Crow Creek Neighborhood Land Use Plan

AMENDED FINAL PLAN :: DECEMBER, 2005

A Plan for Residential, Recreation and Open Space Uses for Heritage Land Bank Properties in the Crow Creek Area of Girdwood, fulfilling the requirements of Title 21 for an Area Master Plan

Prepared for Heritage Land Bank
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Acknowledgements

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Role: Sounding board, review & refine draft products, guide community outreach

The Community Advisory Committee has met monthly since this project began.
- Diana Livingston, GBO S (Chair)
- Diane Powers, Crow Creek Resident
- Anne Herschleb, Girdwood Resident
- Bob Persons, Double Musky
- Melanee Raney, ReMax of Alyeska
- Larry Daniels, Alyeska Resort
- Larry Cash, RIM Design
- John Gallup, Land Use Committee Chair
- Dave Sears, GBO S
- Tim Cabana, Developer/Construction
- Alison Rein, Trail Committee, USFS

The following individuals served as special contributors to the planning process:
- Ruth Kircher, Crow Creek Resident
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INTRODUCTION TO THE REVISED, FINAL PLAN

This document reflects input from Girdwood residents and other parties who commented on the public review draft plan released in March, 2005. The Municipality is grateful to the members of the Community Advisory Committee who met monthly to help guide this study. Also reflected here are the community workshop held March 15, and two reviews each by the Girdwood Land Use Committee and the Girdwood Board of Supervisors in June and November, 2005. Hearings before the Municipal Planning and Zoning Commission are expected in December and January. This document will be amended to incorporate results of these hearings before final publication soon thereafter.

SUMMARY OF PUBLIC COMMENTS – MARCH 05 COMMUNITY WORKSHOP

The March workshop was well attended, with over 80 people participating. Another 20 people submitted individual comments after the workshop. Appendix F gives a complete description of the comments received on the draft plan; the quotes below give a good representation of the main themes of community comment.

Support for the Draft Plan

“We need more private land.”
“Clustering development is the way to go – everybody gets a big backyard.”
“If Girdwood is going to stay diverse, stay the kind of community we’ve always been – we can’t only be selling 10,000 square foot, $100,000 lots.”
“Thanks for HLB for involving the community in this project.”
“When is the land going on sale? How can I get a lot?”

Concerns – General

“Crow Creek is the wrong place for development - leave this area as it is, for wildlife and hiking.”
“People live in Girdwood because it’s different from places like Anchorage – we don’t want high density. Lots need to be big enough for trees, for space between neighbors.”
“Who wants to live on a small lot or in condo? That’s not what people are looking for.”
“Government shouldn’t be in the business of providing affordable housing.”

Concerns – Specific

“I want to be able to buy a vacant lot, not a house.”
“You need bigger buffers between existing and planned development.”
“How can we be sure of quality development? Make it like Girdwood - we don’t want a bunch of poorly built, cookie-cutter Anchorage apartments.”
“This is a huge development - it will overload the school, make the roads congested – have you planned for that?”
Mixed/“Realistic”

Regarding plans for development along the Crow Creek Road: “we’re going to have neighbors, we lost that battle in 1995 when the Area Plan was adopted.”

“If it was up to me we wouldn’t have this Crow Creek project, we wouldn’t have the new hotel, we wouldn’t have Alyeska Basin subdivision, but…”

“People have babies; places grow.”

SUMMARY OF CHANGES TO THE DRAFT PLAN

Five key changes to the draft plan, based on public comments, are summarized below.

1. **Buffer** - The buffer between existing development along Lower Creek Road and the adjoining “South Fan” development area was expanded from 75 to 100 feet, widening to 150 feet at California Creek. New development along this west side of this buffer will be single family housing, on lots of at least 8500 SF, with 25’ rear setbacks.

2. **Densities** - The total amount of planned lots and/or units for development remains at 710, but the target locations for this development were shifted as shown in the two charts below.

### Draft Plan

<table>
<thead>
<tr>
<th>Area</th>
<th>Acres</th>
<th>SF Units</th>
<th>MF Units</th>
<th>Total Housing Units</th>
<th>Dwelling Units/Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Fan/West Highlands</td>
<td>52</td>
<td>17</td>
<td>320</td>
<td>337</td>
<td>6.5 dua</td>
</tr>
<tr>
<td>North Fan</td>
<td>40</td>
<td>68</td>
<td>88</td>
<td>156</td>
<td>3.9 dua</td>
</tr>
<tr>
<td>Three Ridges</td>
<td>83</td>
<td>80</td>
<td></td>
<td>80</td>
<td>1 dua</td>
</tr>
<tr>
<td>Lower Matrix</td>
<td>28</td>
<td>35</td>
<td></td>
<td>35</td>
<td>1.2 dua</td>
</tr>
<tr>
<td>Upper Matrix</td>
<td>38</td>
<td>56</td>
<td></td>
<td>56</td>
<td>1.5 dua</td>
</tr>
<tr>
<td>Lower Forest</td>
<td>40</td>
<td>46</td>
<td></td>
<td>46</td>
<td>1.2 dua</td>
</tr>
<tr>
<td>Development Areas</td>
<td>281</td>
<td>302</td>
<td>408</td>
<td>710</td>
<td></td>
</tr>
<tr>
<td>Open space</td>
<td>718</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

* SF - Single Family

** For reference, Alyeska Basin subdivision: 10-12,000 SF lots, w/ roads about 3 dua

<table>
<thead>
<tr>
<th>Area</th>
<th>Acres</th>
<th>SF Lots &amp; Units</th>
<th>Attached Units</th>
<th>Total Housing Units/Lots</th>
<th>Dwelling Units/Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Fan/West Highlands</td>
<td>52</td>
<td>80</td>
<td>51 min - 160 max</td>
<td>131-240</td>
<td>up to 4.6 dua</td>
</tr>
<tr>
<td>North Fan</td>
<td>40</td>
<td>60</td>
<td>32 min - 100 max</td>
<td>92-160</td>
<td>up to 3.5 dua</td>
</tr>
<tr>
<td>Three Ridges</td>
<td>83</td>
<td>80</td>
<td>6 min - 20 max</td>
<td>86-100</td>
<td>up to 1.2 dua</td>
</tr>
<tr>
<td>Lower Matrix</td>
<td>28</td>
<td>40</td>
<td></td>
<td>40</td>
<td>1.3 dua</td>
</tr>
<tr>
<td>Upper Matrix</td>
<td>38</td>
<td>40</td>
<td>26 min - 80 max</td>
<td>66-120</td>
<td>up to 3.2 dua</td>
</tr>
<tr>
<td>Lower Forest</td>
<td>40</td>
<td>50</td>
<td></td>
<td>50</td>
<td>1.2 dua</td>
</tr>
<tr>
<td>Development Areas</td>
<td>281</td>
<td>350</td>
<td>115 min - 360 max</td>
<td>465-710</td>
<td></td>
</tr>
</tbody>
</table>
As is shown in the table above, in the column “units/acre” target development levels fall into two general categories – the Three Ridges, Lower Matrix and Lower Forest areas, which have target densities of about 1.2 dwelling units per acre (DUA); the remaining three areas which have densities between 3.2 and 4.6 DUA (see maps 2-3 for locations). The table below provides a reference for understanding where these targets fall on a spectrum of residential densities. Appendix G provides a more complete, illustrated version of this “density spectrum”.

