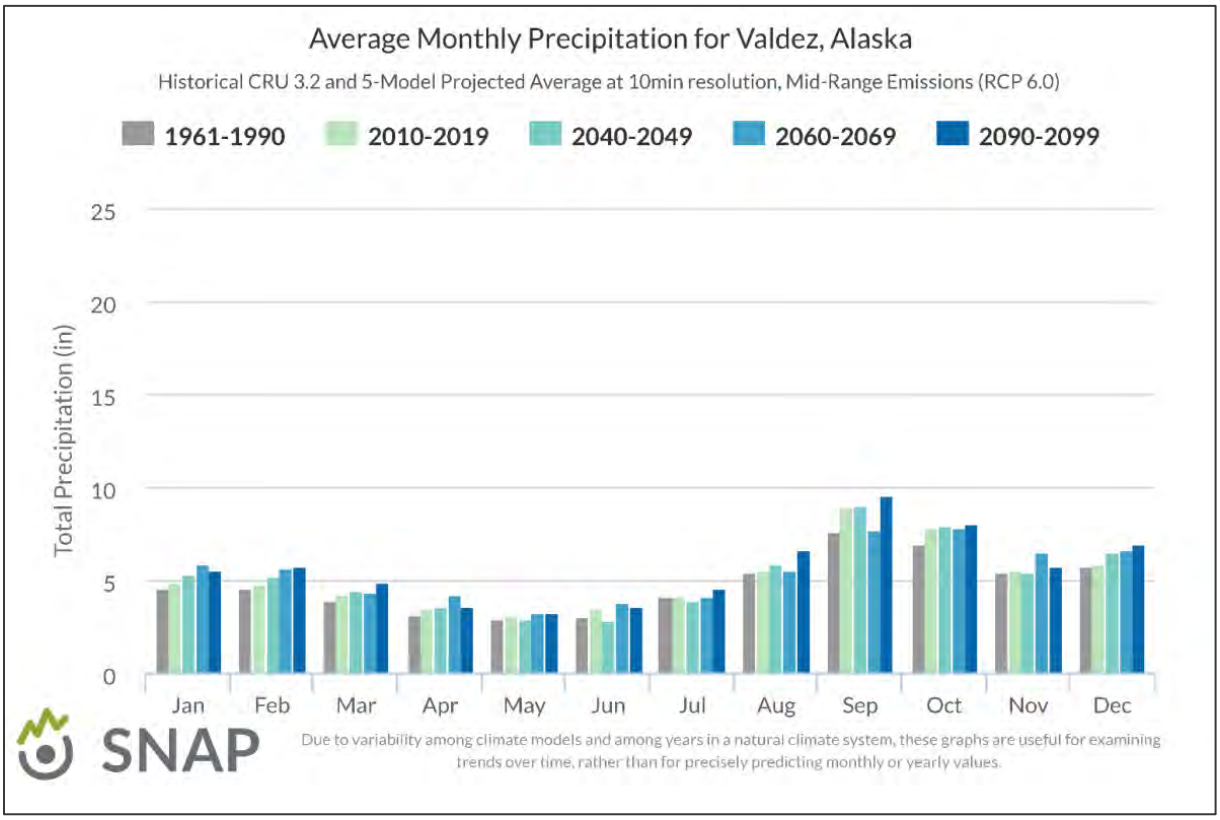
[1] International Arctic Research Center at the University of Alaska Fairbanks (2015). Scenarios Network for Alaska + Arctic Planning (SNAP) System. https://www.snap.uaf.edu/

[2] U.S. EPA (2015). Climate Impacts in Alaska. http://www3.epa.gov/climatechange/impacts/alaska.html

As with most other regions in Alaska, Valdez is expected to experience warmer weather throughout the year. Historically, Valdez has had average temperatures below freezing (32 °F) from October through April. Each of these months is expected to continue to have average temperatures well below freezing, even in the long-term (2090 to 2099), except October and April. Historically, the average monthly temperature in both October and April was just below freezing, at 31.6 °F average temperature for both. Average Monthly Temperature in both October and April are expected to rise above freezing as soon as 2019. The projected Average Monthly Temperature for Valdez is demonstrated in the following chart.



Valdez is projected to experience steadily increasing precipitation throughout the winter months (and throughout the entire year). The projected Average Monthly Precipitation for the area surrounding Valdez is shown in the following chart.



Climate models for Valdez indicate that while average monthly temperatures will likely be below freezing throughout the winter, and generally cold enough for natural and man-made snow, the consistency of natural snowfall and temperatures below freezing will be more variable than they have been in the past. While wetter winters will likely mean snowier winters for Valdez in the future, the models indicate that mid-winter rains will also become more likely, impacting natural snow quality. Warmer thaw periods interspersed throughout the winter are also expected to become more likely, placing a greater emphasis and reliance on man-made snow.

Overall, the outlook for snow sports in Valdez is relatively favorable, in that snow sports are expected to remain viable for most of the winter in the Valdez area at least through the end of the century. This favorable outlook may provide a comparative advantage relative to resorts in other North American regions that may have less favorable snow sports conditions in the future. It is also important to note that the relatively high elevation of potential mountain resort development in the Valdez area may provide greater snow packs at elevation, as a warmer and wetter climate future at sea level may provide for greater snow accumulation at elevation. Regardless of the climate favorability, any mountain resort in the Valdez area should consider potential climate change impacts in their planning and ensure they are utilizing adaptation strategies to confront warmer weather, such as advanced snowmaking capabilities and a diversification of recreational opportunities.

III. MARKET ASSESSMENT

The market assessment identifies:

- The depth of both winter and summer visitation potential;
- The complexion, scale, and characteristics (type of activities and the resulting capacity) of a mountain recreation site that would be critical for viability in the competitive marketplace;
- The marketing and market development strategy with the best chances of success, given Valdez's unique circumstances;
- Assets already in place in Valdez to support additional summer and winter visitation; and
- Critical market development challenges and strategies for addressing those challenges.

A. NORTH AMERICAN MOUNTAIN RESORT INDUSTRY TRENDS

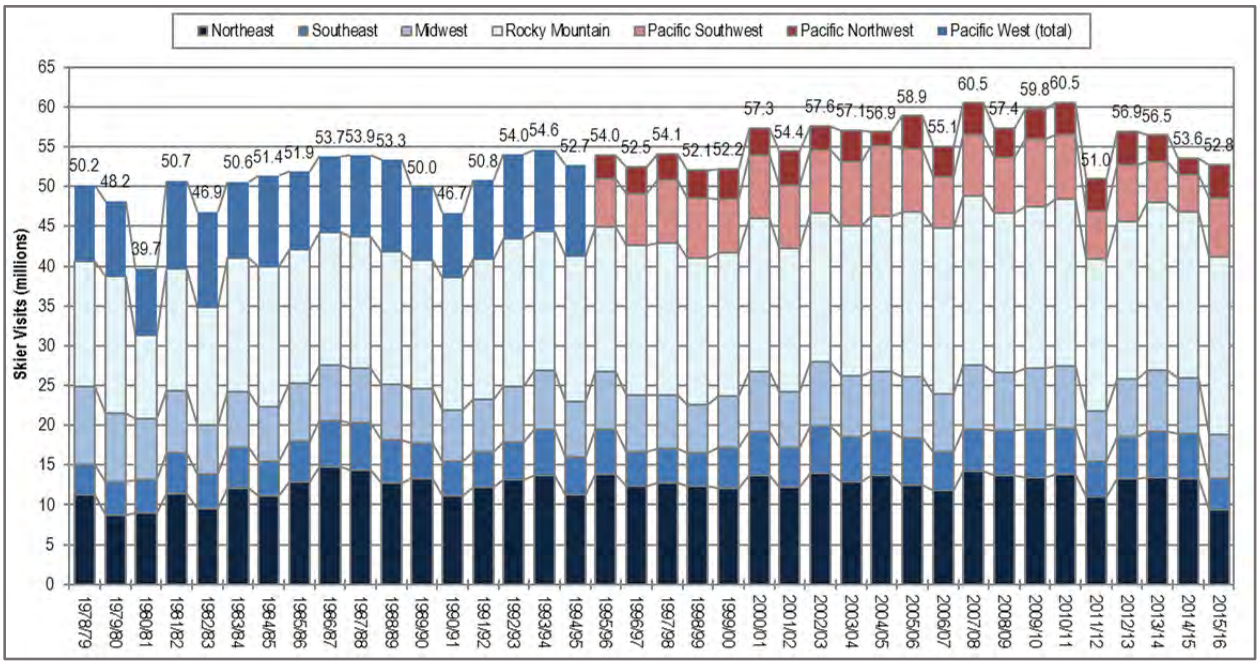
This section addresses:

- Economic conditions/Investment trends
- Snow sports market trends
- Characteristics of successful year-round mountain recreation areas
- Case studies (recent new developments)

1. SKIER VISITS

Results from the National Ski Area Association's annual end of season Kottke report indicate that downhill snowsports visits in the 2015/16 season were down 1.5% nationwide from the season prior to an estimated total of 52.8 million visits. Despite this decline from the prior season, the ***number of downhill visits has generally remained stable over the past 20 years***, with only small fluctuations within the typical 54- to 60-million visit range. This stability is reflective of a resilient downhill snowsports market—though factors like snow conditions and the economy may influence resort visitation, the numbers tend to be fairly similar from year-to-year.

Estimated Snowsports Visits by Region, 1978/79 to 2015/16



Source: NSAA Kottke End of Season Report, 2015/16

Metrics in the report are also segmented by resort region, which includes the Northeast, Southeast, Midwest, Rocky Mountains, Pacific Southwest, and Pacific Northwest. Skier visitation rebounded strongly in the Pacific Northwest region (which includes Alaska) in the 2015/16 season after two consecutive challenging winter seasons. The rebound was encouraging, showing the resilience of the snowsports market – rather than dropping out of the sports, skiers and snowboarders returned to the slopes when the snowfall conditions were better. At the same time, the variations in weather and visitation exhibit the dependency of skiing and snowboarding on favorable weather conditions.

2. HELI AND CAT SKIING

The Canadian Ski Council collects skier visits from heli and cat ski operators in British Columbia (only those who are members of CSC or HeliCat Canada, which is the majority of these operators). Over the past decade, the average skier visits for heli and cat skiing has been 92,000, including a noticeable recession-related decline in 2009/10 (80,000) and 2010/11 (86,000). The heli and cat skiing visit numbers have rebounded since the recession, up to 103,000 visits in 2013/14. The reasons behind this rebound could be the desire among skiers and snowboarders to seek out non-resort experiences, and to pursue different adventures than the traditional ski area can offer. Though the total numbers are small, the upward trend shows a growing interest in non-ski resort trips.

Note that no formal sources for estimates of heli or cat skiing visits in Alaska were identified. Conversations with local residents indicate that the total market for heli skiing in Valdez is currently around 1,000 visits per winter.

Implications for Valdez

A potential resort in Valdez would face the challenges that other resort operators face, like weather variability and the overall economic climate. Though the number of skier visits is generally stable on a national level, poor snowfall and reduced visitation can dramatically impact a single resort. Similarly, the heli/cat skiing visit numbers from British Columbia show a relatively narrow range and only moderate growth after a recession-related decline. Valdez is a very remote location, and therefore would likely need to generate strong destination visitation levels; limited opportunities exist to develop a day visitor following because of the small local population. (*Source*: NSAA Kottke End of Season Report, 2014/15, Canadian Ski Council, HeliCat Canada)

3. CAPITAL INVESTMENT

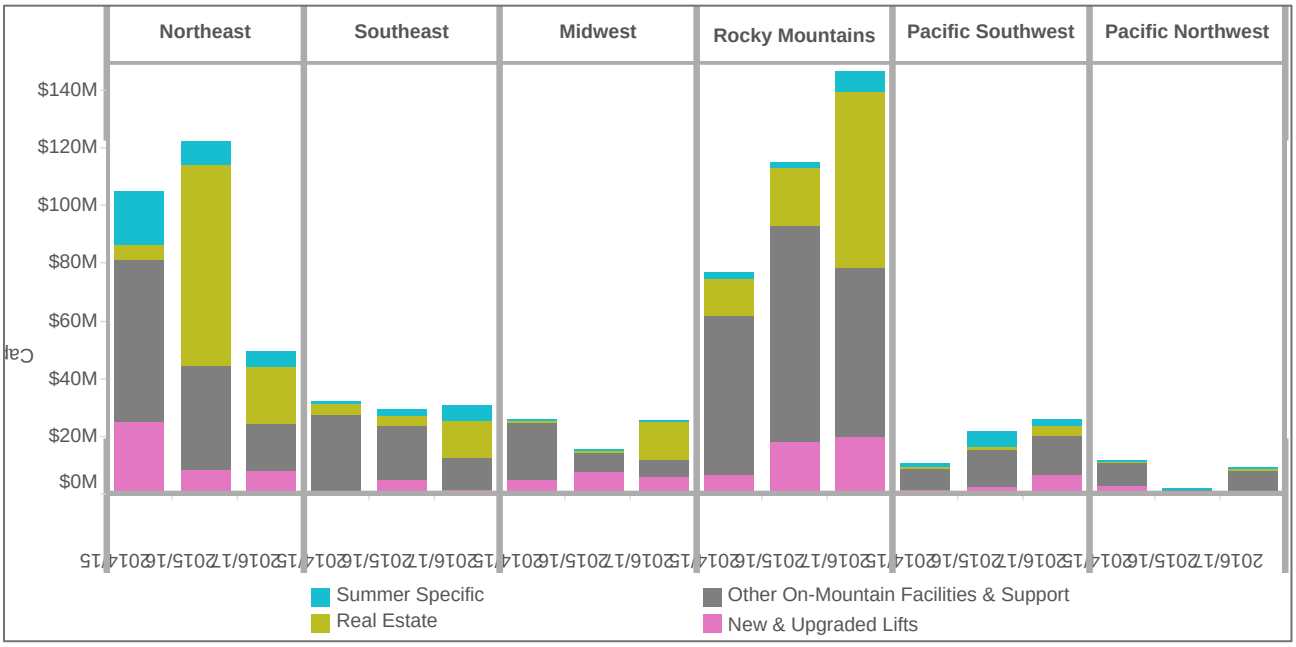
Total expenditures on capital improvements at U.S. ski areas increased by 17.0% from 2014/15 ($262.0 million) to 2015/16 ($306.5 million), but are projected to dip slightly in 2016/17 to $287.3 million (-6.2%) in 2016/17. Over the longer term, capital investment in ski areas is down from pre-recession highs of over $400 million annually.

Ski areas tend to invest their capital dollars on lifts and other on-mountain improvements, including real estate. By category, spending on other on-mountain facilities/support, the largest category of capital spending, is on a declining trend, dropping from $172.9 million in 2014/15, to $149.8 million in 2015/16, to $112.6 million in 2016/17. Spending on new and upgraded lifts is holding fairly steady, at $41.5 million in 2014/15, $42.0 million in 2015/16, and $43.2 million in 2016/17.Spending on real estate has been on an upswing, rising from $24.8 million in 2014/15 to $96.5 million in 2015/16, with a projected further rise to $110.2 million in 2016/17. Finally, spending on summer/fall-specific on-mountain facilities and support has held fairly steady, at $22.8 million in 2014/15, $18.2 million in 2015/16, and $21.4 million in 2016/17.

The largest share of investment for the three year period (2014/15 – 2016/17) is earmarked for on-mountain facilities/support (51%), followed by real estate (27%), new and upgraded lifts (15%), and summer/fall-specific facilities and support (7%).

By region, the greatest cumulative three-year investments are projected to occur in the Rocky Mountains ($338.9 million), followed by the Northeast ($276.8 million). Significantly less capital expenditure is seen in the Southeast ($92.7 million), Midwest ($66.8 million), Pacific Southwest ($58.6 million), and Pacific Northwest ($22.1 million).

Capital Investment by Type and Region, 2013/14, 2014/15, and projected 2015/16



Source: NSAA Kottke End of Season Report, 2015/16

Though ski areas have invested in summer activities to broaden and diversify their business levels, the ***vast majority of annual revenues occur during the winter season*** (88%).

Implications for Valdez:

Generally, access to capital is a significant challenge for many ski areas, and capital investment dollars are allocated very deliberately. A potential ski area in Valdez may be faced with similar challenges.

Spending on summer-related activities and infrastructure represent about 6% of total capital dollars, with on-mountain improvements and lifts accounting for the majority of the spending in the industry. Summer season revenues account for about 12% of annual revenues in the industry, showing the continued dominance of the winter season to the overall business.

4. BEGINNER CONVERSION

Tracking the number of first-time and beginner participants in the ski industry allows an understanding of the future potential and growth of the industry. Over time, the ***proportion of first-timers and beginners relative to total downhill snowsports participants has been gradually but steadily declining***, bringing up concerns about the long-term growth of the customer base. In addition, despite strong interest in continuing skiing or snowboarding from beginners, only 17% of beginners go on to become core participants. This dynamic encouraged the National Ski Areas Association (NSAA) to embark on a Beginner Conversion Study in the 2014/15 season. The Beginner Conversion Study recruits ski areas from around the nation to participate in a customized beginner tracking study, allowing them to track their own on-mountain first-timers and beginners as well as compare their resort-specific results to a national level.

An aggregate of survey results from across the nation shows that beginner skiers and snowboarders generally have a very positive experience at the ski resort—55% of beginners surveyed reported that they are highly likely to continue to ski or snowboard as a lifelong sport. Fifty-six percent of respondents also reported that they had an exceptionally fun time on their most recent resort visit.

Beginners that were surveyed also reported a strong intent to return to skiing and snowboarding in the following season. Over half of respondents indicated a high likelihood to continue the sport in the 2015/16 season, both at the resort they were surveyed at (55%) as well as at any resort (66%). Among those who did not plan to continue skiing or snowboarding, top reasons cited for stopping the sport include the ***travel distance, time commitment, cost of lift tickets/season passes, or cost of equipment***.

Additional follow-up with beginners who were surveyed in 2014/15 will be conducted in the 2015/16 season to further understand whether or not the beginners choose to stick with the sport and the reasons backing up their decision.

Implications for Valdez

Though retaining beginners and converting them into long-term participants is a front-burner topic in the ski industry, this subject has little relevance to the proposed ski areas in Valdez. First-time and beginner downhill snowsports participants are frequently day visitors, as they are unlikely to invest a considerable amount of time and money in a destination visit for a sport that they do not yet feel competent in (as noted in the results above). A resort in Valdez would appeal to more advanced ability levels, particularly because of its remoteness. For these reasons, the conversion of beginners and first-timers is not a significant concern to a potential Valdez resort.

Source: NSAA Beginner Conversion Dashboard Study, 2014/15

5. MILLENNIALS

The NSAA has also recently undertaken an ongoing study of the Millennial generation (young adults aged 18 to 34 years old) to understand their downhill snowsports participation patterns, as Millennials will be the future of skiing and snowboarding. When compared to all other age cohorts, the **Millennial generation accounts for the largest number of snowsports participants**. However, **Millennial skiers and snowboarders on average ski less days per season than other age cohorts**, with an average of only 4.9 days on the mountain in the 2014/15 season. These numbers are troubling to ski resort operators; thus, NSAA is studying the pattern of Millennial participation and intention to continue with snowsports.

A national survey of over 2,000 Millennials (including both snowsports participants and non-snowsports participants) in addition to qualitative one-on-one interviews in key market areas have generated some initial conclusions about Millennials and their propensity to participate in skiing and snowboarding.

On the survey, Millennial skiers and snowboarders were asked to describe what they like most about downhill snowsports. The words most frequently mentioned by respondents include "fun," "freedom," "friends," and "outside." One aspect that sets Millennials apart from their older counterparts is their social inclinations, which was noted throughout the qualitative interviews. Many Millennial skiers and riders indicated that skiing is, to them, a social activity—they prefer to spend both day visits and overnight destination trips with friends and family.

When asked what they dislike about skiing and snowboarding, Millennial snowsports participants were most likely to respond with words like "cold," "cost," and "lift lines." The cost of the sport is clearly a barrier for some Millennials. In fact, respondents were asked to talk about the reasons their friends cite for not skiing or snowboarding, and many mentioned "money," "cost," or the "expensive" nature of the sport. Resorts must take into consideration the relatively lower income of some Millennials and their financial limitations in order to boost participation from this age cohort. Though a large portion of Millennials face financial challenges, secondary research has revealed that there are some 16.6 million Millennials in households earning over $100,000 per year. These wealthy Millennials are spending money on luxurious experiences that they feel are worth the time and investment. As they are less likely to have families and own homes, they typically have a considerable amount of dispensable income to put into experiences and products. Remote ski areas have an opportunity to bring in high income Millennial skiers and snowboarders who are seeking a unique experience.

Despite these limitations, 55% of Millennial skiers and snowboarders strongly agreed with the statement, "I'm committed to skiing/snowboarding for life." Interestingly, the percentage strongly agreeing with this statement declined somewhat with age (from younger Millennials to

older Millennials) as well as with the presence of children. However, this paints a positive picture overall of Millennial participation in the downhill snowsports market.

Implications for Valdez

The young adult population of Millennials would be a critical component to the customer base for a potential ski area at Valdez. Young skiers and snowboarders might be more apt to have the time, inclination, and disposable income to experience the adventure of skiing in Alaska. Studies have documented that young adults are willing to pay for unique and authentic experiences; Valdez would certainly qualify as an authentic ski destination. Adapting products and experiences to better fit Millennial participants is critical for any resort that wants to stay healthy long-term. Valdez would need to devise a marketing plan that targets young adults, and to acknowledge changing demographics and different needs for each age cohort.

Source: NSAA Millennial Study, 2014/15, AdvertisingAge (http://adage.com/article/news/affluent-millennials-live-spend/238679/

6. EMPHASIS ON SUMMER ACTIVITIES

To generate year-round income and boost visitation in all seasons, many ski resorts across the nation have been working hard on **improving their summer offerings** over the past few years. Travel and accommodations are often more affordable for summer visitors than they are for winter visitors. An article from the USA Today highlights the diverse array of summer offerings from resorts all around the nation: mountain biking at Aspen Snowmass, ice skating shows at Sun Valley, a whitewater park in Vail, fishing at Big Sky, road biking in Steamboat, ziplining and mountain coasters at Park City, the rodeo in Beaver Creek, tram rides in Jackson Hole, and four-wheeling at Breckenridge.

Many other resorts have followed suit, expanding their multi-season recreation opportunities to encompass a wider visitor market. Most resorts in the summer marketplace also offer special events that relate to recreation, food and beverage, health and wellness, music, arts and culture, and many other themes.

A study by the NSAA conducted in 2014 took a look at summer operations at U.S. ski resorts. The **top summer/fall activities offered by resorts include hiking, scenic lift rides, and mountain biking**, with over half of the participating resorts reporting that they offer these activities. The survey also asked respondents about summer/fall events. Almost all responding resorts indicated that they host weddings/meetings/family reunions. About half also offer festivals. As many resorts continue to expand and improve their summer offerings, it will likely be more difficult for resorts without multi-season opportunities to remain relevant in the resort marketplace.

According to the NSAA Kottke End of Season Report, resorts located in the Pacific Northwest are particularly unlikely to offer non-snowsports amenities such as chairlift rides, mountain biking, zip lining, disc golf, and other summer activities. Sixty-two percent of responding Pacific Northwest resorts indicated that they do not offer these activities, a higher figure than any of the other five regions. Another question in the Kottke report asked resorts to identify the

percentage of their total revenue that is attributable to the non-winter period. For Pacific Northwest resorts, this was only 7.4% in the 2014/15 season, trailing all other regions with the exception of the Pacific Southwest. Seeing as the offseason is an undeveloped market in this region, the expansion of summer activities may be a good opportunity for mountain resorts in the Pacific Northwest.

Implications for Valdez

Research indicates that a potential ski area in Valdez may be well-positioned to incorporate summer recreation and activity offerings. Traveling to Valdez for traditional summer recreation opportunities, such as camping and fishing, is popular among some Anchorage and Fairbanks residents. The proportion of visitors who report camping as their accommodations type is very high, indicative of a robust, outdoors-oriented summer market. Though Valdez currently has an abundance of traditional summer recreation activities, a resort could offer summer chairlift rides, mountain biking, and hiking as well as more non-traditional summer recreation like zip lines, mountain coasters, or disc golf. These non-traditional activities are largely unavailable in the region and could give Valdez a competitive advantage by providing a well-rounded summer experience to visitors. However, a strong local population, which Valdez lacks, is typically necessary for the success of these non-traditional recreation opportunities. As a result, it may be best to incorporate more traditional resort summer operations like mountain biking, scenic chairlift rides, and event hosting.

Source: USA Today (http://www.usatoday.com/story/travel/destinations/2013/07/19/ski-resort-summer-attractions-activities/2552835/), 10best (http://www.10best.com/interests/sports-travel/10best-offseason-ski-resorts-for-summer-adventure/), NSAA Summer Operator Study, NSAA Kottke End of Season Report (2014/15)

7. PASS PARTNERSHIPS

In recent years, **reciprocal ski passes created by resort partners** have become a popular option for downhill snowsports participants. These pass partnerships allow skiers and snowboarders to visit a variety of resorts nationally and internationally under one comprehensive pass with a one-time purchase. In recent years, the three main players have been the Epic Pass, the Mountain Collective, and the Rocky Mountain Super Pass Plus.

- Epic Pass: For the 2015/16 season, the Epic Pass is priced at $769* and allows purchasers to ski or ride unlimited days at any of the Vail Resorts. The 12 resorts on the pass include Heavenly, Kirkwood, and Northstar in California; Arapahoe Basin, Breckenridge, Keystone, and Vail in Colorado; Park City in Utah, Mt. Brighton in Michigan; Afton Alps in Minnesota, and Perisher in Australia. The pass also offers access to international resorts, including five days at Verbier in France (in the past the Epic Pass has provided skiing at Niseko in Japan as well). The Epic Pass comes with six discounted "Ski-with-a-Friend Tickets."
- Mountain Collective: The Mountain Collective Pass offers two days each at eleven resorts across North America and one in Australia including Aspen Snowmass in Colorado; Jackson Hole in Wyoming; Sun Valley in Idaho; Alta/Snowbird in Utah; Squaw Valley/Alpine Meadows and Mammoth in California; Lake Louise and Sunshine Village in Alberta; and Whistler Blackcomb in British Columbia. There are a few new

additions this year, which include Stowe in Vermont, Taos in New Mexico, and Thredbo in Australia. It costs $379* for 2015/16 and offers an unlimited 50% discount on additional days as well as 25% off lodging at each of the resorts.

- Rocky Mountain Super Pass Plus: Mainly a Colorado-based pass, the Rocky Mountain Super Pass Plus offers unlimited days at Winter Park, Copper Mountain, and Eldora as well as six days at Steamboat and three days at Crested Butte. This pass also provides three days at Alyeska in Alaska and, for international skiers and riders, seven days each at Cardrona and Mt. Ruapehu in New Zealand and seven days at Nekoma in Japan. Passholders receive a variety of benefits, including 20 friends and family tickets and discounts on rentals, retail, and lodging. The Rocky Mountain Super Pass Plus is priced at $539.*

The 2015/16 season will welcome a new pass, called the Multi-Alpine Experience (M.A.X.) Pass. Intended to compete directly with the Vail Resorts Epic Pass, the M.A.X. pass is $699* for the 2015/16 winter and includes five days at each of 22 mountain resorts in North America that have collaborated to make this pass possible.

Implications for Valdez

Pass partnerships provide a unique opportunity for resorts to attract new skiers and snowboarders from different locations and expand their customer base. They encourage snowsports participants to visit off-the-beaten path destinations and appeal to skiers and snowboarders looking to cross destination ski areas off of their bucket list. A Valdez resort is a good candidate for a pass partnership, as the partnership would not only generate national awareness about Valdez but would also encourage potential destination visitors to experience a new ski resort without having to pay for lift tickets. Pass partnerships also offer added appeal by associating a single resort with a variety of other ski areas, thus providing a marketing advantage by expanding the captive audience for the resort. The remoteness of Valdez may in fact, be a positive asset if Valdez were to be included on a pass partnership and marketed towards hardcore destination skiers seeking an authentic and new experience.

*Reflects early purchase price.
Source: Conde Nast Traveler (http://www.cntraveler.com/stories/2015-04-13/why-you-should-buy-2015-2016-ski-passes-now), Denver Post (http://www.denverpost.com/business/ci_27685406/new-m-x-pass-aims-dethrone-epic-pass), websites for each of the listed passes.

8. TREND OF COMPREHENSIVE DESTINATION AMENITIES

Overnight visitors, instead of focusing solely on the skiing or boarding experience, are starting to look for a more comprehensive visit. They expect not only a good snowsports experience, but also high quality lodging, food, and entertainment experiences. Research programs conducted by RRC track resorts across all of these factors.

For example, the annual top resort ratings announced by SKI Magazine rate ski resorts on a myriad of factors involved in the destination experience. Off-mountain ratings include accessibility/ease of travel, lodging, dining, après-ski/nightlife, off-hill activities, kid friendliness, scenery, character/ambiance and overall satisfaction. Therefore, destination visitors expect a positive experience both on and off the mountain. This consideration is important to keep in mind for any destination ski resort or mountain resort community.

The resorts have noticed this trend too, and have made adjustments to better suit the needs of their customers. Many provide information about lodging, dining, and non-skiing activities

right on the resort websites and also offer links for potential visitors to book lodging. They also provide opportunities for packages, bundling many components of the trip like lift tickets, lodging, rentals, and additional amenities into one price. This allows visitors to save money and have an all-inclusive experience at the resort.

Visitors are also looking for a more holistic and authentic mountain experience. There are hundreds of ski resorts across North America for visitors to choose from—resorts must be creative in order to stand out in the competitive marketplace. Today, many ski resorts have developed their own unique brand, something that keeps them distinctive and allows visitors to differentiate them from other mountains. Aspen brands itself as a high-end destination, Jackson Hole appeals to visitors as Western and rugged, Big Sky emphasizes its vast terrain, marketing for Steamboat focuses on the family-friendly feel, Taos Ski Valley highlights the local New Mexican culture, Deer Valley is known for its guest service, Crested Butte markets the extremely challenging terrain, and Whistler Blackcomb touts their spot as the number one ski resort according to SKI Magazine.

