



# UPDATE of the Chugiak-Eagle River Site-Specific Land Use Plan

*Final Plan :: March 2018*



Prepared for the Heritage Land Bank,  
Municipality of Anchorage



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# UPDATE *of the*

## Chugiak-Eagle River Site-Specific Land Use Plan

March 2018

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# I. INTRODUCTION

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The Chugiak-Eagle River Site-Specific Land Use Plan was completed in 2009 and adopted by the Anchorage Assembly on September 15, 2009 (AO 2009-104). In 2010, it was included in the Chugiak-Eagle River Comprehensive Plan and is called the 2010 Plan throughout this document. The 2010 Plan satisfied municipal regulations requiring a Site-Specific Land Use Study prior to the sale of certain Heritage Land Bank (HLB) parcels. HLB identified the four parcels described in the plan for potential disposal (a transfer of property, including sale) in their 2008-2013 Five-Year Management Plan. The 2010 Plan recommended future uses and management of the four parcels to serve the HLB mission, the community's interests and the Municipality of Anchorage.

## Purpose of the Update

Since the 2010 Plan was completed, HLB sold two of the four parcels analyzed. At this time, the HLB seeks to revisit the development potential of one of the four parcels described in the 2010 Plan; the 92-acre Carol Creek parcel. Several reasons guide HLB's pursuit of this plan update.

**Changing Conditions and Policy Environment :** The original work of the 2010 Plan was completed approximately seven to eight years ago. Since that time, several studies and plans have been completed by the Municipality, as well as a comprehensive update to Anchorage's land use ordinance, Title 21, which includes Chapter 10 specifically for the Chugiak-Eagle River area.

**Regulatory Requirements :** Like the 2010 Chugiak-Eagle River Site-Specific Land Use Plan, this update will fulfill the same three primary objectives.

1. The Plan amends the Chugiak-Eagle River Comprehensive Plan by assigning land use designations on the Carol Creek parcel.
2. The Plan satisfies the requirements of AMC 25.40.025: Heritage Land Bank disposals. HLB disposals must consider the comprehensive plan and its implementing measures prior to any disposal and HLB disposal shall benefit the public.
3. The Plan recommends management direction and implementation actions to guide subsequent regulatory processes and decisions related to the long-term management and development of the specific parcel described in the Plan.

Because this plan amends the Chugiak-Eagle River Comprehensive Plan, the Anchorage Planning and Zoning Commission is tasked with making a recommendation to the Assembly for approval and adoption. The land use designations recommended in the Plan would, after Assembly adoption, formally update the Chugiak-Eagle River Comprehensive Plan's land use map (see Map 2 in this document). The implementation actions would be adopted as municipal policy to guide subsequent regulatory actions and decisions, such as platting, zoning, disposal, and development.

**Anchorage Water and Wastewater Utility (AWWU) Facility Needs :** AWWU seeks to increase water storage in the area to improve system-wide pressure and flow. AWWU has identified a 3.5-acre segment of the 92-acre Carol Creek parcel as an ideal location for a water reservoir. AWWU's interest in the parcel provides an opportunity for HLB to adjust the 2010 Plan to align with today's community needs.

**Need for Housing :** The Administration of Mayor Ethan Berkowitz is committed to improving housing options across the Municipality, including identifying underutilized municipally-owned properties that have potential for new housing development. The Administration directed HLB to look for opportunities to move land to market for housing. Opportunities remain at the Carol Creek site to provide housing close to shopping, an elementary school, and recreation and to improve access, trail connections, and green amenities, including retaining open space along Carol Creek.

This Chugiak-Eagle River Site-Specific Land Use Plan Update analyzes and makes recommendations for the 92-acre Carol Creek parcel. The recommendations are based on physical data, public input, and relevant policy directives. Like the 2010 Plan, this update also helps HLB serve broader community goals including: quality of life, public safety, economic development, and improved services.

## 2010 Plan Compared to 2018 Update

The overall land use policies in this 2018 Update are very similar to the 2010 Plan, which includes:

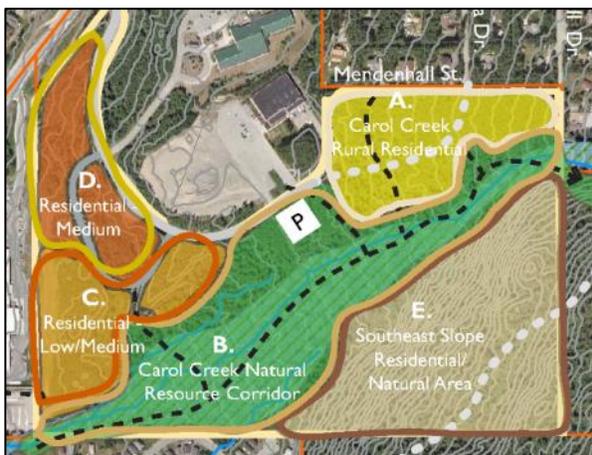
- Focus residential development of the northern and western portion of the parcel with retention of a large band of open space along Carol Creek.
- Allow for higher densities in the western portion of the project area, and lower densities in the northeastern section to better match the character of the adjoining, existing neighborhood.
- Reserve a route for a road connection between the existing neighborhood to the north and the access road coming into the Harry McDonald Center off the Old Glenn Highway.
- Provide for a generous system of trails and open space connections between future residential development and the Carol Creek corridor.

The primary differences between the 2010 Plan and the 2018 Update include:

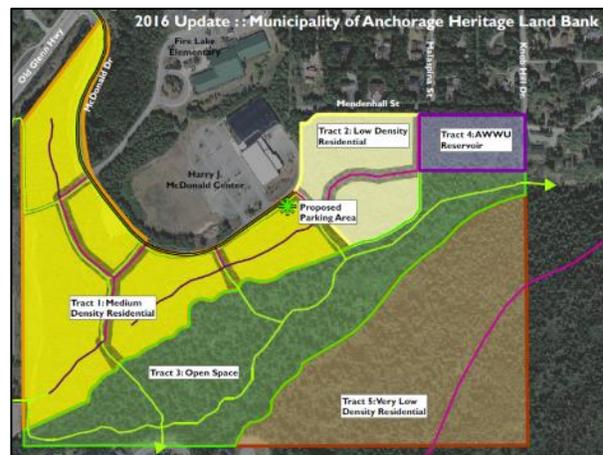
- Designation of one site (approximately 3.5 acres) to accommodate a future AWWU water storage reservoir, designated as Tract 4 in the 2018 Update. In the 2010 Plan, this land was within Section A, an area designated for low density residential development. The 2018 Update recommends accommodating a water reservoir at this site, which was not a part of the 2010 Plan.
- Reconfiguration of and an increase in acreage of the western tract set aside for medium density housing (Tract 1 in the 2018 Update, and Sections C and D in the 2010 Plan).
- More thorough examination of infrastructure development strategies, including collaboration and timing of development with municipal agencies to share upfront infrastructure costs and increase the feasibility of future residential development on this site.

See comparison of the 2010 to 2018 site plans below:

*2010 Plan*



*2018 Update*



## 2. 2010 PLAN SUMMARY

### Chugiak-Eagle River Site Specific Land Use Plan (2010)

The Chugiak-Eagle River Site-Specific Land Use Plan was completed in 2009 and adopted by the Anchorage Assembly in 2010 as part of the Chugiak-Eagle River Comprehensive Plan. The 2010 Plan was prepared to satisfy municipal regulations which state that prior to sale of certain Heritage Land Bank (HLB) parcels, a Site Specific Land Use Study must occur. HLB identified the four parcels described in the Plan for potential disposal (sale) in the agency's 2008-2013 Five-Year Management Plan. The Carol Creek parcel (HLB 1-074) remains identified for potential disposal in the most recent 2017-2021 Five-Year Management Plan, adopted June 21, 2016.

The 2010 Plan recommended future uses and management of four parcels, totaling approximately 142 acres, to serve HLB's mission, the community's interests and the Municipality of Anchorage. Since the Plan was completed, HLB has sold two of the four parcels analyzed, specifically, two smaller parcels along Muldrow Street that totaled approximately 11 acres (HLB 1-072 and 1-073). The North Knoll Parcel (HLB 1-071) analyzed during the 2010 Plan was recommended to remain in a natural state and this updated Plan carries forward those recommendations. The remaining parcel, Carol Creek (HLB 1-074) remains in the HLB inventory and is the primary subject of this update. Map 1 illustrates the location of these parcels.

Map 1. Study Area for 2018 Plan Update



## 2010 Planning Process

Extensive public involvement shaped the planning process and is reflected in the 2010 Plan. Table 1 summarizes the process to prepare the 2010 Site-Specific Land Use Plan.

*Table 1. Summary of 2010 Plan Public Process*

Date	Activity
Summer 2007	Consulting team hired; project start-up; initial background research
September 19, 2007	Public Workshop: review background report; discuss project issues (approximately 45 attendees)
October 2007	Prepare preliminary development options
November 8, 2007	Informal public open house/workshop (approximately 21 attendees)
December 2007 through January 2008	Prepare revised development options
February 6, 2008	Informal public open house/workshop (approximately 47 attendees)
February 2008	Draft Plan; circulate for internal review – HLB, Planning, Parks and Recreation, and Traffic Departments
February 29, 2008	Plan available on line at <a href="http://www.agnebeck.com">www.agnebeck.com</a> – current projects page
March 6th, 2008	Evening public workshop to review the plan at Fire Lake Elementary
April 2008	Revise Plan based on public review
May 8, 2008	Heritage Land Bank Advisory Commission Approved (R-2008-06)
May 11, 2009	Anchorage Planning and Zoning Commission Approved (R 2009-026)
September 12, 2009	Anchorage Municipal Assembly Amended and Approved (AO 2009-14)

## 2010 Plan Goals and Objectives

The 2010 Plan outlined the following key objectives to make best use of the four parcels that were studied at that time. The intent was to optimize the parcels proximity to open space and existing schools, recreation, and commercial activities.

- Respect and protect the quality and character of the existing low density residential neighborhood.
- For parcels or portions of parcels immediately adjoining existing residential areas, allow for new residential uses at densities comparable to the existing, adjoining residential uses.
- Protect and work within the constraints and opportunities of the natural setting of the area. In particular, protect Carol Creek and associated wetlands and groundwater resources.
- On the portions of the Carol Creek parcel southwest of the McDonald Center and outside the Carol Creek greenbelt (areas C and D on Map 2), allow for low and low to medium density housing. Limited, accessory office and/or commercial uses are possible in this area, but only under a Planned Unit Development approach. The planned residential use, along with the school and the McDonald Center, provide a logical transition between intense commercial uses to the west, and low density residential uses to the east.