<table>
<thead>
<tr>
<th>Type of Unit</th>
<th>SF Large Lot</th>
<th>SF Medium</th>
<th>SF Small</th>
<th>2 to 4 plex</th>
<th>Townhouse</th>
<th>Stacked Flats/ Apts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot Size</td>
<td>&gt; 1 Acre/ Lot</td>
<td>10-12,000 SF</td>
<td>5000-7500</td>
<td>6 DUA</td>
<td>8 DUA</td>
<td>10-14 DUA</td>
</tr>
<tr>
<td>Dwelling Units/Acre</td>
<td>3-4 DUA</td>
<td>6 DUA</td>
<td>8 DUA</td>
<td>10-14 DUA</td>
<td>10-30 DUA</td>
<td></td>
</tr>
<tr>
<td>Examples</td>
<td>Wasilla/ Mat-Su</td>
<td>Girdwood - Alyeska Basin Subdivision</td>
<td>Whistler - affordable small lot</td>
<td>Red Mtn, BC; Synder Park, CO</td>
<td>Girdwood - below ski area parking lot</td>
<td>Girdwood - ski base area apartments</td>
</tr>
</tbody>
</table>

very low density areas  low-moderate density areas

3. **Mix of Lots and Housing Units** – HLB will propose to target up to 25% of single family sites for direct sale as lots to individuals on a competitive bid basis. Owners building on these sites will be required to follow development standards and codes, covenants & restrictions to ensure quality, timely construction.

4. **Schedule for Implementation/ Coordination with AWWU, DOT/ PF** – The schedule on page 39 has been updated to show best current information on the development of the project and related infrastructure. Implementation of this project will be spread over at least 10-12 years, and likely longer. Exact phasing will be driven by a combination of market demand and the time and funding needed to develop supporting infrastructure, both within the project, and community wide.

5. **Plan Purpose, Plan Implementation** – The introduction to the plan is clarified to explain this plan meets the requirements of Title 21, Chapter 9 Area for preparation of an Area Master Plan. The introduction will also make clear that this plan calls for modifications of the Girdwood Area Plan, and that these amendments will be made concurrently with the approval of the Crow Creek Plan.
OVERVIEW

Plan Purpose
The purpose of this project is to prepare a Land Use Plan for Heritage Land Bank (HLB) property in the Crow Creek Neighborhood. This plan meets the requirements of Title 21, Chapter 9 for preparation of an Area Master Plan.

The Crow Creek project area includes just under 1,000 acres on either side of the Crow Creek Road, on the sunnier, western side of the Girdwood Valley, north of the Alyeska Highway. Project boundaries are Glacier Creek on the east, the USFS boundary on the north, and Chugach State Park on the west. The southern boundary is in the vicinity of California Creek and Girdwood Elementary School.

Organization of this Plan
The Plan includes this relatively short document, outlining the major findings and recommendations of this planning process. Accompanying this summary is a longer set of appendices, providing more detail on the subjects covered in this summary, for example, a full set of environmental maps and analysis.

Project Area
The project area is characterized as a mixed coastal rain forest with numerous marshy areas and abundant small stream courses, similar to the rest of the Girdwood Valley. The area has been shaped by three main forces: glacial scouring which has exposed bedrock in many places and deposited pockets of glacial till; stream erosion especially along California and Glacier Creeks; and the movement of materials down slope from the steeper valley hillsides. The topography varies from gently sloping to steep. Trails crisscross throughout. Though no residences currently exist on these HLB lands, homes and businesses exist directly south and east of the study area, as well as further north at the upper end of Crow Creek Road. The project area is well-known and well-used by Girdwood residents and visitors.

“The Crow Creek Neighborhood Land Use Plan presents a generalized site plan for residences, roads and utilities, and identifies areas for preservation of unique natural settings and trails. The 1000-acre study area is managed by the Heritage Land Bank and offers an opportunity to alleviate the chronic shortfall of housing in the Girdwood Valley and enhance the experience of living in a mountain village. We are enthusiastic about the chance to create a project that is good for Girdwood and all of Anchorage.” - Robin Ward, Executive Director, Heritage Land Bank
Map 1. Project Area & Girdwood Area Plan Land Use Designations
**Project Results**
The Crow Creek Neighborhood Land Use Plan will guide decisions by HLB on land to be sold and developed for housing, and land to be retained for public open space and recreation use. The plan is intended to provide policy information at a level midway between the broad policies of the Girdwood Area Plan, and the more detailed site specific, engineering plans required for actual housing and road construction. Key results of this plan are listed below:

- Plans for single and multi-family housing:
  - locations of new housing
  - targets for the amount of permitted housing units
  - strategies so a portion of the new housing is affordable
  - development standards (to supplement revised Title 21)
- Phasing plan for housing, utilities, road improvements, trails
- Strategy for coordinating delivery of needed infrastructure
- Plan for open space and recreation
- Guidelines for HLB development process

**Community Involvement**
Girdwood is a special place, and the people who live here care about keeping it that way. The foundation for this Crow Creek Neighborhood Plan is the Girdwood Area Plan, crafted over the course of dozens of community meetings in the early 90’s. This Crow Creek plan likewise is designed to give the community a strong voice in decisions about how to best implement the development outlined in the Girdwood Area Plan.

Community involvement in this project came in multiple forms. The Community Advisory Committee (CAC) met on a monthly basis with consultants and agency representatives working on related projects to review and discuss Plan developments. Group members included Girdwood business owners, GBOS representatives, developers, trail users and residents.

On a rainy Saturday in October, 2004, the CAC held a Community Workshop, during which Girdwood residents surveyed the project area in small groups and later reconvened to report their findings and development recommendations to the entire group.

A second Community Workshop was held March 15, 2005, to get community comment on the Draft Plan. In addition written comments on the draft plan were accepted through March 31, 2005. The introductory section of this final plan presents representative quotes regarding the draft plan. Appendix K presents a more complete compilation of comments.
Approval Process
Following the public workshop on March 15th, a revised draft plan was prepared for review and approval by the groups listed below. Each entity has already or will in the future review the document, identify needed changes, and recommend it for approval to the next entity along the approval chain. Past and estimated future dates for this process are listed below.

- Girdwood Advisory Land Use Committee, Girdwood School, May 4
- Girdwood Board of Supervisors, Glacier City Hall, May 16, June 20
- Planning and Zoning Commission, Assembly Chambers, Z. J. Loussac Library, Aug-Sept
- Heritage Land Bank Advisory Commission, City Hall, June 9
- Anchorage Assembly, Assembly Chambers, Loussac Library, July-Sept

Amendments to the Girdwood Area Plan associated with the Crow Creek Plan will be presented for approval by the Planning Commission and Assembly at the same time as the approval of this Plan. Municipal staff will be available to discuss the study at the above meetings. If you have questions in the meantime, or want to know specific times and dates, please contact Art Eash of the Heritage Land Bank at 343-4807, or Chris Beck of Agnew::Beck Consulting at 222 5424. Thanks for your interest and attention!