Implications for Valdez

If created, a future Valdez ski area would need to keep these trends in mind. First, as the clientele would likely be destination visitors due to the remoteness of Valdez, the town itself would need to meet destination expectations. Current limited lodging, dining, and non-skiing activity options would likely need to be expanded and improved to adequately accommodate the needs of destination visitors. Second, a unique brand identity would benefit Valdez by establishing its own spot in the marketplace. The deep snow, advanced skiing (heli-skiing excursions), proximity to a port, Alaskan wilderness, and remote location are all defining factors of Valdez. Valdez was named "America's Snowiest City" by weather.com, which may be an excellent way to provide a ski area with a unique identity. Capitalizing on these assets and expanding amenities would potentially position Valdez strongly amongst the competition.

Source: SKI Magazine Reader Survey 2015, NBC News (http://usnews.nbcnews.com/_news/2011/12/13/9418014-americas-snowiest-places-weathercom-lists-them

9. SUCCESSFUL YEAR-ROUND MOUNTAIN RECREATION AREAS

Mountain destinations can be successful on a variety of levels, and there is no single recipe for success. Not all successful ski areas are necessarily large destinations; small day areas can also be quite financially accomplished in different ways from the larger more well-known resorts.

The following list briefly presents some of the most important factors that generally make a mountain resort a successful business enterprise.

- Access to Customers, either through proximity to a local population or an air transportation system to fly destination visitors to the area.
- Adequate Size and Complexion, to keep customers engaged, either over the season (for a day area) or over a multi-day stay (for a destination area), with a variety of options and to keep them coming back and to create a "critical mass" of activity and animation.
- Diversity of Bed Base, to provide places for destination visitors to sleep (and to potentially diversify ski area revenues if the company owns a lodge or two).
- Diversity of Revenue Streams, both within a given season and across seasons. A diversity of multi-season activities, programs and events is critical to be attractive and competitive in the marketplace.
- Access to Capital, to fund continual ski area improvements
- Marketing Budget and Strategy, to ensure new customers visit and existing customers return
- Customer Service, providing a great experience for guests
- Efficient Management, which drives departmental revenues while monitoring costs, delivering high margins.

Successful ski areas and mountain resorts have some combination of the above factors, which collectively contributes to their overall health.

10. RECENT NEW DEVELOPMENTS

The following discussion presents some of the new ski areas in North America and the opportunities and challenges they have faced so far.

Tamarack Resort – Tamarack, ID

Located in west-central Idaho about two hours north of Boise, Tamarack Resort was opened in 2004 as a multi-season destination resort. The resort borrowed hundreds of million dollars to put into development in the hopes of creating a world-class resort rich with luxury accommodations and real estate. Winter activities at Tamarack Resort include skiing and snowboarding, cross-country skiing and snowshoeing, and snowmobiling. Tamarack also provides a multitude of summer opportunities, including water activities like whitewater rafting, boating, and kayaking due to the resort's proximity to Lake Cascade. Tamarack has also historically operated Osprey Meadows Golf Course, rated number one on Golf Digest's 2006 list of America's Best New Public Courses $75 and Over.

However, operations came to a halt in summer 2008 when the recession hit and the resort was foreclosed. Key stakeholders imagined the foreclosure would last no longer than six months, but it continued for six years. During these financial troubles, the Tamarack Homeowners Association took over operations of the resort. Ownership changed in 2015 when New TR Acquisition Company LLC (New TRAC) took over the resort and real estate properties. New TRAC intends to revive operations along with Replay Resorts, a Canadian resort management company.

Despite these difficulties, the ski resort only closed for one year, reopening in 2010. Visitation and ticket sales have been strong, meeting or exceeding pre-recession levels. Tamarack has shifted their business model from one driven mainly by the real estate market to focusing on revenue from the ski and golf resorts. Local residents are proud of the progress and resilience that Tamarack Resort has shown.

The challenges will not end as Tamarack Resort continues to regain momentum. The Osprey Meadows Golf Course was closed this summer due to cost burdens. Early in summer 2015, Valley County indicated that they would seize Tamarack Resort properties because $5 million of back taxes have not been paid. The District Court judge ruled that the County's tax notices were not detailed enough, delaying any takeover for now. Though Tamarack Resort moves closer towards stability after the financial turmoil of the past several years, there are still many obstacles that the ski area must overcome to become a viable sustainable business.

Source: KTVB (http://www.ktvb.com/story/news/local/2015/03/25/new-tamarack-ski-operator-golf-course-future-unknown/70411920/, http://www.ktvb.com/story/news/local/2015/05/15/tamarack-resort-osprey-meadows-golf-course-closed/27350099/), Tamarack Resort (http://tamarackidaho.com/), the Missoulian (http://missoulian.com/lifestyles/recreation/regional/tamarack-ski-resort-survives-long-strange-ride/article_6554cd92-8530-11e3-81e8-0019bb2963f4.html), Boise Weekly (http://www.boiseweekly.com/boise/star-news-judge-halts-seizure-of-tamarack-propertiesfor-now/Content?oid=3569730)

Cherry Peak Ski Resort – Richmond, UT

Cherry Peak is a new ski resort located in the northeast corner of Utah in a small town named Richmond. The ski area was supposed to open for the 2014/15 season, but delays in construction prevented it from opening. John Chadwick, the developer, feels that the greatest strength of Cherry Peak is its proximity and convenience. Though a small resort with only 200 acres and twenty-nine trails, Cherry Peak is only a ten minute drive from Richmond and a thirty minute drive from Logan, a small city with approximately 50,000 residents. Chadwick has branded the ski area as a "teaching mountain." He has also acquired snowmaking equipment so that resort operations will not be limited only to favorable weather conditions. In addition to typical downhill snowsports, the resort will also offer snow tubing, ice skating, and a terrain park. Future summer recreation ideas include space for family reunions and weddings, horseback riding, zip lining, mountain biking, and a waterslide.

The development of the resort has not come without controversy. Proponents of the ski resort argue that it will help increase property values and generate revenue for the county. Meanwhile, local residents who were against the ski area cited negative wildlife impacts, road deterioration, and water supply issues. After a long struggle in court with local residents appealing the resort permit, Chadwick was finally given permission to build and operate Cherry Peak.

Chadwick also identifies government regulations as a hurdle for his business, saying that requirements have made it difficult for him to create and maintain job positions.

Source: Utah Public Radio (http://upr.org/post/new-ski-resort-will-be-utahs-15th), Examiner.com (http://www.examiner.com/article/utah-s-new-cherry-peak-resort-slated-to-open-for-2015-16-ski-season), the Standard Examiner (http://www.standard.net/Recreation/2014/08/21/Ski-resort-developer-plows-through-controversy)

Revelstoke Mountain Resort – Revelstoke, BC

Revelstoke Mountain Resort opened in 2007 as a result of the popularity of heli-skiing with the Selkirk Tangiers Heli Skiing company, located in Revelstoke. Revelstoke boasts the longest vertical drop in all of North America, with over a mile (5,620 feet) from the bottom to the top of the resort. Heli skiing is still offered at the resort, as well as cat skiing. These three types of skiing combined give snowsports participants access to over 500,000 acres of terrain.

Construction of Revelstoke and its amenities is still not complete. Developers aim to make it a world-class destination resort, operating in all four seasons and including 5,000 housing units, 500,000 square feet of commercial space, and a golf course resort. Additional summer activities are also in the works, including a summer adventure park with mountain biking and zip lining as well as a mountain coaster. The mountain coaster was first proposed this year; however, the adventure park was originally proposed in 2013 and was rejected for a variety of reasons including road engineering and access and proximity to the Revelstoke watershed. After a redesign of the adventure park to account for these factors, the proposal was accepted this summer.

Stakeholders at Revelstoke have faced an array of other challenges as well, particularly in regards to their Master Development Agreement. Formed between Revelstoke Mountain Resort, the City of Revelstoke, and the province, the agreement provides development guidelines for the resort. Currently, a couple of residents are interested in annexing land from the resort and developing a treehouse hotel just south of the resort. Northland Properties, who owns Revelstoke Mountain Resort, argues that this is an unfair advantage, as the lodge will take

revenues from the resort. City council members will decide whether or not to approve the annexation soon.

Source: Revelstoke (http://www.revelstokemountainresort.com/resort/about-the-resort), the Revelstoke Review (http://www.revelstokereview.com/news/333069971.html, http://www.revelstokereview.com/news/216243411.html), CBC News (http://www.cbc.ca/news/canada/british-columbia/roller-coaster-planned-for-revelstoke-mountain-resort-1.3223216), Revelstoke Mountaineer (http://revelstokemountaineer.com/rmr-owner-northland-opposes-nearby-parasitic-development-warns-they-want-reimbursement-if-it-goes-ahead-7894)

Powder Mountain – Eden, UT

Powder Mountain has been in operation since the 1970s. It was founded by Alvin Cobabe, a doctor in the area. The resort grew slowly and the town of Eden, where Powder Mountain is located, never had much in the way of amenities to offer. Cobabe sold Powder Mountain to Western American Holdings in 2008. Western American Holdings proposed a large expansion and intended to turn Eden into "Powder Mountain Town" by incorporating it and dominating the city council. Eden residents were furious about this plan and sued Western American Holdings, ending the idea for "Powder Mountain Town."

The Summit Series, founded in 2008, purchased Powder Mountain for $40 million in 2013. Summit was founded by a group of four young tech entrepreneurs who have collaborated with many others ("crowdsourcing") to make the purchase of the resort and future developments possible. Summit Series intends to develop a new lodge, sell hundreds of plots of land to build homes, and develop a village near the mountain. They will also expand ski area offerings, with new chairlifts and summer recreation opportunities like mountain biking and kids summer camps. Homes will all be LEED certified and can be no larger than 4,500 square feet. Many of these benefits and upgrades will be available exclusively to Summit members, while the original ski area will be open to the public. The model is to create a private/public facility with some areas open to the public and others only to members.

Summit is also very focused on preserving the history and feel of the mountain; the location where houses will be built has been carefully selected as to not disrupt on-mountain views. Eden will become a meeting place for business and cultural leaders, a year-round high end destination that protects the local culture. Visitors have come from all over the world to attend the business events.

Not all locals are happy about the change, however. They feel that there is no way the town will not change with all of these new ideas in place. The Summit Series, a series of weekend events for the Summit community, will be held in Eden, and some locals feel that these events are exclusive. Summit has attempted to calm these fears by hosting community events and collaborating with local residents.

Source: SKI Magazine (http://www.summit.co/ski_mag_powder_mountain.pdf), the Standard Examiner (http://www.standard.net/Business/2015/02/22/Summit-building-a-village), the New York Times (http://www.nytimes.com/2015/04/12/fashion/powder-mountain-the-ski-resort-that-crowdsourcing-built.html?_r=0)

B. VALDEZ MOUNTAIN RECREATION MARKET POTENTIAL

This section addresses:

- Snowsports enthusiasts
- Potential summer visitors – mountain recreation enthusiasts
- Potential summer visitors – package and independent visitors
- Residents of Southcentral and Interior Alaska

1. POTENTIAL MARKET FOR VALDEZ SKIERS AND SNOWBOARDERS

The potential market for skiers and snowboarders at Valdez is the total pool of people who currently ski and snowboard in North America. This group of participants is about 12.5 million people, including 9.6 million residents of the United States, 2.2 million residents of Canada, and 600,000 residents of offshore countries (including Europe, Australia, New Zealand, Latin America, and other countries).

Of these 12.5 million people, only about 1.7 million are reasonably anticipated to be within the group of realistic candidates for a Valdez ski area. The 1.7 million skiers and snowboarders are those who currently take overnight fly destination ski trips, are of intermediate, advanced or expert ability level, and have a household income of $150,000 or greater. Currently, those 1.7 million snowsports participants are skiing and snowboarding at approximately 120 different ski areas in North America. The extent to which some proportion of this potential visitor pool might visit Valdez would depend on whether they could be lured away from the ski area(s) where they currently ski/ride.

While there may be a large number of potential customers for a ski area at Valdez, there is likely a very small proportion that will invest the time and expense to travel to Valdez. Similar challenges faced by other remote ski areas with a small local population are discussed below.

2. ALASKA VISITOR INDUSTRY INDICATORS

Table III-1. Alaska Visitor Volume, by Transportation Market, 2014/15

	Summer	Winter	Annual
Cruise	967,500	0	967,500
Air	623,600	274,900	898,500
Highway/ferry	68,500	11,900	80,400
Total	1,659,600	286,800	1,946,400

Source: *Alaska Visitor Statistics Program VI* (AVSP).
Notes: Summer refers to May-September; winter refers to October-April. Air visitors entered and exited Alaska by air; cruise passengers spent at least one night onboard a cruise ship; highway/ferry visitors entered or exited Alaska by highway or ferry.

Table III-2. Domestic Air Enplanements, 2014/15: Alaska, Anchorage, Fairbanks, and Valdez

	Summer	Winter	Annual
Alaska	1,145,700	836,600	1,982,300
Anchorage	837,500	636,800	1,474,300
Fairbanks	138,300	101,800	240,100
Valdez	7,200	7,500	14,700

Source: Alaska Airlines, Alaska Department of Transportation and Public Facilities, Bureau of Transportation Statistics.
Note: These figures include Alaska residents.

Table III-3. Cruise Passenger Traffic for Selected Ports, 2010–2014

	2010	2011	2012	2013	2014
Juneau	875,593	875,947	927,941	985,667	953,055
Icy Strait Point	122,974	127,866	120,786	124,320	142,416
Seward	136,129	132,779	136,892	125,183	141,442
Whittier	126,866	130,312	170,758	202,336	162,002
Valdez	490	330	0	245	0

Source: Cruise Line Agencies of Alaska.

a. Implications for Valdez Year-Round Mountain Recreation

- Alaska hosts nearly 2 million visitors on an annual basis; 85% in the summer and 15% in the winter. One-half of Alaska's visitors travel by cruise ship, with nearly all of the rest entering and exiting the state by air.
- Of the nearly 2 million annual outbound enplanements in Alaska (residents and visitors combined), three-quarters (74%) enplane at Anchorage Airport (an hour by air from Valdez).
- Alaska cruise visitation exceeded a million passengers prior to 2010. Abrupt declines in 2010 were attributed to the national recession and a suite of taxes and regulations targeting the cruise industry.
- In the last five years, cruise traffic has steadily rebounded. However, individual communities have very different visitation rates.
  - » Round-trip sailings from Seattle and Vancouver represent roughly 70% of the Alaska cruise market. These ships call in southeast Alaska ports only, typically Juneau, Ketchikan, and Skagway.
  - » Sailings crossing the Gulf of Alaska into Whittier and Seward recovered more slowly than the round-trip sailings, due in part to passengers' price sensitivity on airfare to/from Alaska.
  - » Cruise traffic into the three primary ports (Juneau, Ketchikan, and Skagway) generally reflects the overall recovery in the market.
  - » Secondary ports, including Icy Strait Point (ISP) near Hoonah, have significantly fewer ship calls. Small increases in visitation is a reflection of incremental growth in market share. After a decade of operations, ISP recently invested in a mile-long, six-

passenger Ziprider. The attraction has increased visitor spending and satisfaction, but has not materially affected the number of port calls. ISP is currently investing approximately $30 million this winter in dock and site redevelopment; they anticipate a modest increase in cruise visitation in the near term.

» In contrast to the overall Alaska market, Valdez cruise visitation has been negligible in recent years. (Discussed in more detail in the Valdez section.)

3. ALASKA VISITOR PROFILE

Information in the tables below is from Alaska Visitor Statistics Program (AVSP), a statewide visitor intercept survey conducted by McDowell Group for the Alaska Department of Commerce, Community, and Economic Development. Alaska residents are excluded from the survey.

4. SUMMER VISITORS TO ALASKA: ACTIVITIES

The following table shows the activities participated in by visitors to Alaska in summer 2011, for all visitors as well as by transportation market. Air visitors entered and exited Alaska by air; highway/ferry visitors entered or exited Alaska by highway or ferry; and cruise visitors spent at least one night of their Alaska trip onboard a cruise ship.

Table III-4. Summer Visitors to Alaska: Activities (%)

	All Visitors	Air	Cruise	Highway/Ferry
Shopping	69	58	77	63
Wildlife viewing	52	53	53	41
Birdwatching	*12*	*15*	*10*	*11*
Cultural activities	49	39	55	46
Museums	*27*	*26*	*28*	*32*
Historical/cultural attractions	*25*	*20*	*29*	*21*
Native cultural tours/activities	*17*	*10*	*22*	*10*
Gold panning/mine tour	*15*	*7*	*20*	*12*
City/sightseeing tours	39	17	54	13
Train	38	11	57	14
White Pass/Yukon Route	*26*	*1*	*43*	*10*
Alaska Railroad	*20*	*10*	*28*	*5*
Hiking/nature walk	38	48	32	34
Day cruises	36	25	44	29
Fishing	20	39	7	25
Guided fishing	*11*	*20*	*6*	*11*
Unguided fishing	*10*	*24*	*1*	*17*
Visiting friend/relatives	19	45	3	25
Flightseeing	16	12	20	9
Shows/Alaska entertainment	13	7	17	6
Tramway/gondola	12	6	16	5
Salmon bake	10	5	13	5
Dog sledding	9	5	12	3

Table III-4. Summer Visitors to Alaska: Activities (%)

	All Visitors	Air	Cruise	Highway/Ferry
Camping	7	14	<1	51
Kayaking/canoeing	7	8	7	5
Business	7	16	1	4
Rafting	6	5	7	3
Zipline	5	<1	8	1
ATV/4-wheeling	5	5	5	1
Biking	5	5	4	5
Northern Lights viewing	2	3	2	1
Hunting	1	1	<1	1
Other	4	5	3	6

a. Implications for Valdez Year-Round Mountain Recreation

- Alaska's summer visitors are more oriented towards sedentary activities than towards adventure activities, with the most popular activities being shopping, wildlife viewing, cultural activities, and city/sightseeing tours.
- The most popular adventure-oriented activities among Alaska visitors are hiking/nature walk (38%), dog sledding (9%), camping (7%), kayaking/canoeing (7%), rafting (6%), zipline (5%), ATV/4-wheeling (5%), and biking (5%).
- Approximately 12% of Alaska visitors reported taking a tramway or gondola while in the state, including 6% of air visitors, 16% of cruise visitors, and 5% of highway/ferry visitors.
- Approximately 200,000 summer visitors experienced a tramway or gondola, including Mt. Roberts Tramway (Juneau), Alyeska Resort, and the Creek Street funicular in Ketchikan. (Approximately 150,000 of the total reflects Mt. Roberts Tramway ridership.)

5. WINTER VISITORS TO ALASKA (VACATION/PLEASURE ONLY)

The following tables show the characteristics of visitors to Alaska in fall/winter 2011/12 who were traveling for vacation/pleasure purposes. These visitors represented 13% of the overall fall/winter market, or 34,000 total visitors. Other visitors were traveling for business (43%), business/pleasure (8%), or visiting friends/relatives (36%).

Table III-5. Fall/Winter Vacation/Pleasure Visitors to Alaska: Packages and Activities

	% of Visitors
Purchased multi-day package	4
Package Type (Alaska trip)	
Northern Lights package	60
Hunting package	15
Fishing lodge package	7
Skiing package	7
Dog sledding package	6
Motorcoach tour	1
Other	4
Average # of nights in Alaska	8.9 nights
Top Activities (entire Alaska trip)	
Shopping	72
Cultural activities	45
Wildlife viewing	36
Northern Lights viewing	33
Visiting friends/relatives	32
Dog sledding	22
Hiking/nature walk	20
Chena Hot Springs	17
City/sightseeing tour	13
Snow skiing/boarding	10
Fishing	10
Hunting	10
Snowmobiling	7
Tramway/gondola	5
Day cruises	5
Alaska Railroad	5

Source: AVSP VI

Table III-6. Fall/Winter Vacation/Pleasure Visitors to Alaska: Transportation Modes and Destinations

	% of Visitors
Mode of Entry into Alaska	
Air	95
Highway	3
Ferry	1
Used to Travel Between Communities	
Air	18
Rental vehicle	17
Personal vehicle	16
Train	7
Motorcoach/bus	6
State ferry	4
Other	1
Destinations (day or overnight)	
Anchorage	63
Fairbanks	35
Girdwood/Alyeska	13
Kenai Peninsula	12
Palmer/Wasilla	10
Kodiak	9
Denali	7
Juneau	7
Whittier	5
Portage	4
Talkeetna	4
Glennallen	3
Sitka	3
Nome	3
Haines	3
Valdez	2
Tok	2
Skagway	2

Source: AVSP VI

Table III-7. Fall/Winter Vacation/Pleasure Visitors to Alaska: Average Per-Person Spending

	Average $
Lodging	$201
Tours/activities/entertainment	$156
Food/beverage	$291
Rental cars/fuel/transportation	$101
Gifts/souvenirs/clothing	$171
Packages	$541
Other	$30
Average spending in Alaska	$1,491

Source: AVSP VI

Table III-8. Fall/Winter Vacation/Pleasure Visitors to Alaska: Demographics

	% of Visitors
Origin	
Western U.S.	36
Southern U.S.	20
Midwest U.S.	11
Eastern U.S.	6
Canada	1
Other international	25
Average party size	1.9 people
Male/female ratio	61/39
Average age	49 years
Children in household	29
Retired/semi-retired	30
College graduate	59
Average income	$102,000

Source: AVSP VI

a. Implications for Valdez Year-Round Mountain Recreation

- Alaska's entire winter visitation is approximately 290,000.
- The vacation/pleasure segment is estimated at 34,000 visitors. The vast majority of winter visitors travel by air, typically through Anchorage.
- The most common activities among winter pleasure visitors are shopping (72%), cultural activities (45%), wildlife viewing (36%), and Northern Lights viewing (33%).
- Just one out of ten winter pleasure visitors reported snow skiing or boarding. Other winter adventure activities included dog sledding (22%), hiking/nature walk (20%), and snowmobiling (7%).
- The non-resident ski and snowboard market size is extremely small at approximately 3,400 visitors; the estimated number of visitors that experience a tramway or gondola is 1,700.
- Just 2% reported visiting Valdez (fewer than 1,000 visitors). (Note: at these very small sample sizes, actual visitation could be slightly higher or lower.)

6. VALDEZ VISITATION

a. Valdez Traffic Indicators

McDowell Group is conducting a visitor research project in the next year that will provide an updated estimate of visitation. Until the results of that study are available, other data sources provide some measure of traffic.

- A statewide visitor survey project in summer 2011 yielded an estimate of 57,000 out-of-state visitors to Valdez. Additional detail on these visitors is provided in a subsequent section.
- The Valdez Airport reports about 15,000 annual enplanements, about evenly divided between summer and winter months. This figure includes Valdez residents.
- The Alaska Marine Highway System reported approximately 11,000 annual embarkations at Valdez by non-Valdez residents in 2014. Of these, about 4,000 were Alaska residents, and 7,000 were from out-of-state.
- The Alaska Department of Transportation and Public Facilities reports peak monthly average daily traffic at the Richardson Highway Ernestine Station (70 miles north of Valdez) at 452 for July and 94 for January, northbound only. Making some general assumptions yields an estimated 50,000 northbound vehicles in the summer, and 25,000 northbound vehicles in the winter.
- Interviews with Valdez tour operators indicate approximately 6,500 cruise passengers visit Valdez in the summer. This includes passengers on day tours from the Copper River Princess Wilderness Lodge, as well as passengers passing through Valdez on multi-day packages, traveling between Seward/Whittier and the Copper River Lodge via vessel and motorcoach. (Valdez did not receive any direct cruise ship calls in 2014 or 2015; all cruise visitors arrive and depart by other modes of transportation.)

Table III-9. Valdez Visitor Industry Traffic Indicators

	Summer	Winter
Non-Alaska residents visiting Valdez, 2011/12	57,000	n/a
% of all Alaska visitors	4%	n/a
Rank among all Alaska destinations	#21	n/a
Non-Valdez resident ferry embarkations, 2014/15	10,000	800
Northbound vehicles on Richardson Hwy, 2012/13	50,000	25,000
Cruise passengers (via tour vessel/motorcoach), 2015	6,500	0

Source: Alaska Visitor Statistics Program VI; Bureau of Transportation Statistics; Alaska Marine Highway System; Alaska Department of Transportation and Public Facilities; cruise passenger/tour data.
Note: Summer is May through September; Winter is October through April.

Table III-10. Valdez Cruise Ship Traffic, 1996–2015

	Passengers	Port calls
1996	72,311	68
1997	59,856	57
1998	82,098	65
1999	81,133	62
2000	57,965	45
2001	65,396	47
2002	37,859	23
2003	16,824	15
2004	369	1
2005	0	0
2006	369	1
2007	0	0
2008	5,541	9
2009	6,224	11
2010	490	1
2011	330	1
2012	0	0
2013	245	1
2014	0	0
2015	0	0

Source: Port of Valdez, Cruise Line Agencies of Alaska.

Implications for Valdez Year-Round Mountain Recreation

- Valdez attracts a small percentage of Alaska's summer visitors (4% or about 57,000 visitors).
- Valdez Airport reports nearly 15,000 enplanements annually, less than 1% of Anchorage enplanements.
- Over the last few years, very few cruise ships called directly at Valdez. Valdez attracted a modest number of cruise passengers about 15 years ago (between 56,000 and 83,000 passengers). Cruise passengers travel through Valdez on pre- and post-cruise overnight packages, although the volume is small at 6,500 and passengers remain in Valdez for just a few hours.
- The drop in cruise visitation to Valdez is largely a reflection of increased travel in Alaska's "railbelt." Cross-gulf ships embark and disembark their passengers in Whittier and Seward. These ports provide efficient access by rail and highway to Anchorage and the airport.
- The predominant tour pattern for visitors spending additional time in Alaska before or after their cruise includes the corridor through Anchorage, Denali, and Fairbanks. Significant private sector investments have been made in the last two decades in this region including glass-domed railcars designed for sightseeing, numerous new hotel rooms in Denali and Talkeetna, and a wide array of tours and attractions in the Denali Park area. The majority of the rail and hotel investment was made by Princess and Holland America, demonstrating their long-term commitment to this tour pattern.
- During the same two decades, Valdez position as the gateway to glacier excursions in Prince William Sound was eclipsed by significant investment in glacier sightseeing in Kenai Peninsula and other areas in the state.
- Closure of the Trans Alaska Pipeline to visitors is often cited as a major factor in the loss of cruise visitation in Valdez. While that change reduced the array of tours available to Valdez passengers, it was a small factor compared to the shifting cruise itineraries.

7. VALDEZ VISITOR PROFILE

The Alaska Visitor Statistics Program (AVSP), a statewide visitor intercept survey conducted by McDowell Group for the Alaska Department of Commerce, Community, and Economic Development, provides valuable information on out-of-state visitors to Valdez in summer 2011. (The winter sample is too small for analysis.)

- Out of all Alaska visitors in summer 2011 (1.56 million), an estimated 4% (57,000) traveled to Valdez. This included 6% of all air visitors (entered and exited Alaska via air), 1% of all cruise visitors, and 18% of highway/ferry visitors (entered or exited Alaska via highway or ferry).
- Valdez' rank out of all Alaska communities/destinations in terms of out-of-state visitation was 21.

a. Summer Out-of-State Visitors to Valdez

Transportation

- Two-thirds (67%) of Valdez visitors entered and exited the state via airplane, while one-quarter entered or exited via highway or ferry. Just 9% traveled to/from/within Alaska via cruise ship.
- Valdez visitors differ significantly from the overall Alaska visitor market in terms of transportation. Among all Alaska (summer) visitors, 57% traveled by cruise ship; 39% entered and exited Alaska by air; and 4% entered or exited Alaska by highway or ferry.
- The most popular transportation modes used by Valdez visitors to travel between Alaska communities were rental vehicle (32%), personal vehicle (25%), state ferry (23%), and motorcoach (22%).

Table III-11. Summer Out-of-State Visitors to Valdez: Transportation (Alaska Trip)

	% of Visitors
Transportation Market (Used to Enter/Exit Alaska)	
Air	67
Highway/ferry	24
Cruise	9
Used to Travel Between Alaska Communities	
Rental vehicle	32
Personal vehicle	25
State ferry	23
Motorcoach	22
Rental RV	17
Train	15
Air	13
Personal RV	10

Source: AVSP VI

Trip Purpose, Packages, and Activities

- Four out of five (79%) of Valdez visitors were traveling for vacation/pleasure; 16% were visiting friends/relatives; and 4% were traveling for business purposes.
- One-quarter (27%) of Valdez visitors purchased a multi-day package as part of their Alaska trip (the trip may not have occurred in Valdez). The most popular package types were motorcoach (32%), adventure tour (such as kayaking, biking, and camping packages; 26%), and wilderness lodge (20%).
- Valdez visitors spent an average of 15.5 nights in Alaska, and 2.9 nights in Valdez.
- The most popular activities in Valdez were camping (36%), wildlife viewing (30%), day cruise (29%), museums (20%), hiking/nature walk (19%), and fishing (17%).

Table III-12. Summer Out-of-State Visitors to Valdez:
Trip Purpose, Packages, and Activities in Valdez

	% of Visitors
Trip Purpose (Alaska trip)	
Vacation/pleasure	79
Visiting friends/relatives	16
Business only	2
Business/pleasure	2
Purchased multi-day package	27
Package Type (Alaska trip)	
Motorcoach tour	32
Adventure tour	26
Wilderness lodge	20
Fishing	10
Rental car/RV package	7
Rail package	2
Other	3
Average # of nights in Alaska	15.5 nights
Average # of nights in Valdez	2.9 nights
Activities in Valdez	
Camping	36
Wildlife viewing	30
Day cruise	29
Museums	20
Hiking/nature walk	19
Fishing	17
Historical/cultural attractions	11
Visiting friends/relatives	11
Kayaking/canoeing	10
Birdwatching	9
City/sightseeing tour	8

Source: AVSP VI

Spending in Valdez

- Valdez visitors spent an average of $196 per person while in Valdez, including $68 on lodging, $50 on tours/activities/entertainment, $37 on food/beverage, $30 on rental cars/fuel/transportation, $9 on gifts/souvenirs/clothing, and $2 on all other.
- Valdez visitors spent an average of $2,175 on their entire Alaska trip. This compares with $941 among all Alaska visitors.