- Establish a set of development standards for the low density and low to medium density residential uses to ensure these are high quality residential areas, sized and developed to be appropriate for their location in this transitional area.
- Retain and improve opportunities for access to open space, trails and other outdoor and indoor recreation amenities, for local residents and for visitors from outside the immediate neighborhood.
- Develop in accordance with the 2006 Chugiak-Eagle River Comprehensive Plan Update.

Table 2 summarizes the recommended land uses for each parcel in the 2010 Plan. Map 2 on the following page, also from the 2010 Plan, illustrates the original land use recommendations.

*Table 2. Summary of Recommended Land Uses in 2010 Plan*

<b>Parcel Name</b>	<b>Size</b>	<b>Current Comp Plan Land Use Classification</b>	<b>Recommended Land Use Classification</b>	<b>Additional Recommendations</b>
North Knoll	40 acres	Residential, <1 - 1 dwellings per acre	Park & Natural Resource	
Muldrow Street West	3.7 acres	Community Facility	Residential, 1 - 2 dwellings per acre	Design objectives established in plan; min. 40,000 sq. ft. lots
Muldrow Street East	7.8 acres	Special Study Area	Residential, 1 - 2 dwellings per acre	Design objectives established in plan; min. 40,000 sq. ft. lots
Carol Creek A, Rural Residential	10 acres	Special Study Area	Residential, 1 - 2 dwellings per acre	Design objectives established in plan; min. 40,000 sq. ft. lots
Carol Creek B, Natural Resource Corridor	26 acres	Special Study Area	Park & Natural Resource	
Carol Creek C, Residential	8 acres	Special Study Area	Residential, 3 - 6 dwellings per acre	Max of 50 units. Design objectives in plan and recommended site plan review.
Carol Creek D, Residential	7 acres	Special Study Area	Residential, 7 - 10 dwellings per acre	Max of 60 units. Design objectives in plan and recommended site plan review.
Carol Creek E, Park & Natural Resources / Very Low Density	23 acres	Special Study Area	Residential, <1 - 1 dwellings per acre / Park & Natural Resource	Max of 5 units

Map 2. Land Use Recommendations of the Chugiak-Eagle River Site-Specific Land Use Plan (2010)



## Updates Since 2010 Plan Adoption

Much of the physical and policy environment surrounding these parcels remain consistent with those documented in the 2010 Plan. Significant policy actions are documented below. Other known updates to the existing conditions of areas surrounding the HLB property are documented in the following chapter.

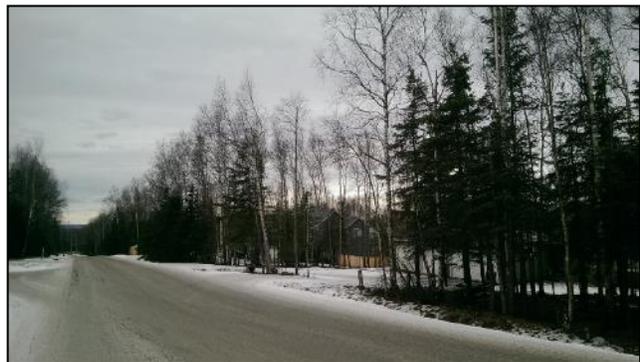
*Muldraw Street, 2008*



### Disposal of Muldraw Street Parcels

Two of the four subject properties of the 2010 Plan, the Muldraw Street West and East parcels (HLB 1-072 and 1-073, respectively) were identified for disposal and future development as low-density rural residential, in keeping with the character of the surrounding Fish Hatchery Road neighborhood. The properties are adjacent to each other and total approximately eleven acres, bounded by Fish Hatchery Road on the North and Knob Hill Drive to the east; Muldraw Street is the southern border and an undeveloped portion of Fire Lake Elementary School's parcel is to the west.

*Muldraw Street, 2016*



HLB subsequently resolved the outstanding title issues with the State of Alaska regarding the east parcel identified in the Plan, and obtained an ordinance amending the Plan to remove the requirement that HLB rezone those two properties prior to disposal (AO 2011-104, approved October 25, 2011). HLB then disposed of the two properties via sealed bid, approved by the Assembly in 2012 (AO 2012-50). The developer, Troy Davis Homes, successfully petitioned to rezone the properties as R-2A SL with a minimum lot size of 40,000 square feet, consistent with surrounding properties (AO 2013-88, approved September 10, 2013).



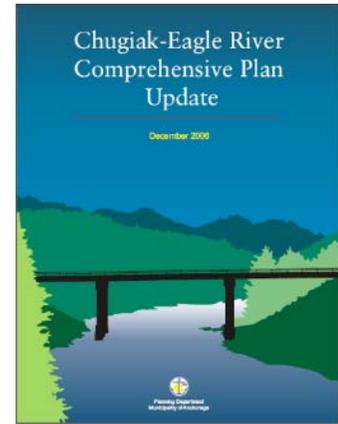
The developer subsequently subdivided the property into eleven residential lots and has almost completed construction and sale of single family homes on these lots. The photographs above depict views of these new homes from the street, as well as one home still under construction as of February 2016. Completion of the disposal process was documented in the HLB 2014 Annual Work Program and 2015-2019 Five-Year Management Plan (recommended for Assembly approval by Heritage Land Bank Advisory Commission (HLBAC) on December 12, 2013 and approved by the Anchorage Assembly on April 22, 2014).

## Policy and Regulatory Changes

In addition to changes to the physical environment since the 2010 Plan was adopted, there have been changes in the policy and regulatory environment as well, summarized by plan document.

### *Chugiak-Eagle River Comprehensive Plan Update (2006)*

The Chugiak-Eagle River Comprehensive Plan Update, completed in 2006, outlines the community's desired pattern for growth and land use in Eagle River. According to the plan, the Eagle River community seeks to maintain a central core or downtown area that allows for limited new, higher-density housing and local-serving commercial establishments. Surrounding the more compact center, suburban and rural residential uses prevail. The Comprehensive Plan makes clear that residents want high-quality development that enhances the character of the community by preserving the natural environment and maintaining rural ambience.



The Plan remains the overall guiding document for the Chugiak-Eagle River area, including providing direction for future development. At the time of this writing, no further updates have been made to the plan itself, but steps have been taken to implement the plan, notably adoption of Chapter 10 of Title 21 specifically addressing zoning regulations in Chugiak and Eagle River.

### *Anchorage Municipal Code Title 21, Chapter 10 (Updated 2014)*

The Municipal Land Use Code, Title 21, provides the directives that codify and implement the Comprehensive Plan. Since passage of the 2010 Plan, the Municipality of Anchorage has adopted an update to Title 21, passed in 2014. Chapter 10 of the code governs zoning in Eagle River, including the Carol Creek parcel, currently zoned as Public Lands Institutions (PLI).

The Eagle River zoning districts generally align with those in the Anchorage Bowl, both having several rural zoning districts that provide variation in the density and siting of housing and that may or may not be served by municipal utilities. Following the guidance of the Chugiak-Eagle River Comprehensive Plan to encourage denser housing and more commercial uses within the Central Business District (CBD), there are additional restrictions on some zoning districts to be located within or near the town center; lower allowable density in the CE-R-3 district (30 units per acre, not 40 units per acre as in the Anchorage Bowl); and a height restriction of 35 feet for residential units outside the town center.

### *Chugach State Park Access Plan (Public Review Draft, 2010)*

Originally intended to be an element of the Anchorage 2020 Comprehensive Plan, the public review draft of the Chugach State Park Access Plan was completed in 2010 but is no longer required to be approved by the Anchorage Assembly as an official municipal document. The plan analyzed and identified current formal and informal access points to Chugach State Park from areas within the Municipality, documented areas of opportunity for protecting future access points or transitional lands between developed parcels and park lands, and ensures planning and coordination among the State of Alaska, the Municipality of Anchorage, and landowners adjacent to the park to optimize public access to these lands while protecting against negative impacts on private properties. The Anchorage Assembly formerly added reference to this Plan into Title 21 under the trails dedication section, which requires consideration be given to Chugach State Park access in future subdivision actions at the interface zone with the state park.

### ***Eagle River Central Business District and Residential Core Circulation Study (2011)***

A traffic circulation study of Eagle River, completed in 2011, identified several traffic flow improvements that could be implemented to alleviate existing congestion along the Old Glenn Highway through the busiest areas of Eagle River, the town center and surrounding residential neighborhoods, as well as improving non-motorized transportation infrastructure and perceived safety concerns for bicyclists and pedestrians.

Among the recommendations identified in the study are additional road connections between existing neighborhoods, including a proposed collector road segment connecting the east terminus of Northgate Drive and the northern curve of Beaujolais Drive which would extend through the southwest corner of the HLB Carol Creek parcel. The study offers three scenarios for new circulation patterns, all of which feature this potential connection but none of which directly impact the section of the Old Glenn Highway adjacent to this parcel.

### ***Anchorage Wetlands Management Plan (2012)***

The Anchorage Wetlands Management Plan was originally developed in 1982 to satisfy requirements of the Coastal Zone Management Act to produce guidelines for freshwater wetlands within the Municipality. An update of this plan was completed in 2012, and provides an inventory and guidelines for development within or near wetlands; Alaska no longer participates in the national Coastal Zone Management Program, so this document now exists as a technical resource. The plan identifies the Carol Creek corridor and associated wetlands as Upper Carol Creek (Site 135), designated as Class B wetlands. A smaller tributary of Carol Creek and south of the project site is additionally identified as Class D wetlands.

### ***Municipality of Anchorage Housing Demand Analysis (2012)***

This study identified the current housing supply available in the Municipality, projected future demand for additional housing, and the regulatory and economic barriers to developing more diverse housing types to meet projected demand for each product type. The study found that “there is not enough buildable land to accommodate future housing demand under historical development patterns, current land-use policies and development options.” In total, the study projects an unmet need of approximately 8,900 housing units of all types that would not be built with the Municipality’s current rate of production, available land and development policies.

The specific findings and recommendations of this analysis are discussed in Chapter 6.