PROJECT GOALS FROM THE 1st COMMUNITY WORKSHOP:
- Involve community throughout process
- Find acceptable, practical ways to create new housing, trails and open space on HLB lands
- Make recommendations that fit with existing plans and current projects
- Contribute to the character of Girdwood and growth of the New Girdwood Townsite and infrastructure
- Provide development and disposal standards and processes
- Base project on solid environmental data
FACTORS THAT HAVE SHAPED THE PLAN

1. Community Desires

Girdwood is a unique community. Unlike many Alaskan towns, the built environment – houses, stores, lodging – generally fits with, and even complements its natural setting. The Crow Creek Neighborhood Plan, both in its overall layout and development standards, aims for development that reflects the best of Girdwood’s distinct style, including diverse housing styles, relatively narrow, low-traffic roads, and retention of natural vegetation and topography. (See Appendix F for more information.)
2. Heritage Land Bank Mission
The mission of the Heritage Land Bank (HLB) is to manage uncommitted municipal land and the Heritage Land Bank Fund in a manner that benefits the present and future citizens of Anchorage, promotes orderly development, and achieves the goals of the Municipality of Anchorage Comprehensive Plan. In carrying out its mission, HLB must be responsible both to community of Girdwood and the Municipality as a whole.

HLB currently holds over 5,000 acres of land in the Girdwood Valley. Over time, HLB intends to develop a significant portion of these properties, consistent with land use policies of the Girdwood Area Plan (GAP). This Crow Creek Project is the first large-scale residential project HLB has undertaken in the Valley. Through this project, the HLB and the Mayor are committed to setting a high standard for quality design, protection of open space values, and community involvement. Appendix A has more information on the Heritage Land Bank.

FACTORS THAT HAVE SHAPED THE PLAN:
1. Community Desires
2. HLB Mission
3. Existing Plans
4. Current Projects
5. Market Demands
6. Environmental Constraints & Opportunities
7. Development Costs
3. Existing Plans

See Appendix B for details.

Girdwood Area Plan (GAP) – The Girdwood Area Plan establishes land use designations for the Crow Creek area. This Crow Creek project is responsible for developing a practical, environmentally sound way to carry out the development allowed in the GAP, listed in the table below. The GAP also identifies the need for two future roads – the Crow Creek-Arlberg and the Crow Creek-Hightower Connectors.

GAP Designations for Crow Creek

<table>
<thead>
<tr>
<th>Girdwood Area Plan Designation</th>
<th>Acres</th>
<th>Units/Acre*</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-Family Residential</td>
<td>218</td>
<td>2-4</td>
<td>650</td>
</tr>
<tr>
<td>Multi-Family Residential</td>
<td>23</td>
<td>5-20</td>
<td>270</td>
</tr>
<tr>
<td>Development Reserve**</td>
<td>42</td>
<td>2</td>
<td>80</td>
</tr>
<tr>
<td>Public Lands &amp; Institutions</td>
<td>7</td>
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<td></td>
</tr>
<tr>
<td>Open Space</td>
<td>691</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>981</td>
<td><strong>1000</strong></td>
<td></td>
</tr>
</tbody>
</table>

*Based on densities in the Girdwood Area Plan. This plan recommends lower densities than the GAP.

** Housing in Development Reserve requires GAP amendment. The GAP single family residential designation allows single family or duplex units, as well as “grandmother units,” so totals in the Single Family column could be larger as what is shown, raising the total number of units permitted under the GAP in this area to over 1500 units.

Girdwood Commercial Areas & Transportation Master Plan (CAT) – This plan, adopted in January 2003, recommends new housing in the Crow Creek area. This new housing, within walking distance of the New Girdwood Townsite (NGT), will help create a more successful town center. The CAT Plan also identifies the need for three transportation improvements in the Crow Creek area:

1. Construct a road on an existing right-of-way from Girdwood Elementary to Crow Creek Road.
2. Extend a new collector road from Crow Creek Road across Glacier Creek to the Alyeska Prince Hotel/ Resort Base area.
3. Reserve a “transportation corridor” linking the Alaska Railroad line along the Seward Highway with the upper valley and Alyeska Prince Hotel.
Title 21 Update, Chapter 9: Girdwood Land Use Regulations - The Municipality is updating Title 21, Anchorage's primary land use regulations. Chapter 9 of Title 21 will provide new standards and regulations specific to Girdwood, intended to preserve and enhance the distinctive small town, mountain-resort character and natural environment of the community. The Municipality aims to complete the Title 21 revision in early 2006. This Crow Creek project will be used to test and refine the standards being prepared for Chapter 9. As is outlined later in this Plan, the Crow Creek Plan process is resulting in recommendations for revisions and refinements in the initial drafts of Chapter 9 to respond to the distinctive characteristics of the Crow Creek area.

4. Current Projects

Key infrastructure projects, currently in progress in the Crow Creek area, are summarized below. See Appendix C for details.

- The Alaska Department of Transportation/ Public Facilities (AK DOT/ PF) plans to upgrade Crow Creek Road. AK DOT/ PF will pave two 10-foot lanes with 2-foot shoulders from the Alyeska Highway to the Crow Creek Mine. This relatively narrow width will minimize the road’s footprint and reduce traffic speeds. Construction for this project is slated for summers 2007-08. Right-of-way needs may affect the scheduling of this project. AWWU, MOA and AK DOT/ PF are working together to synchronize road and water transmission line projects.

- Anchorage Water and Wastewater Utility (AWWU) is considering extending a water transmission main north from the elementary school through the project area, and then across Glacier Creek to the existing waterline from the wellhouse. This loop, the AWWU “Phase IIB project,” will improve performance and reliability of Girdwood’s water system. A final decision on whether to proceed with this project, as well as determining the preferred location, will follow completion of the Crow Creek Plan. If the project moves forward, the most likely route would be to extend the AWWU “Phase IIB project” up from a water line that ends near the Girdwood Elementary Junior High School north to follow the Crow Creek Road, and then eastward over Glacier Creek. This extension would serve the large majority of development associated with the Crow Creek project as well as completing the needed loop to the AWWU well site. A separate water delivery line will be required to serve the ‘South Fan’ area (see map 2) which would likely extend along the lower Crow Creek Rd.

- AWWU is also considering extending sewer service into the Crow Creek development area. It is likely that two systems will be required: one serving the ‘South Fan’ area from an existing sewer line along lower Crow Creek Road; another from an extension of a trunk line.
up from the New Girdwood Townsite. Both sewer and water projects follow rather than precede residential development. AWWU is awaiting the conclusions of the Crow Creek Neighborhood Land Use Plan before moving ahead with either project.

Several other projects are underway in addition to the two named above, including the USFS Iditarod Trail Design plans, the MOA Winner Creek Ski Area Plan and the Girdwood Stormwater Management Plan.

The consulting team, Community Advisory Committee and HLB staff are working to ensure these projects are well coordinated. A particular need is to schedule road improvements to follow installation of water and sewer lines, which are expected to run under the road. Summer 2007/08 is the current target date for this combined road/water/sewer project.

5. Market Demands

Girdwood is outgrowing its supply of private land for development. With continued growth in state population and the state economy, continued improvements in the road between Girdwood and Anchorage, growth in tourism and the possibility of the Winner Creek Ski Area, it is likely that Girdwood’s housing demand will grow and prices for homes and land will continue to increase. (See Appendix E.)