Table III-13. Summer Out-of-State Visitors to Valdez: Average Per-Person Spending in Valdez

	Average $
Lodging	$68
Tours/activities/entertainment	$50
Food/beverage	$37
Rental cars/fuel/transportation	$30
Gifts/souvenirs/clothing	$9
Other	$2
Average spending in Valdez	$196
Average spending in Alaska	$2,175

Source: AVSP VI

Demographics

- Nearly three-quarters (73%) of Valdez visitors are from the U.S., most commonly the West (32%). One in five (21%) are from international countries other than Canada—twice as many as the overall Alaska visitor market, of which 10% are from overseas.
- The average party size among Valdez visitors was 2.5. Males represented 55% of the survey sample (including all party members). Visitors averaged 49 years of age. One-quarter (24%) had children in their household; 43% were retired or semi-retired; and 53% had attained at least a Bachelor's degree. Valdez visitors reported an average income of $101,000. These characteristics generally match the overall Alaska visitor market.

Table III-14. Summer Out-of-State Visitors to Valdez: Demographics

	% of Visitors
Origin	
Western U.S.	32
Southern U.S.	17
Midwest U.S.	15
Eastern U.S.	9
Canada	6
Other international	21
Average party size	2.5 people
Male/female ratio	55/45
Average age	49 years
Children in household	24
Retired/semi-retired	43
College graduate	53
Average income	$101,000

Source: AVSP VI

Implications for Valdez Year-Round Mountain Recreation

- Valdez' summer visitor market is largly road-based, at least in comparison to other Alaska visitors. They are more likely to travel around the state by personal vehicle, rental vehicle, rental RV, motorcoach, etc.
- These independent visitors have inherent flexibility in their itineraries, which bodes well for Valdez.
- Valdez visitors are usually on a larger Alaska itinerary, reporting 2.9 average nights in the community out of 15.5 total nights in Alaska.
- Visitors are currently participating in wildlife viewing (30%), scenic cruises (29%), and visiting museums (20%). Extrapolating a participation rate of 15% to a tramway/gondola excursion would result in approximately 9,000 riders.
- Summer visitors engage in outdoor activities fairly frequently, with 36% reporting camping in Valdez (typically in RVs), 19% reporting hiking/nature walks, and another 10% reporting kayaking/canoeing.
- Valdez' summer visitors are fairly affluent with an average household income of $101,000. The two biggest markets in terms of origin are Western U.S. and overseas.

b. In-State Visitors

There is little available data on in-state visitors. Anecdotal information indicates that in-state visitation represents a significant portion of Valdez' visitors, and is largely attributable to Anchorage and Fairbanks residents, who often take RVs and other personal vehicles to Valdez to participate in camping and fishing.

8. VALDEZ VISITOR INDUSTRY INFRASTRUCTURE

a. Valdez Accommodations

Table III-15. Valdez Accommodation Inventory

	# of Rooms	# of Beds	Season
Best Western	88		Year-Round
Mountain Sky	92	?	Year-Round
Totem Inn	47	32 Q 10 Suites 14 Cabins	Year-Round, Cabins rented only in summer.
Eagles Rest	18 Cabins		Summer
Keystone Hotel	90		Summer
Downtown B&B	31		Year-Round
Valdez Airport Mancamp	26 Rooms Each Floor 2 Floors 4 Buildings	Able to house 500 if needed	Year-Round, Half capacity in Winter.
A Place on Coho B&B	3	3Q	Year-Round
Anna's Ptarmigan	3	2Q 1T	Year-Round
Bear Creek Cabin	4	8	Summer

Table III-15. Valdez Accommodation Inventory

	# of Rooms	# of Beds	Season
Head Hunter	6	5 Q 1Q 2T	Year-Round
House on the Rock B&B	4	4Q, 4T	Year-Round
L&L's B&B	5	10	Year-Round
Robe Lake Lodge	6	4Q, 2Q/F	Year-Round
The Timber House	1	1Q	Year-Round
Wild Roses B&B	3	6	Closed for 2016
Glacier Sound	40		Summer
Blessing House	5	3K, 1Q, 1F, 3Singles	Year-Round
Tsaina Lodge	24	32	Ski season
Total	470		

Source: Valdez Convention and Visitors Bureau and McDowell Group.

Table III-16. Valdez RV Park Capacity

	# of Spaces
Alison Point Campground	51 RV/tent sites
Bayside RV Park	35 Pull through sites 75 full service hook-ups
Bear Creek RV and Cabins	90 RV/Tent sites
Bear Paw RV Park	120 RV sites
Chena RV Park	10 full hook-ups
Eagle's Rest RV Park	168 RV spaces
Valdez Glacier Campground	21 RV pads
Total	570 RV sites

b. Valdez Bed Tax

Adjusting for inflation, public accommodation tax receipts have stayed roughly consistent from 2005–2014, with no clear trend and an average of $383,242 collected per year, in 2014 dollars.

Table III-17. Valdez Bed Tax (2004–2014)

Year	Total	Total without Residential	Total without Residential (2014 dollars)
2004/05	$324,072	$296,788	$372,807
2005/06	$319,114	$296,401	$348,059
2006/07	$375,206	$344,811	$393,693
2007/08	$358,225	$335,087	$368,444
2008/09	$387,160	$318,608	$351,608
2009/10	$438,271	$409,759	$444,861
2010/11	$389,467	$359,655	$378,517
2011/12	$433,575	$397,925	$410,303
2012/13	$396,317	$365,893	$371,828
2013/14	$425,189	$392,300	$392,300

Source: City of Valdez, Finance Department

Implications for Valdez Year-Round Mountain Recreation

- Valdez' lodging inventory is limited. There are 19 total properties (including 13 open year-round) representing 470 beds. Valdez visitor industry representatives have expressed frustration with the limited lodging capacity as well as less-than-ideal standards of service and cleanliness.
- The RV market represents significant capacity in terms of Valdez lodging, with 570 total sites available, exceeding the total number of rooms.
- Non-residential bed tax revenues indicate that Valdez' lodging industry (or at least the revenues from it) has fluctuated somewhat over the last decade, in terms of sales, with the most recent year ending slightly above average for the decade (after adjusting for inflation). The peak revenue year was 2009/10; the lowest was 2005/06.

9. YUKON'S VISITOR MARKET

The Yukon market is relevant to the proposed project in that Alaska and Yukon share many visitors. Yukon draws a significant number of fly/drive visitors who include Alaska in their itinerary. Though the volume is unknown, a number of Yukon visitors also visit Valdez.

All of the following statistics are drawn from the *2012/13 Yukon Visitor Tracking Program*, conducted by DataPath Systems (with assistance from McDowell Group) and funded by the Yukon Department of Tourism and Culture.

a. Summer

- An estimated 317,200 visitors traveled to the Yukon during Summer 2012 (May 1 through September 30).
- Over half of Yukon's 2012 summer visitors (63%) came from the United States, while the bulk of the remainder (25%) hailed from Canada. Yukon's overseas markets represented the remaining 12% of total visitors. Within that 12%, more than three quarters (76%) of visitors were from Europe.
- Nearly half of Yukon visitors (46%) stated that the primary purpose of their overall trip was to visit Alaska, while nearly one-quarter (20%) took the trip primarily to visit Yukon.
- Over half of Yukon visitors (53%) drove to the territory. Of those who drove, 57% drove a car, truck or van; 40% drove a recreational vehicle and 4% drove a motorcycle. Twelve percent of Yukon visitors flew to the territory, with the majority of people flying through Vancouver, Calgary, and Edmonton. Another 24% of visitors arrived on a motorcoach, and the remaining 10% arrived by train. The most common point of entry to Yukon was via Alaska, followed by driving the Alaska or Cassiar Highway (Watson Lake), then via air.
- The most popular activity was viewing "natural scenery" (48%), followed by visits to "museums or historical sites" at 42% and "shopping" at 41%. Between 2004 and 2012, there was an increase in the number of visitors visiting "natural attractions and national or territorial parks" and a drop in the number of people visiting museums/historic sites and shopping. Activities like wildlife viewing and community walking tours gained in popularity.
- Summer visitors spent an average of C$82 per person, per day while in the Yukon.

b. Winter

- An estimated 75,700 visitors traveled to the Yukon during winter 2012/13 (October 1 through April 30).
- In the winter months about 45% of visitors came from Canada, 43% from the U.S., and the remaining 12% were from overseas.
- People traveling for leisure or personal reasons accounted for 69% of visitors in winter. Of those travelers 20% were visiting friends or relatives, 13% were in Yukon for personal reasons, 9% came to attend a festival or event, 8% came for wilderness travel and 50% came for other leisure reasons.
- In winter, people entered Yukon with either a personal/rental vehicle (62%) or by air (38%). Of those who drove, 84% drove a car and among those who flew, the departure cities were primarily Vancouver, Calgary and Edmonton.
- Shopping was the most popular activity for visitors to do in winter (52%). This was followed closely by viewing natural scenery (49%), going to a Visitor Information Centre (38%) and people visiting museums or other historical sites (37%). Winter activity participation included Northern Lights viewing (30%), dog sled or dog kennel tour (9%), snowmobile/ATV (8%), downhill or cross-country skiing (5%), and other winter activities (13%).
- Winter visitors spent an average of C$151 per person, per day while in the Yukon.

Table III-18. Yukon Air Passenger Traffic, 2014/15

	Summer	Winter	Annual
Air border crossings	12,889	221	13,110
Air enplanements	76,056	79,024	155,080

Source: Yukon Tourism Indicator Reports, Yukon Department of Tourism and Culture.
Time period: August 2014 to July 2015.

Implications for Valdez Year-Round Mountain Recreation

- At around 400,000 annual visitors, the Yukon's visitor market is about one-fifth the size of Alaska's (nearly 2 million). These figures also reflect Alaska resident travel, including frequent border crossings by Haines and Skagway residents who shop and recreate in the Yukon.
- While the Yukon visitor market is relatively small, nearly half of Yukon's summer visitors stated their main purpose was to visit Alaska, and nearly half traveled to the Yukon by vehicle—these "long-haul" visitors are potential visitors to Valdez.
- Just 5% of Yukon winter visitors participated in skiing.

C. OPPORTUNITIES AND CHALLENGES

This section addresses:

- Valdez's proximity to winter and summer markets and transportation infrastructure
- Potential geographic competitive advantages (i.e., climate change) and risks
- The competition (summer and winter)
- Valdez's competitive strengths and weaknesses

1. VISITATION CHALLENGES FACING VALDEZ

The primary challenge for a ski area in Valdez would be generating enough volume of business (skier visits) to make the ski area financially viable. Related to this overall challenge are the specifics of remoteness/difficulty of traveling to Valdez and the small size of the local population.

- Remoteness. There are many ski areas located in beautiful places; part of their natural beauty and scenery comes from their distance from large population centers. Indeed, Valdez is one of these places—stunning natural beauty, but hard to get to. Other ski areas where this theme is a dominant factor in their operating business include Silverton (CO), Mt. Sima (Yukon), Mt. Bohemia (Michigan), Mt. Eyak (AK), and several heli-ski or cat-ski operations such as Mt. Bailey (OR) or Irwin Guides (CO). These ski areas do not generate large volumes of business, so they need to attract a core group of dedicated skiers and riders. Some are more successful than others from a profitability standpoint, but all generate a modest number of skier visits (typically less than 10,000).
- Small local population. Related to the issue of remoteness is the small size of the local Valdez population. All of the ski areas listed above contend with the issue of a limited number of skiers and snowboarders who reside in the immediate area; they are all reliant on importing visitors from more distant locations. The size of the local population is a limiting factor for any potential ski area at Valdez. Of the approximately 4,000 residents of Valdez, perhaps 400 are active skiers and snowboarders. The Anchorage/Mat-Su region, a 5 to 6-hour drive away, with about 390,000 residents, and Fairbanks, with 100,000 residents (also 5 hours away), would represent the only substantial drive markets for Valdez.

2. GEOGRAPHIC OPPORTUNITIES AND CHALLENGES

Table III-19. Regional Population Centers and Access to Valdez

	Population	Road Access to Valdez	Flight Access to Valdez
Alaska	736,732	n/a	n/a
Anchorage	291,826	299 road miles (6-hour drive)	1 segment (~55 minutes)
Fairbanks North Star Borough	97,972	362 road miles (7-hour drive)	2 segments (~2 hours)
Mat-Su Borough	98,083	270 road miles (5-hour drive)	(Via Anchorage)
Kenai/Soldotna area	33,747	450 road miles (9-hour drive)	(Via Anchorage)
Juneau	32,324	n/a	2 segments (~4 hours)
Seattle	652,405	n/a	2 segments (~4.5 hours)
Valdez	4,025	n/a	n/a

Source: U.S. Census (2010 population); Google Maps; Alaska Airlines

a. Thompson Pass

Located approximately 20 miles from Valdez along the Richardson Highway, the 2,700-foot Thompson Pass is surrounded by glaciated peaks, many of which climb to more than 5,000 feet. With 300 to 500 inches of snowfall annually, the area attracts skiers, snowboarders, snowmachiners, and other winter sport enthusiasts. Local heli-ski companies offer easy access to world-class snow, while many enthusiasts simply skin from the road. Most "winter" activity takes place in March and April, once the snow has accumulated and stabilized and days are longer. A number of winter-sport events are held annually in the Pass including a snowmachine hill-climb, snowkite and snowboard festival, and new for 2016, a fat-bike race. During the summer months, Thompson Pass attracts mainly hikers and sight-seers. The Worthington Glacier can be hiked to in approximately 20 minutes.

Implications for Valdez Year-Round Mountain Recreation

- Valdez and Thompson Pass have a cachet among skiers and snowboarders throughout the world. Special events and the film industry have helped educate and perpetuate market awareness. However, actual visitor volume is extremely small. Estimated winter visitation by non-residents is approximately 1,000 to 2,000 people.
- With respect to sustainable mountain recreation development, Valdez has a significant challenge in having a very small population base to draw from not only locally, but statewide. Alaska is the fourth-smallest U.S. state in terms of population, with just 737,000 residents. The most populous city, Anchorage, has just under 300,000. Valdez itself has 4,000 residents.
- Even by Alaska standards, Valdez is somewhat remote. The main population center of Anchorage represents a six-hour drive; other populous communities require at least five hours of driving—or, in the case of Juneau, at least one flight segment. Potentially hazardous road conditions represent a further constraint, and longer drive times, in the winter season.
- Alaska itself is remote and expensive for most North American (and international) markets. The additional transportation time, cost, and frequent weather delays further constrain Valdez market potential.

3. COMPETITIVE POSITION IN ALASKA

a. Alyeska Resort

Alyeska Resort is a year-round resort located in Girdwood, 40 miles from Anchorage. The hotel opened in 1994 and is the only large-scale, four-star resort in Alaska. It has 304 rooms, meeting facilities, pool and fitness center, spa, shops, and restaurants.[3]

According to the 2011 AVSP, the Alyeska/Girdwood area attracted 9% of the overall non-resident summer market, a figure representing approximately 143,000 visitors. The same AVSP data also indicates that among overnight destinations, the area captures 3%, or 46,000 visitors.

The resort features a 60-passenger aerial tram that operates daily year-round (other than a five-week closure in the fall). The tram rises from 300 feet to 2,300 feet in elevation, and takes four minutes in the winter and seven minutes in the summer, when it operates at half-speed. Each of the two cars has a maximum capacity of 60 people. The maximum capacity per hour in the

[3] www.alyeskaresort.com

winter is 800 people; the maximum speed is 26 miles per hour. In addition to the tram, there are eight lifts: two high-speed detachable quads, two fixed quads, two doubles, and two "magic carpets."

The average annual snowfall at the summit of Mt. Alyeska is 650 inches. The resort has 2,500 vertical feet of terrain and 1,610 skiable acres. In terms of difficulty, 11% of trails are appropriate for beginners; 52% for intermediate; and 37% for expert/advanced. The ski season typically lasts mid-November to end of April.

Alyeska Resort has historically drawn more business during the summer months than during the ski season. Summer occupancy rates have averaged 70% compared to 50% during the winter. The summer market includes cruise-tour visitors, other package tours, independent travelers, and weddings. Summer activities include the tramway, hiking, a mountain bike park (lift-accessible), canyoneering, disc golf, ATV tours, and dog cart tours.

During the winter, the Resort draws primarily on the Alaska market for weekend ski trips and is also a very popular location for conferences, meetings, and some weddings. An estimated 85 to 90% of the resort's individual skier visits are Alaskans. The convention market is very competitive, especially from mid-September to mid-November; convention room rates are typically $100/night. The holiday season is extremely busy and includes many special events.

Alyeska participates in the Rocky Mountain Super Pass, offering three ski days to pass holders. Increased promotion of the pass, coupled with direct air service from Denver and increased media outreach by the resort and Visit Anchorage is expected to generate some new skier visits from outside of Alaska.

Corporate and incentive groups are a segment that Alyeska is focusing on. They recently landed a 250-person group from Daimler for January. The mid-week business is an excellent complement to their heavy weekend occupancy. Being able to offer skiing, dog sledding, skating and other winter activities in a resort setting was appealing to Daimler meeting planners.

The resort was intended to serve the Japanese market. The Japanese market did not perform as strongly as anticipated. The resort and Visit Anchorage are very engaged in winter and international marketing efforts. Currently, China and Korea appear to be promising markets.

b. Haines

Haines is a small town (borough population: 2,354) located on the Inside Passage of Southeast Alaska, about a five-hour drive south of Whitehorse, Yukon, and one-to-three hour ferry ride north of Juneau. Its relevance to Valdez relates to its heli-skiing industry. Although it is a smaller market, Haines is arguably Valdez' strongest competitive destination in terms of Alaska heli-skiing. It draws around 500 visitors annually who account for about 2,000 skier-days, in addition to roughly 300 backcountry skiers (who access the backcountry via snowmachine, snowcat, and fixed-wing airplane).[4]

Haines is known worldwide in the extreme skiing market. Several films featuring skiing in Haines have been released in the last decade, and Haines hosted the Freeride World Tour in

[4] *Haines Winter Visitor Industry Economic Impact and Market Assessment*, prepared by McDowell Group for Haines Borough, March 2015.

March 2015. Haines' ski season lasts from mid-February through April. There are two heli-skiing operators in Haines. There is some capacity constraint due to limited permitting by the Haines Borough.

Haines has similar challenges to Valdez in its access and amenities. Skiers must fly from Seattle (or Anchorage) to Juneau, then take a small plane or ferry to Haines. Winter weather occasionally results in canceled flights. While Haines has a fairly developed summer tourism industry, it slows down significantly in the winter months, with limited lodging and dining options.

c. Wrangell St. Elias National Park

The 13.2-million acre Wrangell St. Elias National Park is America's largest national park, offering 9 of the 16 highest peaks in the United State. The Park encompasses mountains, glaciers, and a few historic town sites northeast of Valdez. Adjacent to Kluane National Park (Canada) and Glacier Bay National Park (Alaska), the area is designated as a World Heritage Site. Collectively, the 24.3 million acres comprise one of the largest internationally protected areas in the world.

The most common way visitors experience the Park is to explore the town of McCarthy and nearby Kennicott. Driving distance from Anchorage to McCarthy is 314 miles. The last 60 miles is a gravel road, making the total drive time from Anchorage about 8 hours. Many visitors opt to fly, rather than drive the gravel section, as the road is known for frequent flat tires.

The Park receives relatively few visitors. Nearly all activity occurs during the short summer season with glacier hiking, rafting, and sight-seeing being the main attractions. Hunting, fishing, and mountaineering are also popular activities in the area—especially among Alaskans.

Accommodations include Kennicott Glacier Lodge in Kennicott; several small hotels in McCarthy including the McCarthy Lodge, Ma Johnson's Hotel, and Lancaster's Hotel. [5]The 85-room Copper Center Princess Wilderness Lodge is located near the western boundary of the Park near the Richardson Highway. The remote Ultima Thule Lodge is located deep in the park and is accessible only by plane. Guests experience fishing, rafting, hiking, and spring skiing.[6]

d. Hatcher Pass

Located close to Anchorage (60 miles) and the Matanuska Valley, Hatcher Pass is a multi-use park managed by the State of Alaska. Offering more than 300,000 acres, the area is visited in the summer by hikers, campers, rock climbers, hunters, sight-seers, and other enthusiasts. Winter activities include skate and classic skiing, backcountry ski/boarding, snowmachining, and sledding. Located approximately 1,000 feet higher than most winter recreation sites in the region, Hatcher Pass is often the first area in the fall with sufficient snow cover for winter activities.

Both the State of Alaska and nearby Matanuska-Susitna Borough have tried to encourage development of a year-round mountain destination. However, at this time, minimal development has occurred, excluding expansion of cross country ski and bike trails. Lacking any chairlift, a common practice is to use vehicles to shuttle skiers and snowboarders on a

[5] http://www.mccarthylodge.com/
[6] http://www.ultimathulelodge.com

switchback which allows an approximately 950 vertical foot run over 0.9 mile. A lodge in the pass offers nine cabins for rent. Three huts are also located in the area for overnight trips.

e. Turnagain Pass

Located approximately 60 miles south of Anchorage along the Seward Highway, Turnagain Pass is the most popular winter backcountry recreation area in Alaska. Frequented by snowmachiners and backcountry skiing/boarding, enthusiasts start at approximately 900 feet, and can access peaks typically less than 4,000 feet. Everything southeast of the highway that bisects the pass is designated non-motorized, while the area northeast of the highway is open to all users. The most developed recreational avalanche forecasting in Alaska is available for Turnagain Pass.

The national trend of increasing popularity of backcountry activates has been observed in Turnagain Pass. Users familiar with the area report that ten years ago the four main parking lots in the pass were never filled to capacity; today, on a clear, weekend day, parking lots are regularly overflowing.

Approximately 25 miles south of Turnagain Pass, a group is trying to develop a seasonal rope tow at a mountain called Manitoba.[7] The site previously had had a rope tow which operated intermittently for approximately 20 years, beginning in the early 1940s.[8]

Implications for Valdez Year-Round Mountain Recreation

- Alyeska is particularly relevant to Valdez as it represents the largest degree of infrastructure and investment among competitive Alaska destinations. Compared to Valdez, Alyeska is significantly more accessible, only a 40-mile drive from Anchorage. Even so, it has struggled to attract non-Alaska markets in the winter: 85 to 90% of their skier-visits are attributable to Alaska residents, according to a representative. It is also important to note that Alyeska draws more visits in the summer than in the winter. Its potential summer (non-resident) market is many times larger than Valdez', considering that Anchorage is the third-most visited community in Alaska (Valdez is #21), and the number one overnight destination.
- Alyeska offers a wide variety of year-round activities and special events that cater to a range of markets. The resort, and surrounding community of Girdwood, provide the array of attractions, accommodations, dining, and entertainment associated with a modest ski destination.
- In contrast, only the Tsaina Lodge (24 rooms available seasonally in Thompson Pass), offers the ambiance associated with a resort. Most of the remaining 450 rooms, dining, and entertainment in Valdez are two-star at the most.
- Haines is very similar to Valdez in terms of skiing quality and cachet, very small market size, remote location, and limited visitor amenities.
- Anchorage residents frequent Turnigan Pass and Hatcher Pass for year-round recreation including hiking, skiing, snow machining, rafting, and fishing.

[7] http://www.skimanitobamountain.com/
[8] http://www.alsap.org/Manitoba/Manitoba.htm

IV. PROJECT ANALYSIS

Three projects, each proposed by different proponents, are considered in this study. These include:

1. East Peak (also referred to as the "Chugach Mountain Recreation Center");
2. Mineral Creek (also referred to as the "Chugach Mountains Summer/Winter Resort and Glacier Study Center"); and
3. Sugarloaf

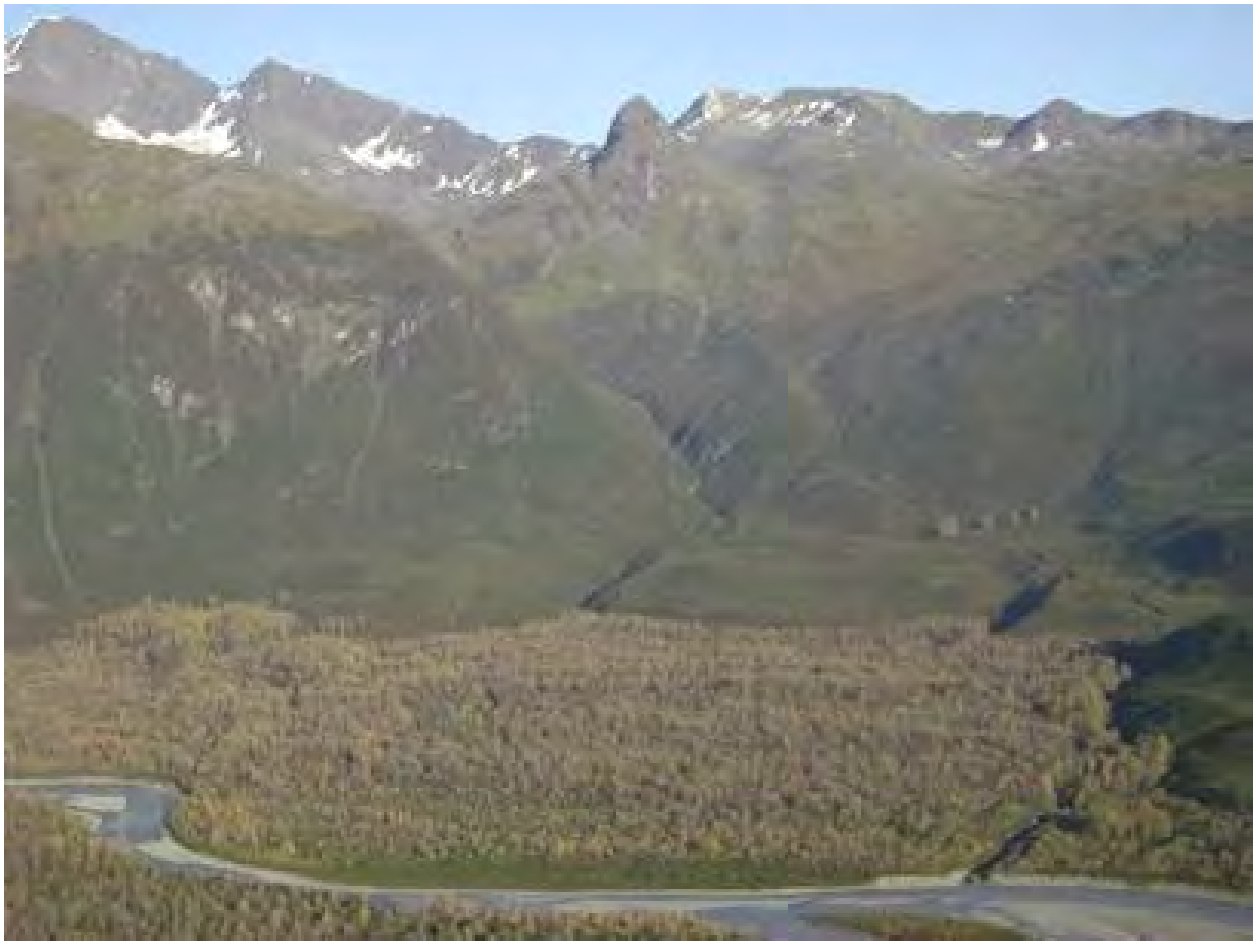
The proposed projects—East Peak, Mineral Creek, and Sugarloaf—are in various stages of concept development, and elements of each project are expected to evolve over time depending on current conditions. Also, this analysis is focused on the development of the mountain recreation venue rather than possible future real estate or commercial development, estimating standard mountain resort metrics and market conditions across the projects based on the proponents' descriptions of their envisioned operations.

The following section provides objective information about these mountain recreation development opportunities from a technical and financial perspective. This includes:

1. Project description;
2. Site assessment;
3. Environmental impact and regulatory review;
4. Visitation capacity;
5. Infrastructure and facility development cost analysis; and
6. Operating cost analysis.

A. PROPOSED PROJECTS

The following are descriptions of each project proposal as described or written by the proponents.



1. EAST PEAK

a. Proponents' Description of Project

East Peak will provide a year-round, 4,700 vertical foot chairlift in Valdez, Alaska with over 2,200 acres of lift-served terrain, with our outstanding customer service catering to each individual customer's needs and skill levels. Our chairlift would travel over 18,000 feet in length and would have multiple pick-up drop-off points at various elevations and terrain grades. This center will capitalize on Valdez's outstanding snow pack and beautiful terrain, our existing status in the worldwide skiing, snowboarding and mountaineering marketplace, while still providing a safe but thrilling mountain experience for all visitors. With our outstanding views and above tree line terrain summer visitors will get to experience the incredible Chugach mountain range. Current bid estimate from Doppelmayr/CTEC for turnkey world class Chondola system is $18 million, this chairlift would move 1,500 people an hour. Other options include smaller or used chairlifts to operate the same route, this may save millions, but lowers the world-class appeal and increases future maintenance cost.

Snowmaking would be utilized to create consistent snow surfaces for approximately 50 acres of beginner and intermediate terrain on lower portion of mountain.

Chairlift/Chondola Statistics

- Up to 18,000 feet in length
- Up to 4,700 feet in vertical travel
- Up to four on/off stations from top to bottom
- Five smaller poma-style ground lifts could provide another 1,200 acres of terrain
- Top station would include a world-class viewing platform

Secondary Attractions

Other year-round mountain attractions would include zip lines, lift-served downhill mountain biking, glacier hiking, exploration and ice climbing tours, raft/kayak tours, and scenic lift rides. Two long-span zip lines would be provided in a single point-to-point configuration. Approximately 5 miles of downhill mountain bike trails would be constructed with constructed banked turns, bridges and other features. These would be accessed from the lower lift point (3,000 feet slope length). Initial investigation has indicated a possibility of accessing a geo-thermal well on property to create a "hot springs" attraction.

Guest Services

Guest service facilities are proposed at both the base of the mountain and on the mountain. The base area would provide ticketing, rentals, staging for the secondary attractions, and up to 25,000 square feet of lodging, dining, and entertainment.

The mid-mountain would provide a starting location for secondary attractions, customer services, (food, drink, entertainment and warmth), a sightseeing platform, school classroom and event gathering hall. This facility would be built into several levels to optimize the varying facilities and activities available while building into a five-star dining facility on the upper level.

Operations Facilities

Operations facilities are also proposed for both the base area and on the mountain. The base area would include the maintenance complex, base of lift operations and all other mountain management facilities, while the on-mountain facility would house all mountain safety and would oversee all mountain activities from maintenance to operations all out of one on-mountain office.