## ■ 3. SCOPE OF PLAN UPDATE

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### **Approach**

The approach to updating the Chugiak-Eagle River Site-Specific Land Use Plan followed an approximately ten-month timeline. HLB hired the consultant team in late 2015 with the project kicking off in January 2016. HLB, AWWU, and the consultant team have worked alongside each other to reexamine the site issues and opportunities and reach out to the community.

### **Study Area**

The 2018 Plan Update addresses proposed future land uses for the two properties that remain in HLB's inventory, the North Knoll parcel (HLB 1-071) and the Carol Creek parcel (HLB 1-074). Since the site conditions of the North Knoll parcel have not changed since the original adoption of the 2010 Plan, the work of this Plan Update has focused solely on the Carol Creek parcel.

### **Site Investigation and Research**

The project team worked to understand the project context through updated mapping and background information collection including land ownership, land use changes, and public infrastructure and utility improvements. An internal working group was convened at the start of the project to provide feedback and input at various states of the Plan Update. The group consisted of representatives from the following agencies; the Planning Department, Private Development, Non-motorized Transportation, Watershed Management Services, Traffic Department, the Anchorage School District, Parks and Recreation Department, and AWWU. Documents from these meetings are included in Appendix A.

The project team made several site visits to the property to document conditions and better understand the potential for development. These explorations led to the decision to pursue a more detailed geophysical analysis of several notable topographic features at the project site to determine whether they were bedrock.

### **Market Research**

In addition to analysis and investigation of the physical site and environs, the project team conducted research on housing and growth trends in the project area. Several interviews were conducted with members of the local development community to get a sense of the Eagle River housing market.

### **Public Outreach Process**

The project team developed the following guidelines for community participation for this process:

- Chugiak-Eagle River community members are encouraged to participate in the process
- Interested community members are regularly informed of the project's status
- Project team uses multiple methods of community outreach and notification regarding meetings, plan content, and the approval process of the final Plan
- Project team uses multiple avenues for gathering community input on the Plan: in person meetings, informal presentations at community councils, written comments, online engagement
- Interested community members are given ample opportunity to review the final Plan and participate in the public hearing and approval process (Table 3)

Table 3. Summary of Public Process for 2018 Plan Update

Date	Activity
February 2016	<ul style="list-style-type: none"> <li>• Presentations to Community Councils: Birchwood, Chugiak, Eagle River, Eagle River Valley</li> <li>• Presentation to Chugiak-Eagle River Advisory Board</li> <li>• Project website launched: <a href="http://www.hlbcarolcreekplan.com">www.hlbcarolcreekplan.com</a></li> </ul>
March 2016	<ul style="list-style-type: none"> <li>• Public Workshop at Fire Lake Elementary School; approx. 30 attendees</li> </ul>
May 2016	<ul style="list-style-type: none"> <li>• Presentations to Community Councils: Birchwood, Chugiak, Eagle River, Eagle River Valley</li> </ul>
Summer through Fall 2016	<ul style="list-style-type: none"> <li>• Project team working to refine Plan</li> </ul>
October 2016	<ul style="list-style-type: none"> <li>• Presentations to Community Councils: Chugiak, Eagle River, Eagle River Valley</li> <li>• Presentation to Chugiak-Eagle River Advisory Board</li> </ul>
November 2016	<ul style="list-style-type: none"> <li>• Presentation to Birchwood Community Council</li> <li>• Public Hearing Draft Completed</li> <li>• Presentation to HLB Advisory Commission meeting, November 10, 2016</li> </ul>
2016-2018	<ul style="list-style-type: none"> <li>• Recommendation for approval by HLB Advisory Commission, December 8, 2016</li> <li>• Presentation to Chugiak-Eagle River Advisory Board</li> <li>• Recommendation for approval by Planning and Zoning Commission, January 29, 2018</li> <li>• Approval by the Anchorage Assembly, March 20, 2018</li> </ul>

Ultimately the Plan Update will be guided through the formal approval process, including review and recommendations by: Heritage Land Bank, Chugiak-Eagle River Advisory Board, Anchorage Planning and Zoning Commission, and ultimate approval by the Anchorage Assembly. Upon adoption by the Assembly, this 2018 Plan will become an element of the *Chugiak-Eagle River Comprehensive Plan*, and the specific development recommendations for the Carol Creek parcel will supersede those documented in the 2010 Plan.

The description, analysis and recommendations presented in the following Chapters are the product of this scope of work.

## 4. SITE CONDITIONS

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### North Knoll Parcel (HLB I-071)

The North Knoll parcel is the northernmost of the four parcels studied in the 2010 Plan. The rectangular parcel lies east of the Old Glenn Highway at the intersection of New Market Drive. The parcel is undeveloped, does not have road access, and is heavily wooded. It is bounded by Chugach State Park to the south and east, and by privately owned but undeveloped land to the south and west.

No known changes in conditions have occurred at this property or its surrounding properties.

*North Knoll parcel, looking east from the Old Glenn Highway at New Market Drive*



### Carol Creek Parcel (HLB I-074)

Consisting of 92 acres, the Carol Creek parcel (HLB 1-074) is located east of the Old Glenn Highway at the North Eagle River exit, with its western boundary adjacent to Fred Meyer and Spenard Builders Supply. Its northern boundary is Harry McDonald Road, the Harry J. McDonald Memorial Center, and Mendenhall Street. South of the parcel is the Brandywine neighborhood, and to the southeast are large parcels of undeveloped land currently zoned for future residential development (R-2M to the east, R-8 to the south) and further to the east is undeveloped land owned by the Federal Bureau of Land Management (BLM). The following images illustrate the character of the site.

*Carol Creek Parcel*



Carol Creek Parcel, cont.d



**Summary of Site Conditions**

Table 4 is excerpted from the 2010 Plan and remains accurate as of this update. The Muldrow Street parcels have been removed from this list, as they have since been disposed of and subdivided. Map 5 provides an overview of changes to the Muldrow parcels and overview of the Carol Creek property.

Table 4. Current Site Conditions, North Knoll and Carol Creek Parcels

Characteristic	North Knoll (I-071)	Carol Creek (I-074)
<b>Size</b>	40 Acres	92 acres
<b>Current Development</b>	Undeveloped, vacant and very little development in the vicinity.	Undeveloped, vacant. This parcel is surrounded by a variety of uses including public facilities, rural residential, commercial, medium-density single family residential, and undeveloped land.
<b>Development Suitability</b>	Generally unsuitable for development.	Ranges from highly developable along the northern boundary of the site to less suitable for development in the wetland and steep slope areas of the site.
<b>Current Zoning</b>	R-10 residential alpine/slope district, allowing large lot residential that addresses the unique characteristics and challenges of development on steep slopes. Properties immediately north and west of the site are also R-10. Northeast of the site the land is zoned PC (planned development). The large tracts to the west are zoned W (watershed protection). South of the site is Chugach State Park, zoned T (transitional).	PLI: Public Lands and Institutions. PLI is generally intended for uses that serve the public. Surrounding zoning includes commercial, PLI, R-2A SL and R-1A (single family on approximately 1/5 acre).
<b>Notable Features</b>	Steep slopes and dense vegetation; remains in natural state.	Carol Creek and a surrounding wetland cross the parcel from east to west. Steep slopes prevail in the southeast corner.

Characteristic	North Knoll (I-071)	Carol Creek (I-074)
		Dense vegetation and informal trails are present throughout the parcel.
<b>Water, Sewer and Onsite Improvements</b>	Nearest water and sewer lines are located along the Old Glenn Highway. Surrounding developed parcels use onsite systems.	Water and sewer lines serve the parcel and surrounding areas including Fred Meyer, the Harry J. McDonald Memorial Center and the Brandywine neighborhood.
<b>Roadways</b>	No access road or public access easements have been platted.	The driveway accessing the Harry J. McDonald Memorial Center follows a portion of the northern perimeter of the site. Knob Hill Drive ends at the north east corner of the site. The neighborhood roads associated with the Brandywine neighborhood (i.e., Beaujolais Drive and Chardonnay Circle) are adjacent to the site's southern boundary. All of these roads are classified as local streets.
<b>Trails, Parks and Recreation</b>	Proximity to Chugach State Park defines this HLB site. The 1986 Chugach State Park Trails plan indicates a proposed trail crossing the southeast corner of the property. Specifically, the "Chugiak Hillside Ski Trail" is described in the trails plan as a six-mile scenic ski trail and summer hiking trail.  The Chugach Access Plan identifies secured and unsecured access points on surrounding properties, but identifies their feasibility as problematic.	A fairly vast informal trail network is found within the parcel. The Chugach State Park access inventory identifies locations within and adjacent to this parcel to preserve as potential access points to Chugach State Park. There are no existing trail easements. The Harry J. McDonald Memorial Center and Fire Lake Elementary School are two nearby public facilities.

## Site Constraints and Opportunities

The following section presents a description and analysis of the site's environmental conditions, surrounding land uses and infrastructure. These conditions have not materially changed since the earlier planning effort. The sections below have been carried forward from the 2010 Plan. Any significant change or update in conditions, or additional information gathered, has been noted below. Only the Carol Creek parcel is being analyzed for future development, so more detail is provided about this parcel.

### Environment

#### Summary of Environmental Constraints

The area in which the parcels are located features a mix of areas with good physical capability for development, and areas with constraints that limit land use. Portions of the parcels include areas of steep slopes, wetlands and stream habitat. The most significant environmental constraints for the Carol Creek parcel are along Carol Creek, and the steep areas in the southeastern portion of the parcel. Of the 132 acres comprising the two parcels, approximately 71 acres (53 percent) are physically unsuitable for development.

This includes all of the North Knoll parcel (40 acres), all of the wetland area along Carol Creek (25 acres) and the steep slope area above Carol Creek (approximately 5.5 acres). Map 3 depicts key environmental features of the Carol Creek parcel.

## Topography

### *North Knoll Parcel*

The North Knoll parcel is steep with slopes averaging between 30 percent and 45 percent. A deep gully runs through the lower portion of the parcel with slopes that exceed those on the rest of the site. The elevation ranges from 670 feet to approximately 1,200 feet above sea level. While the North Knoll itself includes several areas with more moderate slopes, reaching these areas requires crossing through very steep areas on the site, and on lands adjoining the site to the west.