The average price for vacant land, single family homes and condominiums in Girdwood has increased over the past few years and are likely to remain strong. Between 2001 and 2004, the average price for vacant lots increased from $102,000 to $132,000. In the same time period, the average price for single family homes increased from $221,000 to $270,000 and for condominiums from $102,000 to $152,214. As prices have risen, real estate availability has declined. A search of real estate listings for the Girdwood area in December, 2004 showed only two vacant lots for sale (both more than $100,000), two single-family homes for sale, and one condominium for sale.\(^1\) The market in Girdwood has been described by one realtor as “extremely tight,” and in need of additional development.

\(^1\) Dynamic Real Estate, Multiple Listing Service
The Land Use Plan aims to respond to demand for new housing and at the same time, maintain the qualities that make Girdwood an attractive place to live and visit. The main strategy to meet these twin goals is to require a portion of the new housing to be high quality townhouses, 2-3 plex and other forms of mid-density housing. This strategy meets the goal of expanding the housing supply in Girdwood while retaining large areas for public open space. As one person said at the October Community Workshop – “keep lots small, provide public open space nearby, and everyone ends up with a big, beautiful backyard.” For this approach to be accepted by the buying public requires higher quality moderate density housing than is often found in Alaska, particularly for attached and small lot single-family homes. To ensure the project meets market demands, the Land Use Plan includes standards and guidelines that require attractive, high quality development, as well as maintaining abundant open space and an extensive trail system.

6. Environmental Constraints & Opportunities

Natural Resources and Habitat

The Land Use Plan is designed to protect the site’s key natural features. It is also designed to minimize impact on water quality, habitat, and wetlands, and take advantage of the site’s environmental assets – its waterways, views, and forest. As explained in the design section that follows, this is achieved by retaining larger portions of the project area as undeveloped public open space, and in developed areas, retaining much of the natural contours and vegetation.

Appendix D presents the complete set of information regarding the site’s environmental opportunities and constraints. A summary map is shown on the following page.

The project takes in very attractive, largely natural lands. The western half is steeply sloping, sub-alpine terrain. Of the remaining eastern portion, approximately half, or 250 acres, is ‘physically suited’ for development. This means the land has slope, soil and drainage conditions that make development practical and environmentally responsible. Overall, the lowland portion of the site is like most of the Girdwood Valley. It is a rainforest, with thin soils, numerous drainage ways and pockets of steep slopes, but also with areas with good drainage, mild slopes, and excellent views. These characteristics offer good sites for careful development.

The forests, streams, bogs, meadows and thickets of the project area provide habitat suitable to a variety of wildlife. Large animals that might be found in the area include moose, black and brown
bear, lynx, coyote and beaver. Smaller animals likely to inhabit the area include otter, snowshoe hare, muskrat, mink and other small mammals. The habitat is also suitable for many types of birds, such as owls, hawks, eagles, ravens, ptarmigan, kingfisher and a variety of songbirds. Food sources include cranberry and blueberry. Glacier Creek, California Creek and several of their small tributaries are anadromous fish streams, containing seasonal salmon spawning runs. Prior to development, habitat retention efforts will be considered for the area. The site development plan in the following section shows the extensive open space system to be retained in public ownership to protect habitat values.

Cultural Resources
The Crow Creek area has played an important part in Girdwood history, and a key role in the area's early resource development. The cultural resources likely to exist in the area include materials left from Crow Creek's days as a mining hub. Two sites have been reported to but not verified by the State Historic Preservation Office (SPHO).

Additionally, a number of trails run through this region, of which the historic Iditarod Trail is well known. The Land Use Plan recommends preserving the current alignment of the Iditarod Trail to the greatest degree possible. In small sections, this trail may need to be rerouted. Working with the USFS, interpretive information will be provided at points along the trail.

As development moves forward in specific locations, detailed surveys will identify any additional resources the areas may contain. As these are identified, proper procedure will be followed, in accordance with historic preservation laws, to assure that significant materials and sites are preserved and/or documented.

Wetlands Permitting
An additional environmental issue is compliance with federal agency permitting requirements, particularly related to wetlands. The Land Use Plan addresses this issue by retaining open space, establishing development standards that maintain the hydrological integrity of the site, and by setting aside areas for wetland protection to mitigate what impacts new development might create.
Map 2. Natural Constraints

[Map of Natural Constraints]

**LEGEND**

Potential Natural Constraints

- Flood Plain (from MOA and FEMA)
- Flood Plain (HDR Alaska, Inc.)
- Avalanche Hazard Areas
  - High Avalanche Hazard (>10% annual occurrence)
  - Moderate Avalanche Hazard (1-10% annual occurrence)
  - Steep areas with greater than 30% slope

Vegetation

- Non-wetland
- Forested Wetland Complex
- Wetland/Marsh

Base Layers

- Project Area
- Streams
- Boundary
- Parcel Boundaries
- Trail

Crow Creek Neighborhood Plan
October 2004
Prepared for the Municipality of Anchorage Heritage Land Bank

NATURAL CONSTRAINTS
7. Development Costs
All the good ideas outlined above won’t work if the project revenues do not cover development costs. Against the desire to retain land in open space must be balanced the need to develop enough units to cover costs for project planning, access, utilities, site development, drainage, trails and other recreation amenities, and developer profit. Preliminary evaluations suggest the project will “pencil” - that is, revenues from land sales will cover development costs. This preliminary conclusion will need to be continually revisited as the project is refined and reviewed with community. (See Appendix H.)
PLAN SUMMARY – PLAN MAP AND OBJECTIVES

1. Select the right locations for development & open space
2. Retain open space, at four scales
3. Cluster development; emphasize higher density, attached housing
4. Establish a neighborhood trail system, linked to valley-wide trails
5. Create a high quality, efficient and enjoyable circulation system
6. Minimize impacts on neighbors
7. Plan for phased development of housing, trails and needed public infrastructure
8. Provide affordable housing
9. Establish design standards to minimize development impacts, maximize quality

Intended types and densities of development are shown below and on the Development and Open Space map on the following page. The boundaries of the development bubbles and the numbers and mix of units are targets. More detailed site assessment will be required prior to any given parcel being developed, and final boundaries and the target amount of development may change. The total number of residential lots and/or units will not exceed the amount of units approved under this Plan -- 710 units/ lots. This approved density is below what is authorized with the designations and densities allowed in the Girdwood Area Plan (between 1000-1500 units).

Please Note: The term “Attached Housing,” as used in this chart, refers to a range of housing types, including “attached single family” such as zero lot lines, 2 and 3 plexes, townhouses and apartments.

<table>
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<td>350</td>
<td>115 min - 360 max</td>
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The Crow Creek Neighborhood Land Use Plan allows for the construction of up to 710 housing units and/or lots. Of this total, it is HLB’s intent that up to 25% of the 710 housing units/ lots will be reserved for sale as lots to individuals. Lots will be sold to individuals from the MOA on a competitive bid basis. Owners building on these sites will be required to follow development standards and codes, covenants and restrictions to ensure quality and timely construction.
Map 3. Development & Open Space Map (Amended)
PLAN DETAILS – MEANS TO REACH THE OBJECTIVES

1. Select the right locations for development and for open space
The Land Use Plan map shows the location of “development bubbles” and open space. The major consideration in these decisions is the intent to preserve natural systems, retain stream corridors and concentrate development in areas with the best physical capability for residential use. Details are presented below.