Access and Infrastructure

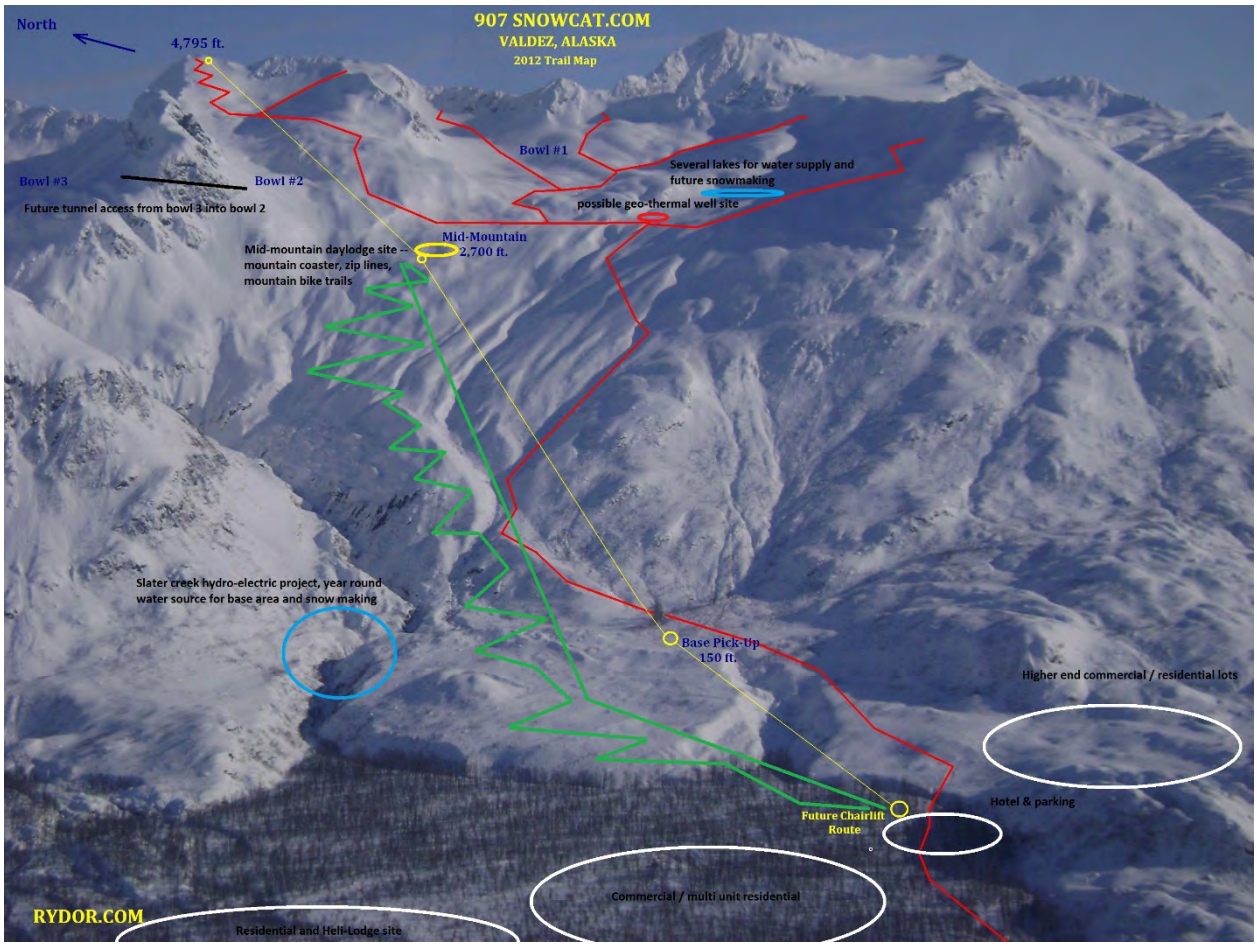
Access to East Peak would be provided via a 6,000 linear-foot, 24-foot-wide, two-lane, asphalt access road with a 4-foot road fill prism from Airport Road to the base area. A 300-foot-long bridge will need to be constructed across the Valdez Glacier Stream to connect this access road to Airport Road. The bridge would be built to State of Alaska DOT standards, accommodate a 24-foot-wide road and have multiple spans with a number of in-river foundations. A 24-foot-wide gravel mountain access road with a 4-foot road fill prism would also be constructed from the base area to the mid-chairlift point.

Approximately 1.5 miles of wastewater, electric, and communications transmission lines would need to be constructed to connect existing networks to the center. This assumes the City's existing systems have adequate capacity to accommodate the increased loading from this project. Overhead electric transmission lines are assumed for this portion, but buried electric transmission lines would also be necessary from the base area to the various on-mountain facilities. It is anticipated that a hydroelectric facility in the Slater Creek drainage would contribute a portion of the green power necessary for operations approximately 7 months of the year.

Water for the center and the development would be provided by two 6-inch well casings drilled approximately 300 feet deep each. Water would be hauled to on-mountain facilities.

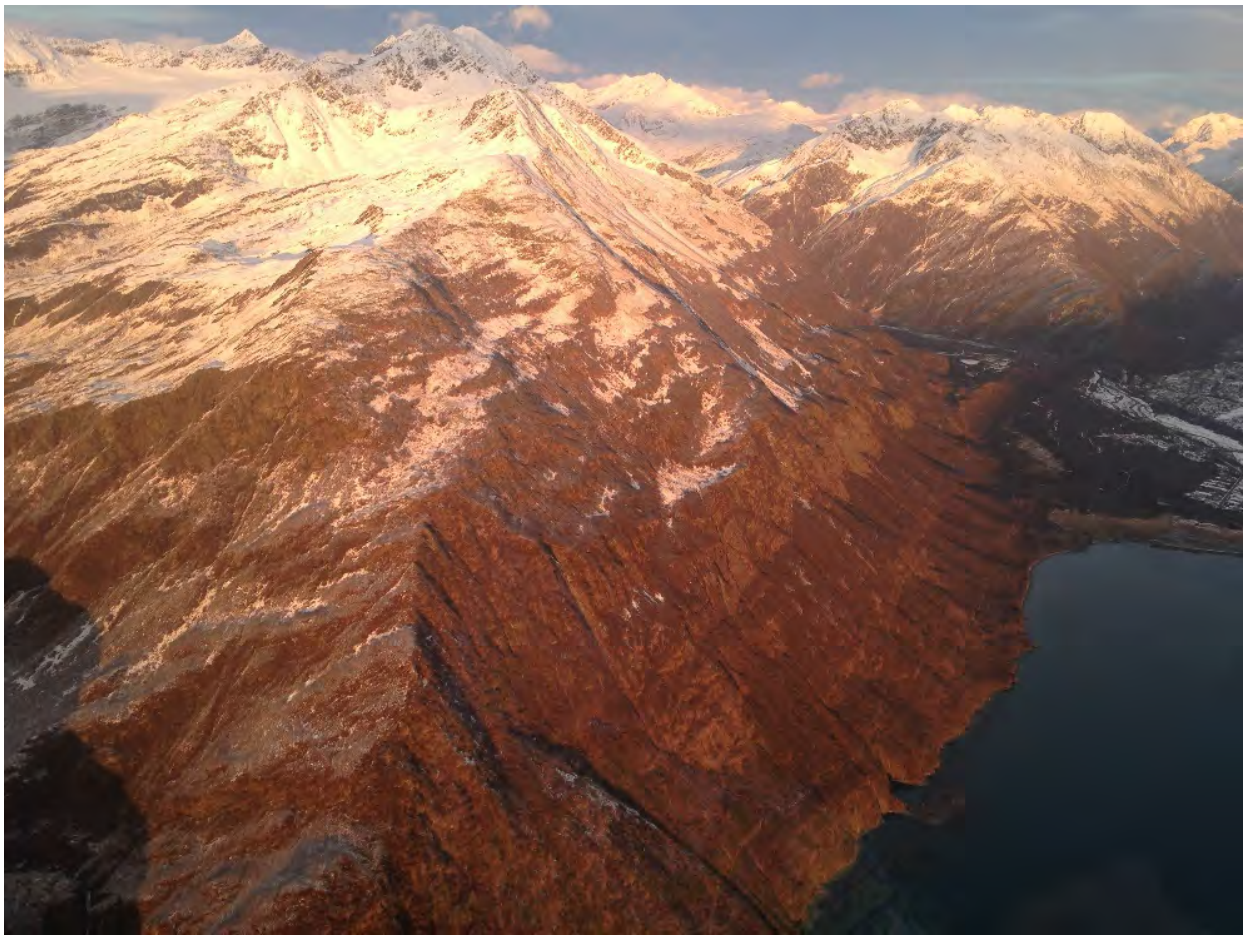
Village Development

In addition to the guest services at the base area, commercial, residential and mixed-use development is proposed. These would include a "Residential/Helicopter Skiing/Sightseeing" area, a "Multi-Residential/Commercial" area, and a "High End Residential/Commercial" area. In commercial and mixed use areas the goal is to build a small city atmosphere with buildings must be strategically placed to create a "main street" feel with boardwalks traversing retail storefronts. There will also be a high end RV parking and campground sites located next to Valdez Glacier Lake. The precise number of units/lots in these areas is unknown at this time.



Proponents' illustrative depiction of proposed projects for East Peak

2. MINERAL CREEK



a. Proponents Description of Project

The in-town Mineral Creek project will provide access directly from Valdez near the ferry terminal to the high alpine via the development of two aerial tramways. The first tram (with single mid-way tower) climbs north from town, up the face of the mountain to a peak at 5,300 feet elevation, and is the highest vertical lift in North America. The second tram travels from this same high point down 4,000 feet into Gold Creek Valley. A mountain lodge, providing guest services (i.e., restroom, food and beverage services, guide services, ecotour operations, and educational programs), would be located at the top terminals of the two trams. From the top terminal 29 separate glaciers are visible.

The first tram would carry 120 passengers + 1 operator (and could carry cats to provide grooming to the ski terrain).[9] The second tram would be smaller, with a capacity of 30 passengers. Combined, these two trams would provide access to two glaciers, and significant amounts of skiable terrain. Due to the high elevation and "refrigerator effect" of the glacier conditions, skiing could last year round. It is envisioned that a "village" could be developed at the base of the first tram, including 50 to 100 small shops, condos/townhouses, and larger single-family homes.

[9] The original project description proposed a 60-passenger tram; during discussions with the project proponent team this was increased to 120 passengers to allow for greater staging capacity.

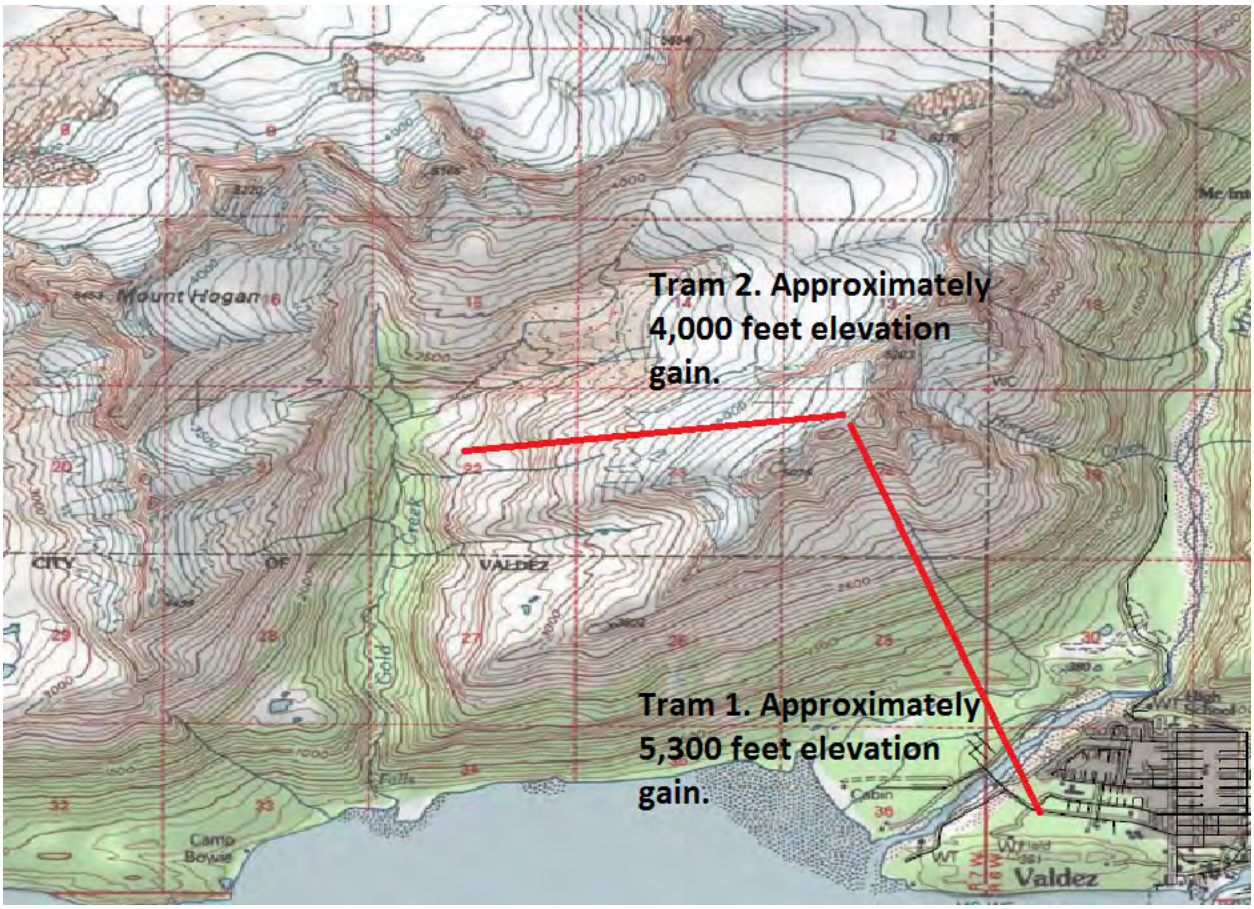
This area will be great for providing a venue for summer ski training camps. Several guided cruise excursions could be developed around the trams and the access to the glaciers that they provide. The site could also host a university center focused on glacier and environmental research, and outdoors study programs.

Tram Engineering & Details

The Doppelmayr/Garaventa Group has completed three tram engineering expeditions and confirmed the feasibility of the tram. The base area of the tram is located approximately one mile from the ferry terminal and cruise ship dock. It has a vertical gain of more than 5,000 vertical feet and a length of approximately 2.5 miles. The recreation area opened up by the tram will be larger than Whistler Blackcomb. Doppelmayr/Garaventa has completed preliminary cost estimates for their proposed scope of work including the Gold Creek tram—a second tram that will return people to the top of the tram site.

Tram Village & Top Restaurant

Facilities at the base of the tram can include hotels, condominiums, restaurants, ski shops, homes, guide services, and other businesses. Construction and sales of these facilities will generate additional revenue streams, create jobs, and foster a healthier, happier environment for the people of Valdez to live and raise their families. The top of the tram has an excellent location for a restaurant that could become famous around the world for its cuisine, ambiance, and vistas of rugged mountains and 29 separate glaciers.



Proponents' illustrative depiction of proposed projects for Mineral Creek

3. SUGARLOAF

a. Proponents Description of Project

The Sugarloaf project is a small, community-oriented mountain recreation area on Sugarloaf Mountain. The site affords fantastic views of the inlet to the west as well as down the valley to the east. The area will be operated by a not-for-profit (Valdez Trail Association). The ski area will consist of one fixed-grip double chairlift accessing the northern and northwestern skiable terrain on Sugarloaf Mountain, as well as a smaller 500-foot rope tow to provide access to the lower mountain's beginner terrain. Ski terrain would offer natural terrain, with groomed runs provided on an as-needed basis. A small lodge at the base of the chairlift will provide basic services, supplemented by yurts located at a secondary base area. A simple on-mountain facility

(assumed also to be a yurt) with viewing deck will be located at the top of the chairlift. Parking will be provided either at the base lodge, or in existing parking lots adjacent to the Valdez Main Terminal Highway. In the latter case, it is envisioned that visitors will be transported up to the base area via a 12-person passenger van (a tracked vehicle in the winter).

Chair Lift/Chondola Statistics

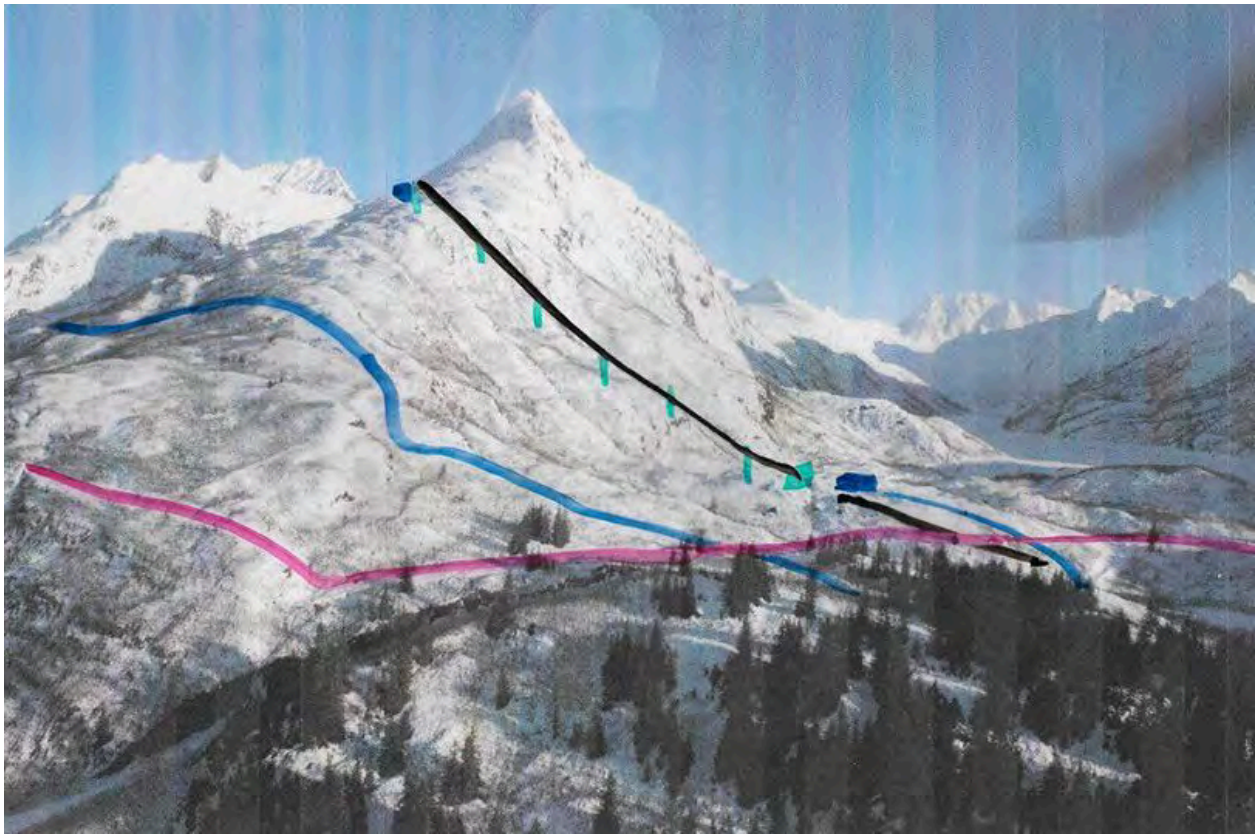
- A fixed-grip double chair of approximately 1,200 feet in length
- Top terminal elevation ± 2,300 feet
- A smaller rope tow surface lift (± 500 feet) to access lower beginner terrain
- Top terminal would include a small hut or yurt and scenic viewing platform

Secondary Attractions

In the summer, the chairlift may be used for scenic lift rides and to provide lift-served mountain biking. The site is adjacent to Solomon Lake, and connected to an existing network of hiking, biking and snow machining trails that extend into the Chugach National Forest.

Overnight Accommodations

The base area facilities will include a small lodge with eight to twelve rooms (two people per room) that could be rented out in its entirety to a heli operation for the season (i.e., for March and April). Summer room rentals could be sold as a package including lift to site in helicopter. The revenue from the lodging would support the ski hill operation.



Proponents' illustrative depiction of proposed projects for Sugarloaf

B. SITE ASSESSMENT

The focus of this high-level map-based exercise is not to create a competitive environment between the sites, but to confirm the compatibility of each of the sites as a venue for mountain recreation activities in general and for the specific facilities being proposed.

Given that a driving focus for the various proposals is winter recreation, and specifically skiing/riding, the primary tool for this assessment is a Slope Gradient analysis. Terrain and ability level designations for skiing are based on slope gradients and terrain features associated with the varying terrain unique to each mountain. In essence, ability level designations are based on the maximum sustained gradient calculated for each trail. While short sections of a trail can be more or less steep without affecting the overall run designation, a sustained steeper pitch may cause the trail to be classified with a higher difficulty rating.

The following table shows the general gradients used to classify the levels of skiing terrain.

Table IV-1. Terrain Gradients

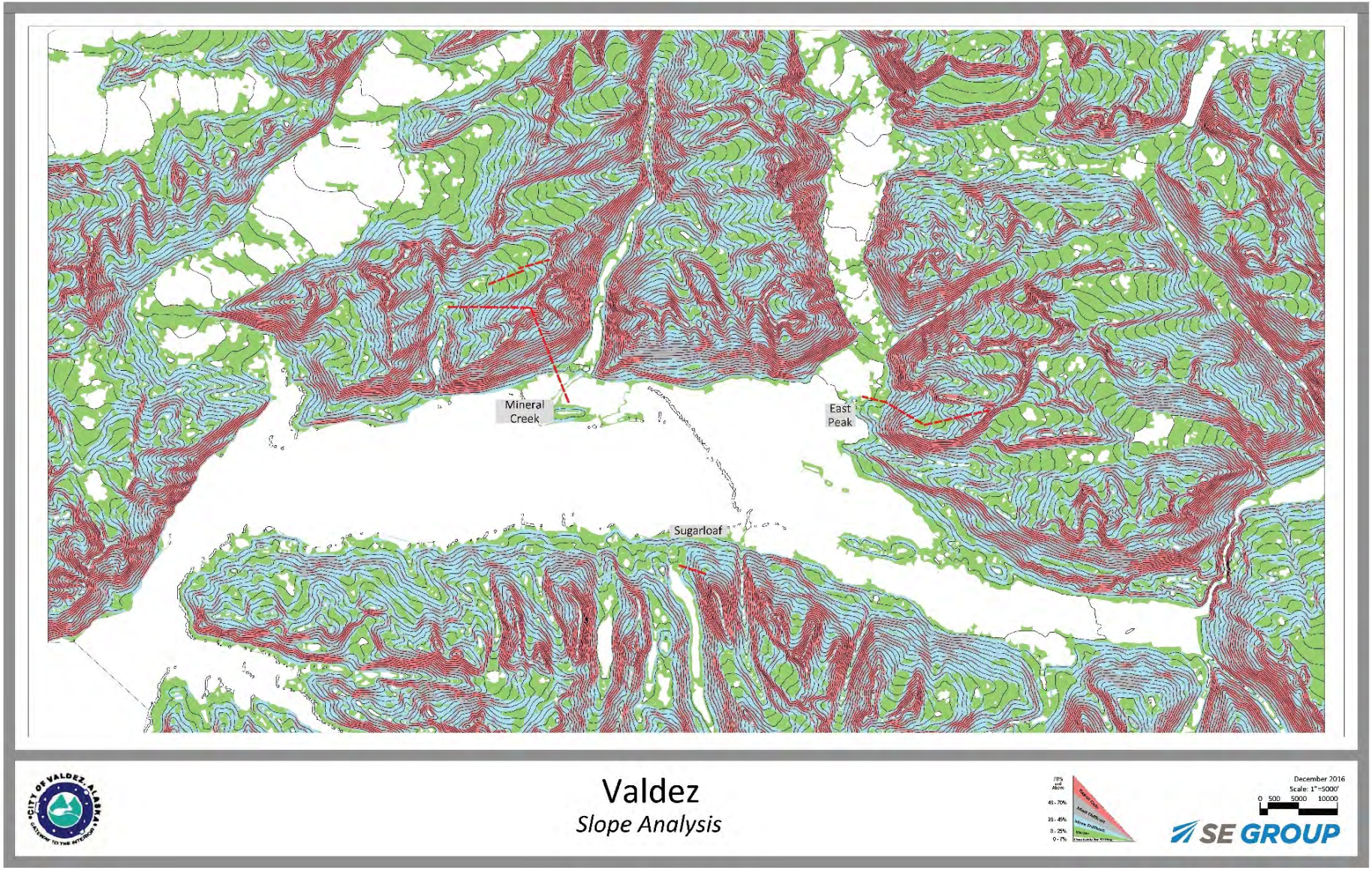
Skier Ability	Slope Gradient
Beginner	8 to 12%
Novice	to 25%
Low Intermediate	to 35%
Intermediate	to 45%
Advanced Intermediate	to 55%
Expert	over 55%

When evaluating the suitability of an area for skiing, the distribution of terrain by skier ability level and slope gradient is compared with the market demand for each ability level. It is desirable for the available ski terrain to be capable of accommodating the full range of ability levels reasonably consistent with market demand. The market breakdown for the overall skier market is shown in the following table.

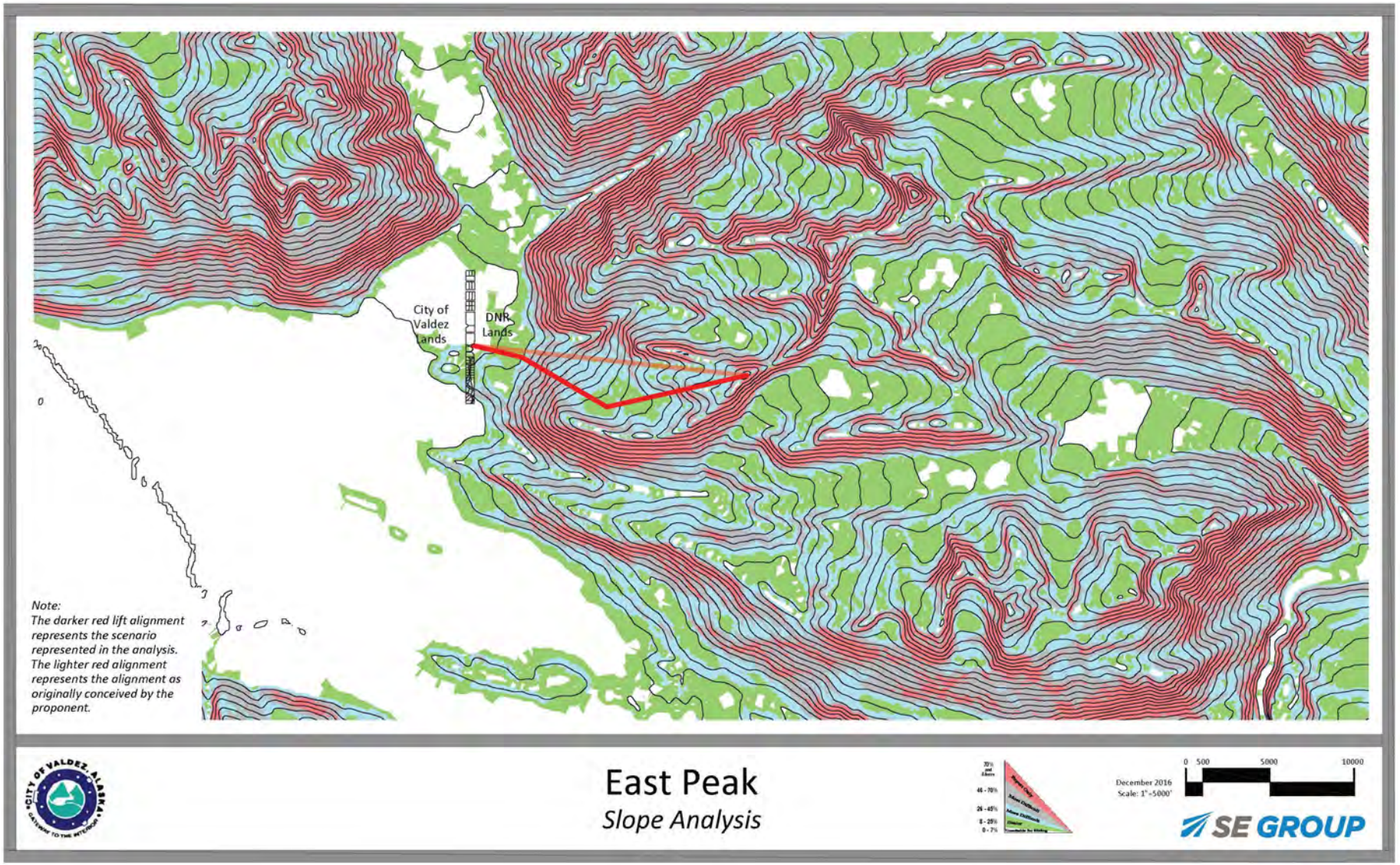
Table IV-2. Skier Ability Breakdown

Skier Ability	Percent of Skier Market
Beginner	5%
Novice	15%
Low Intermediate	25%
Intermediate	35%
Advanced	15%
Expert	5%

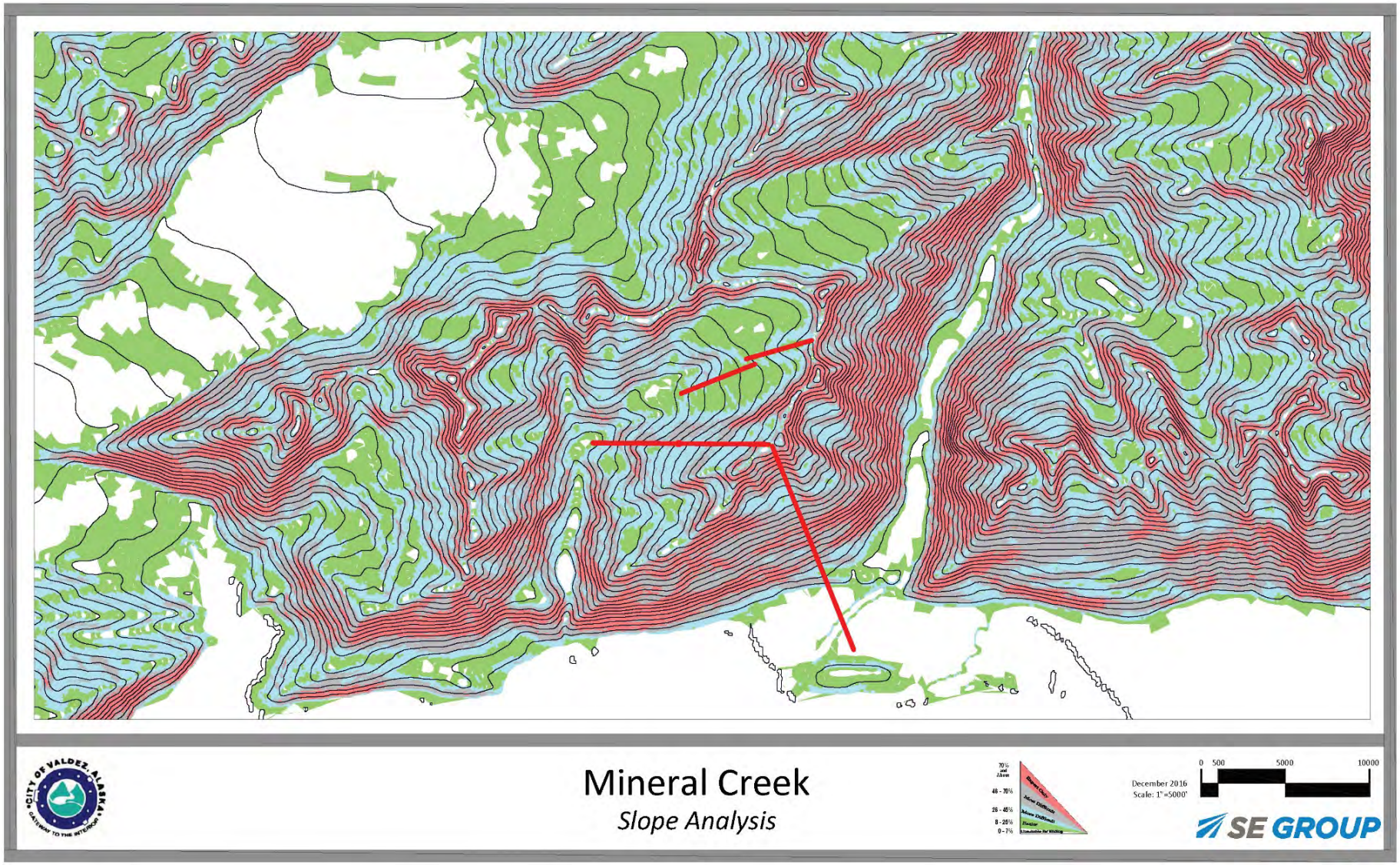
The following figure shows the slope analysis for the Valdez area, and identifies the proposed project areas.