### *Carol Creek Parcel*

The topography of the Carol Creek parcel varies broadly. The majority of the parcel is between 300 and 500 feet in elevation; however, the southeast portion of the parcel climbs steeply to approximately 700 feet above sea level. Slopes vary considerably as well. The majority of the slopes on the southeast portion of the parcel are between 25 and 35 percent, and in some places approach 55 percent. The creek generally splits the parcel, with mild slopes around 10 percent grade to the northwest and steeper slopes on the southeast side of the creek.

A band of land with more moderate slopes extends north to south along the western side of the parcel; this area is considered most suitable for residential development and would require platting a new road access, either through the rest of the parcel or from the existing Brandywine Subdivision (see Map 3 illustrating the site's topography and environmental conditions).

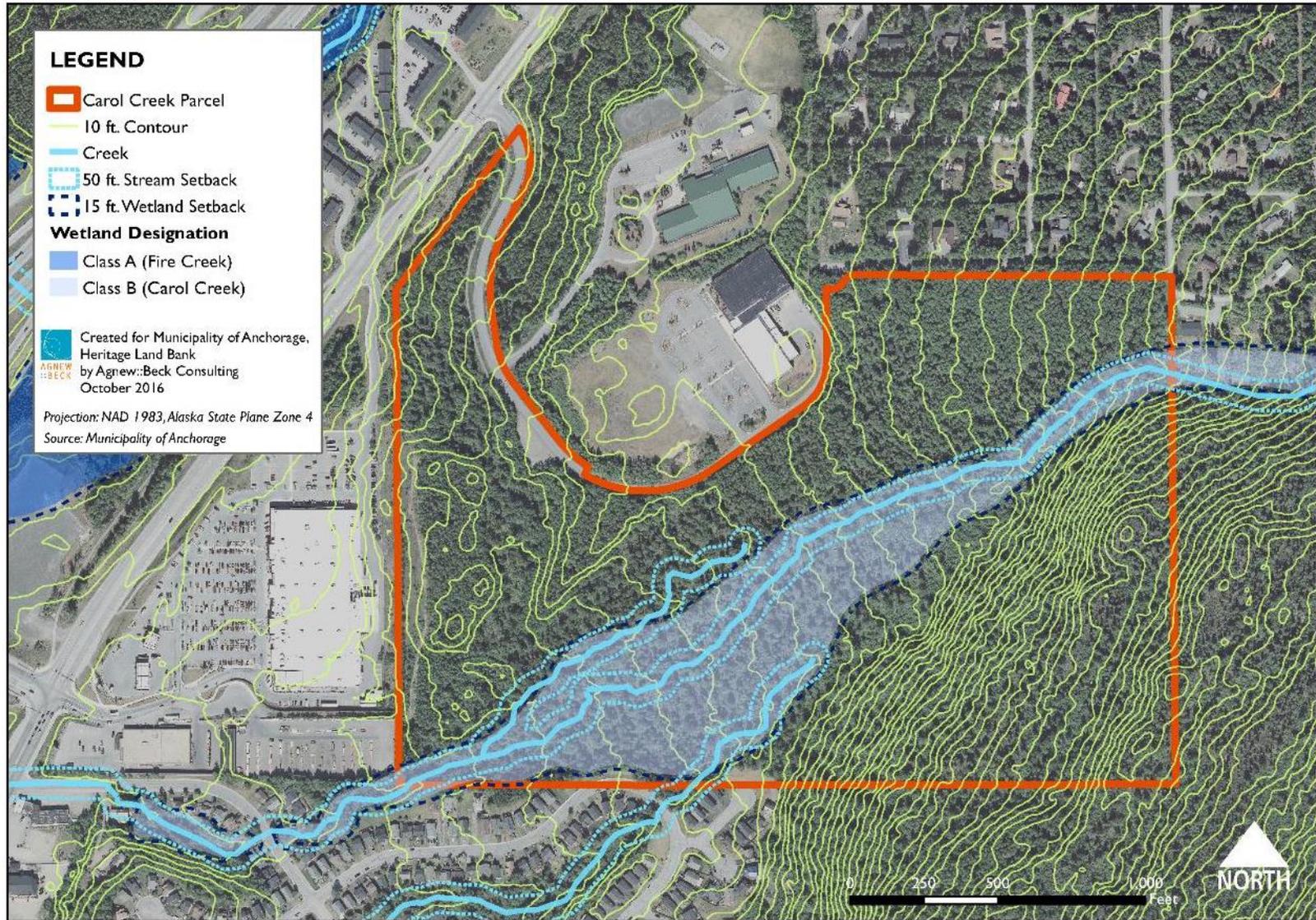
## Vegetation, Soils and Geology

The upper and western portions of the Carol Creek parcel have generally well drained soils, with vegetation typical of areas in Southcentral Alaska, including spruce and birch trees. At slightly higher elevations – east of and uphill from these project parcels – bedrock is closer to the surface and soils are less well developed.

Along portions of the Carol Creek open space corridor is a slightly different vegetation and soil pattern. These appear to be areas where subsurface groundwater flows are closer to the surface. Soil drainage is not as good as areas at slightly higher elevations, spruce and birch are less common, and vegetation includes cottonwoods, willows, alders, devils club and similar vegetation associated with less well drained portions of Anchorage.

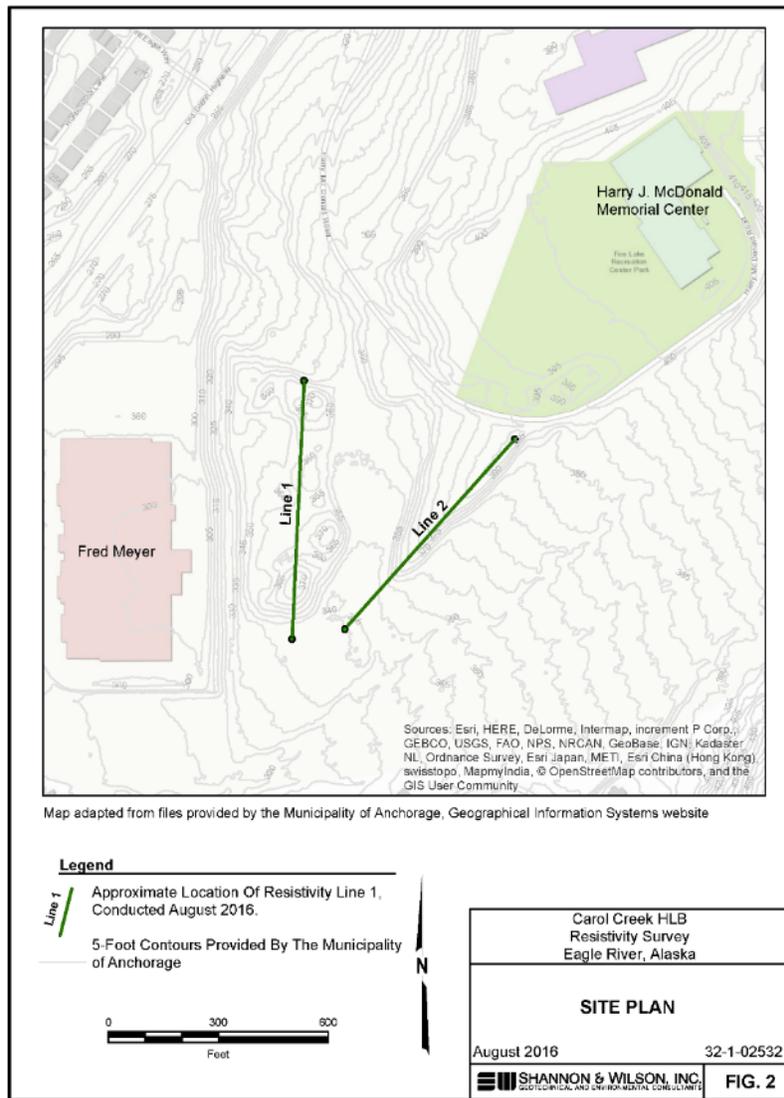
Land forms and vegetation in certain portions of the project area have been disturbed. This is most apparent immediately above the cut slope behind the Fred Meyer store which resulted in a slope easement. In this area there is evidence that soil was pushed around and piled in several berms. Original vegetation was cleared and a new thicket of alders has grown up in this area.

Map 3. Current Environmental Conditions, Carol Creek Parcel



In August 2016, HLB engaged the engineering firm Shannon & Wilson to perform a preliminary geophysical study of the soil resistivity in portions of the Carol Creek parcel, specifically areas on the western portion of the property whose shape and character suggested the presence of bedrock close to the surface, a geological feature that would significantly increase the cost of grading the site for development. The study conducted two dipole-dipole resistivity lines along two ridgelines within the site to characterize the subsurface materials (see Map 4). The study found that, “in general, both ridgelines observed relatively high resistivity values near the ground surface, likely associated with relatively dry, coarse grained soils to 5 to 15 feet below ground surface (bgs). Below this layer on each ridgeline, relatively uniform, moderately low to low resistivity readings were encountered to the bottom of our model, approximately 60 feet bgs. These readings are likely associated with fine grained soils or soils containing significant silt or clay content.” While these types of soils may present other challenges during development and to the quality of drainage at the site, the report speculated bedrock was not present in the sample taken, and likely does not occur until much lower in the subsurface, therefore not likely to pose problems for future site grading.

Map 4. Site Map of Carol Creek Resistivity Study, Lines 1 and 2



Source: Shannon & Wilson Inc., Carol Creek Resistivity Study, August 2016

### Wetlands

A 24-acre band of wetlands crosses the Carol Creek parcel generally following the creek drainage corridor. Wetlands are regulated by the U.S. Army Corps of Engineers and the Municipality and rated on a scale of Class A to D, with Class A designated wetland areas of highest value and D being lowest value. The wetlands on the Carol Creek parcel are Class B: moderate to high value. Development can occur on wetlands; however, varying levels of permitting are required based on the class of wetlands. Class A and B wetlands may only be developed with a permit from the U.S. Army Corps of Engineers. The Municipality has the authority, through the Corps, to issue General Permits. The General Permits are issued through

the Planning Department and are for projects small in nature, and pertain to eligible C and D designated wetlands only. Additionally, A and B designated wetlands have a 15-foot development setback in Title 21.

While the Municipality can support development in Class B wetlands, consistent with the Anchorage Wetlands Management Plan, HLB would rather pursue obtaining wetland mitigation credit for preserving and retaining the wetlands on this site. Specifically, the Planning Department outlines on their website that Class B wetlands “could possibly be marginally developed and/or disturbed. The intent of the B designation is to conserve and maintain a site's key functions and values primarily by limiting and minimizing fills and development to less critical zones while retaining higher value areas. Development could be permitted in the less valuable zones of a B site, provided avoidance and minimization and best management practices are applied to minimize disturbance and impacts to the higher value non-fill portions. All sites designated B in the Plan require a permit from the Corps of Engineers prior to development.”