South Fan/West Highland/North Fan
Of the entire project area, the North and South Fans and the lower section of the West Highland offer the largest expanse of relatively level land. Locating homes here, both single and multifamily, maximizes the amount of new housing within walking distance of the commercial uses in the New Girdwood Townsite. This connection provides an amenity for residents, reduces the need for driving and also strengthens town center commercial uses. Land on the east side of the Crow Creek Road is designated Public Lands and Institutions in the Girdwood Area Plan, and is intended for future school expansion and a possible neighborhood park. Key open space areas in this part of the Crow Creek neighborhood include the South Fan Wetland Meadows straddling the project area’s south boundary (behind the Double Musky); and the California Creek Corridor – a floodplain, anadromous stream and starting point for several popular trails.

Three Ridges
The Three Ridges area offers a series of parallel, roughly north-south trending ridges separated by small, intermittent stream channels. Development in this area will require careful site decisions to take advantage of good views and southern exposure, while minimizing changes to drainage patterns.

Creek Terrace/Long Ridge/Upper Forest
This large area, up-valley of Three Ridges, has some good development sites but on balance is recommended for public open space uses, based on the established recreation uses associated with Norm’s Falls, Anne’s Meadow and the Iditarod Trail. It is a landscape punctuated by environmental constraints including wetlands and stream channels.

The Matrix/River Terrace/Lower Forest/Glacier Creek
The name “Matrix” reflects this area’s complex mix of meadows and ridges. Like Three Ridges, development here is possible, but requires fitting roads and homes around these constraints. Land in the Upper Matrix includes some of the most attractive homesites in the project area, on gently
sloping terrain overlooking Glacier Creek. The Upper Forest area, designated Development Reserve in the GAP, includes attractive relatively flat development areas, but has many small waterways. Development in this area is possible under the Girdwood Area Plan, but requires meeting criteria established in that document.

The land between the Upper and Lower Matrix development areas is set aside for open space. This corridor has development capability roughly comparable to the Upper and Lower Matrix areas, but is planned for open space to provide a wildlife connection between the other open space areas, and a new route for a portion the Iditarod Trail. Glacier Creek is an extensive open space corridor providing a buffer between the creek and adjoining residential areas. This buffer will protect riparian habitat and visual quality and a route for the lower Iditarod Trail and provide a route for a possible trolley line.

West & East Highlands/The Hillside/The Old Slide
This set of upland and sub-alpine areas takes in the roughly half of the site. It will be retained for open space due to its value for recreation and as a visual resource. Most of the area is physically unsuited for development due to steep terrain, avalanche and land slide hazards.
2. Retain open space, at four scales
The Land Use Plan is based on a strategy of retaining open space and natural areas to increase values of residential property, provide recreation amenities, protect sensitive habitat, natural lands and systems. Open space is retained at four scales, described below:

- Valley-Wide Scale - As the map at right shows, the Girdwood Area Plan designates the large majority of the Girdwood Valley and adjoining mountain slopes to be public land retained as open space.

- Large Scale Open Space Within The Crow Creek Neighborhood - As the site plan shows (small version here, full size version on the previous page), the majority of land in the project area - about 700 acres - will be retained in public ownership and managed for open space and environmental protection. This includes corridors along major creeks and trail systems.

- Open Space Within Development Areas - Development standards, to be adopted as part of this plan, require additional open space to be retained in public ownership within “development bubbles.” These open spaces, woven into the residential neighborhoods, provide green corridors linked to the larger open space system. They provide land for trails, greenbelts and stream buffers. (Example at right from Sea Ranch in California.)

- Natural Features Retained On Private Property - On private land, development standards will sustain the appearance and functional character of the natural environment, through requiring, for example, retention of vegetation, policies to reduce runoff, and retention of natural contours.
3. Cluster development; include attached, moderate density housing

The other half of the open space policy described on the previous page is the strategy of locating development in concentrated nodes, and including moderate density housing. Experiences in mountain resort communities around the U.S. show that increasing housing densities in a community can provide attractive places to live, reduce infrastructure and housing costs, protect key natural features, and give all residents “out-the-back door” access to open space.

Alaska has at best a mixed record of success with moderate and higher density housing and cluster subdivisions. In many instances, attached housing has been relatively low quality. Cluster subdivisions, where developers gain density bonuses for setting aside open space, have often resulted in retention of disjointed, unusable patches of open space. In the interest of giving examples of more successful clustered and attached housing, the following section presents a short gallery of successful examples from other places.

Red Mountain, Southern British Columbia: Clustering High Quality Housing to Provide Amenities and Preserve Open Space

Referring to the Red Mountain Ski community master plan, illustrated at right: “Ten years ago, we couldn’t have even been talking about this kind of attached housing - the focus was all on small lot single family houses. But the new Master Plan has only minimal single family housing. People said things like ‘attached housing saves a whole pile of open space’, and ‘I’d rather live in a nice townhouse, and have open space in the backyard, than be surrounded by single family lots.”

-Don Thompson, VP for Development at Red Mountain Resort
Gallery of Successful Mountain Village Housing

Grey Wolf Cabins
Red Mountain, B.C.
2,000-2,500 SF units + garage
Duplex-triplex; 2 stories + loft
About 8 units per acre
Cost: $500,000 (Canadian)
Arranged in clusters around parking court.
Ski-in, ski-out.

Granite Mountain Chalets
Red Mountain B.C.
2,000 SF units + garage
5 units/ building, 3 story building
Cost: $350,000 (Canadian 2003)
Part of 220 unit master planned residential area, ski-in/ out access, trail system. See concept master plan on page 18.
Spruce Grove Townhomes
Whistler, B.C.
760-1,080 SF units; 6 units per building
1,2,3 bedroom townhomes
Cost: $125,000-$180,000 (Canadian)
About 12 units/ acre
Clustered around a central court which includes parking, playground, community garden. Backs up to river corridor and trail system. Affordable housing project by Whistler Housing Authority.
Dave Murray Place Housing
Whistler, B.C.
1,329-1,625 SF
Duplex Units + Garage
Cost: $250,000-$283,000 (Canadian)
Open space in common ownership
backs up to regional open space and trail. Affordable housing project by Aspen Housing Authority.

Beaver Flats Rental Housing
Whistler, B.C.
Studio & 1 bedroom + Loft
Cost: Starting at $650/month (Canadian)
Building is heated by geothermal energy
and has underground parking, laundry facilities, elevator and is located on transit line, trail system. Underground parking cost is $60 (Canadian)/month.
Snyder Park
Aspen, CO
Two & three bedroom, single family & attached homes + carport
Cost: $78,000-$219,000 (2000)
About 10 units/acre
Shared central open space, in common ownership, backs up to regional open space. Affordable housing project by Aspen Housing Authority.
4. Establish a neighborhood trail system, linked to valley-wide trails
The Crow Creek Neighborhood will have an extensive trail system, to benefit both neighborhood residents and others who live in or visit Girdwood. The system will incorporate major, valley-wide routes like the Iditarod, as well as a secondary set of trails linking residential areas to the New Girdwood Townsite, Girdwood Elementary and the valley-wide trail system. The specifics of the secondary trail system will be finalized during the design of each residential area; primary trails are discussed below and shown on the accompanying map.