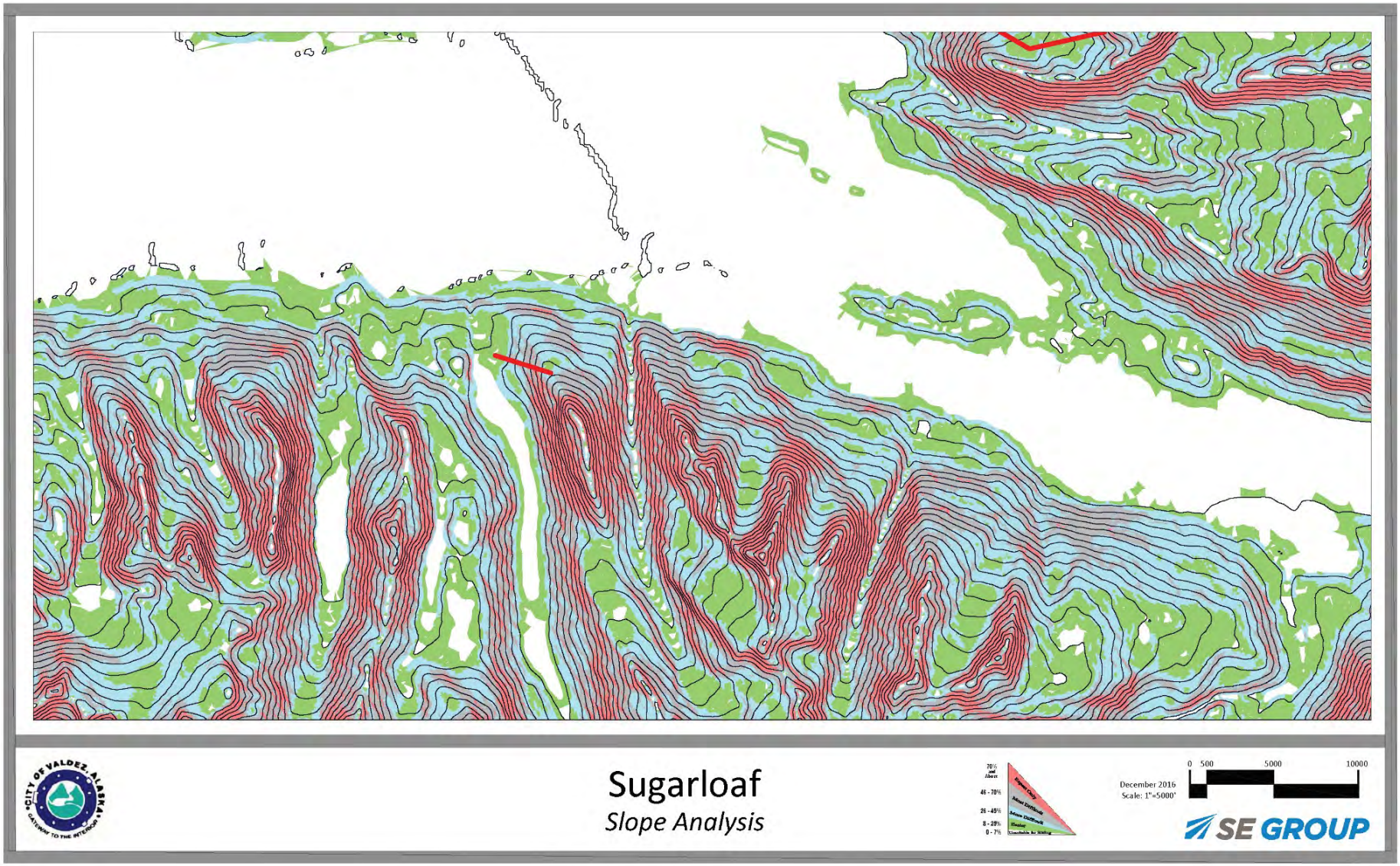
The following figure shows the slope analysis for the East Peak area.



The following figure shows the slope analysis for the Mineral Creek area.



The following figure shows the slope analysis for the Sugarloaf area.



1. EAST PEAK

The following points refer to the findings of the slope analysis, and consider other physical aspects of the site that could affect future development at the East Peak site.

- A good mix of terrain serving all ability levels.
- Beginner and novice level terrain is available in the base area and off the first stage of the lift.
- Intermediate level terrain is available off both the second and third stage of the lift.
- A good amount of intermediate terrain is available (important since the majority of all skiers are intermediate level).
- Advanced and expert level terrain is available off the second stage of the lift, and (to a smaller degree) off the third stage of the lift. Additional expert terrain could be accessed further up the ridge, but would still be limited to short steep pitches.
- The skiable terrain is mostly west facing.
- The skiable terrain includes very low elevation areas.

This project appears to have good potential as a skiing destination, and good potential to develop a summer recreation center.

Pros:

- Skiing potential appears to be excellent. The lowest stage of the lift serves low-level terrain, the second stage serves mid-level terrain, and the upper stage serves upper level terrain. The terrain seems to be well balanced with the lift capacities.
- All ability levels of skiing can be accommodated, from first-time teaching carpets at the base, to extensive expert terrain at the top.
- Excellent potential for developing typical summer mountain recreation—with gradients and acreage conducive for mountain biking, zip lines, mountain coasters, etc.
- Daily capacity would be at least 2,000 skiers, due to the type (chairlift and gondola) and hourly capacities of the lifts. Assuming appropriate market depth, this type of capacity would have the ability to generate significant annual skier visits.

Cons:

- Access is difficult and somewhat removed from town.
- Lower mountain skiing is close to sea level; snow quality will be less reliable at lower elevations.
- Non-skiing access to the top would be via riding a gondola cabin from the bottom to the top, a distance of over three miles. The ride time would be about 20 minutes, which is quite a bit longer than desired for lift ride times.

2. MINERAL CREEK

The following points refer to the findings of the slope analysis, and consider other physical aspects of the site that could affect future development at the Mineral Creek site.

- The south and east facing terrain accessible by the first tram (up the south-facing slopes) is very steep, which is suitable for expert and pro level skiers only.
- The first tram up the south-facing slope crosses a flat section at the beginning of the alignment that is almost a mile in distance. There is a large river in this area. This flat section (and the river) precludes the possibility of repeat-skiing this tram without the use of a shuttle service to transport skiers from the base of the slope to the tram terminal.
- The west-facing terrain available off the second tram provides mostly Intermediate level grades.
- There is a very large (over 1,000 acres) open bowl and glacier area just north of the second tram that is composed of fairly gentle, novice-level gradients. However, accessing this area by novice skiers from the top of the trams would be difficult and it likely would be a challenge to create novice-level ski routes off of the trams. Further, the distances required to ski this area off the west-facing tram would make it less attractive for novice level skiers. Placing surface lifts (platter tows or t-bars), in this bowl would allow for a good ski experience for lower-level skiers. The surface lifts would be able to be accessed from the top of the trams, with a ski route developed to return to the bottom on the west-facing tram.
- There is another very large, similarly sized, bowl and glacier area to the north of the above mentioned area, which would be accessible only with hiking/touring. This would presumably be attractive primarily to advanced level skiers, but the terrain is relatively flat, and the advanced skiers would likely see the gentle gradients as a drawback. Between the area described above and this area, these two areas comprise a significant portion of the total skiable terrain in this overall area.
- another potential for developing beginner and family terrain would be in the area of the base of the second tram.
- Since the skiing is all accessed by riding the first tram up from the town (and then riding the tram back down at the end of the day), the skiing is all at higher elevations, indicating that snow quality should be better.

Note that, due to the limitations in both hourly and daily capacity of the two trams, there is an opportunity to increase the carrying capacity of the ski facility with the addition of surface lifts (as described above). These lifts would not only address the need for creating skiing routes and opportunities for lower level skiers, but would also increase the daily carrying capacity of the area overall, as it would mean that not every skier would have to return to the base of one of the trams on every run.

This project seems to have some excellent potential for providing a year-round scenic attraction to the city. Skiing potential is somewhat limited in terms of capacity, but the accessibility and scenic ride potential are unbeatable.

Pros:

- Access is excellent; the tram terminal is adjacent to the town center.
- Has all attributes of a successful, attractive scenic ride, including: interesting, beautiful, and varied scenery; access to high peak with unobstructed views; and short ride time (less than 10 minutes).
- Trams can operate at high speeds—up to twice the speed of detachable lifts and gondolas. This is a real positive when travelling over distances that are multiple miles in length.
- Access to a very large amount of skiable terrain, if hiking/skinning and return-to-base shuttles are included.
- Skiing is on glaciers, resulting in good snow quality and extended length of season for skiing.
- Addition of surface lifts would increase daily capacity and provide a quality skiing experience for lower ability level guests.
- Potential for ski expansion to the west on slopes that are not glaciers.
- Non-skiing/summer potential is excellent for scenic rides.

Cons:

- The major downsides to this proposal are capacity—both hourly and daily.
- Since both of the major lifts span very long distances, they would need to be trams—as they are proposed. This significantly restricts the potential capacity. The south-facing tram would likely have an hourly capacity of no more than 700 people per hour (pph), with the tram up the west side probably no more than 300 pph.
- The relatively low hourly capacity of the south side tram, and the fact that it is the only access conveyance to the skiing and other multi-season activities in the mountains, will limit potential daily and seasonal visitation capacity.
- The tram up the south side is for access only, there is no direct repeat skiing available off it, due to the almost mile-long flat section at the bottom of the lift (and the river crossing). Skiing off the south side bowls would require shuttles to return back to the lift.
- It is likely that this configuration of the south side tram would provide a daily capacity of no more than a couple hundred skiers per day.
- Summer activities would likely be restricted to scenic rides and hiking/touring at the top (i.e., there is limited potential to develop summer attractions in a cluster around the base).

3. SUGARLOAF

The following points refer to the findings of the slope analysis, and consider other physical aspects of the site that could affect future development at the Sugarloaf site.

- A good mix of terrain serving all ability levels.
- Beginner-level terrain is available in the base area, off the handle tow.
- Intermediate-, advanced- and expert-level terrain is available off the chairlift. Total lift-served skiable terrain is about 600 acres.
- Additional expert terrain could be accessed by hiking further up the ridge, but would still be limited to short steep pitches, and would not be extensive. Total skiable area with hiking would be about 1,500 acres.
- The skiable terrain off the lift is mostly north facing, which is advantageous. Much of the terrain available from hiking is east or west facing.
- The skiable terrain includes very low elevation areas, with the base elevation being about 600 feet.

This project has potential for providing a limited year-round amenity for the community while also providing some additional (again, limited) attraction to the city. Skiing potential is somewhat limited in terms of capacity, but the terrain is feasible.

Pros:

- The small scale of the project is realistic given market demand. Installation of a used fixed-grip chair is manageable and not overly expensive.
- Operation and maintenance needs would be minimal.
- The skiing is both good and consistent.
- North-facing slopes, allowing for good snow retention.
- Non-skiing/summer potential is also good, with access to vast terrain (hiking, biking, snow machining, ATV's) to the south.

Cons:

- Distance from town.
- Potential complications related to vehicular access to the base area.
- Quantity of terrain (relative to the other two projects) is low, but is in balance with the length and capacity of the lift.
- Low elevation will limit the ski season length – particularly in the late-spring/early-summer season.
- Summer activities are limited to scenic rides and hiking/touring (i.e., limited attraction for out-of-town visitors).

C. ENVIRONMENTAL IMPACT AND REGULATORY REVIEW

The regulatory information and the environmental impact of the three proposed projects is governed by several local, state, and federal agencies:

- City of Valdez
- Alaska Department of Environmental Conservation (ADEC)
- Alaska Department of Fish and Game (ADF&G)
- U.S. Army Corps of Engineers (USACE)
- U.S. Fish and Wildlife Service (USFWS)

These agencies are responsible for reviewing any possible projects for Building Codes Compliance (including Mechanical, Electrical, and Plumbing reviews), Wastewater systems, Drinking water systems, Snow Loading, Habitat Disturbance, Proximity of waters of the U.S. or wetlands.

Information for this report was gathered through phone conversations with representatives from the various regulatory agencies as well as from publically available data, including GIS data from the state of Alaska and U.S. Geological Survey (USGS). In addition, proprietary GIS data received from the City of Valdez was used.

1. LAND OWNERSHIP

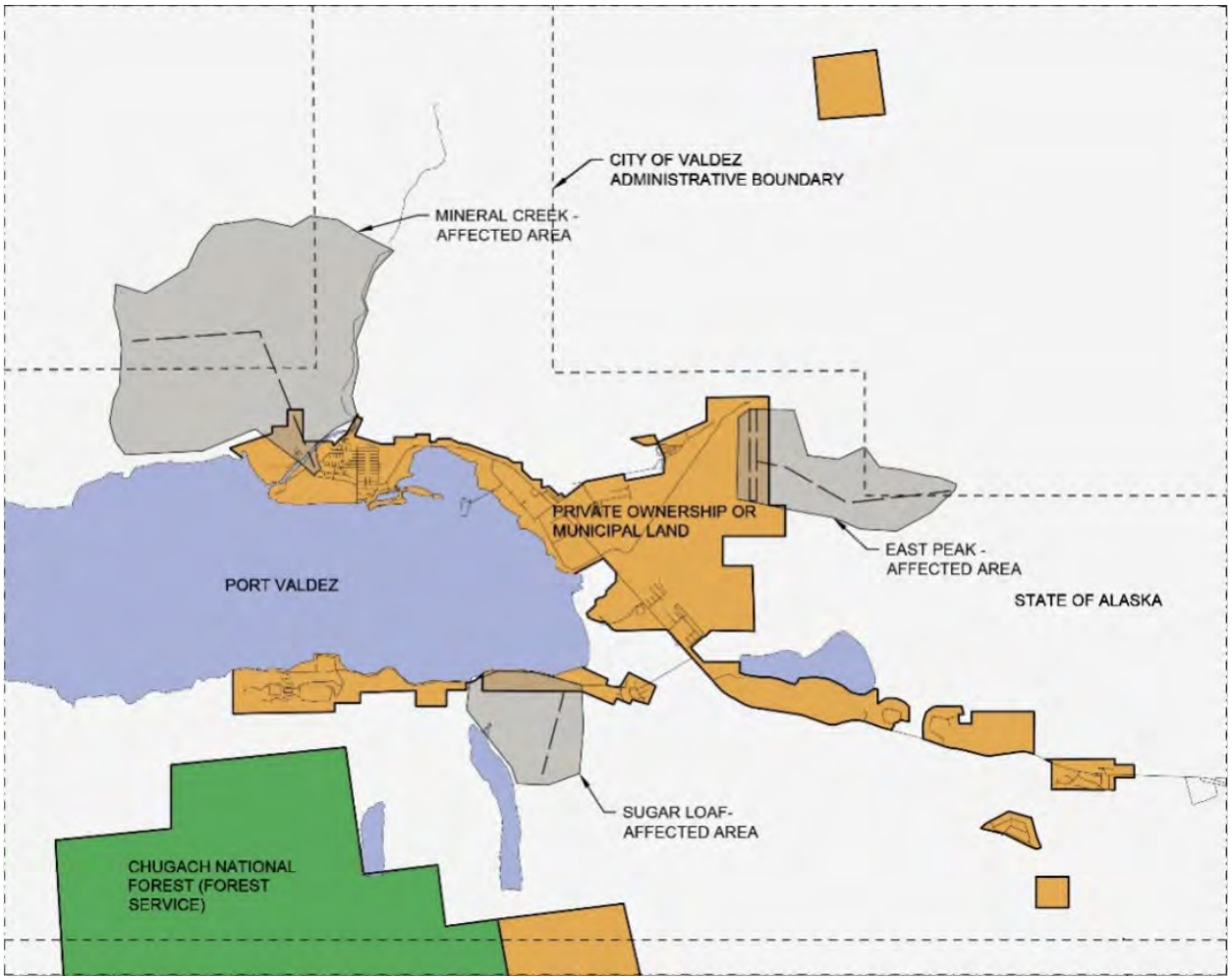
Most of the land of the three proposed projects is owned by the State of Alaska Department of Natural Resources (DNR), though much of it falls within the boundaries of the City of Valdez. Some project activities may also occur on US Bureau of Land Management (BLM) and/or private lands. In order to utilize public lands (DNR or BLM) a lease agreement and/or use permit will need to be secured. This leasing/permitting process typically requires months, and in some cases years, to prepare required documentation and negotiate lease agreements.

a. Department of Natural Resources Lands

The State of Alaska has two ski areas currently operating on DNR lands. These ski areas are permitted through a 55-year lease agreement with DNR. The lease agreement allows for on-going renewal of the lease and requires an annual fee based on gross revenues derived from services located on the leased lands as well as revenues from food and beverage sales any the day lodge on private lands, ski rental and repair services on private lands, and ski school revenues located on private lands. The lease agreement includes terms that require the State and the leasee to agree to master development plans, physical improvements, maintenance and operations plans, and exit strategy scenarios for the development.

b. Bureau of Land Management Lands

There are a few examples of ski areas on BLM lands in the United States, including Sun Valley in Idaho and Silverton Mountain in Colorado. Sun Valley falls partially on National Forest lands and partially on BLM lands, so historically permitting has been completed through the more established Forest Service Ski Area Special Use Permit (SUP) process. Silverton, which does not incorporate National Forest lands, is authorized by a 40-year lease with the BLM, which also includes an annual fee. There are lease stipulations that direct management and development of the ski area. In addition, the lessee and BLM develop, and the BLM approves, an Annual Operating Plan each year. Federal National Environmental Policy Act (NEPA) processes, which may include preparation of an Environmental Impact Statement (EIS) or Environmental Assessment (EA), will also need to be navigated for operations on federal lands.



2. GEOGRAPHY AND CLIMATE

The area around Valdez includes the Prince William Sound and the heavily glaciated Chugach Mountains. The fiords and U-shaped valleys in the area are an artifact of retreating glaciers, and hanging glaciers are common at the higher elevations. Most streams in the area originate in glaciers. These silt-laden streams can braid in valleys and create wetlands. Small lakes occur high in the glacially carved valleys. Localized high wind events continue to manipulate the landscape. In the winter, the area receives an average of 24 feet of snow, some of which does not melt until late summer. At lower elevations mountains are covered by the northern most part of the Pacific temperate rain forest, with Sitka spruce and western hemlock as a predominant species.

The three proposed projects occupy an elevation from less than 100 feet above sea level (City of Valdez) to up to 4,500 feet above sea level. Although no soil survey is available for the sites, in general, colluvium soil is expected at the lower elevations, and bedrock with little to no soil is expected at higher elevations. Sometimes peaks can be covered with active scree, making snow and rock avalanches common disturbances. Permafrost does not occur in this area.

3. ECOREGION AND WILDLIFE

All three of the project locations fall within the Chugach Ecoregion.

The region is full of wildlife (both brown bears and black bears are abundant, as well as Dall sheep), but no Critical Habitats or Wildlife Refuges are located within the project boundaries. However, there are several bird species in the area that are protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The presence of these species will affect the construction season, construction areas, and recreational activities during the breeding seasons. The following species may be of concern within the project boundaries:

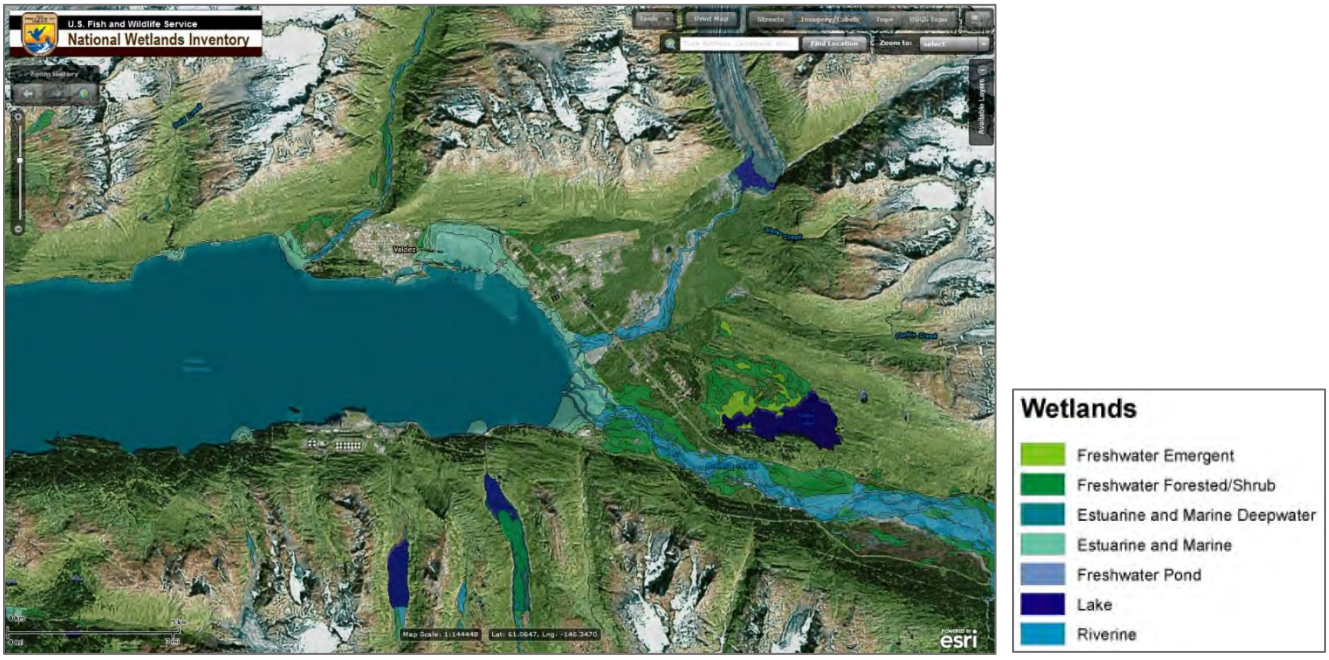
- Aleutian Tern
- Arctic Tern
- Bald Eagle
- Black Oystercatcher
- Fox Sparrow
- Horned Grebe
- Kittlitz's Murrelet
- Lesser Yellowlegs

- Marbled Murrelet
- Olive-sided Flycatcher
- Pelagic Cormorant
- Pink-footed Shearwater
- Rufous Hummingbird
- Rusty Blackbird
- Short-billed Dowitcher
- Short-eared Owl
- Solitary Sandpiper
- Yellow-billed Loon

In addition, two of the three projects (Mineral Creek and East Peak) may have areas located near or crossing anadromous fish streams. If any disturbance occurs due to construction activities or road crossings, a permit from the Alaska Department of Fish and Game, Division of Habitat, will be required.

4. WETLANDS

Wetlands are abundant in the area around Valdez. Freshwater Emergent Wetlands, Freshwater Forested/Shrub Wetlands, Lake Wetlands, and Riverine Wetlands may affect project locations and water discharge areas, and will required permitting. These occur primarily in the saturated organic soils near streams and lakes. Spruce muskeg, tall scrub communities, low scrub bogs, and wet forb herbaceous communities can be found. A national permit will be required from the USACE if any wetland, stream, or pond is disturbed. An individual permit will be required if more than 0.5 acre of pond or wetland or more than 300 linear feet of stream is disturbed.



5. REGULATORY PERMITS

Agency	Permit or Approval	Description	Notes
City of Valdez	Zoning Review		Only for portions of the project within city limit
City of Valdez	Building Review and Septic System Permit	Review of Engineered plans for the Electrical, Plumbing, and Mechanical Systems,	Septic System Permit is needed in addition to the ADEC permit if located within city limits
City of Valdez	Snow Load Review		Needed for any structure within city limits
ADEC	Notice of Intent – NOI	Required to receive a Construction General Permit, must be filed before any construction work begins	
ADEC	Storm Water Pollution Prevention Plan – SWPP		
ADEC	Drinking Water System – Approval to Construct		Different requirements based on source of drinking water. Most likely a surface water source will be required in high elevation areas, though Valdez uses a combination of systems
ADEC	Approval for Wastewater System	Required if discharge is into a sub-surface system or if surface flow is absorbed before reaching a water body.	A surface flow treatment is most likely at higher elevations. For surface flow discharge an advanced treatment is needed, and most likely a complete treatment system will be required. Water from a kitchen will require pretreatment.
ADEC	APDES Form 2A – Wastewater Disposal Permit Application	Required if discharge is surface flow and is not absorbed before reaching a water body	May be needed if site has little soil on top of bedrock, or soils unsuitable for filtration
ADEC	Plan Review Application for Construction (FF1 or FF6)	Required for food establishments FF1 – sit down restaurant FF6 – prepackaged food only	
ADF&G	Fish Habitat Permit	Needed if Anadromous streams are disturbed	Only used when construction activity occurs in the stream bed
USACE	Nationwide Permit 14 – Linear Transportation Projects	For linear transportation projects (new roads) that cross waters	No more than 0.5 acre or 300 linear feet of stream disturbed, requires a pre-construction notification if loss of waters exceeds 0.01 acre or wetlands are disturbed
USACE	Nationwide Permit 12 – Utility Lines, Access Roads, Utility line activities, etc.	Used for any utility activities, such as electrical lines	Needed if 0.01 acre of water is lost, if mechanized land clearing is required in forested wetlands, or if utility line exceeds 500 linear feet in waters of the U.S. or runs parallel to a stream, must restore to pre-preconstruction contours
USACE	Nationwide Permit 33 – Temporary Construction Access and Dewatering		Used for any Construction, primary activity must be authorized by the USACE, Pre-Construction notification must include Restoration Plan
USACE	Nationwide Permit 39 – Commercial and Institutional Developments	Authorizes hotels, restaurants, and supporting activities	No more than 0.05 acre or 300 linear feet of stream disturbed

Agency	Permit or Approval	Description	Notes
USACE	Nationwide Permit 42 – Recreation Facilities	Authorizes Ski-areas	No more than 0.5 acre or 300 linear feet of stream disturbed
USACE	Individual Permit		Used instead of any of the above permits if total water disturbed is larger than what is allowed on a national permit, requires a 30-day public comment period
USFWS	IPaC Trust Resource Report	Official Report required	Needed for wetlands in the area and Protected Bird Species
BLM	Lease Agreement and Development Plan	Authorizes use of public lands for ski area or recreational development.	Requires Development Plan and Annual Operating Plan.
BLM	NEPA	NEPA Environmental Review for Federal Decision Making	May require preparation of an Environmental Assessment (EA) or Environmental Impact Statement (EIS)
DNR	Lease Agreement and Development Plan	Authorizes use of public lands for ski area or recreational development.	Requires Development Plan

D. VISITATION CAPACITY

The following analysis summarizes the projected visitation capacities for each proposed project, based on the proponents' description of the various components that make up the project (i.e., lifts, trails, guest service lodges, summer recreation, etc.). Included in these summaries is an estimate of the snowsports, summer and multi-season visitation capacity that would be expected given the capacities of the various recreational pursuits. Snowsports activities refer to skiing and snowboard, regardless of the season. Summer activities refer to those recreational offerings provided at the resorts in the summer. Multi-season recreation activities refer to those offerings provided throughout the year, summer, fall, winter and spring.

The visitation capacity analysis is unique to the specific setting and attributes of each proposal. Exact, or even similar, plans and situations do not exist. While this analysis has been carefully based on similar circumstances, as well as operations and experiences observed at other multi-season resorts nationwide, it is recognized that there are no precisely comparable situations. The visitation capacity analyses utilized herein were custom built to accurately evaluate conditions specific to each proposal.

As with all modeling, key inputs to the evaluation were frequently and necessarily based upon informed assumptions and the establishment of key parameters. For the preparation of this analysis, SE Group consulted with the proponents and utilized its proprietary industry database to determine each necessary input. In the interest of conservatism, all assumptions were carefully evaluated to ensure that results produced by the model are accurate and conservatively biased toward understating anticipated capacity.

It is important to note that these visitation capacities are being presented as theoretical projections based on the scope and scale of the described projects, and are not correlated to market demand. "Potential annual visitation capacity" refers to the visitation that the resort (and the capacity of the activities offered) could accommodate, rather than the expected visitation based on market conditions.