### *Hydrology*

Carol Creek is the only significant surface water feature contained within the parcels. Upper and lower Fire Lake and Fire Creek lie between the North Knoll parcel and the Muldrow Street parcels. Carol Creek is very small, but is thought to run year round. The creek drains a small watershed extending several miles above the project area.

Throughout the 2010 planning process, community members shared stories about their experiences with groundwater issues in the Knob Hill/Fish Hatchery neighborhood. Community members describe some areas as having much success with well drilling and substantial subsurface water availability (“geyser-like”), while nearby properties were unable to find well water. Anecdotal evidence suggests well water issues are more of a concern east of Knob Hill than below this road. Additionally residents of the neighborhood who participated in the March 21, 2016 public workshop confirmed that Carol Creek provides a surface water source to some houses on Savage Drive. Great concern was expressed about the importance of protecting the creek’s water quality.

## **Land Use and Infrastructure**

### *Existing Development*

Presently the HLB parcels are vacant and largely unused, with the exception of informal trails on the Carol Creek parcel. The two parcels are located in a transitional area where denser residential and commercial development shifts to a more rural, large-lot pattern of development.

Map 5 indicates the existing land uses in the vicinity of the Carol Creek parcel, along with zoning classifications. The parcels fall within the Chugiak Community Council area, but are adjacent to both the Eagle River Valley and Eagle River Community Council areas. The Chugiak-Eagle River Comprehensive Plan Update process updated the land use designations for Eagle River. The HLB parcels are designated as Special Study areas by the Comprehensive Plan. This designation acknowledges that site-specific studies need to be conducted for the parcels. The Comprehensive Plan states that any specific study should evaluate: a) public need, b) proposed impacts to uses on adjoining properties and public infrastructure, and c) community aspirations, as well as HLB goals and objectives.

### *Transportation and Trails*

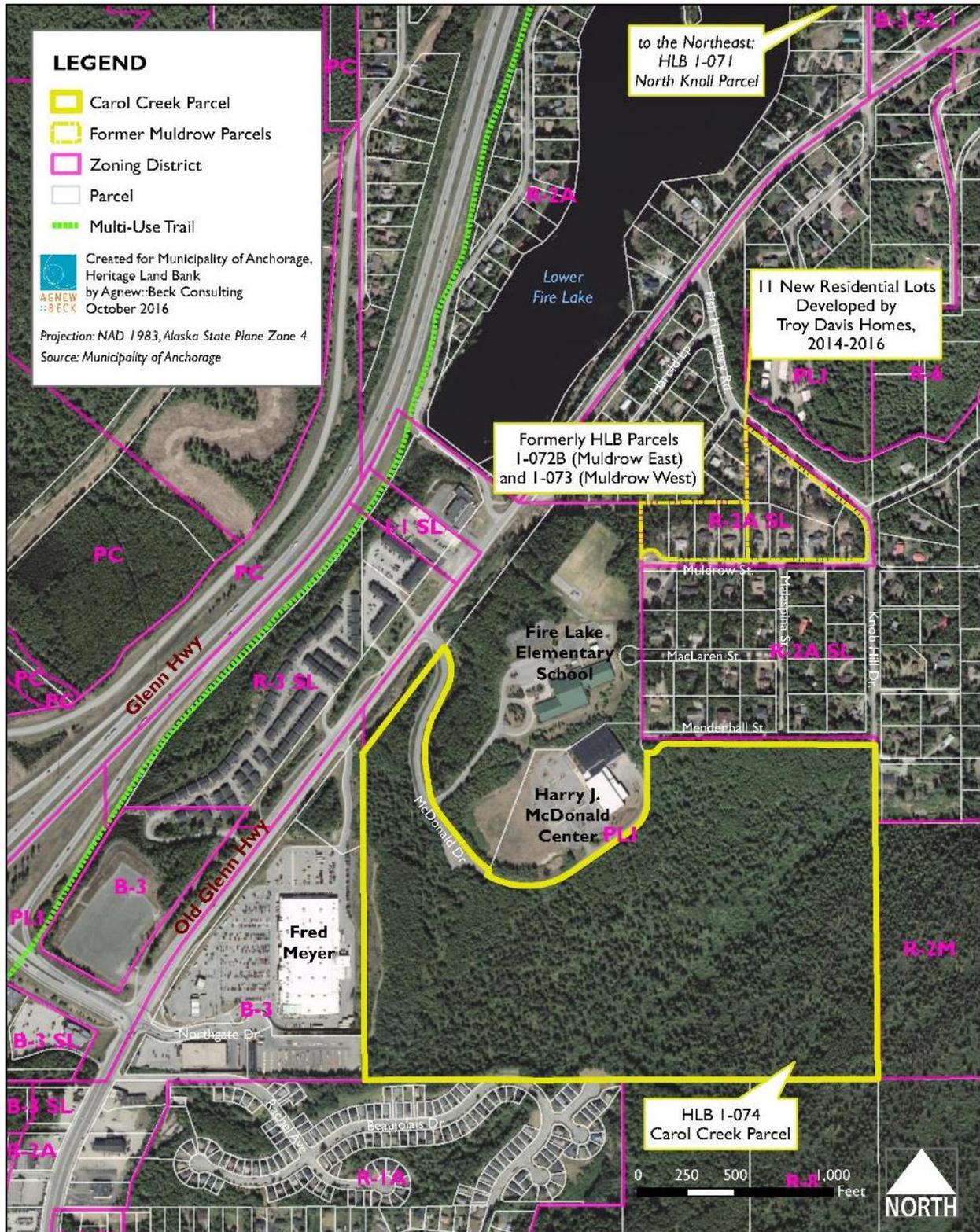
The roads surrounding the HLB parcels are classified as local streets, with the exception of the Old Glenn Highway which is an arterial. Local streets, according to the Chugiak/Eagle River Long Range Transportation Plan, “provide access to property abutting the public right-of-way. Moving traffic is a secondary function of the local street. Since land service is its primary purpose, the local street should not

carry through traffic.” Meanwhile, the primary function of arterial streets is to move large volumes of traffic over relatively long distances from one part of the city to another. If development of the HLB parcels occurs, portions of the existing street network will require upgrades to “collector” status. A collector street collects traffic from local streets and then funnels it to arterials or to local traffic generators such as shopping centers, schools, community centers, or park and recreational facilities.

Upgrades to the Old Glenn Highway from the Fire Lake area to Peters Creek were completed in 2010. Four-foot shoulders and new pavement were added, along with a paved pathway and truck climbing lane in certain areas. During the original planning process, residents of the rural residential Fish Hatchery neighborhood and officials at Fire Lake Elementary School described traffic problems at the intersections of the Old Glenn Highway with roadways in the project area, specifically Fish Hatchery Road and Harry McDonald Road. The upgrade did not include any improvements to these intersections.

Roadway maintenance in the Chugiak-Eagle River area is managed by the Chugiak/Birchwood/Eagle River Rural Road Service Area (CBERRRSA). CBERRRSA is responsible for more than 350 lane miles of roadway, including the roadways in the project area. A Service Area Board comprised of representatives from each community council in the area advises the Municipality on the level and type of road services desired by service area residents. Private contractors, which are scheduled and directed by Municipality of Anchorage personnel, provide the actual street maintenance services within the CBERRRSA.

Map 5. Current Land Use and Zoning, Carol Creek Parcel



There are informal trails and identified Chugach State Park Access points in the vicinity of and on the HLB parcels. The Chugach State Park Access Plan describes where existing access to park lands is occurring, and where additional public access may be needed in the future. Only one point of public access to the park (ER1 in the plan, at Barnes Avenue) is secured in the area surrounding the Carol Creek parcel, but there are several points nearby (ER2, ER3, ER4, ER5, all depicted on Map 6.3 in the Chugach Access Plan) identified for potential, primarily pedestrian, access for park users traveling east toward park lands. Public access points are identified from platted existing roads, existing public lands owned by HLB and the BLM, and a section line running east-west between properties.

### ***Water and Sewer***

Public water and sewer service does not extend to the North Knoll, but is available beneath the Old Glenn Highway for the Carol Creek parcel. Map 6 illustrates the extent of public water and sewer in the area. Fire Lake Elementary, the Harry J. McDonald Memorial Center, the Fred Meyer shopping center, and the Brandywine neighborhood are all served by public water and sewer. The Fish Hatchery rural residential neighborhood north of the Carol Creek parcel utilizes well and onsite wastewater systems. As previously mentioned, throughout the planning process community members have shared stories of water well issues in the Fish Hatchery neighborhood. Additionally, Carol Creek provides a surface water source to some houses on Savage Drive through a shared private system, which has led to concerns about protecting water quality.

AWWU completed upgrades to the water and sewer mains concurrently with improvements to the Old Glenn Highway. The upgrades included installation of a water line beneath a portion of Harold Loop and fire hydrants, providing the opportunity for customers with wells to now be served by public water.