Existing Trails (to be preserved)
- California Creek Trail, California Creek Trail East, A be's Trail, Ragged Top Ridge Trail (the latter is a system of trails, branching south to the Beaver Pond trail, and north into alpine terrain)
- Old Logging Trail - follows overgrown logging road across the North Fan.
- Beaver Pond Trail - long established, popular trail. There are plans to extend this trail all the way to the Bird to Gird bike path near the Seward Highway.
- Raven Glacier Lodge Trail - a small connector that starts on private land near the Raven Glacier Lodge and provides the only current dry-footed access to the California Creek East trail.
- Iditarod Trail - major historic route, traverses the valley from tide water to Crow Pass, slatted for continued development and ultimate connection to Seward.
- Crow Creek Mine Trail - another traditional route that traverses the hillside below the Iditarod Trail; with a bridge over Glacier Creek, this trail offers a logical connection to the Alyeska resort area.

Proposed Trails (from south to north)
- Streamside Trail - shown on several planning maps, this route traverses an idyllic small rainforest stream valley just south of the development area, connecting the Alyeska Highway-Crow Creek Road intersection to the Beaver Pond Trail.
- Village & California Creek Interties - provides pedestrian access from residential development in the South and North Fan unit to the school and commercial district; parallels the planned road into this area.
- Crow Creek Byway - parallels the soon-to-be- rebuilt Crow Creek Road, provides pedestrian access along this corridor that will be diminished when the road becomes a higher speed, higher volume route. Ideally this route would be separated from the roadway, and built as part of the Crow Creek upgrade.
- Inter-meadow Trail - this route, also shown on several planning maps, connects through the Matrix unit to the Iditarod Trail to the north and the school to the south. This is a very picturesque area of timbered ridge tops, bedrock outcrops and open marshes, all with
spectacular views of the upper Glacier Creek Valley. These same features create challenges for development in this area, so the trail may be limited to short trail connectors between residential streets.

- **Toeslope Trail** – this trail, in some form, is shown on many trail plans and forms a natural connection between the Beaver Pond Trail on the south and the Iditarod on the north. Traverses area of old growth rainforest, open marshes, small stream courses and waterfalls.

- **Tiny Creek and Hemlock Interties** – these two interties would provide connections between the existing and proposed up-down valley routes. The Tiny Creek intertie takes advantage of a small stream corridor through big timber; the Hemlock intertie follows a low inter-marsh ridge with view sheds both up and down valley.
5. Create a high quality, efficient and enjoyable circulation system

The Crow Creek Neighborhood Plan includes an internal circulation system with plans for roads, trails and transit. The project area is also crossed by several existing and planned valley-wide circulation projects, including Crow Creek Road. The planned circulation system reflects integrated planning for circulation and the locations and densities of planned development.

Internal Circulation System
Crow Creek Road provides the spine from which access roads will reach into individual residential areas. Crow Creek Road between the Crow Creek Neighborhood and the Alyeska Highway will need to be upgraded and paved, although a two-lane road will still be adequate. The site plan map shows preliminary, illustrative road alignments for “development bubbles”. Detailed design of roadways will occur when individual bubbles are developed. Up valley from the California Creek fans, roads generally will parallel the north-south trending courses of ridges and drainage courses, to minimize environmental impacts and reduce costs. The trail system described above is seen as a key element of the circulation system, allowing residents to leave their cars in the garage, walk to shopping, service areas and school.

Valley-Wide System
Several key transportation routes cross the project area, in addition to the Crow Creek Road (see Map 5):

- **Crow Creek - Arlberg Connection** - This route, identified in the Girdwood Area Plan, is intended to provide a second means for reaching the upper valley, including the existing Alyeska Prince Hotel area and the planned Winner Creek resort base. The GAP proposes this route cross through the northern end of the Upper Matrix; this Crow Creek Plan suggests a more southern route. Either alternative could incorporate a trail.
- **Crow Creek - Hightower Connection** - This route, also identified in the Area Plan, is intended to provide a second road connection into the new Girdwood Townsite Area, along an existing platted right-of-way.
- **Girdwood “Transportation Corridor”** - After long discussion among the community, MOA staff and the Assembly, this route was identified in the Girdwood Transportation and Commercial Areas Master Plan. This corridor reserves a route for a future connection, most likely by rail, between the Alaska Railroad and the Alyeska Prince Hotel and future up-valley resort facilities.

The Crow Creek Neighborhood Plan has identified an alternative to this corridor – a trolley line that could function both as access to the resort, and a transit system for the valley. Appendix I provides a reconnaissance-level evaluation of the benefits and feasibility of this project, summarized below.
A trolley line is different from a railroad in a number of ways:

- Trolleys, or streetcars, are short, single cars that can be run individually or connected to other trolley cars and run as a train.
- Trolleys were developed to run on tracks set in streets, and as a result can negotiate sharper curves and climb and descend somewhat steeper grades than a standard railroad.
- Trolleys are normally electrically powered, and as a result make less noise than a passenger train and generate no smoke. Some trolley systems use natural gas or other alternative fuels.
- Trolleys are designed to provide service within a community or to make short trips between communities, not to run long distances between two cities.

A trolley corridor has not been determined as yet, but would run closer to businesses and homes on its way between the Alaska Railroad and the hotel. Two preliminary trolley route options are shown on the accompanying Circulation map.

It is, of course, possible to use ersatz trolley cars, built on a bus chassis, that run in the street. Buses or bus trolleys are more flexible than a rail trolley line, but are also less attractive to riders and tend to generate much less development along the route. The difference applied to Girdwood can be best summed up as: a rail-based trolley line would become part of Girdwood and the “Girdwood experience,” and would likely encourage complimentary development. A bus trolley would be, essentially, a cute shuttle bus.

The function of a trolley, compared to a railroad spur, would be:

- To serve community trips as well as visitor trips. It would transport people living or staying near the line to the Girdwood town center, the school and the ski area. It would be possible to stay in some parts of town and go skiing or to the resort without driving. A rail line would serve primarily visitor trips.
- To carry passengers from the rail line to the hotel, with a transfer at the Girdwood rail station. A rail spur could be operated without the need for a transfer.
- To become, in effect, the local transit system, rather than functioning as a branch line of the Alaska Railroad. A trolley system operated in this manner would require public funding, like a transit system, rather than being absorbed into the operations of the Alaska Railroad.
- The transportation corridor crosses through significant portions of the planned residential development in the Crow Creek Neighborhood. A rail line on this corridor would require at least 100 foot right-of-way and more likely a width of 150-200 feet. A rail line would also limit road and trail crossings. In contrast, the trolley line, if eventually developed, could be
routed through the New Girdwood Townsite and then along the eastern edge of the Crow Creek Neighborhood, reducing impacts and providing a community transit link.

This plan recommends that the trolley option be seen as a viable alternative to the approved “transportation corridor.” A final decision to retain the “transportation corridor” will be made when development is platted in one of the planned residential areas crossed by this route (North & South Fan, Three Ridges and Lower Matrix). At that time, the degree to which the corridor restricts the quality and quantity of new residential development can be understood more clearly, and weighed against other considerations. The development can either retain the corridor or switch to the trolley alternative.