1. EAST PEAK

a. Daily Visitation Capacity

Based on the proponents' descriptions of the proposed project, East Peak will accommodate snowsports activities throughout the year, as well as scenic lift rides, mountain biking, zip lines, raft/kayak tours, glacier hiking, exploration and ice climbing in the summer. The daily capacity of each activity, as well as the overall daily capacity for snowsports and summer recreation, is provided in the Table IV-3.

The proponents' original concept included a more robust offering of activities and facilities than is included here. Based on conversation and review with the project team, the proponents have simplified the project to be more in alignment with anticipated market demand. Elements of the longer-term vision may be introduced in the future depending on initial successes in growing name recognition, developing and marketing quality visitor experiences, and increasing visitation in the broader community through cooperative marketing efforts.

Table IV-3. East Peak Daily Capacity Summary

Category	Specification (quantification)	Notes/Description
Snowsports Capacity		
Lifts	One three-stage lift with additional access lifts	Lift would be a single three-stage detachable lift, functioning as three separate lifts. The lift is proposed as a "Chondola," which would incorporate a combination of 4- to 6-passenger chairs and 4- to 8-passenger fully enclosed gondola cabins.
Hourly Lift Capacity	1,500	Estimated hourly capacity of the three-stage main lift based on lift speed and loading interval. Based on conversations with the Proponents, this capacity reflects 50% of the maximum number of passenger chairs and gondola cabins that could be accommodated by the lift, in order to reduce capital costs and to be in alignment with market demand.
Terrain	2,200 acres lift-served	Estimated terrain serviced by the three-stage lift based on terrain analysis. Another 1,200 acres may be possible with additional up-mountain surface lifts.
Heli-Ski Daily Capacity	30	Estimated daily capacity of two helicopters, each serving two groups of 5 to 8 participants.
Daily Snowsports Capacity	1,100	Estimated daily capacity of the three-stage main lift based on rope length and lift speed.
Summer Recreation Capacity		
Scenic Lift Ride Daily Capacity	900	Estimated daily capacity of gondola cabins based on 12 hours of daily summer operation and that visitors would stay at the summit for 2-hour sessions.
Mountain Biking Daily Capacity	125	Lift-serviced downhill trails with constructed banked turns, bridges and other features (i.e., Bike Park).
Zip Line Daily Capacity	360	Two zip lines would be built in the base area in a single point-to-point configuration. Industry standards suggest you can accommodate one rider every two to three minutes per line. This estimated capacity is based on one rider every four minutes to be conservative.
Glacier Hiking, Exploration and Ice Climbing Tours Daily Capacity	60	Estimated daily capacity based on three levels/groups of 10, morning and afternoon sessions.
Raft/Kayak Tours Daily Capacity	100	Estimated daily capacity based on two groups of 10, two-hour tours, and five sessions a day. May be scaled to meet demand.
Total Summer Recreation Capacity	1,545	
Summer Recreation Participation Overlap Factor	75%	Guests are not likely to participate in all summer activities in any given trip. This factor accounts for the likelihood that most guests will participate in one primary activity and that some guests may do a second activity.
Daily Summer Recreation Capacity	1,159	

b. Annual Visitation Capacity

Table IV-4 demonstrates the annual visitation capacity of East Peak for snowsports and summer recreation based on the daily capacities from the East Peak Daily Capacity Summary table, the number of annual operating days and typical seasonal ski area utilization rates. This visitation capacity refers to the visitation the resort would be sized to accommodate, not the expected visitation based on market conditions.

Table IV-4. East Peak Potential Annual Visitation Capacity Summary

Category	Specification (quantification)	Notes/Description
Potential Overall Annual Visitation Capacity		
Annual Snowsports Visitation Capacity (visitor days)	47,850	Unique snowsports visits based on daily capacity, number of operating days and typical seasonal ski area utilization rates.
Annual Summer Recreation Visitation Capacity (visitor days)	26,950	Unique Summer Recreation visits based on daily capacity, number of operating days and typical seasonal ski area utilization rates.
Annual Visitation Capacity (visitor days)	74,800	Unique snowsports and summer recreation visits based on daily capacity, number of operating days and typical seasonal ski area utilization rates

Operations Assumptions:

- Winter Season Length (Days; Dec, Jan, Feb): Snowsports 80; Summer 0
- Winter Utilization Rate: Snowsports 5%; Summer n/a
- Spring Season Length (Days; March, April, May): Snowsports 90; Summer 0
- Spring Utilization Rate: Snowsports 35%; Summer n/a
- Summer Season Length (Days; June, July, August): Snowsports 40; Summer 90
- Summer Utilization Rate: Snowsports 25%; Summer 30%
- Fall Season Length (Days; September, October, November): Snowsports 60; Summer 0
- Fall Utilization Rate: Snowsports 10%; Summer n/a

2. MINERAL CREEK

a. Daily Visitation Capacity

Based on the proponents' descriptions of the proposed project, Mineral Creek will accommodate snowsports activities throughout the year, as well as a series of hiking, sightseeing, mountaineering and glacier exploration excursions in the summer. The proposed excursions include:

- Glacier-Face Discovery
- Glacier Trekking
- Dog Mushing
- Introduction to Mountaineering
- Flora/Fauna Tour
- Panning for Gold
- Wildlife viewing
- Hiking
- Real time climate change ridge hike
- High alpine exploration
- Via ferrata
- Alaska BBQ & picnic
- Flight seeing
- Mountaineering
- Rock climbing
- Ice climbing
- ATV tours
- Historic mine tour
- Brown bear/mountain goat search

In addition to snowsports and summer excursions, the Mineral Creek proposal also includes multi-season recreation activities. The proponent has described biking opportunities being provided throughout the year, with fat biking in the winter and a focus on mountain biking in the summer. The proposal also includes a long-span zip line from the top down to Gold Creek near the waterfalls and base area that would run in the spring, summer and fall.

The daily capacity of each activity, as well as the overall daily capacity for snowsports, multi-season and summer recreation, is provided in Table IV-5. The proponents' original concept included a different configuration of activities and facilities than is included here. Based on conversation and review with the project team, the proponents have clarified their proposal. Elements of the proposal may evolve over time depending on initial successes in growing name recognition, developing and marketing quality visitor experiences, and increasing visitation in the broader community through cooperative marketing efforts.

Table IV-5. Mineral Creek Daily Capacity Summary

Category	Specification (quantification)	Notes/Description
Snowsports Capacity		
Lifts	Two Trams, Two T-Bars	One access tram, one repeat skiing tram, one T-Bar to serve lower terrain, one T-Bar to serve upper terrain
Hourly Lift Capacity of Access Tram	700	Estimated hourly capacity of the 120 person tram based on rope length and lift speed
Hourly Lift Capacity of Repeat Skiing Tram	250	Estimated hourly capacity of the 30 person tram based on rope length and lift speed
Hourly Lift Capacity of Lower T-Bar	1,400	Estimated hourly capacity of the T-Bar based on lift speed and loading interval
Hourly Lift Capacity of Upper T-Bar	1,400	Estimated hourly capacity of the T-Bar based on lift speed and loading interval
Terrain	2,500	About 2,500 acres repeat skiable. Access to several thousand more acres, with hiking and shuttles
Daily Snowsports Capacity	2,250	
Summer Recreation Capacity		
Facilities/Activities	Summer skiing Excursions: Glacier-Face Discovery, Glacier Trekking, Dog Mushing, Introduction to Mountaineering, Flora/Fauna Tour, Panning for Gold, Wildlife viewing, Hiking, Real time climate change ridge hike, High alpine exploration, Via ferrata, Alaska BBQ & picnic, Flight seeing, Mountaineering, Rock climbing, Ice climbing, ATV tours, Historic mine tour, Brown bear/mountain goat search	
Excursions	800	Excursions are assumed to operate with groups of 8 to 10 participants per guide with two groups of each excursion operating at a time and two sessions being held per day (morning and afternoon). This provides a daily capacity of about 40 users for each excursion type. This is true for all excursion types, except the salmon bake and the flight seeing excursion. We have assumed the salmon bake would accommodate a single group of about 30 people per day and that flight seeing would accommodate groups of four with one group at a time.
Summer Skiing Capacity	1,750	
Daily Summer Recreation Capacity	2,550	
Multi-Season Recreation Capacity		
Facilities/Activities	Mountain biking, zip lines	
Mountain Biking Daily Capacity	250	Lift-serviced downhill trails with constructed banked turns, bridges and other features (i.e., Bike Park). Estimated daily capacity of lift-served trails built from the top, mid, and bottom stations. Biking opportunities would include beginner to expert with cross-country, downhill course, skills park, and racing experiences.
Zip Line Daily Capacity	180	Assuming there is a single long-span zip line from the summit to the base area near the waterfalls. Industry standards suggest you can accommodate 1 rider every two to three minutes per line. We have assumed 1 rider every four minutes to be conservative.
Daily Multi-Season Recreation Capacity	430	

Recognizing that the Mineral Creek proposal envisions an operation that is somewhat different from a typical mountain resort in terms of character, skiing experiences and recreational offerings, the overall resort capacity has been considered from both a terrain and recreational offerings perspective and a lift capacity perspective. The descriptions below describe the daily capacity analysis for both snowsports and summer and multi-season recreation.

Snowsports Capacity

With an hourly capacity of about 700 people per hour, the 120-passenger Tram (Tram 1) can effectively stage about 2,450 people to the mountain peak over a 3.5-hour staging period (projected to be 8:00 a.m. to 11:30 a.m.). The daily snowsports staging capacity of the Tram 1 is 2,450 skiers per day.

The acceptable skier per acre slope density for the remote, backcountry characteristic that is envisioned for the ski operation would be between 0.25 to 1 skier per acre (i.e., every skier gets a box ranging from 200 x 200 to 400 x 400 feet). A skier density in excess of 0.5 skiers/acre causes increasing degradation of powder snow conditions. The number of ski resort guests on the slopes is generally 40 to 60% of the total resort population—the remainder are on lifts, in lift lines or using the warming and rest facilities. Given the long descents on this site, the percentage of skiers on the slope would be closer to 60+%. Based on these parameters, the 2,500 acres of slopes that are directly served by the proposed lift system could support a daily visitation of 2,000 to 3,000 skiers and snowboarders without degrading the snow quality and desired guest experience. The remote skiable terrain that is more extreme and technical, or that requires a level of hiking and/or guiding, could likely support an additional 500 guests. The daily skier capacity of the skiable terrain is 2,500 to 3,500 skiers/day.

The four lifts serving snowsports have hourly capacities as follows: Tram 1 – 700/hr; Tram 2 – 250/hr; T-Bar 1 – 1,400/hr; T-Bar 2 – 1,400/hr. A comparison of the vertical transport provided by the lift network against the vertical demands of the anticipated skier profile for each lift results in an aggregate daily lift capacity of 2,250. The daily snowsports capacity of the ski lifts is 2,250 skiers/day (except during summer snowsports). This is almost in balance with the lower range of the daily capacity of the skiable terrain (2,500). It is common to have a higher terrain capacity than lift capacity as it results in a more desirable guest experience.

During the summer months, snowsports would not be available from Tram 1; Tram 2 would be skiable from its mid-station, and both T-bars would be open for snowsports. Under the summer operating scenario, the daily skier capacity would be 1,750.

Summer and Multi-Season Recreation Capacity

In the summer months, tram capacity will need to be split across summer snowsports, summer recreation users and multi-season recreation users. Approximately five hours of operation of Tram 1 will be required to transport the 1,750 skiers to and from the summit. Two and a half hours of operation in the morning would be needed to move them up to the summit where they can repeat ski on Tram 2 and the T-bars, and two and half hours of operation would be needed to move the skiers back down to the base area at the end of the ski day. Assuming a 12-hour operating day in the summer, there would be seven remaining hours available to transport summer and multi-season recreation users to and from the summit. Assuming the first summer and multi-season recreation users would stay at the summit for at least one hour, there are six available hours of full capacity operation (700 persons per hour) available to move these users. This translates to a summer and multi-season recreation capacity of approximately 4,200 users from a lift perspective.

In terms of activity capacity, multi-season recreation capacity is relatively well understood. Based on typical capacities of other mountain resort bike operations and zip line specifications, the multi-season recreation offerings would accommodate approximately 430 users per day. Subtracting these users out of the 4,200 total leaves a tram capacity of about 3,770 users for summer excursions.

In general, excursions of this type are typically best suited to groups of 8 to 10 participants per guide. While the excursions described by the proponent could in theory be scaled to accommodate 4,200 users, it would take a large number of guides and numerous groups of participants engaging in each excursion type at any given time. This level of use would likely put a strain on the available space and recreational experience for mountaineering, hiking, dog sledding, etc. and would require a large guide staff. A more reasonable assumption for the number of excursions per day would be two groups of each excursion operating at a time with two sessions being held per day (morning and afternoon). This provides a daily capacity of about 40 users for each excursion type. This is true for all excursion types, except the salmon bake and the flight seeing excursion. We have assumed the salmon bake would accommodate a single group of about 30 people per day and that flight seeing would accommodate groups of four with one group at a time, as the typical planes or helicopters used for such an operation are generally small and may be too expensive to purchase a large fleet.

In total, operations in the summer are expected to accommodate 2,980 users per day—1,750 summer snowsports users, 430 multi-season recreation users, and 800 summer excursion users.

b. Annual Visitation Capacity

Table IV-6 demonstrates the annual visitation capacity of Mineral Creek for snowsports, multi-season, and summer recreation based on the daily capacities from Table IV-5, the number of annual operating days and typical seasonal ski area utilization rates. This visitation capacity refers to the visitation the resort would be sized to accommodate, not the expected visitation based on market conditions.

Table IV-6. Mineral Creek Annual Visitation Capacity Summary

Category	Specification (quantification)	Notes/Description
Potential Overall Annual Visitation Capacity		
Potential Annual Snowsports Visitation Capacity (visitor days)	204,375	Unique snowsports visits based on daily capacity, number of operating days and typical seasonal ski area utilization rates.
Potential Annual Summer & Multi-Season Visitation Capacity (visitor days)	33,545	Unique summer and multi-season recreation visits based on daily capacity, number of operating days and typical seasonal ski area utilization rates.
Potential Annual Visitation (visitor days)	237,920	Unique snowsports, summer and multi-season recreation visits based on daily capacity, number of operating days and typical seasonal ski area utilization rates

Operations Assumptions

- Winter Season Length (Days; Dec, Jan, Feb): Snowsports 90; Multi-Season 90; Summer n/a
- Winter Utilization Rate: Snowsports 30%; Multi-Season 10%; Summer n/a
- Spring Season Length (Days; March, April, May): Snowsports 90; Multi-Season 90
- Spring Utilization Rate: Snowsports 45%; Multi-Season 30%; Summer n/a
- Summer Season Length (Days; June, July, August): Snowsports 60; Multi-Season 90; Summer 90
- Summer Utilization Rate: Snowsports 25%; Multi-Season 30%; Summer 30%
- Fall Season Length (Days; September, October, November): Snowsports 60; Multi-Season 60; Summer n/a
- Fall Utilization Rate: Snowsports 25%; Multi-Season 25%; Summer n/a

3. SUGARLOAF

a. Daily Visitation Capacity

Based on the proponents' descriptions of the proposed project, Sugarloaf will provide snowsports activities from November through April. The resort will provide scenic lift rides, lift-served mountain biking and hiking in the summer. The daily capacity of each activity, as well as the overall daily capacity for snowsports, multi-season and summer recreation, is provided in Table IV-7. Like the other projects, elements of the Sugarloaf proposal may evolve over time depending on initial successes in growing name recognition, developing and marketing quality visitor experiences, and increasing visitation in the broader community through cooperative marketing efforts.

Table IV-7. Sugarloaf Daily Capacity Summary

Category	Specification (quantification)	Notes
Snowsports Capacity		
Lifts	Double chairlift and rope tow	Main lift is double chair. Beginner area with rope tow
Hourly Lift Capacity	1000	Estimated hourly capacity of the 1,200' double chair and 500' rope tow
Terrain	600	Estimated 600 acres repeat skiable
Daily Snowsports Capacity	100	Daily skiing capacity intentionally limited by access and lodging (actual capacity = 400)
Summer Recreation Capacity		
Scenic Lift Ride Daily Capacity	750	Daily capacity limited by low hourly capacity double chair. Scenic lift ride assumes six hours of daily summer operation (limited day), and that visitors stay at the summit for two-hour sessions.
Summer Skiing Capacity	0	Ski season is October-May
Mountain biking/hiking	188	Assumes 25% of Scenic Lift Rides will use the lift to access terrain for hiking/biking (included as part of the scenic lift ride capacity). Mountain biking is assumed to be simpler cross-country single-track type trails, rather than downhill flow type trail construction.
Daily Summer Recreation Capacity	750	

b. Annual Visitation Capacity

Table IV-8 demonstrates the annual visitation capacity of Sugarloaf for snowsports and summer recreation based on the daily capacities from Table IV-6, the number of annual operating days and typical seasonal ski area utilization rates. This visitation capacity refers to the visitation the resort would be sized to accommodate, not the expected visitation based on market conditions.

Table IV-8. Sugarloaf Annual Visitation Capacity Summary

Category	Specification (quantification)	Notes
Potential Overall Annual Visitation Capacity		
Potential Annual Snowsports Visitation Capacity (visitor days)	9,000	Unique snowsports visits based on daily capacity, number of operating days and typical seasonal ski area utilization rates.
Potential Annual Summer Visitation Capacity (visitor days)	20,250	Unique summer recreation visits based on daily capacity, number of operating days and typical seasonal ski area utilization rates.
Potential Annual Visitation (visitor days)	29,250	Unique snowsports and summer recreation visits based on daily capacity, number of operating days and typical seasonal ski area utilization rates

Operations Assumptions:

- Winter Season Length (Days; Dec, Jan, Feb): Snowsports 90; Summer 0
- Winter Utilization Rate: Snowsports 40%; Summer n/a
- Spring Season Length (Days; March, April, May): Snowsports 90; Summer 0
- Spring Utilization Rate: Snowsports 40%; Summer n/a
- Summer Season Length (Days; June, July, August): Snowsports 0; Summer 90
- Summer Utilization Rate: Snowsports n/a; Summer 30%
- Fall Season Length (Days; September, October, November): Snowsports 60; Summer 0
- Fall Utilization Rate: Snowsports 30%; Summer n/a

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E. INFRASTRUCTURE AND FACILITY DEVELOPMENT COST ANALYSIS

The following analysis summarizes the projected capital costs for each proposed project, based on the proponents' description of the various components that make up the project (i.e., lifts, trails, base lodges, summer recreation, etc.). This evaluation was derived from well-established costing for recently constructed projects, as well as in conjunction with proponents and facility and amenity manufacturers to ensure accuracy. Care was taken to include anticipated costs and contingencies to account for potential price escalation over the period from analysis to actual construction.

As with all financial analyses and modeling, key inputs to the evaluation are frequently and necessarily based upon informed assumptions and the establishment of key parameters. For the preparation of this analysis, SE Group utilized its proprietary industry database to determine necessary inputs for recreation and facilities costs. Local project construction experience and expertise was provided by Design Alaska. Local cost estimates were provided that included consideration for Guest Service Space, Operations Facilities, Access Roads (including any required bridges), Wastewater Treatment, Water Service, Electrical Service (including any On-Mountain Electrical Service needs) and Communications Service. Cost assumption narratives of Design Alaska are found in Appendix A: Cost Assumptions.

All costs are based on 2016 construction and reflect an order-of-magnitude estimate of likely capital costs based on our understanding of each potential project. Costs are reflective of the conceptual nature of the proposed projects at this stage and represent the best conservative estimate based on available data and general location of facilities.

1. EAST PEAK

Total project costs for East Peak are estimated to be $60.1 million. This includes capital costs for recreation, facilities and infrastructure, as well as a 10% contingency cost to account for price escalation over the period from analysis to actual construction. Table IV-9 demonstrates the anticipated capital costs for East Peak.

a. Recreation and Facilities Capital Costs

As shown in Table IV-9, total recreation and facilities capital costs are estimated at $44.6 million, which includes a 10% contingency.

b. Infrastructure Costs

Access to East Peak would be provided via a 6,000 linear-foot, 24-foot-wide, two-lane, asphalt access road from Airport Road to the base area. A 300-foot long bridge will need to be constructed across the Valdez Glacier Stream to connect this access road to Airport Road. A 24-foot-wide gravel mountain access road would also be constructed from the base area to the mid-chairlift point. The cost for this access infrastructure is estimated at approximately $8.5 million, including a 10% contingency.

Approximately 1.5 miles of wastewater, electric and communications transmission lines would need to be constructed to connect existing networks to the center. This assumes the City's existing systems have adequate capacity to accommodate the increased loading from this project. Overhead electric transmission lines are assumed for this portion, but buried electric transmission lines would also be necessary from the base area to the various on-mountain facilities. The cost for this utility infrastructure is estimated at approximately $4.13 million, including a 10% contingency.

Water for the center and the development would be provided by two 6-inch well casings drilled approximately 300 feet deep each. Water would be hauled to on-mountain facilities. The cost for these wells is estimated at approximately $275,000 including a 10% contingency.

Table IV-9. East Peak Recreation and Facilities Capital Cost Summary

Category	Units	Measurement	Unit Price	Total Costs
Snowsports				
Lifts	1	lift	$18,000,000	$18,000,000
Terrain	50	acres	$15,000	$750,000
Snowmaking Operations (Acres)	50	acres	$60,000	$3,000,000
Total Snowsports Costs	--	--	--	**$21,750,000**
Multi-Season Recreation				
Mountain Biking	5	miles	$76,000	$380,000
Zip Line	1	2 line Multi-Zip	$1,000,000	$1,000,000
Glacier Hiking, Exploration and Ice Climbing Tours Daily Capacity	0	0	$0	$5,000
Raft/Kayak Tours Daily Capacity	20	kayaks	$800	$16,000
Total Multi-Season Recreation Costs	--	--	--	**$1,401,000**
Operations and Guest Services				
Base Area Guest Services (SQ. FT.)	14,438	Sq. Ft.	$700	$10,106,000
Mountain Top Guest Services (SQ. FT.)	4,813	Sq. Ft.	$1,200	$5,775,000
Base Area Operations Facilities (SQ. FT.)	1,650	Sq. Ft.	$500	$825,000
Mountain Top Operations Facilities (SQ. FT.)	--	Sq. Ft.	--	--
Total Operations and Guest Services Costs	--	--	--	**$16,706,000**
Recreation and Facilities Capital Cost Total				
Recreation and Facilities Capital Cost Subtotal				$39,857,000
10% Contingency Cost				$3,985,700
Total Recreation and Facilities Costs				**$43,843,000**
Infrastructure Capital Cost Total				
Infrastructure Cost Subtotal	--	--	--	$14,750,000
10% Contingency Cost				$1,475,000
Total Infrastructure Costs				**$16,225,000**
Total Capital Costs				
Total Capital Costs	--	--	--	**$60,068,000**

2. MINERAL CREEK

Total project costs for Mineral Creek are estimated to be $115.7 million. This includes capital costs for recreation, facilities and infrastructure, as well as a 10% contingency cost to account for price escalation over the period from analysis to actual construction. Table IV-10 demonstrates the anticipated capital costs for Mineral Creek.

a. Recreation and Facilities Capital Costs

As shown in Table IV-10 total recreation and facilities capital costs are estimated at $114.5 million, which includes a 10% contingency.

b. Infrastructure Costs

Access to the base area and lower tram terminal for Mineral Creek would be provided from the existing road network of the City of Valdez. Base area facilities are assumed to tie into existing water, sewer, electric, and communications utilities with relatively minor expenses for connections as existing lines are in very close proximity. The cost for these utility connections is estimated at approximately $159,500, including a 10% contingency.

On-mountain facilities are assumed to utilize composting toilets and water is assumed to be hauled by tram to the on-mountain facilities, eliminating the need for utility lines up the mountain. The cost of the compositing toilets is estimated at approximately $35,200, including a 10% contingency.

Electricity for the on-mountain facilities would be provided by a self-enclosed 1,750 KW diesel generator. The estimated unit cost for this on-mountain generator is $990,000, including a 10% contingency.

Table IV-10. Mineral Creek Capital Cost Summary

Category	Units	Measurement	Unit Price	Total Costs
Snowsports				
Trams	2	Trams	--	$55,000,000
T-Bars	2	T-Bars	$700,000	$1,400,000
Terrain	1	Terrain Work	$485,000	$485,000
Total Snowsports Costs	--	--	--	**$56,885,000**
Summer Recreation				
Excursions	1	Combined gear and equipment needs. Assumes no cost for "flight seeing," relying on a partnership or proponent-owned helicopters.	$250,000	$250,000
Total Summer Recreation Costs	--	--	--	**$250,000**
Multi-Season Recreation				
Mountain Biking	12	miles	$76,000	$912,000
Zip Line	1	Long Span Zip	$2,000,000	$2,000,000
Total Multi-Season Recreation Costs	--	--	--	**$2,912,000**
Operations and Guest Services				
Base Area Guest Services	9,844	Sq. Ft.	$700	$6,891,000
Mountain Top Guest Services	29,531	Sq. Ft.	$1,200	$35,438,000
Base Area Operations Facilities	3,375	Sq. Ft.	$500	$1,688,000
Mountain Top Operations Facilities	0	Sq. Ft.	--	--
Total Operations and Guest Services Costs	--	--	--	**$44,016,000**
Recreation and Facilities Capital Cost Total				
Recreation and Facilities Capital Cost Subtotal				$104,063,000
10% Contingency Cost				$10,406,000
Total Recreation and Facilities Costs				**$114,469,000**
Infrastructure Capital Cost Total				
Infrastructure Cost Subtotal	--	--	--	$1,077,000
10% Contingency Cost				$107,700
Total Infrastructure Costs				**$1,184,700**
Total Capital Costs				
Total Capital Costs	--	--	--	**$115,653,700**

3. SUGARLOAF

Total project costs for Sugarloaf are estimated to be $2.9 million. This includes capital costs for recreation, facilities and infrastructure, as well as a 10% contingency cost to account for price escalation over the period from analysis to actual construction. Table IV-11 demonstrates the anticipated capital costs for Sugarloaf.

a. Recreation and Facilities Capital Costs

As shown in Table IV-11 total recreation and facilities capital costs are estimated at $1.6 million, which includes a 10% contingency.

b. Infrastructure Costs

Access to Sugarloaf would be provided via a 600-linear-foot, 24-foot-wide, two-lane, gravel access road from Dayville Road to the base area. The terrain between the existing road and the proposed development is moderately steep and undulating. The estimated cost for the access road is approximately $215,000, including a 10% contingency.

We assume the primary electrical lines will be overhead cabling from a tie-in at Dayville Road to the base area, approximately 3,900 linear feet. Communications connections would require the same effort as the primary electrical line, but with smaller cabling, approximately 3,900 linear feet. It is assumed no mountain facilities would have communications service. The cost for this utility infrastructure is estimated at approximately $536,000, including a 10% contingency.

We assume all wastewater generated from the facilities will be treated and disposed of with on-site treatment systems. The base area would utilize a buried septic tank and leach field system that will have the capacity for 5,000 gallons per day and on-mountain facilities are assumed to incorporate commercial composting toilets. Water would be provided to the base area facilities from a drilled water well, with a 6-inch well casing drilled approximately 650 feet deep. Water would be hauled to the on-mountain facilities. The cost of water, wastewater treatment and composting toilets is estimated at approximately $535,000, including a 10% contingency.

Table IV-11. Sugarloaf Capital Cost Summary

Category	Units	Measurement	Unit Price	Total Costs
Snowsports				
Lifts	1	lift	$1,125,000	$1,125,000
Terrain	600	acres	$0	$0
Total Snowsports Costs	--	--	--	**$1,125,000**
Summer Recreation				
Scenic Lift Rides	1	lift	$0	$0
Summer Skiing	1	lift	$0	$0
Mountain biking/hiking	2	miles	$14,000	$28,000
Total Summer Recreation Costs	--	--	--	**$28,000**
Operations and Guest Services				
Base Area Guest Services Yurt	700	Sq. Ft.	$125	$90,000
On Mountain Guest Services Yurts	1,400	Sq. Ft.	$50	$70,000
Operations Facilities (SQ. FT.)	1	Sprung Structure Maintenance Shop	$135,000	$135,000
Total Operations and Guest Services Costs	--	--	--	**$295,000**
Recreation and Facilities Capital Cost Total				
Recreation and Facilities Capital Cost Subtotal				$1,448,000
10% Contingency Cost				$145,000
Total Recreation and Facilities Costs				**$1,593,000**
Infrastructure Capital Cost Total				
Infrastructure Cost Subtotal	--	--	--	$1,168,500
10% Contingency Cost				$116,850
Total Infrastructure Costs				**$1,285,350**
Total Capital Costs				
Total Capital Costs	--	--	--	**$2,878,350**

F. OPERATING COST ANALYSIS

A benchmarking financial analysis was completed to project the anticipated operating costs of each proposal through comparisons with like organizations in the industry. Ski Industry benchmarking typically utilizes the NSAA Economic Analysis, which projects key resort financial data using survey information by resort size within a region. However, given the unique characteristics and visitation potential of Valdez, there are challenges with using the Economic Analysis data alone in this case.

To facilitate a valid benchmarking analysis for Valdez utilizing comparable resorts, we employed a HYBRID compilation of information from two sources of data: the NSAA Economic Analysis and the NSAA Kottke End of Season Survey.

- The NSAA Economic Analysis is performed through an annual survey of member resorts' physical characteristics (e.g., size and capacities), and financial performance by operating department. In 2014/15, 102 resorts throughout the country participated in the survey. NSAA organizes the survey results by region and size and provides a rich source of information that allows for analytical analysis, (benchmarking) by these categories. This is the best industry information available to compare resorts by region and size which we use to glean valuable insights regarding a resort's operating parameters.
- The NSAA Kottke End of Season Survey is another source of industry-wide data, segmented by size and complexion of resort operations. This survey, designed "to track several key barometers of interest and importance within the ski industry" is more general in nature than the Economic Analysis, providing general financial information such as number of tickets, passes, and lessons sold along with ticket yields. Other operational information and season specific results provided within the Kottke report include the number of snowmaking days, snowfall, visitation patterns, visitor age, visitation patterns, visitation by ticket type, lift capacity, capital improvements, and non-snow sports activities, etc. A greater number of resorts participate in the Kottke survey. In 2014/15, 220 resorts reported, which is more than twice as many as the NSAA Economic Survey.

To complete the hybrid benchmarking analysis for Valdez the Kottke analysis was utilized to create a comparable set of resorts (as this analysis contains more comparable resorts), and the percentage breakdowns for expenses from the Economic Analysis (using a subset of areas similar to the Valdez market) were utilized to project operating cost detail from the limited financial detail provided by Kottke.