### ***Civic Use and Public Facilities***

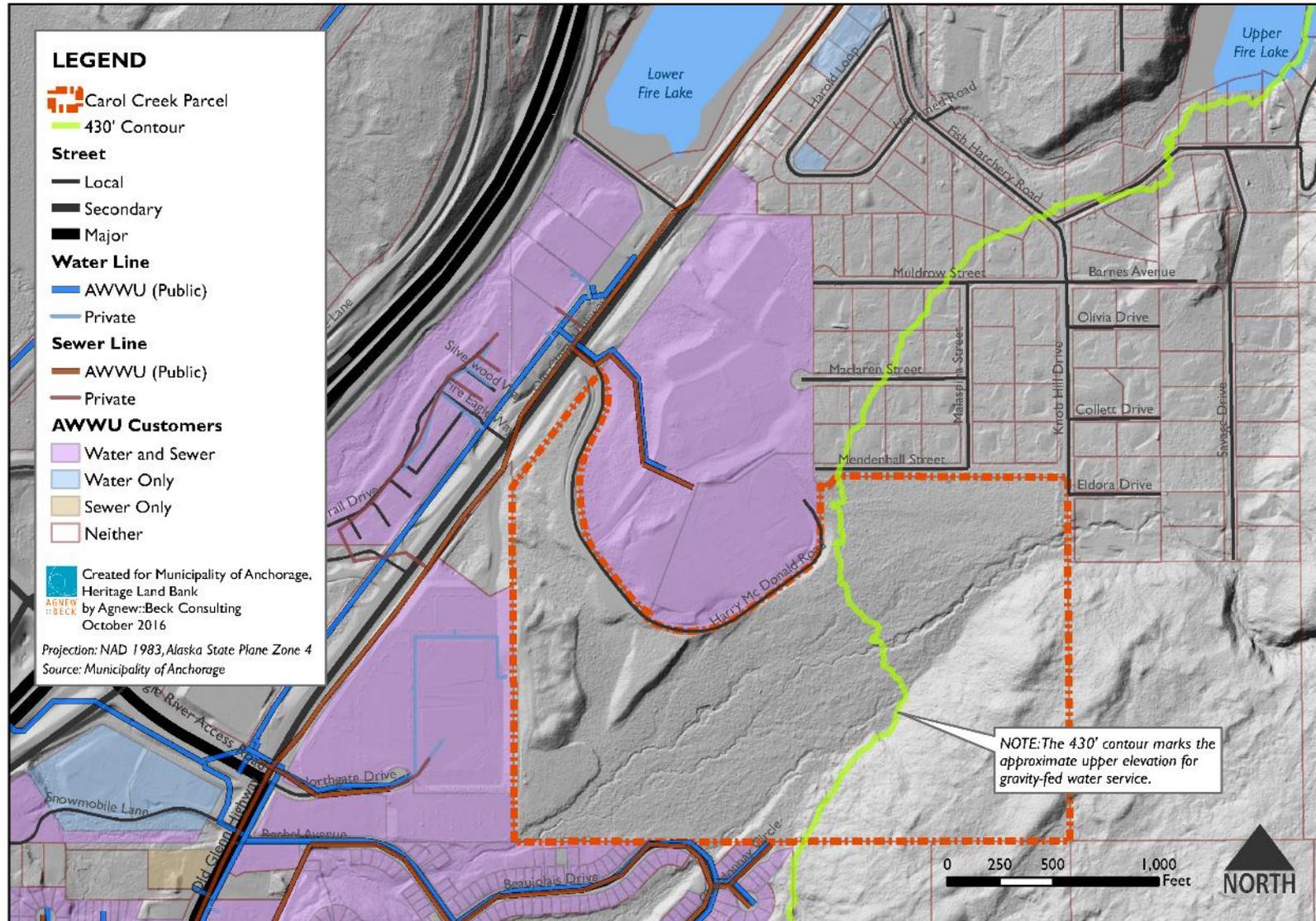
The parcels are located within the Fire Lake Elementary School, the Mirror Lake Middle School, and Chugiak High School attendance areas. None of the schools have exceeded enrollment capacity: as of October 2016, Fire Lake is at 78 percent capacity, Mirror Lake is at 67 percent capacity, and Chugiak High School is at 69 percent capacity.

The Anchorage Fire Department staffs Station 11 in downtown Eagle River. The HLB parcels are located outside of their jurisdiction and within the Chugiak Fire Service Area, which is managed by Chugiak Volunteer Fire and Rescue Company, Inc. (CVFR). The CVFR is presently responsible for the fire service area that extends from the Knik River Bridge on the Glenn Highway in the north, to the North Eagle River overpass and access road to the south, and is bordered by the Cook Inlet to the west and the Chugach State Park and Chugach Mountains to the east. The CVFR provides for a mix of suburban and rural fire protection needs within the Chugiak Fire Service Area.

### ***Parks, Recreation, and Open Space***

The HLB parcels are within the vicinity of some of Eagle River's prime park and recreational opportunities. Chugach State Park lies just to the east of the parcels; however, access, as described in the Transportation and Trails section, can be a challenge. Additionally, the Harry J. McDonald Memorial Center ("Mac Center") is located just north of the Carol Creek parcel. This recreation facility offers ice skating, an indoor turf field and track, and its grassed field provides a landing site from paragliders descending from Mt. Baldy and surrounding peaks. The Mac Center completed an expansion of its facilities between 2013 and 2015, adding 27,000 square feet to the venue, which was originally constructed in 1984. The facility also received energy efficiency upgrades to its lighting and heating systems.

Map 6. Current Infrastructure, Carol Creek Parcel



## 5. SITE SPECIFIC ANALYSIS

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Notwithstanding the improvement projects in the area described in the previous section, much of the analysis completed in the 2010 Plan remains current.

### Code Requirements

The Heritage Land Bank is required to develop a site specific land use study consistent with Anchorage Municipal Code 25.40.025 when the municipal comprehensive plan is insufficient to guide land disposals and land use decisions. This Chapter addresses the following issues required in a site-specific study:

- a) Need for community facilities such as roads, parks, trails, schools, satellite municipal offices;
- b) Historical and natural landmarks, natural hazards, environmentally sensitive lands;
- c) Public utility needs;
- d) Potential residential, commercial, industrial areas;
- e) Land use compatibility with adjacent areas; and
- f) Consistency with uses defined in the Comprehensive Plan and zoning for the area.

### Analysis

#### Overview

In general, the uses proposed under this plan will create only limited demands on public services and facilities, which can readily be accommodated by existing services. The one exception is for improvements to the access road to the Mac Center. New residential uses allowed under this Plan will trigger the need for road improvements; therefore, HLB will be dedicating rights-of-way as part of the implementation of this Plan.

#### a) Need for community facilities

##### *Roads*

The need for connectivity between neighborhoods is clearly documented by Objective G of the Transportation section of the Chugiak-Eagle River Comprehensive Plan Update, and this updated plan responds to this need as well as identifying potential solutions for any additional vehicular traffic created by new development in this area. Specifically, the plan would upgrade Harry McDonald Road from a driveway to a collector road to improve access for the Elementary School and existing Mac Center as well as provide access to the new neighborhood proposed in this Plan Update. This may also provide an opportunity to develop safety improvements for the intersection of Harry McDonald Road with the Old Glenn Highway. The plan also calls for creating a new road connection from Harry McDonald Road into the Malaspina and Knob Hill neighborhoods, to improve secondary emergency access in and out of this area. The Traffic Department and Transportation Planning Division of the Planning Department participated extensively in the planning process, reviewed plan drafts, and helped to craft the recommendations in the Plan.

##### *Parks*

The Eagle River Parks and Recreation Division was consulted through this updated site-specific planning process. The Division efficiently uses their resources to create park and recreational opportunities for all of the Chugiak-Eagle River area. With the help of the Eagle River Parks and Recreation Division a park and recreation inventory was completed for the 2010 Plan. The recommendations outlined in this Plan

Update reflect the input of the local Parks Division: the Plan should add greenbelt and trails to Eagle River's existing trail network, but no additional park land is needed at this time. The Carol Creek greenbelt will complement recreational opportunities available at the nearby Harry J. McDonald Memorial Center and support an integrated trail network in Eagle River.

### ***Schools and Satellite Municipal Offices***

The Anchorage School District was consulted through this process and determined that they do not have a need for the land to expand Fire Lake Elementary School. Any expansion of Fire Lake Elementary could take place within the boundaries of their existing campus.

Regarding satellite municipal offices, the Municipality has already developed a one-stop municipal service center and library located in downtown Eagle River as part of the Eagle River Town Center development. The HLB parcels analyzed in this study are not needed for municipal offices.

### **b) Historical and natural landmarks, natural hazards, environmentally sensitive lands**

Both the North Knoll and Carol Creek parcels have environmentally sensitive lands and natural hazards. These include stream corridors and riparian habitat, wetlands, and steep terrain. The site has no formally recognized historical and natural landmarks. Carol Creek and its associated wetlands are a valuable community resource, offering a range of hydrological, wildlife habitat, recreational values, and ecological functions. These environmentally sensitive areas would be protected even as other portions of the site are developed.

### **c) Public utility needs**

A range of public utilities run along the Old Glenn Highway corridor, with spur lines for power and communications extending into the neighborhoods to the east of the roadway where the parcels are located. Many residential neighborhoods in the area are rural in character, and rely on onsite water and wastewater systems. The parcels are not currently serviced by water and sewer, but services are available adjacent to the Carol Creek parcel. AWWU was consulted throughout the planning process and provided information on water and sewer utility needs in the area.

Since adoption of the 2010 Plan, AWWU has undertaken an extensive study of their water system in the Chugiak-Eagle River area, and future infrastructure improvements that are necessary to support the existing community and projected growth. Specifically, the patchwork of existing lines AWWU has acquired over time need to be connected into a single grid. The deficit of water storage in the area will need to be addressed with additional reservoir sites in order to meet peak demand for sufficient water pressure and flow in the event of multiple major fires. Additional reservoirs are needed for emergency water storage if there is a significant disruption to the system from Eklutna Lake.

AWWU has identified the northeastern portion of the Carol Creek parcel as a suitable location for a gravity-fed water reservoir, consisting of up to two tanks each with 3 million gallon capacity each, situated at the 520' elevation contour. This reservoir would serve customers below this elevation line and improve the storage and response capacity of the Eagle River system. The site proposed is 3.5 acres, inclusive of one tank and sufficient additional land to add a second tank if long-term demand increases further. As proposed, this reservoir would not directly serve the existing neighborhood; water service would require a booster station to provide sufficient water pressure at the same or higher elevations. AWWU wishes to acquire the site at this early stage of their planning process, prior to engaging in the site planning and design work necessary to seek funding for completing construction.

Development on the western portion of the Carol Creek parcel will require public water and sewer to be extended to support increased density development. This infrastructure would be installed at the cost of the developer. The water infrastructure needed at the time of construction of the proposed reservoir could trigger a public - private partnership opportunity to share development costs associated with extending water along the site described in Chapter 9: Implementation.