6. Minimize impacts on neighbors
The project area is largely removed from existing developed areas. The one important exception is the section of the project located west of the lower Crow Creek Road, where the project abuts a handful of private parcels currently used for several homes, a lodge and two restaurants.

To reduce potential impacts on these established uses, an open space buffer of approximately 100 feet will be established between new development and the rear of these existing lots, this buffer will widen to 150 feet at California Creek. New development along the west side of this buffer will be single family housing, on lots of at least 8500 square feet, with 25 foot rear setbacks.
Map 5. Circulation
7. Plan for phased development of housing, trails and needed public infrastructure

To move forward, the project requires careful planning and synchronization of water, sewer, roads, trails and other infrastructure. Collectively, these improvements will require an investment of many millions of dollars. Implementation of this project will be spread over at least 10-12 years, and likely longer. Exact phasing will be driven by a combination of market demand and the time and funding needed to develop supporting infrastructure, both within the project and on a community-wide scale. A preliminary outline of schedules and responsibilities for these improvements is outlined on the following page. The phasing plan presented by this schedule is a “best case/ best guess.” Additional work is underway to refine this schedule, and formalize agreements between agencies for carrying out these projects.

Crow Creek Neighborhood Land Use Plan
Preliminary Implementation Schedule

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<td>Lower Forest - site prep/utilities</td>
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<td>build homes, sell land</td>
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Options for HLB developing land include:

- Sell land to a third party developer, who would carry out the projects consistent with the standards and guidelines established through this plan.
- HLB acts as developer, constructing roads and other infrastructure and selling lots and/or residential units. The Municipality has recently established an HLB directed Development Authority, with the capacity to carry out this approach.
- A combination of the above, in which HLB acts jointly with a private sector developer.

8. Provide affordable housing

"When talking about creating affordable housing, people say, 'Let the market take care of it, the market will take care of itself,' to that I say, 'No. If we want to keep our communities diverse, we have to plan.'” Tim Wake, Whistler Housing Authority

Mt. Alyeska development has helped move Girdwood from a small Alaskan community towards a resort destination. A common phenomenon associated with such a transition is that as a place becomes a desirable destination, real estate prices skyrocket. Steadily increasing prices make access to buying or renting housing difficult for lower and middle income populations. In extreme cases, housing prices climb out of reach even for those in a high income bracket.

How does a community, finding itself in such a transition, guarantee a diverse population can live and contribute to a safe, well-maintained, socially equitable place to live? Some communities have found it helpful and/or necessary to implement systems that assure a certain amount of affordable housing is available for purchase or rental. The term “affordable” does not necessarily equal “low income.” Depending on the community instituting the system, various criteria can be used to define what “affordable” actually means and who has access to housing labeled as such.

In planning for its future, Girdwood will need to develop its own approach to providing affordable housing. The case studies below provide examples of how two resort communities have dealt with this issue. Key elements of a Girdwood affordable housing strategy include the following:

- Formal commitment to providing affordable housing in Girdwood
- Definition of level of affordability to be addressed
- Creation of a management body, or affiliation with an existing entity equivalent to the housing authorities used in other resort communities
- Definition of a funding strategy, such as requiring new development to contribute to developing affordable housing
- Definition of a target for the amount/level of affordable housing in the Crow Creek Neighborhood

Two case studies can provide examples of how various resort communities have dealt with this issue:

Resort Municipality of Whistler, Whistler Housing Authority:
The Whistler Housing Authority (WHA) was organized in 1997. They are a wholly owned subsidiary of the Resort Municipality of Whistler, B.C., Canada. As a resort municipality, Whistler gains the power to tax tourist accommodations (in addition to collecting property tax). The WHA performs the combined functions of two other agencies: the Whistler Valley Housing Corporation, a municipal corporation legally responsible for employee restricted housing developments, and the Whistler Valley Housing Society (WVHS). WVHS is a volunteer, non-profit organization qualified to receive Canada Mortgage & Housing Corporation (CMHC) financing. WHA created an inventory of price controlled units that are only available to resident employees or resident retirees. A resident employee is defined as an individual who has lived in the municipality for greater than one year, working more than 20 hours per week.

The WHA program offers both rental and purchase housing. Rental properties are capped at a restricted rate, based on number of bedrooms and space available. Prices of houses for sale are computed using a formula based on the Housing Price Index (HPI) for the greater Vancouver area, as reported by the Royal Bank. According to WHA, the goal is not to provide a “free ride,” but to make housing affordable to working people. To answer affordable housing demand, the Municipality requires 20% of new development be set aside as affordable, resident restricted housing. This number is based on an estimate of how many employees would be necessary to support the visitor/resident population per new development (tourist, commercial, and industrial). Developers who do not wish to set aside parts of their development for affordable housing can chose to pay the Housing Authority $6,000 per estimated new employee per development. This money goes into a fund for establishing/maintaining affordable housing in the Whistler area. It was noted that the above quoted number is low, and should be adjusted to $15-20,000 per employee – the updated estimated equity to house 1 employee. Developers have the additional option of deeding land parcels to the WHA, which can be used to construct new housing projects. Individuals who have purchased resident restricted homes and are looking to sell must notify WHA, who then defines the maximum resale price of the home. The maximum resale is calculated using the abovementioned formula. Typically, an offer below this price will not be considered.
Currently, WHA has nine developments within the municipality designated for affordable purchase or rental. The number of units built per year is not constant, but is estimated at 150 units per year (over the past 6 years). WHA has made a point of offering well built, attractive housing, that encourages good upkeep by owners and that retains its value. Three of the five projects presented in the previous “gallery of mountain village homes” are part of affordable housing programs.

For more detailed information on the WHA and its programs, please visit: www.whistlerhousing.ca

Teton County Housing Authority, Jackson, Wyoming:
The Teton County Housing Authority (TCHA) has been in operation for approximately 10 years. It is guided by a board of directors and was created under land development regulations of Teton County. This organization was formed in response to recognition of a Teton Valley housing crisis – individuals earning moderate incomes could not afford to live in this area, though they may have been employed there. The goal of TCHA is to strengthen the community by allowing multiple income levels to co-exist. To be eligible for TCHA programs, applicants must be employed at least 30 hours per week, at least ten months per year in Teton County or be qualified as retired or disabled residents. TCHA defines “affordable” using U.S. Department of Housing and Urban Development (HUD) statistical averages. HUD defines low income as at or below 60% of county median income, with no more than 30 percent of annual income on spent on housing. TCHA has created 5 categories of home affordability for which buyers can apply, based on percentage of gross income limits, ranging from 80% to 175% of average median income. To apply under a particular category, gross family household incomes may not exceed limits set for each.

Affordable housing in Teton County is deed restricted – properties are allowed to appreciate at 3% per year, slightly below the U.S. national average. As units in this program “turn over,” TCHA advertises for resale, performs home inspections and notifies the owner of maximum resale price.

County land regulations require that 15% of any development must be set aside as affordable housing. Developers have the option of paying a fee in lieu of the 15% regulation, which is paid to the Housing Authority. This money is placed into a fund used to create additional affordable developments. Land for a recent development was purchased with bond money that was voted on and approved by county residents.