The estimated Operating Expenses from the benchmark analysis include:

- Cost of goods
- Direct labor
- Maintenance/Repairs
- Other direct
- Payroll taxes
- Power/Electric
- Gen. and admin.
- Marketing/adv.
- Insurance
- Land use fees
- Property/other taxes
- Miscellaneous
- Depreciation
- Amortization
- Operating Leases
- Interest

Note: projected profits and debt service are not included in the estimated operating expenses.

1. EAST PEAK

Based on the potential visitation capacity of East Peak, the operating expenses associated with the project are estimated at approximately $3.5 million annually.

2. MINERAL CREEK

Based on the potential visitation capacity of Mineral Creek, the operating expenses associated with the project are estimated at approximately $9.2 million annually.

3. SUGARLOAF

Based on the potential visitation capacity of Sugarloaf, the operating expenses associated with the project are estimated at approximately $413,000 annually.

V. MARKET-BASED OPPORTUNITY ASSESSMENT FOR YEAR-ROUND MOUNTAIN RECREATION

A. VISITATION POTENTIAL

The market assessment identified a number of indicators for tourism-related, summer and winter visitation to Valdez. Understanding the realistic potential for summer and winter visitation to Valdez is a critical part of the feasibility study.

This *visitation potential* is different than the *visitation capacity* discussed above. *Visitation potential* speaks to the number of visitors that any mountain resort in Valdez may be able to attract based on market conditions and the provision of recreational offerings attractive enough to draw in these visitors. This *visitation potential* is the same for each proposal because it is based on market conditions (size of potential markets, capture rates, etc.) and not the recreational offerings at each resort. *Visitation capacity* refers to the visitation the resort would be sized to accommodate and is based on the mix of recreational activities envisioned in each proposal. These two visitation values (*visitation potential* and *visitation capacity*) are not necessarily the same.

1. POTENTIAL VISITOR (NON-ALASKA RESIDENT) MARKET: SUMMER

Alaska hosts 2 million non-resident visitors on an annual basis; 85% of whom visit in the summer and 15% in the winter. Of the nearly 1.8 million summer visitors, 1 million travel by cruise ship, either one-way or round trip.

Cruise passenger capture rate (percentage of Alaska cruisers Valdez has the potential to attract):

- Approximately 300,000 of Alaska's 1 million cruise passengers are on 7-day "cross-gulf" itineraries, with passengers boarding/departing their ship in Whittier or Seward. These cruisers spend some period of time in Southcentral Alaska and therefore represent the potential market for Valdez. The remaining 700,000 Alaska cruise visitors travel to the Southeast region only and therefore are not considered part of the potential Valdez market.
- No cruise ships make regular port calls in Valdez. Valdez currently captures a small percentage of the Alaska cruise market, including an occasional ship call and approximately 6,000 cruise passengers traveling through town on land tour packages.
- Analysis of the cruise market suggests that Valdez has the potential to capture between 1% and perhaps as much as 6% of the total Alaska cruise market (between 3% and 20% of the cross-gulf market.
    - The lower capture rate of 1% (about 10,000 passengers) represents the potential for Valdez to attract more of the pass-through cruise passenger visitation it now experiences and/or ships on non-traditional itineraries such as 10-day sailings, 14-day sailings, or ships repositioning to Arctic or Asian itineraries. This lower capture rate assumes there is no reintroduction of regular cruise ship port calls in Valdez, as a result of mountain recreation development.

» The high capture rate (6% of the overall market, or about 60,000 passengers) is based on the assumption that excursions and attractions (including mountain recreation attractions, among others) are developed to the extent that one or two ships make regularly scheduled port calls in Valdez. Valdez has attracted this level of cruise visitation previously; however, cruise lines are increasingly focused on generating shore excursion revenue in port communities. Land tour packages are now concentrated in the Denali corridor, where cruise lines now have significant rail, motorcoach, and hotel assets. These factors, when combined with the lack of a retail center, make Valdez a less attractive port of call. Cruise lines' interest is in moving their passengers as quickly and efficiently as possible on shore-side tours and through their own revenue-generating land tour assets.

Recognizing that various proposals for mountain recreation development may have different potential to attract cruise ships and cruise passengers to Valdez, it is important to note that mountain recreation development alone is not sufficient to attract large cruise ships back to Valdez. Cruise lines seek ports with a range of quality attractions and excursions that provide a good experience for passengers and commission-generating opportunities for cruise ship operators. The size of cruise ships entering the market is steadily increasing, with the average passenger capacity now over 2,000, with the largest in the Alaska market at 3,500. Typically, about 80% of passengers buy some form of tour or excursion, in the well-developed ports. Communities with limited tour, excursion, retail and other visitor-related commercial infrastructure, such as Valdez, are not able to meet the needs of these larger vessels in terms of variety and capacity of visitor offerings.

For a cruise line to add a Valdez port call to a cross gulf itinerary, it would have to drop a Southeast port from the existing itinerary. Ketchikan, Juneau and Skagway are the principal Southeast ports in cross gulf itineraries. All three of those ports have very well developed selections of shore excursions, attractions, and convenient retail centers.

Valdez is also at a competitive disadvantage relative to Whittier and Seward as a potential cruise ship turn-around port. Both those ports have rail connections to Anchorage and Denali, and faster highway connections than Valdez. Further, though the Valdez airport is capable of serving (with a 6,500-foot runway) 737 jets, it cannot replace Anchorage (with direct flights to numerous Lower 48 locations) as the primary air gateway for Alaska's cruise passengers.

Non-cruise visitor capture rate (percentage of Alaska independent visitors that Valdez has the potential to attract):

- Valdez currently attracts approximately 50,000 non-cruise visitors, or approximately 6% of Alaska's 780,000 summer independent visitor market. The vast majority are independent travelers in RVs and rental cars. Approximately 1,500 to 2,000 visitors are traveling via motorcoach and adventure tour packages.
- Analysis of this market indicates that Valdez has the potential to capture between 9% and 11% of Alaska's independent visitors (or between 70,000 and 86,000 visitors annually). This estimate of visitation potential is based on the assumption that Valdez is better able to leverage its natural attractions through marketing and product development, including those related to mountain recreation.
    - » The capture rate of between 9% and 11% reflect both relatively strong interest in visiting Valdez and experiencing the proposed mountain recreation tours and attractions. Fishing and cruising in Prince William Sound will continue to be Valdez' primary visitor attractions, however mountain recreation-related development, and other visitor industry development, would attract additional visitors and potentially induce visitors to spend more time in the community.

In summary, cruise-related and independent markets together offer potential Valdez Alaska non-resident visitation of 80,000 to 146,000 during summer months (this is in comparison to the 50,000 to 60,000 total Alaska non-resident visitor volume to Valdez currently). To estimate how many of these visitors would purchase proposed mountain recreation opportunities in Valdez, the project team interviewed travel industry professionals and analyzed tour and attraction participation rates in Valdez and other locations.

Mountain recreation development capture rate (percentage of Valdez visitors that would purchase a mountain recreation experience):

- Valdez visitor market analysis indicates that mountain recreation development has the potential to capture between 25% and 30% of the cruisers who now or could potentially visit Valdez and between 15% and 25% of the independent visitors who now or could potentially visit the community.
- In the cruise market these capture rates translate to between 3,000 and 18,000 mountain recreation visitors. Among independent visitors to Valdez, these capture rates translate to between 10,000 and 21,000 mountain recreation visitors.
- Among potential cruise visitors, the higher capture rate of 30% reflects the small number of competing tours and attractions in Valdez, the potential to be packaged with other tours, and anticipated interest in mountain access and recreational opportunities. The lower capture rate of 25% also anticipates participation rates to be strong compared to other Alaska locations. To place these ranges in context, 16% of cruise passengers currently experience a tram or gondola during their Alaska vacation to access mountain recreation opportunities including hiking, mountain biking, nature tours, and scenic views (most of this is in Juneau, at the Mount Roberts Tram). The most visited attractions in Alaska, such as Juneau's Mendenhall Glacier, capture about 40% of cruise visitors to the community. Other than primary attractions such as Mendenhall Glacier or the White Pass & Yukon Route rail tour in Skagway, it is rare for any single attraction or excursion to capture more than 10% of the cruise market. For example, in Juneau, 4% of visitors purchase a dog sled experience, 2% zipline, 2% bike, 2% raft, and 2% kayak.
- Among potential independent visitors, the high capture rate of 25% reflects an anticipated strong interest and participation in mountain recreational activities by visitors. The lower capture rate of 15% resembles tram ridership rates in other Alaska locations where there is a tram opportunity.

  A modest 5% of highway travelers currently experience a tram or gondola ride in Alaska to access mountain recreation and scenic views. Independent visitors are generally less likely to purchase tours/excursions than cruisers. For example, according to AVSP data, per person per trip spending on tours and activities among cruisers totaled $220 while air and highway/ferry visitors averaged $144. Similarly, highway/ferry visitors are much less likely than cruisers to purchase dog sledding excursions, or go rafting, zip-lining, or 4-wheeling. (Conversely, independent visitors are much more likely to participate in fishing than cruisers.)

In summary, these estimates of mountain recreation capture rates in Valdez result in a mountain recreation market of between 13,000 to 39,000 Alaska visitors during summer months. These visitors would be expected to purchase a 1-day ticket; therefore, estimates of numbers of visitors are equivalent to mountain recreation visitor-days (unlike skiers, who individually may account for several visitor-days).

Table V-1. Potential Visitor Summer Usage

	Cruise	Non-Cruise	Total
Potential Market	1,000,000	780,000	1,780,000
Valdez capture rate (high estimate)	6%	11%	
Valdez capture rate (low estimate)	1%	9%	
Valdez potential visitors (high estimate)	60,000	86,000	146,000
Valdez potential visitors (low estimate)	10,000	70,000	80,000
Mtn. recreation capture (high estimate)	30%	25%	
Mtn. recreation visits (low estimate)	3,000	10,000	13,000

Estimates are based on Alaska Visitor Statistics Program data and interviews with Alaska travel industry representatives including cruise line officials, ground tour managers, airline representatives, and numerous other contacts including visitor bureau staff, excursion operators, accommodations managers, and special event coordinators.

Growth Potential in the Summer Non-Resident Visitor Market

The visitation figures described in this analysis represent initial market penetration, which would materialize over the first few years of mountain recreation resort operations. They are based on current volumes of cruise and independent visitors to Alaska and the Southcentral region. Valdez visitation could reasonably be expected to grow at least at the pace that these markets grow (which is expected to be slow for the foreseeable future, at perhaps 1 or 2% annually) and perhaps faster, to the extent that name recognition grows, quality visitor experiences are developed and marketed, and the community in general sees increased visitation through cooperative marketing efforts.

Total visitors to Alaska: 1.78 Million

Cruise: 1,000,000
Air: 702,000
Highway/Ferry: 78,000

- Adventure Tours
- Independant Travelers (RV +Rental Cars)
- Motorcoach Tours

Capture:
9% - 11%

Potential Market:
780,000

- •Shopping
- •Wildlife Viewing
- •Cultural Activities
- •City/Sighteeing
- •Train
- •Day Cruises
- •Fishing
- •Visiting Friends/ Relatives
- •Shows/Alaska Entertainment
- •Tramway/Gondola
- •Salmon bake
- •Dog Sledding
- •Camping
- •Kayaking/Canoeing
- •Buisness
- •Rafting
- •Zipline
- •ATV/4-Wheeling
- •Biking
- •Northern Lights Viewing
- •Hunting
- •Other

Potential Market:
1,000,000

Capture:
1%-6%

- Inside Passage/ Southeast Region
- Non-Traditional Inventories

Other Visitors
70,000-86,000

Cruise Passengers
10,000-60,000

Potential Visitor Market:
(Summer)
80,000-146,000

Mountain Recreation Capture:

Cruise Passenger Capture:
25% - 30%

Potential Market:
2,500 - 18,000

Other Visitor Capture:
15% - 25%

Potential Market:
10,500 - 21,500

Potential Summer Visitation (Mountain Recreation Visitor Days):
13,000 - 39,500

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2. POTENTIAL ALASKA RESIDENT MARKET: SUMMER

A portion of Alaska's 740,000 residents travel to Valdez to fish, hike, see glaciers, visit friends/family, and explore the Alaska highway system. No hard data exists regarding their visitation to Valdez. The estimates below are based on Richardson Highway traffic data, visitor market research, and interviews with Valdez travel industry representatives.

The most comprehensive analysis of Alaska resident participation in recreational travel and activity is the *Susitna-Watana Hydroelectric Project Recreation Resources Study*. The study included a wide range of outdoor recreation survey research conducted by McDowell Group including mail surveys of 3,500 residents of the Anchorage, Mat-Su and Fairbanks areas. McDowell Group also conducted telephone surveys of residents of the same areas, and intercept surveys in the Susitna-Watana project study area. The mail survey specifically provided information about where residents of Southcentral and Interior Alaska spent recreational time boating, fishing, hunting and snowmachining. Special analysis of those survey results indicate that approximately 5% of respondents noted traveling to the Valdez area for recreation purposes during the 2013 study period.

Valdez capture rate (percentage of Alaskans now or potentially visiting Valdez for recreational purposes):

- Valdez competes with other southcentral destinations for Anchorage and Mat-Su resident recreational time, particularly Kenai, Soldotna, and Seward. Valdez summer visitation rates are estimated at between 6% and 8% of the region's 390,000 residents.
- Fairbanks residents visit Valdez at higher rates than residents from other locations, given Richardson Highway access and numerous professional and social connections between the two communities. Summer visitation is estimated between 8% and 12% of the Fairbanks North Star Borough population of about 100,000.

Alaska residents in other locations, especially those not on the road system, are expected to visit Valdez at very modest rates of 1 to 2%.

In general, Alaska residents traveling in-state for recreational purposes are significantly less likely to purchase recreational opportunities than non-resident visitors. Alaskans are more accustomed to engaging in their own hiking, biking, kayaking opportunities, for example, rather than seeking out guided or otherwise commercially supported opportunities.

In addition, unlike the non-resident visitor market, which brings a new population of visitors to Southcentral Alaska each year, the Alaska resident market is largely static, meaning mountain recreation development in Valdez would need attractions that could draw repeat visits, to sustain its market capture rate.

These calculations result in potential Valdez visitation of 34,000 to 48,000 by Alaska residents during summer months. This range represents the number of Alaska residents who now visit Valdez, or would visit Valdez given enhancement of the community's summer attractions. To estimate how many Alaskans would take advantage of the proposed mountain recreation opportunities in Valdez, the project team analyzed tour and attraction participation rates in Valdez and other locations.

Mountain recreation development capture rate (percentage of Alaskans now or potentially visiting Valdez for recreational purposes that would actually purchase a mountain recreation experience):

- The high capture rate scenario of 20% reflects anticipated interest in mountain access and recreational opportunities. However, tour and attraction participation rates are lower among Alaska residents when compared to visitors.
- The low capture rate is more modest at 10%.

These calculations result in a potential mountain recreation market of 3,000 to 10,000 Alaska residents during summer months. The vast majority would purchase a 1-day ticket.

Table V-2. Potential Alaska Resident Summer Usage

	Anchorage + Mat-Su	Fairbanks	Other	Total
Potential Market	390,000	100,000	250,000	740,000
Valdez capture rate (high estimate)	8%	12%	2%	
Valdez capture rate (low estimate)	6%	8%	1%	
Valdez potential visitors (high estimate)	31,000	12,000	5,000	48,200
Valdez potential visitors (low estimate)	23,400	8,000	2,500	33,900
Mtn. recreation capture (high estimate)	20%	20%	20%	
Mtn. recreation capture (low estimate)	10%	10%	10%	
Mtn. recreation visits (high estimate)	6,200	2,400	1,000	9,600
Mtn. recreation visits (low estimate)	2,300	800	300	3,400

Growth Potential in the Summer Resident Visitor Market

As described in the non-resident market analysis, the visitation figures described in this analysis represent initial market penetration, which would materialize over the first few years of mountain recreation resort operations. They are based on Southcentral and Interior Alaska's current population. Valdez visitation could reasonably be expected to grow at least at the pace that these markets grow. The Alaska Department of Labor and Workforce Development's official population forecasts include approximately 1% annual growth in the Anchorage/Mat-Su area over the next five years, followed by slower growth through the 2020 to 2025 period. Population growth in Fairbanks is expected to be at less than 1% annually over the next decade. To the extent that Valdez name recognition grows as a summer recreation destination, visitor experiences are developed and marketed to Alaska residents, and the community in general sees increased visitation through cooperative marketing efforts, visitation to Valdez among Alaska residents could grow at a rate faster than population growth.

Alaska Population: 737,000

Anchorage + Mat-Su Population: 390,000

Capture: 6%-8%

Fish

Hike

Glacier Viewing

Visit Friends and Family

Explore Highway System

Anchorage + Mat-Su: 23,400 - 31,200

Capture: 8%-12%

Fairbanks Population: 100,000

Fairbanks: 8,000-12,000

Capture: 1%-2%

Other Alaska Population: 250,000

Other Alaska Residents: 2,500-5,000

Potential Resident Market: (Summer) 34,000 - 48,000

Mountain Recreation Capture:

Anchorage + Mat-Su Capture: 10% - 20%

Potential Market: 2,300 - 6,200

Fairbanks Capture: 10% - 20%

Potential Market: 800 - 2,400

Other Capture: 10% - 20%

Potential Market: 300 - 1,000

Potential Summer Visitation (Mountain Recreation Visitor Days): 3,400 - 9,600

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3. POTENTIAL VISITOR MARKET: WINTER

Valdez has several competitive advantages when it comes to downhill lift served skiing and snowboarding—the area has some of the best, highest quality snow in North America, it has an incredibly long ski season (extending into July if not later), and it has some of the most stunning scenery of any mountain environment in the world. Downhill snowsports in the Valdez area would hold a very strong appeal to a core, dedicated group of skiers and snowboarders, those who currently travel to experience outstanding yet challenging skiing conditions, whether at lift-served ski areas, heli-skiing, or backcountry touring. This group tends to seek out new experiences and is willing to travel to do so.

At the same time, the challenges for bringing visitors to Valdez for downhill skiing are significant. Access is the most important hurdle, particularly for any potential visitors from Europe or Asia; travel times from these offshore locations would be substantial. Related to the access issue is the cost, both in dollars and time, to get to Valdez from potential target market areas (including Anchorage). Additionally, Valdez would have to break into a crowded destination ski marketplace and establish awareness among the target customer base. This limited name recognition could be overcome with investment in creative PR, social media, and marketing campaigns. A third challenge would be the limited lodging and other services currently available in Valdez (though that mix could certainly improve over time). Finally, the number of people participating in skiing and snowboarding in the U.S. has been flat to declining over the past decade, a trend that is not favorable for new ski areas seeking to enter the market and establish a presence by cannibalizing customers from other mountains.

Comparing the potential ski areas around Valdez to what currently exists in the world market is difficult—no perfect "apples to apples" comparison set or peer group exists. What could be offered in Valdez would be different than any other existing ski area. And yet, using examples and numbers from existing ski areas is the only prudent starting point to evaluate the potential for downhill skiing in Valdez. Using some real world examples, and drawing lessons from what has worked and what has not worked at relatively similar ski areas, provides the most relevant context to consider the most likely outcome for skiing in Valdez. Without a crystal ball to predict the future, we have to rely on the actual performance of other ski areas, industry numbers, and professional judgement to make reasonable predictions for the likely number of skiers and snowboarders who might participate at Valdez.

Potential Snowsports Market

The potential market for skiers and snowboarders at Valdez is the total pool of people who currently ski and snowboard in North America (regardless of where they reside). This group of participants is about 12.5 million people, including 9.6 million residents of the United States, 2.2 million residents of Canada, and 600,000 residents of offshore countries (including Europe, Australia, New Zealand, Latin America, and other countries).

Of these 12.5 million people, only about 1.7 million are reasonably anticipated to be within the group of realistic candidates for a visit to a potential ski area in Valdez. Those 1.7 million skiers and snowboarders are those who currently take overnight fly destination ski trips, are of intermediate, advanced or expert ability level, and have a household income of $100,000 or greater. Currently, those 1.7 million snowsports participants are skiing and snowboarding at approximately 120 different ski areas in North America. The extent to which some proportion of

this potential visitor pool might visit Valdez would depend on whether they could be lured away from the ski area(s) where they currently ski/ride.

The 1.7 million snowsports participants that are in the target market include all people who currently ski/snowboard at commercial ski areas in North America, including for race training, those residing in other countries (for example, counting those who live in Europe and Asia, among others), and during any month of the year. It does not specifically include backcountry or ski touring participants, though some percentage of those individuals also skis at commercial ski areas, and thus they would be included in the 1.7 million people.

This target market for skiers and snowboarders to visit Valdez in the winter is thus a very small niche of active participants who would be willing to travel to Valdez during the winter and spring. Similar to the existing heli-ski and cat ski market, the pool of potential visitors to a ski area in Valdez would likely be quite small. The best estimates of the size of the heli-skiing market in Valdez are between 1,000 and 1,500 visits per winter season.

The potential market for skiing and snowboarding at Valdez was segmented into three groups, as follows:

1. Out of state skiers and riders (Destination Visitors) who are expert skiers/ snowboarders, who currently fly to reach their ski destination(s), and who earn in excess of $100,000 in household income annually. Additionally, intermediate skiers and riders were added to this group as a potential secondary market.
2. Non-local Alaska Residents (Regional Visitors) who are expert skiers/snowboarders. Similarly, intermediates were added as a secondary market.
3. Local Residents of Valdez, regardless of skiing/boarding ability level.

The following factors were applied to the three geographic groups described above, who might ski or snowboard at a potential ski area in Valdez.

- Capture Rate. The percentage of the total universe of skiers and snowboarders that might realistically visit Valdez, assuming the right experience, terrain, lodging, snow conditions, and other factors are all in place. This rate is higher for the experts-only group than for the intermediate and expert group combined. The rate is higher for non-local Alaska residents than it is for out-of-state destination visitors, and it is highest for Valdez locals. This capture rate times the total potential market results in the number of individual skiers and snowboarders who might realistically make a ski trip to Valdez.
- Number of ski/snowboard days per person. The number of ski/snowboard days per person per season. This number varies depending on the visitor segment and whether it includes experts only or both intermediates and experts.

These estimates include residents of Alaska, who currently ski or snowboard at a variety of locations (Alyeska, other small ski areas, and backcountry). With closer proximity, the Alaska resident market would have a higher capture rate than the North American average, but might differ from the non-resident market in terms of skier days per visitor, with slightly shorter stays arranged around weekends.

As seen in the following tables, the estimated capture rate is between 0.33% and 0.75% for the experts-only Destination Visitor segment, and between 0.25% and 0.5% for the intermediates

and experts Destination Visitor group. While these percentages might seem small initially, the estimates are based on a range of factors: cost and logistics associated with access to Valdez, Valdez' limited name recognition as a resort destination (relative to competing destinations), and the scale and quality of accommodations and other visitor facilities. The capture estimates of between 0.25% and 0.5% for the intermediates and experts group translates into a range of 4,400 and 8,400 unique skiers/snowboarders traveling to Valdez to experience resort skiing. To place this in perspective, the high end of this range (8,400 people) is equal to about 10% of the number of annual destination skiers to Jackson Hole, one of North America's premier ski destinations. For further comparison, a range of 4,400 to 8,400 is roughly three to five times the number of skiers that now travel to Valdez for heli-skiing.

Alaska non-local skiers (Alaskans residing outside of Valdez) are projected at a 12% to 15% capture rate. It is assumed that between 90 to 95% of local Valdez skiers and riders would participate at a ski area in Valdez.

The average number of ski days per person is projected at between 2.6 and 2.9 days for the experts-only Destination Visitor segment, and between 2.4 and 2.7 days for the intermediates and experts (combined) Destination Visitor group. For Alaska non-local skiers, the number of days per season would range from 1.1 days to 2.1 days per winter, while Valdez locals would produce between 11.3 and 11.9 skier days per season.

These calculations result in a skier visit (visitor days) potential of between 15,200 and 27,400 per winter if the ski area attracts Destination Visitor experts only (and local skiers), and between 21,600 and 39,900 for the intermediate, expert, and local segments combined. Factors that would contribute to attracting more intermediate skiers include accessible terrain, visibility in the marketplace, cost, and community amenities such as lodging and dining. The current lodging capacity in Valdez is approximately 2,000 people per night, which would be enough to cover the projected skier visitation (though the quality of the inventory is varied.)

Table V-3. Potential Winter Skier Visits – Experts Only (Locals Included)

	Out of State – Experts Only	Non-local AK resident – Experts Only	Valdez Locals – All Ability Levels	Total
Potential Market	583,000	22,000	700	605,700
Valdez capture rate (high estimate)	0.75%	15.0%	95.0%	
Valdez capture rate (low estimate)	0.33%	12.0%	90.0%	
Valdez potential individual visitors (high estimate)	4,400	3,300	700	8,400
Valdez potential individual visitors (low estimate)	1,900	2,600	600	5,100
Number of ski days (high estimate)	2.9	2.1	11.9	
Number of ski days (low estimate)	2.6	1.3	11.3	
Valdez skier visit potential (high estimate)	12,800	6,900	7,700	27,400
Valdez skier visit potential (low estimate)	4,900	3,400	6,900	15,200

Note: Numbers rounded to the nearest hundred.

Table V-4. Potential Winter Skier Visits – Intermediates & Experts (Locals Included)

	Out of State – Intermediates + Experts	Non-local AK resident – Intermediates + Experts	Valdez Locals – All Ability Levels	Total
Potential Market	1,704,000	35,000	700	1,739,700
Valdez capture rate (high estimate)	0.50%	13.2%	95.0%	
Valdez capture rate (low estimate)	0.25%	10.5%	90.0%	
Valdez potential individual visitors (high estimate)	8,500	4,600	700	13,800
Valdez potential individual visitors (low estimate)	4,300	3,700	600	8,600
Number of ski days (high estimate)	2.7	2.0	11.9	
Number of ski days (low estimate)	2.4	1.2	11.3	
Valdez skier visit potential (high estimate)	23,000	9,200	7,700	39,900
Valdez skier visit potential (low estimate)	10,300	4,400	6,900	21,600

Note: Numbers rounded to the nearest hundred.

Growth Potential in the Winter Visitor Market

The figures presented in the tables above represent a starting point for visitation to Valdez in the winter. Over the longer term, the ski areas could generate momentum and build upon the initial numbers of visitors. Tourism related destinations rely heavily on positive reviews in press and publications, along with word of mouth from past visitors; utilizing aggressive PR techniques and providing an outstanding experience to visitors would likely generate additional incremental visitation to Valdez beyond the year one numbers above.

Additionally, partnerships with other ski areas might help to increase awareness and stimulate trial of skiing in Valdez. Examples of multi-mountain partnerships include the Mountain Collective, the Powder Alliance, the Rocky Mountain Super Pass Plus, and the Epic Pass.

4. POTENTIAL ANNUAL VISITATION

As described above, the total annual visitation potential for a mountain recreation venue in Valdez, including summer and winter visitation from residents and visitors to the state, is summarized in the following graphic.

Total Population of Skiers: 12.5 Million

U.S. : 9.6 Million
Canada: 2.2 Million
Off-Shore: 600,000

Potential Intermediate + Expert Skier/Rider Visitor Days:

21,600 - 39,900

Out of State Skiers/Riders:

10,300 - 23,000

Number of Ski Days:
2.4 - 2.7

Potential Individual Visitors:
4,300 - 8,500

Capture:
0.25%-0.50%

Potential Market:
1,704,000

Intermediate + Expert Skiers

Fly To Ski Destinations

+ $100K Annual Income

Non-Local AK Resident Skiers/Riders:

4,400 - 9,200

Number of Ski Days:
1.2 - 2.0

Capture:
10.5% - 13.2%

Potential Individual Visitors:
3,700 - 4,600

Potential Market:
35,000

All Valdez Locals:

6,900 - 7,700

Number of Ski Days:
11.3 - 11.9

Potential Individual Visitors:
600 - 700

Capture:
90.0% - 95.0%

Potential Market:
700

Fairbanks:
800 - 2,400

Other:
300 - 1,000

Anchorage + Mat-Su:
2,300 - 6,200

Alaska Residents:
3,400 - 9,600

Potential Visitors:
13,000 - 39,500

Other Visitors:
10,500 - 21,500

Cruise Passengers:
2,500 - 18,000

Potential Summer Visitation to Valdez:
16,400 - 49,100

Intermediate+Expert Skiers/Riders:
21,600 - 39,900

Potential Winter Visitation to Valdez:
15,200 - 39,900

Expert Skiers/Riders:
15,200 - 27,400

Potential Annual Visitation (Mountain Recreation Visitor Days):
31,600 - 89,000

B. COMPLEXION OF MARKET-BASED OPPORTUNITY

Given the marketplace, and the visitation potential, the following "Market-based Scenario" illustrates the size and complexion of a mountain recreation destination for Valdez. This Market-based Scenario seeks to balance both visitation potential and visitation capacity to appropriately respond to market conditions and effectively capitalize on the mountain resort potential in Valdez. The complexion of the Market-based scenario described below provides an example of the types of activities that have the right variety, attraction, and capacity to meet market demand, but do not necessarily represent the only configuration of activities that would match the market opportunities.

1. VISITATION CAPACITY

The Market-based Scenario would accommodate snowsports activities in the fall, winter and spring, as well as scenic lift rides, mountain biking, canopy tours, an adventure course, a "fun zone" (inflatables, euro-bungy, etc.) and events and programs in the summer. In addition to snowsports and summer activities, the Market-based Scenario also includes a Nordic Spa that would operate throughout the year (i.e., multi-season). Table V-5 demonstrates the daily capacity of each activity, as well as the overall daily capacity for snowsports, multi-season and summer recreation under the Market-based Scenario.