#### **d) Potential residential, commercial, and industrial areas**

Primarily residential use is proposed as a future option for the Carol Creek parcel. Residential use is supported for several reasons:

- The Municipality of Anchorage Housing Demand Study (2012) documented a serious shortage of available land to meet future housing needs in the Municipality as a whole, noting that Eagle River has a relatively larger share of available land that could contribute to meeting these needs. Designating the future use of this parcel for housing will make more land available for housing, and in a particularly suitable location for its proximity to a school, as well as commercial, transportation and recreation amenities.
- As Eagle River grows, the availability of land for residential use adjacent to the existing Town Center, the central area of Eagle River designated as the area appropriate for higher-density housing and more intensive commercial uses, is limited. By developing this area, which is not adjacent to the Town Center but is next to an existing node of commercial and civic uses, HLB could serve an important community need identified by several goals in the Chugiak-Eagle River Comprehensive Plan, focusing new residential neighborhood development in an area with convenient access to employment, commercial centers, and major transportation corridors.
- By selling property, HLB obtains income that can be used for other public purposes (e.g., acquisition of lands for parks, trails or public facilities). Selling land for private development and ownership will expand the community tax base.
- The Chugiak-Eagle River Comprehensive Plan also identifies the need for well designed, attractive quality housing. Careful crafting of the requirements and design guidelines for this parcel could lay groundwork for creation of a model subdivision for future Eagle River developments

#### **e) Land use compatibility with adjacent areas**

The proposed land uses have been carefully chosen and sited to minimize impacts to adjacent areas and blend well with existing uses. The residential uses directly adjacent to the existing rural residential neighborhoods are proposed to match the 1 acre/dwelling unit of the neighborhood. The more intense use of medium density residential has been proposed near an existing commercial area and is buffered from the existing rural residential areas by a proposed 26-acre open space, greenbelt. The North Knoll parcel has been proposed to be added to the adjacent Chugach State Park as part of a future land trade with the State of Alaska, should this opportunity arise - and is addressed in the 2017 – 2021 HLB Five-Year Management Plan.

#### **f) Consistency with uses defined in the Comprehensive Plan and Zoning for the area**

The conclusions presented in the draft plan are consistent with the Chugiak-Eagle River Comprehensive Plan Update and zoning for the area. This Plan Update was prepared because the Comprehensive Plan does not give specific guidance regarding the future use of these HLB lands. The recommendations of this Site Specific Land Use Plan Update reflect careful consideration of, and consistency with, other goals, objectives, and policies for the Chugiak-Eagle River area.

## 6. HOUSING MARKET RESEARCH

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In addition to studying the physical development capacity of the site, the team conducted preliminary market research for the Eagle River area to better understand the current mix of housing in the neighborhoods adjacent to the site, what housing types the site would support, and what housing types would be most desirable at the time the parcel may be developed.

### **Anchorage Housing Demand Market Analysis**

A 2012 study of housing supply and demand in the Municipality of Anchorage found that there is a lack of land needed to meet housing demand for the next twenty years, and that in particular, demand for housing types other than large-lot single family homes will not be met in the Anchorage Bowl with the current regulatory barriers that inhibit developing this type of housing. The study projects an unmet need of approximately 8,900 housing units of all types that would not be built under current conditions. The study projected approximately 0.9 percent annual population growth, an assumption only slightly adjusted downward to 0.8 percent average growth in the Anchorage 2040 Land Use Plan.<sup>1</sup> The Anchorage 2040 Land Use Plan also projects somewhat higher growth in the Chugiak-Eagle River area, comprising 15 percent of the overall population by 2040. While this growth may slow in the short term due to uncertainty in the state's economy, past economic cycles suggest that Anchorage will continue to be the population and economic center of the state, and attract new residents seeking quality housing and employment. Furthermore, the accompanying slowing of new residential construction and the already-tight housing market will likely continue a trend of a housing shortage in the foreseeable future.

The 2012 housing study does find sufficient capacity to meet housing demand in Eagle River based on its population and current housing. However, this capacity includes areas of Eagle River not currently suitable for an urban level of development—built to a sufficient density that requires service by offsite infrastructure—nor does it meet enough of the excess housing demand demonstrated within the Anchorage Bowl.

The study also speaks to projected demand for different types of housing, from large-lot single family homes to attached and multi-family housing, and finds that demand for more compact housing types associated with urban development will likely exceed current and planned future supply. The study finds that “the demand for attached and compact housing types will increase over time [. . .]. An aging population, decreases in housing affordability, and changes in lifestyle will drive this shift in housing preference toward attached housing, particularly in the Anchorage Bowl.” In contrast, the housing type with the most available suitable land in both Anchorage and Eagle River is large-lot single family homes, but projected demand for this type in both areas is significantly lower than capacity. There are concurrent policy discussions addressing the other findings in the report regarding the financial feasibility of incentivizing more diverse housing development. Overall, the Municipality, under the administration of Mayor Ethan Berkowitz, has made supporting new housing development a priority, including opportunities for more compact, quality workforce housing in areas of the city that can support this level of urban development.

### **Housing Market Performance**

Home prices have grown steadily across the Municipality in recent years, with the median home price rising from \$320,737 in 2011 to \$365,728 in 2015, a 14 percent increase. Multiple Listing Service (MLS) data for 2015, provided by RealS8 Services, indicate that the market performance of Eagle River homes and condominiums

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<sup>1</sup> At the time of writing, the Anchorage 2040 Land Use Plan has been published as a Public Hearing Draft dated September 16, 2016.

is close to the citywide average; Chugiak has a smaller market and typically lower home values, but more variability from year to year depending on individual sales. Table 5 summarizes average home and condominium value in each community for 2015:

*Table 5. Residential Sales in Eagle River, Chugiak and Anchorage, 2015*

<b>Market Indicators (2015)</b>	<b>Eagle River</b>	<b>Chugiak</b>	<b>All Anchorage<sup>2</sup></b>
<b>Residential Home</b>			
New Listings	714	163	4,012
Sold Listings	538	109	2,994
Avg. Sale Price	\$371,904	\$347,136	\$365,728
Avg. Days on Market	45	52	45
<b>Condominium</b>			
New Listings	107	7	1,563
Sold Listings	83	14	1,116
Avg. Sale Price	\$229,395	\$250,607	\$212,388
Avg. Days on Market	71	177	58

*Source: Alaska MLS, provided by Reals8 Services*

## Adjacent Neighborhoods

Surrounding neighborhoods contain a mix of housing types and styles, from attached condominiums to large-lot rural residential homes. The Fish Hatchery Road area has a mix of older and newer homes, most of which have private onsite water and septic systems, other neighborhoods are served by public water and sewer. The Fire Creek Trail neighborhood is a site condominium development served internally by private roads.

Table 6 provides a summary of recent property sales in the area by neighborhood, as well as characteristics of typical properties in each. These comparisons illustrate the current residential character of the area. However, the age and character of the homes and condominiums in the adjacent neighborhoods do not necessarily provide a direct comparison for new for-sale residential units similar to the types described in this Plan Update, except those most recently constructed along Muldrow Street, following the disposal of the two HLB parcels, as examples of low-density residential development with onsite water and sewer systems. The Housing Types section in this chapter provides visual examples of the various housing types that could be considered for future development.

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<sup>2</sup> Citywide average of Anchorage Bowl, Eagle River, Chugiak, Girdwood, and Indian/Turnagain Arm.

Table 6. Characteristics of Homes Recently Sold in Surrounding Neighborhoods

	Brandywine Neighborhood	Juanita Loop Neighborhood	Fish Hatchery Road Neighborhood	Fire Creek Trail Condominiums
<b>Avg. Year Built</b>	1991	1994	1995	2004
<b>Avg. Lot Size</b>	3,920 sf	0.32 ac	0.99 ac	N/A
<b>Avg. Home Size</b>	1,640 sf	1,838 sf	2,303 sf	1,470 sf
<b>Avg. List Price</b>	\$269,348	\$293,531	\$367,785	\$204,489
<b>Avg. Sale Price</b>	\$263,095	\$306,968	\$418,515	\$198,734

Source: Alaska MLS, Zillow.com

## Consultation with Local Housing Developers

At the recommendation of the Municipality’s Private Development Division, the team conducted informal interviews with Anchorage developers: Andre Spinelli of Spinell Homes, Connie Yoshimura of Dwell Realty, and Seth Anderson of Arete.<sup>3</sup> Each interviewee was shown a map of the Carol Creek site and the development plan outlined in the 2010 Plan, which provided the basis for the 2018 Plan Update.

Overall, interviewees acknowledged similar opportunities and challenges on the site, including its proximity to other destinations (Fred Meyer, the Mac Center, and Fire Lake Elementary) and the attractiveness of the site due to its location and elevation, allowing for potentially spectacular views. Talking through a conceptual version of development on the site, each also identified the need for aesthetic considerations such as landscaping and setbacks to ensure that the new development fits into the existing site.

The interviewees differed slightly on their characterizations of the Eagle River market and potential demand for housing types that are not currently common in Anchorage, such as single family homes with accessory dwelling units (ADUs), cottage-style homes, or mid- to high-range multi-family rentals. Based on current demand and performance of recent developments, the Eagle River market desires a single family home with a garage, even on small lots; one person commented that Eagle River appears to be sufficiently built out with three-bedroom town homes with garages and larger (over \$500,000) single family homes. In contrast, there are relatively few smaller housing types, such as the new Coronado Park development which features two- and three-bedroom rentals. Fee simple lots are most desirable, as the owner has control over the land underlying the house, and does not have to pay homeowner association fees and contribute to common reserve funds. Additionally, including a mix of housing sizes, types and prices are important to maintain the long-term desirability of the site.

A typical resident was described as a working-age individual with a family, including individuals or families connected with the military who desire to live close to work. For people seeking a more affordable house and do not mind commuting into Anchorage, Eagle River competes with the Matanuska-Susitna Borough (Mat-Su) in terms of housing choice and price, a trend that will likely continue as the Mat-Su further develops in areas such as Knik-Fairview. However, based on larger demographic trends and anticipating an aging population who may seek to downsize, another developer saw potential for the site as a non-traditional development that may be attractive to individuals on either end of the career spectrum: a young professional not wanting a large property to care for, or a retired couple or individual with grown children who wishes to downsize. ADUs may

<sup>3</sup> The team also contacted, but was not able to interview, Cody Hultquist of Hultquist Homes and Bob Petersen of the Petersen Group, and Weidener Development.

also address increasing demand for homes that respond to the needs of multi-generational families, such as an elderly parent living with their child caregiver.