For more detailed information on TCHA and its programs, please visit: http://www.tetonwyo.org/housing/
9. Establish design standards and guidelines to minimize development impacts, maximize quality

Development in the Crow Creek area has to be high quality, and meet both market and environmental goals. Development standards and guidelines, either in the Chapter 9 of the revised Title 21, or as elements of future site master plans, will be developed to achieve the objectives below. An interesting fact about Girdwood today is that the town defies many customary building and site development standards, and benefits from the result. See Appendix G for specific examples of well designed mountain/resort community housing, and Appendix H for recommendations regarding road and utility design.

1. Natural environment predominates.
   - Relatively concentrated development with large areas of open space
   - Forest remains largely intact – “a village in a forest”
   - Housing set back in forests, or at edge of natural openings such as meadows and along low ridges, to provide light and views, while maintaining integrity of natural systems
   - Preservation of natural contours, of existing drainage patterns
   - Minimal landscaping - most yards are natural vegetation; limited fences
   - Built environment blends with natural setting (see below)

2. Quality construction, site development.
   - Attractive, interesting designs - reflect Girdwood setting & climate, traditions
   - Building layout provides sense of privacy, e.g. views into open space (e.g., careful consideration of views from windows, location and views of decks, so even in smaller lots and homes owners have views into natural areas)
   - Use of natural materials – heavy timbers, stone, wood siding
   - Diverse housing shapes and sizes
   - Buildings divided into smaller sections to convey sense of human scale
   - Range of actions to avoid monotonous designs: facades with differing depths, differing textures; diverse housing types; varied setbacks and varied angles of buildings to street; use of color to add interest

3. Vertically oriented housing – most houses 2-3 stories, small footprints compared to square footage.

4. Relatively small lots (most less than 20,000 SF, many 10,000 or smaller).

5. Options for owner-built housing – sense of people, their lives, personalities.

6. A community of walkers, a community trail system – simple, informal routes, linked to neighborhood routes, to major trails to commercial area, school, resort.

7. Streets, Trails, Utilities
• Narrow, low traffic streets, minimal paving;
• Combination of low traffic streets that are safe and pleasant for walking, plus off-street trails, means that most streets do not require sidewalks.
• Utilities located in streets at time of road construction to minimize requirements for disruption of natural features, vegetation and drainage
• Housing designed so multiple homes can be served by the same street, and/ or using shared smaller driveways and parking courts, short cul-de-sacs.

8. Residential areas include trails and “fingers of open space” that connect to larger project and community open space systems.

9. Winter design
   • Streets designed with space for snow storage
   • Buildings designed to avoid snow falling off roofs onto people and cars
   • Buildings designed, sited to take advantage of orientation to sunlight

10. Higher density housing areas includes tot lots, climbing structures, picnic areas.

11. A bit of magic – hard to describe sense of neighborliness.
CONCLUSIONS - SUMMARY OF PLAN IMPACTS

Over time, the Crow Creek project will generate important changes in Girdwood. The biggest impact will be a significant increase in population, as shown in the table below. The actual increase in population will vary with the price and character of housing. These simplified projections assume about 70% of future housing will be purchased by year round residents. Development will not occur quickly; the earliest developments will not occur for at least 3 years, and the project is likely is to be phased over the following 10-12 years.

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<th>Housing Type</th>
<th>Total Housing Units</th>
<th>Year Round %</th>
<th>Total Year Round Housing Units</th>
<th>People per Housing Unit</th>
<th>Total People</th>
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<tbody>
<tr>
<td>Single Family/Duplex</td>
<td>350</td>
<td>75%</td>
<td>262</td>
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<td>Multi-Family &lt; 10 units/acre</td>
<td>250</td>
<td>60%</td>
<td>150</td>
<td>2.8</td>
<td>336</td>
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<td>110</td>
<td>60%</td>
<td>66</td>
<td>2.5</td>
<td>312</td>
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<tr>
<td>Total</td>
<td>710</td>
<td></td>
<td>479</td>
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<td>1320</td>
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Effects on Girdwood Schools

An initial estimate by the Anchorage School District, based on the figures above, estimates the Crow Creek project would add 100 to 140 new students. The existing K-8 school has a capacity of 161 students, and an enrollment of 168. Over the last 15 years, enrollment has ranged from 135 to a high of 179 in 1994-95 (school capacity at that time was rated at 181 students). This project will likely create the need for an overdue expansion of the school. One option would be to develop a larger K-8 school; another would be to develop a separate, new junior high, and use the K-8 existing school as an elementary school. The Anchorage School district’s 6-year Capital Improvements Plan has prioritized funding for assessment and planning for Girdwood facility needs for 2006-07. In the next year period, 2007-08, the design process will began, contingent on the outcome of findings from the 2006-07 planning process. Continuing with this schedule would allow the construction phase to begin in 2008-09. Construction funding is expected to come from passage of an MOA school bond.

Effects on Girdwood Water and Sewer

The project will also trigger a need to expand community water and sewer systems. Expanding the water system should be a relatively simple process. Existing wells have capacity for expansion; the main requirement is expanding storage. AWWU has reserved a site for this purpose between the old and new ski base areas. Additionally, AWWU is currently investigating options for adding sewage treatment capacity, to meet the needs for ongoing community growth, as well as growth associated...
with this project and planned expansion of the Winner Creek Ski area. Girdwood’s existing wastewater treatment facility is 25 years old. The facility is currently operating at 80-90% capacity. It likely needs replacement and expansion to meet projected community growth. Work is now underway to determine the need for and specifications of the new facility, projected to cost $18-$25 million. Possible funding sources include an MOA revenue bond and state grant programs.

**Effects on Girdwood Roads and Traffic**

A preliminary evaluation of traffic on the Crow Creek Road was completed by Lounsbury and Associates for the Alaska Department of Transportation and Public Facilities (AK DOT/PF) in connection with the upcoming improvement of the Crow Creek Road. Currently, traffic levels are in the range of 100 to 330 vehicles per day. If the proposed Crow Creek neighborhood is fully developed with up to 350 single-family homes and 360 multi-family homes and all are occupied by full-time residents, approximately 5,500 vehicles per day would be anticipated at the lower end of Crow Creek Road by the year 2020. This volume of traffic is well within the carrying capacity of an improved two-lane Crow Creek Road.

Given current Girdwood residency patterns, it is unlikely that all of the new housing will be occupied full-time; a sizeable percentage is likely to be second homes or recreational residences. This will have the effect of producing traffic volumes that are lower than the predicted 5,500 vehicles per day. As the HLB property is developed and traffic on Crow Creek Road increases over time, AK DOT/PF will periodically evaluate the need for a signal at the intersection of Crow Creek Road and the Alyeska Highway.

**Other Consequences**

The Crow Creek Neighborhood project will have a major, positive impact on other key aspects of the Girdwood community. Most important, the project will meet the critical need for more private land and more housing in Girdwood. The project offers the best available option to take some of the pressure of rising land and housing prices, and to be a setting for quality affordable housing. These impacts will help Girdwood support a diverse population, so the town can continue to be a place that draws adventurous young people, attracts younger families, and provides a home to both those who enjoy the services available in the community, and those that provide them.

In addition, the growth associated with the Crow Creek project will help support a range of improved local services, including an improved community trail system, improved water service, and improved commercial services such as an expanded grocery store. Larger population can also give the community more political clout.