Table V-5. Market-Based Scenario Daily Capacity Summary

Category	Specification (quantification)	Notes
Snowsports Capacity		
Lifts	One lift	Lift would be a fixed-grip triple, ideally used. The lift would need approximately 1,500 feet of vertical rise and be approximately 4,000 feet in length.
Hourly Lift Capacity	1,500	Assumed capacity for used triple
Terrain	500 lift served, another 1,000 with hiking	Desired quantity of terrain accessible from lift/hiking
Daily Snowsports Capacity	700	Estimated daily capacity of the lift
Sumer Recreation Capacity		
Scenic Lift Ride Daily Capacity	1,125	Estimated daily capacity of lifts based on 6 hours of daily summer operation and that visitors would stay at the summit for 2-hour sessions.
Mountain Biking Daily Capacity	125	Lift-serviced downhill trails with constructed banked turns, bridges and other features (i.e., Bike Park). Combination of "flow" style and "singletrack" style trails.
Canopy Tour	200	A scaled-down version to allow for lower price points/higher throughput
Adventure Course	350	Assumes a small, 4- to 5-course park.
Fun Zone	200	Five amusement-oriented activities (i.e., climbing tower, bungee-trampoline)
Total Summer Recreation Capacity	2,000	
Summer Recreation Participation Overlap Factor	75%	Guests are not likely to participate in all summer activities in any given trip. Assumes guests will use one primary activity and that some do a second activity.
Daily Summer Recreation Capacity	1,500	
Summer Programs and Events Capacity (Annual)		
Skills Camps, Classes and Programs	200	Environmental education, Arts and Crafts, Cooking/Food, Cultural, Life-long Learning, Wellbeing (i.e., yoga, fitness, nutrition). Assume 200 participation through the summer.
Festivals	1500	Arts/Cultural/Music, Food and Drink, Recreation, Wellbeing (i.e., Wanderlust) Assume 3 festivals per summer at 500 participants each.
Races	400	Adventure races, marathons, triathlons, mountain biking, and trail running. Assume 4 races per summer at 100 participants each.
Annual Summer Programs and Events Capacity*	2,100	
Multi-Season Recreation Capacity		
Nordic Spa	200	Embraces the Nordic tradition of saunas and steam, cold and hot pools and showers, rest and relaxation. Assume a small facility.
Daily Multi-Season Recreation Capacity	200	

* The nature of Summer Programs and Events does not translate to daily capacity, but rather annual capacity for the program or event type.

2. ANNUAL VISITATION CAPACITY

Table V-6 demonstrates the annual visitation capacity of the Market-based Scenario for snowsports, multi-season, and summer recreation based on the daily capacities from Table V-5, the number of annual operating days and typical seasonal ski area utilization rates. This visitation capacity refers to the visitation the resort would be sized to accommodate, not the expected visitation based on market conditions.

Table V-6. Market-Based Scenario Daily Capacity Summary

Category	Specification (quantification)	Notes
Overall Annual Visitation Capacity		
Annual Snowsports Visitation Capacity (visitor days)	39,550	Snowsports
Annual Summer & Multi-Season Visitation Capacity (visitor days)	48,900	Mountain biking, scenic lift rides, adventure course, canopy tour, programs/events.
Annual Visitation (visitor days)	88,450	Snowsports, mountain biking, scenic lift rides, adventure course, canopy tour, programs/events.

Operations Assumptions

- Winter Season Length (Days; Dec, Jan, Feb): Snowsports 90; Multi-Season 90; Summer 0
- Winter Utilization Rate: Snowsports 35%; Multi-Season 25%; Summer n/a
- Spring Season Length (Days; March, April, May): Snowsports 55; Multi-Season 90; Summer 0
- Spring Utilization Rate: Snowsports 25%; Multi-Season 25%; Summer n/a
- Summer Season Length (Days; June, July, August): Snowsports 0; Multi-Season 90; Summer 90
- Summer Utilization Rate: Snowsports n/a; Multi-Season 25%; Summer 28%
- Fall Season Length (Days; September, October, November): Snowsports 45; Multi-Season 60; Summer 0
- Fall Utilization Rate: Snowsports 25%; Multi-Season 25%; Summer n/a

3. INFRASTRUCTURE AND FACILITY DEVELOPMENT COST ANALYSIS

Total project costs for the Market-based Scenario are estimated to be $23.3 million. This includes capital costs for recreation, facilities and infrastructure, as well as a 10% contingency cost to account for price escalation over the period from analysis to actual construction. Table V-7 demonstrates the anticipated capital costs for the Market-based Scenario.

a. Recreation and Facilities Capital Costs

As shown in Table V-7, total recreation and facilities capital costs are estimated at $19.1 million, which includes a 10% contingency.

b. Infrastructure Costs

A physical location for the Market-based Scenario has not been identified, and as a result infrastructure needs and systems lengths are unknown at this time. To account for an adequate infrastructure cost, the average infrastructure costs relative to the total project costs from the other proposals (22%) was applied to the Market-based Scenario. This estimates a total infrastructure cost of approximately $4.2 million for the Market-based Scenario, including a 10% contingency.

4. OPERATING COSTS ANALYSIS

The operating costs of the market-based scenario have been projected following the same Hybrid Benchmarking analysis described in Chapter IV, Section F – Operating Cost Analysis. Based on the visitation capacity of the market-based scenario, the operating expenses associated with the project are estimated at approximately $3.3 million annually.

Table V-7: Market-Based Scenario Capital Cost Summary

Category	Units	Measurement	Unit Price	Total Costs
Snowsports				
Lifts	1	lift	$1,500,000	$1,500,000
Terrain	500	acres	$0	$0
Total Snowsports Costs	--	--	--	$1,500,000
Sumer Recreation				
Scenic Lift Rides	--	--	--	--
Mountain Biking	1	Varies	$132,000	$132,000
Canopy Tour	1	Tour	$300,000	$300,000
Adventure Course	1	Course	$350,000	$350,000
Fun Zone	5	Activities	$10,000	$50,000
Total Summer Recreation Costs	--	--	--	$832,000
Multi-Season Recreation				
Nordic Spa	1	Spa	$4,000,000	$4,000,000
Total Multi-Season Recreation Costs	--	--	--	$4,000,000
Operations and Guest Services				
Guest Services	14,000	Sq. Ft.	$700	$9,800,000
Operations Facilities	2,400	Sq. Ft.	$500	$1,200,000
Total Operations and Guest Services Costs	--	--	--	$11,000,000
Recreation and Facilities Capital Cost Total				
Recreation and Facilities Capital Cost Subtotal				$17,332,000
10% Contingency Cost				$1,733,000
Total Recreation and Facilities Costs				$19,065,000
Infrastructure Capital Cost Total				
Infrastructure Cost Subtotal	--	--	--	$3,813,040
10% Contingency Cost				$381,000
Total Infrastructure Costs				$4,194,040
Total Capital Costs				
Total Capital Costs	--	--	--	$23,259,040

C. MARKET-BASED REVENUES ESTIMATES

Any mountain resort constructed in the Valdez area would face the same market conditions described above and would be limited to the level of visitation that can be captured from this market. As a result, a "market-based" financial analysis has been completed to project revenue potential for any mountain recreation development in Valdez. This financial analysis uses a Benchmark Analysis similar to the projected operating cost analysis discussed above to determine how a mountain resort in Valdez might perform through comparisons with like organizations in their industry.

As with the operating cost analysis, the revenue benchmarking analysis for Valdez employed a HYBRID compilation of information from two sources of data: the NSAA Economic Analysis and the NSAA Kottke End of Season Survey. The Kottke analysis was again utilized to create a comparable set of small resorts, and the percentage breakdowns for revenues from the Economic Analysis (using a subset of areas similar to the Valdez market) were utilized to project expense detail from the limited financial detail provided by Kottke.

The results of this hybrid benchmarking analysis suggest a potential mountain resort in Valdez could expect approximately $3.6 million in annual revenues. These estimated revenues include: Tickets, Snowplay & other winter operations, Lessons, Food and beverage, Retail stores, Rental shops, Accommodations/lodging, Miscellaneous/Other, and Property Operation revenues. The details of this analysis are presented in Table V-8.

Table V-8. Potential Revenue Projections

	Market-based Visitation
Snowsports Visits	39,550
Revenue Per Visit (Snowsports)	$54.12
Total Revenue (Snowsports)	$2,140,446
Multi-Season Visits	48,900
Revenue Per Visit (Multi-season)	$30.00
Total Revenue (Multi-season)	$1,467,000
Total Estimated Revenue	$3,607,446

As described in the market analysis, these revenue figures represent initial market penetration, which would materialize over the first few years of mountain recreation resort operations. Valdez visitation—and likewise revenue from this visitation—could reasonably be expected to grow at least at the pace that the overall markets grow. To the extent that Valdez name recognition grows as a summer recreation destination, visitor experiences are developed and marketed to Alaska residents, and the community in general sees increased visitation through cooperative marketing efforts, visitation to Valdez—and the resulting revenue from this visitation—could grow at a rate faster than currently projected.

VI. ECONOMIC IMPACTS OF MOUNTAIN RECREATION DEVELOPMENT AND VISITATION

This chapter considers the potential economic impacts of mountain recreation development and related visitation to Valdez. Mountain recreation-related economic impacts will stem from three sources of spending:

- Construction spending on the infrastructure and facilities needed to provide mountain recreation activities and support mountain recreation visitors
- Local spending associated with ongoing mountain recreation facility operations
- Local spending by visitors travelling to Valdez to pursue mountain recreation opportunities

The economic impacts of each of these sources of spending are described in the following discussion.

A. CONSTRUCTION RELATED ECONOMIC IMPACTS

A broad range of new infrastructure and facilities will be needed to serve mountain recreation visitors to Valdez. This could include:

- Base area facilities for guest services and operations
- On-mountain facilities for guest services and operations (including lifts)
- Transportation infrastructure, potentially including roadways and bridges
- Public services infrastructure such as water supply, waste water treatment, solid waste handling and disposal, communications, electricity
- Visitor accommodations (lodging), at the base, elsewhere in town, or both
- Housing development (which sometimes accompanies resort development)

The local economic impact of construction spending depends on the nature of the construction activity. Road construction has different potential for local impact than does tram construction (for example) which requires specialized materials and expertise not found locally. The residency of the construction labor force is an important aspect of a project's local economic impact.

From a statewide perspective, construction projects generally generate 10 jobs for every million dollars of spending, including all direct, indirect and induced impacts. Indirect impacts are those that stem from local purchases of goods and services by the firms engaged in construction activity. Induced impacts stem from local spending by the construction workforce.

Valdez impacts will be somewhat less than the statewide effects, at approximately 8 to 9 jobs per million in spending.[10] This would include 5 to 6 jobs in direct construction sector employment, depending on the specific type of construction. The labor income multiplier for Valdez construction projects would be approximately 0.5, meaning that for every million

[10] Based on multipliers from IMPLAN.

dollars in construction activity, half a million in labor income would be created, including all multiplier effects.

B. ECONOMIC IMPACT OF MOUNTAIN RECREATION FACILITY OPERATIONS

Annual costs associated with year-round operation of the mountain recreation facilities proposed for Valdez would range from less than half a million dollars annually to about $10 million. The Market-based Scenario would have annual operating costs of approximately $3.3 million.

Operation of a mountain recreation facility would bring new jobs to Valdez, at the facility itself as well as elsewhere in the economy as a result of secondary (multiplier effects). None of the proposed projects have staffing plans yet, but by using industry standards it is possible to estimate employment associated with each project.

C. ECONOMIC IMPACT OF MOUNTAIN RECREATION VISITOR SPENDING

Visitors who travel to Valdez to enjoy mountain recreation may spend money on hotels or other accommodations, restaurants, car rental companies and other transportation providers, and various retail establishments. This spending would create additional local jobs and wages.

D. HYPOTHETICAL ECONOMIC IMPACTS OF PROPOSED PROJECTS

The following tables summarize the potential economic impacts for the three proposed projects. It is important to note that the economic impact estimates provided above for the three proposed projects are hypothetical in that they are based on visitation capacity of each proposed project, not on actual projected visitation.

Construction-related Employment and Labor Income projections illustrate the magnitude of employment and labor income impacts associated with construction projects, at varying levels of total spending. Estimates of annual employment are based on the assumption that construction would occur over a two-year period. These estimates recognize that construction cost estimates are preliminary and based on concept-level planning only.

Operations-related Direct Employment and Labor Income estimates project direct employment and labor income. Local spending in support of the mountain recreation facility, and local spending by employees of the facility, will create secondary economic impacts.

Operations-related Total Employment and Labor Income estimates total employment (including direct, indirect, and induced effects).

Vistor Spending estimates local spending that would correspond with the visitation needed to support each project. These spending figures are hypothetical in that they are based on visitation capacity of each proposed project, not on actual projected visitation.

Total spending estimates are based on per visitor day averages of $105 per day for snow sports visitor days and $90 per day for multi-season visitor-days. The total annual spending estimates presented in the following table exclude on-mountain spending, which includes some spending on lodging, food/beverage, and retail. Estimates of the economic impact of on-mountain

spending are captured in the analysis of mountain recreation facility operations (described in the previous section).

1. EAST PEAK

Table VI-1: Summary of Hypothetical Economic Impacts (East Peak)

Construction-Related Employment and Labor Income	
Construction Budget[a]	$60.1 million
Annual Employment[b]	255
Total Labor Income	$30.0 million
Operations-Related Direct Employment and Labor Income	
Annual Operating Budget[c]	$3.8 million
Annual Direct Employment	34
Peak Employment	47
Annual Direct Labor Income	$1.5 million
Operations-Related Total Employment And Labor Income	
Total Employment[d]	50
Total Annual Labor Income	$2.0 Million
Visitor Spending	
Snow Sports Visitation (visitor days)	47,850
Multi-Season Visitation (visitor days)	26,950
Total Annual Spending[e]	$6.6 million
Total Employment[f]	80
Total Annual Labor Income	$3.3 million

Notes:
[a] Construction budgets as per Chapter V, Section E.
[b] Includes direct, indirect, and induced employment and income. Assumes two-year construction period.
[c] Operating budgets as per Chapter V, Section F.
[d] Annual average employment.
[e] Excludes on-mountain spending.
[f] Annual average employment.

2. MINERAL CREEK

Table VI-2: Summary of Hypothetical Economic Impacts (Mineral Creek)

Construction-Related Employment and Labor Income	
Construction Budget[a]	$115.7 million
Annual Employment[b]	490
Total Labor Income	$57.8 million
Operations-Related Direct Employment and Labor Income	
Annual Operating Budget[c]	$10.1 million
Annual Direct Employment	90
Peak Employment	126
Annual Direct Labor Income	$4.0 million
Operations-Related Total Employment And Labor Income	
Total Employment[d]	135
Total Annual Labor Income	$5.4 million
Visitor Spending	
Snow Sports Visitation (visitor days)	204,375
Multi-Season Visitation (visitor days)	33,545
Total Annual Spending[e]	$22.2 million
Total Employment[f]	265
Total Annual Labor Income	$11.1 million

Notes:
[a] Construction budgets as per Chapter V, Section E.
[b] Includes direct, indirect, and induced employment and income. Assumes two-year construction period.
[c] Operating budgets as per Chapter V, Section F.
[d] Annual average employment.
[e] Excludes on-mountain spending.
[f] Annual average employment.

3. SUGARLOAF

Table VI-3: Summary of Hypothetical Economic Impacts (Sugarloaf)

Construction-Related Employment and Labor Income	
Construction Budget[a]	$2.9 million
Annual Employment[b]	12
Total Labor Income	$1.4 million
Operations-Related Direct Employment and Labor Income	
Annual Operating Budget[c]	$3.6 million
Annual Direct Employment	32
Peak Employment	45
Annual Direct Labor Income	$1.4 million
Operations-Related Total Employment And Labor Income	
Total Employment[d]	5
Total Annual Labor Income	$250,000
Visitor Spending	
Snow Sports Visitation (visitor days)	9,000
Multi-Season Visitation (visitor days)	20,250
Total Annual Spending[e]	$2.6 million
Total Employment[f]	30
Total Annual Labor Income	$1.3 million

Notes:
[a] Construction budgets as per Chapter V, Section E.
[b] Includes direct, indirect, and induced employment and income. Assumes two-year construction period.
[c] Operating budgets as per Chapter V, Section F.
[d] Annual average employment.
[e] Excludes on-mountain spending.
[f] Annual average employment.

E. ECONOMIC IMPACTS OF THE MARKET-BASED SCENARIO

Table VI-4 summarizes the potential economic impacts for the Market-based Scenario.

The Market-based Scenario is an example of a mountain recreation destination for Valdez. As previously described, this Scenario seeks to balance both visitation potential and visitation capacity to appropriately respond to market conditions and effectively capitalize on the mountain resort potential in Valdez. The complexion of the Market-based scenario provides an example of the types of activities that have the right variety, attraction, and capacity to meet market demand, but do not necessarily represent the only configuration of activities that would match the market opportunities.

Because the size and configuration of this alternative is responsive to market opportunities, the potential economic impacts outlined below may be realized. By contrast, the economic impact estimates provided above for the three proposed projects are hypothetical in that they are based on visitation capacity of each proposed project, not on actual projected visitation.

Table VI-4: Summary of Economic Impacts (Market-based Scenario)

Construction-Related Employment and Labor Income	
Construction Budget[a]	$23.3 million
Annual Employment[b]	100
Total Labor Income	$11.6 million
Operations-Related Direct Employment and Labor Income	
Annual Operating Budget[c]	$3.3 million3,280,000
Annual Direct Employment	30
Peak Employment	40
Annual Direct Labor Income	$1.3 million
Operations-Related Total Employment And Labor Income	
Total Employment[d]	44
Total Annual Labor Income	$1.8 million
Visitor Spending	
Snow Sports Visitation (visitor days)	39,550
Multi-Season Visitation (visitor days)	48,900
Total Annual Spending[e]	$7.7 million
Total Employment[f]	95
Total Annual Labor Income	$3.9 million

Notes:
[a] Construction budgets as per Chapter V, Section E.
[b] Includes direct, indirect, and induced employment and income. Assumes two-year construction period.
[c] Operating budgets as per Chapter V, Section F.
[d] Annual average employment.
[e] Excludes on-mountain spending.
[f] Annual average employment.

F. COMMUNITY IMPACT ASSESSMENT AND GAP ANALYSIS

All of the proposed projects have certain access and utilities infrastructure costs associated with development. In some instances a portion of these costs might be borne by local government, because investment in the project would be expected to directly or indirectly pay off in terms of local economic development and diversification. Presumably, each project would be considered individually in regard to potential for local support, and return on local investment.

Other local government costs associated with mountain recreation facility operations could include emergency services (search and rescue, emergency medical services, fire suppression). Valdez has well-equipped, well-trained emergency response capability. At the Market-based level of visitation, mountain recreation development is not expected to increase demand for local emergency services beyond its existing capacity.

An increase in visitation to Valdez could also place additional demands on public health care providers. Again, however, at the Market-based level of visitation, existing facilities and services should meet demand.

Within the private sector's capacity to serve a larger number of visitors, a large gap lies within the lodging sector. Snow sports destination visitors are in general accustomed to high-quality accommodations. Valdez's competitiveness as a snow sports destination will be constrained by lack of accommodations consistent with the quality of facilities and services available at other destinations. However, public sector involvement in supporting development of higher quality lodging would require carefully considered policies that would not be perceived as attracting competition for established hotels and other lodging establishments.

Recently initiated planning efforts to enhance the built environment are compatible with efforts to increase visitation from the mountain recreation sector. As with lodging, existing dining and entertainment options are not consistent with competitive destinations.

Mountain recreation development has the potential to create new jobs and attract new residents to Valdez. Lack of affordable housing (housing that is available at a cost consistent with the community's wage and income profile) is already a challenge for Valdez. The Market-Based economic impact analysis indicates an annual average of approximately 140 new jobs would be created, with higher employment during peak season. Current residents would fill some of these jobs, but some in-migration would be required to fully meet labor demand. These jobs would primarily generate service sector-level wages (along with some management-level wages), which has implications on housing affordability. The City will need to work closely with mountain recreation facility developers to plan for and meet the housing needs of the new workforce.

Efforts to develop a new Valdez brand and marketing strategy will are integral to project success. Like many Alaska communities, Valdez leverages the statewide tourism marketing program. With dramatic cuts to the state-funded program (dropping from $17 million in recent years to $1.5 million in 2016) core elements of the marketing program have been eliminated or dramatically reduced including the Official State Vacation Planner, advertising and direct mail programs, and international marketing contractors. Initiatives to develop an industry-funded program are in their infancy. Even if former state budget levels were available, Valdez and mountain recreation project developers will still face significant challenges reaching into new national and international target markets.

VII. CONCLUSION

Any year-round mountain recreation site constructed in the Valdez area would face the same market conditions described in this study, and would be limited to the level of visitation that can be captured from this market. As a result, the potential for the development of such a destination may best be understood through the analysis of the Market-based Scenario, as this alternative was developed based on market demand. This potential is summarized as follows:

- Annual visitation of approximately 89,000 (40,000 snow sports visitation and 49,000 multi-season (spring/summer/fall) visitation)
- Total capital costs of approximately $23.3 million.
- Annual operating costs of approximately $3.3 million annually (excluding debt service).
- Annual revenues of approximately $3.6 million.
- Total annual construction-related employment of approximately 100 and total labor income of $11.6 million annually, over a two-year construction period.
- Direct annual average operations-related employment of 30, peak season employment of 40, and total annual labor income of $1.3 million.
- Including multiplier effects, approximately 45 new jobs (annual average) in the community and $1.8 million in total annual labor income, associated with routine mountain recreation facility operations.
- Total annual visitor spending in Valdez of approximately $7.7 million. This spending would generate approximately 95 jobs and $3.9 million in annual labor income, including all direct, indirect, and induced effects.
- Total annual average employment of approximately 140, with total annual labor income of $5.7 million, including all direct, indirect, and induced impacts associated with facility operations and visitor spending in Valdez.

The visitation figures and related economic impacts described in this analysis represent initial market penetration, which would materialize over the first few years of operations. Valdez visitation could reasonably be expected to grow at least at the pace that the visitor markets grow (which is expected to be slow for the foreseeable future, at perhaps 1 or 2% annually) and perhaps faster, to the extent that name recognition grows, quality visitor experiences are developed and marketed, and the community in general sees increased visitation through cooperative marketing efforts. Future increases to annual visitation will in turn positively affect economic impact.

APPENDIX: COST ASSUMPTION

EAST PEAK
COST ESTIMATE NARRATIVE

The following assumptions and design criteria were used in the development of our costs and are based on our understanding of each potential project. Costs are based on 2016 construction:

- **Assumptions** – Wastewater, electric, and communications services will tie into existing utilities near the airport. Water service will be provided from two new drilled water wells.
- **Guest Services** – These facilities include a day lodge and other guest facilities at both the base of the mountain and on the mountain. Quality of materials, site development, foundation and geotechnical requirements, fire and life safety considerations will heavily influence the construction budget. The estimated unit cost is $700 per square-foot for guest space at the base area and $1,200 per square-foot for on-mountain guest facilities.
- **Operations Facilities** – These facilities include back-of-the-house operations service areas such as maintenance, laundry, warehousing, etc. Site development, foundation and geotechnical requirements, fire and life safety considerations will heavily influence the construction budget. The estimated unit cost is $500 per square-foot of space at the base area.
- **Valdez Glacier Stream Bridge** – We assume the bridge will be built to State of Alaska DOT standards, accommodate a 24-foot wide road and have multiple spans with a number of in-river foundations. Several factors; such as geology, hydrology and permitting will have a large impact on the actual cost. The estimated cost for the 300-foot long bridge is $4.5 million.
- **Access Road –** We assume a 6,000 linear-foot, 24-foot wide, two-lane, asphalt access road with a 4-foot road fill prism from Airport Road to the base area. The terrain between existing infrastructure and the proposed development is relatively flat. The estimated unit cost for the access road is $375 per linear foot for an estimated cost of $2.25 million. We assume a 4,000 linear-foot, 24-foot wide, gravel access road with a 4-foot road fill prism from the base area to the mid-chairlift point. The terrain between the proposed development and the mid-chairlift point is mountainous. The estimated unit cost of this access road is $250 per linear-foot for an estimated cost of $1.0 million. The total estimated cost for all access roads is $3.25 million.
- **Wastewater Transmission** – We assume this transmission line will run from the base of the mountain to the existing sewer system near Airport Road, approximately 1.5 miles, including multiple lift stations. The estimated unit cost for the wastewater transmission main is $300 per linear foot for a total estimated cost of $2.4 million. This assumes the City's existing sewer system has adequate capacity to accommodate the increased wastewater loading from this project. We also assume commercial and residential lots will utilize private septic systems.
- **Water Service –** We assume that water will be provided to the resort, commercial, and residential areas by two new drilled water wells. The estimated cost for water well development is $250,000. This assumes two each 6-inch well casings drilled approximately 300 feet deep each. Water will be hauled to on-mountain facilities.
- **Hydroelectric Power Plant –** Not included at this time.
- **Electrical Service** – We assume the primary electrical lines will be overhead cabling from the existing electrical infrastructure near Airport Road to the project site base area, approximately

6,000 linear feet, and buried from the base area to the various on-mountain facilities, approximately 4,000 linear feet. The estimated unit cost for primary electrical service to the proposed development is $75 per linear foot for an estimated cost of $450,000. The estimated unit cost for buried electrical service to the on-mountain facilities is $150 per linear foot for an estimate cost of $600,000. The total estimated cost for all electrical service lines is $1.05 million.

- **Communications Service** – We assume the same effort as the primary electrical line will be required, but with smaller cabling, from the City's existing communications infrastructure to the project site base area, approximately 6,000 linear feet. We assume the communications and electrical lines will be constructed jointly. The estimated unit cost for communications lines is $50 per liner-foot for a total estimated cost of $300,000.

MINERAL CREEK
COST ESTIMATE NARRATIVE

The following assumptions and design criteria were used in the development of our costs and are based on our understanding of each potential project. Costs are based on 2016 construction:

- **Assumptions** – Base area facilities will tie into existing water, sewer, electric, and communications utilities. On-mountain facilities will utilize composting toilets and power provided by generator. Water will be hauled, by tram, to the on-mountain facilities.
- **Guest Services** – These facilities include a day lodge and other public facilities at the tram terminal at the top and bottom of the mountain. The estimated unit cost is $1,200 per square-foot due to the significant infrastructure development challenges associated with construction at the top of the mountain. The estimated unit cost is $700 per square-foot at the base area.
- **Operations Facilities** – These facilities include back-of-the-house operations service areas such as maintenance, laundry, warehousing, etc., and will be located at both the base and top of the mountain. The estimated unit cost is $500 per square-foot for base area development, and $900 per square-foot at the top.
- **Wastewater Transmission** – We assume this transmission main will run from the base area to the existing sewer system, including lift stations. The estimated unit cost for the wastewater transmission main is $300 per linear foot for a total estimated cost of $60,000. This assumes the City has adequate capacity in their existing sewer system to accommodate the increased wastewater loading from this project. On-mountain facilities are assumed to incorporate commercial composting toilets with an estimated cost of $8,000 per toilet.
- **Water Service** – We assume the water service will run from the City's existing water distribution system to the base area, assumed 200 linear feet. The estimated unit cost for the water line is $250 per linear foot for a total estimated cost of $50,000. Water will be hauled, by tram, to the on-mountain facilities.
- **Electrical Service** – We assume that the primary tram and all base facilities will connect to the local power grid. The primary electrical lines will be overhead cabling to the base area, assumed 200 linear feet. The estimated unit cost for primary electrical service is $50 per linear foot for a total estimated cost of $10,000.
- **On-Mountain Electrical Service –** On-mountain facilities and the secondary tram will be powered by self-enclosed 1,750 KW diesel generator. The estimated unit cost for this on-mountain generator is $900,000.
- **Communications Service** – We assume the same effort as the primary electrical line will be required, but with smaller cabling, from the tie-in to the existing communications system to the base area, assumed 200 linear feet. The estimated unit cost for communications line is $25 per liner foot for a total estimated cost of $5,000.

SUGARLOAF
COST ESTIMATE NARRATIVE

The following assumptions and design criteria were used in the development of our costs and are based on our understanding of each potential project. Costs are based on 2016 construction:

- **Assumptions –** Electric and communications for the base camp area will tie into existing utilities along Dayville Road, while a self-enclosed generator will provide power for the top of the mountain activities. On-site water and wastewater treatment will be required. No overnight lodging is anticipated in the yurts.
- **Guest Services** – These facilities include three 30-foot diameter yurts, approximately 706 square feet each; two yurts on the mountain and one yurt at the base area. Site development, foundation system, amount of interior build-out and fire and life safety requirements will heavily influence the construction budget. The base camp yurt is assumed to include kitchen services connected to the on-site water and wastewater systems. Basecamp yurt will also accommodate ticketing, rentals and an administration area. The estimated unit cost is $125 per square foot for the base area yurt, which includes the cost of the yurt, shipping, electrical power/ lighting system and interior build-out. The two on-mountain yurts are assumed to include minimal self-supporting wall systems to accommodate composing restroom facilities, pre-packaged food services and gathering space. The estimated unit cost is $50 per square foot of space for the on-mountain yurts which includes the cost of the yurt, shipping, foundation, and interior build-out.
- **Operations Facilities** – These facilities are limited to a one-bay sprung structure maintenance shop located at the base area. The estimated unit cost for this structure from Sprung Structures, Inc is $135,000.
- **Access Road** – We assume a 600-foot long, 24-foot wide, two-lane, gravel access road with a 4-foot road fill prism. The terrain between the existing road and the proposed development is moderately steep and undulating. The estimated unit cost for the access road is $325 per linear foot for a total estimated cost of $195,000.
- **Wastewater Treatment –** All wastewater generated from the facilities will be treated and disposed of with on-site treatment systems. The base area shall utilize a buried septic tank and leach field system that will have the capacity for 5,000 gallons per day. This system has an estimated cost of $220,000. On-mountain facilities are assumed to incorporate commercial composting toilets with an estimated cost of $8,000 per toilet.
- **Water Service** – Water will be provided to the base area facilities from a drilled water well. The estimated cost for water well development is $250,000. This assumes a 6-inch well casing drilled approximately 650 feet deep. Water will be hauled to the on-mountain facilities.
- **Electrical Service** – We assume the primary electrical lines will be overhead cabling from a tie-in at Dayville Road to the base area, approximately 3,900 linear feet. The estimated unit cost for overhead electrical service to the base area is $75 per linear foot for an estimated cost of $300,000. The on-mountain facilities will be powered by self-enclosed 125 KW diesel generator with a 1,000-gallon fuel storage tank. The estimated unit cost for this on-mountain generator is $375,000.

SUGARLOAF
COST ESTIMATE NARRATIVE

- **Communications Service** – We assume the same effort as the primary electrical line will be required, but with smaller cabling, from a tie-in at Dayville Road to the project site base area, approximately 3,900 linear feet. No mountain facilities will have communications service. The estimated unit cost for communications line to the base area is $50 per liner foot for a total estimated cost of $200,000.