Finally, the developers identified specific financial challenges that could inhibit development of the site, specifically the cost of the infrastructure required in order to build the site to urban standards. Private development of a subdivision typically triggers significant onsite and offsite infrastructure costs, from upgraded roads to installing water and sewer lines to serve the new subdivision. The magnitude of these costs often outweigh the potential return from taking on this new development and projects do not always move forward if the costs are too great. Similarly, requiring developers to construct roads, including interior roads to the subdivision, to public standard is costly and has a variety of additional requirements that may preclude the feasibility of the site. Road layout can also reduce the economic potential of the site: as the percentage of surface roads increases on the site, the ratio of sellable land decreases. All the interviewees were interested in the possibilities of coordinating installation of this infrastructure and alternatives to bearing the full cost, as this would greatly enhance the value of the site for development.

## **Housing Types**

The 2018 Plan Update provides guidance on the character and amount of development, including residential density ranges for each portion of the Carol Creek; however, the individual design and style of the development would be determined by the entity who builds out the site. A variety of housing types and styles would be allowable under the current policy guidelines, and have been successfully developed either in Anchorage or in comparable communities.

Table 7 provides visual examples of various housing types, categorized by density range, both in Anchorage and in other cities.

Table 7. Examples of Residential Development in Specified Density Ranges

<p><b>Single Family Homes (Low Density)</b></p> <p>1 to 2 Dwelling Units per Acre (DUA)</p>	 <p><i>Rural Residential, Anchorage</i></p>	 <p><i>Rural Residential, Eagle River</i></p>
<p><b>Single Family, Duplex (Low Density)</b></p> <p>2 to 4 DUA</p>	 <p><i>Duplex, Eagle River</i></p>	 <p><i>Single Family Home, Eagle River</i></p>
<p><b>Duplex, Townhouse (Low to Medium Density)</b></p> <p>7 to 15 DUA</p>	 <p><i>Modern Townhouses, Longmont, CO</i></p>	 <p><i>Attached Townhouses, MOA files</i></p>
<p><b>Townhouse, Multi-Family (Medium Density)</b></p> <p>15 to 30 DUA</p>	 <p><i>Bungalows, Kirkland WA</i></p>	 <p><i>Spruce View Apartments, Anchorage</i></p>

## 7. LAND USE PLAN FOR CAROL CREEK PARCEL

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The analysis of the site presented in the previous chapters and the 2010 Plan guides the proposed site plan for the Carol Creek parcel. The 2018 Update for this Site-Specific Land Use Plan sets out to update the land use and infrastructure policy for HLB Parcel 1-074, the Carol Creek parcel, and refines the direction of the 2010 Plan for the North Knoll (HLB 1-071). The site plan is presented in this chapter and development guidelines for each section of the parcel are summarized in Table 8.

### Plan Objectives

The objectives below build from and match the general focus of the 2010 Plan, but are amended to reflect current administration priorities, recent and anticipated market trends, and better understanding of site characteristics and infrastructure issues and options.

- Develop in accordance with the Chugiak-Eagle River Comprehensive Plan and the Eagle River zoning ordinance (Title 21, Chapter 10).
- Protect and work within the constraints and opportunities of the natural setting of the area. In particular, protect Carol Creek and associated wetlands and groundwater resources.
- Retain and improve opportunities for access to open space, trails and other outdoor and indoor recreation amenities, for local residents and for visitors from outside the immediate neighborhood.
- Respect and protect the quality and character of the existing low density residential neighborhood to the north of the HLB holdings.
- Provide land for the planned AWWU storage reservoir(s) at the northeast corner of the property.
- Provide for development of new, good quality, moderately priced housing. Support the Administration’s goal of increasing the supply of housing in the Municipality.
- Take advantage of proximity to the uses adjoining the HLB parcel and respond to market trends, by providing a mixed use neighborhood, where it is easy, safe and inviting to walk to food and shopping, elementary school, sports complex, adjoining and nearby neighborhoods, and open space and trails.
- Keep down per-unit costs for new housing, through four main strategies:
  - Focus on moderate density housing, including duplexes, triplexes, townhouse and apartments, and single family homes with accessory dwelling units.
  - Reduce the cost to provide “backbone infrastructure,” including water, sewer and road improvements, by being strategic about infrastructure timing and cost sharing.
  - Where practical, use privately constructed/privately maintained roads and infrastructure, which is less costly to install than comparable facilities constructed by the Municipality to public standards.
- Allow for flexibility in the specific layout and numbers of future residential developments to take advantage of the skills and experience of individual developers, and respond to evolving market opportunities. At the same time, establish and require compliance with a set of residential development standards to ensure these are high quality developments and good neighbors to existing residential areas, and that these residential developments take advantage of proximity to adjoining commercial and civic uses, the area’s views, open spaces and other natural amenities.

## Overview of the Land Use Plan

The site plan map on the following page (Map 7) illustrates the updated land use plan for the Carol Creek HLB parcel. The intent of the land use plan map is to provide a preliminary, conceptual land use plan, showing a reasonable, but not final layout of development areas, roads, trails, and open space. A more specific plan would come through the development process that shows a more specific layout of the roads, parcels, and infrastructure.

The overall pattern of land uses are generally very similar to the land use pattern of the 2010 Plan. Like the 2010 Plan this update does the following:

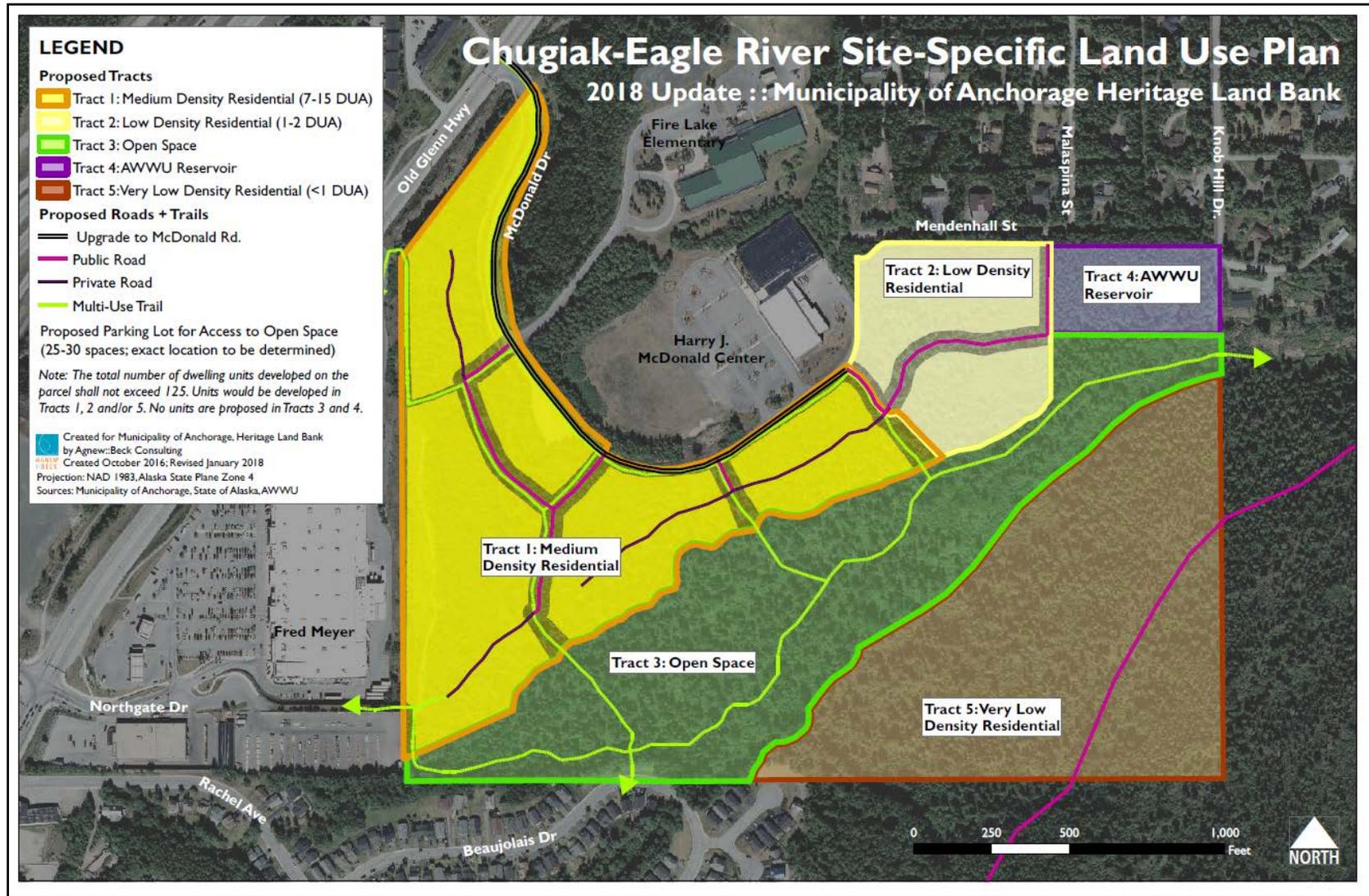
- Focus residential development on the northern and western side of the parcel.
- Retain a large corridor of public open space along Carol Creek.
- Allow for new single and multi-family housing nearby the surrounding shopping, school, recreation, and roadway in the western portion of the project area, and rural style, larger lot neighborhood in the north eastern section, to better match the character of the adjoining, existing neighborhood.
- Reserve a route for a road connection between the existing neighborhood to the north, and the access road coming into the Harry J. McDonald Memorial Center off the Old Glenn Highway.
- Provide for a system of trails and open space connections between the future residential development and the Carol Creek corridor. Over 25 percent of the parcel is retained as a natural green belt to support an existing trail network and the Carol Creek.
- Recommends development of a parking area on the parcel to serve users of local trails.
- Require adherence to standards that guide the character of future development. Examples of such standards include providing a mix of housing types, styles, and densities; reducing the amount of impermeable surfaces and retain natural drainage contours to the greatest extent possible; orienting homes to maximize views; creating foot/bike connections to trails, open space corridors, and surrounding commercial and civic uses.

As in the 2010 Plan, the overall effect of the Plan Update objectives and the proposed development combined with existing uses creates a walkable and multi-use district. This includes newly designated open space and new residential uses, plus the existing school, recreation facilities, and commercial uses. While occurring at a much smaller scale than downtown Eagle River, this mix of uses can offer similar advantages, including proximity of housing to jobs, recreation, shopping and transit; convenience for residents; and reduced reliance on the automobile.

While the overall pattern and location of land uses follow closely to the 2010 Plan, this Plan Update does include several noteworthy additions:

- A 3.5-acre parcel is reserved for future use by AWWU as a water reservoir site. This reservoir would serve the overall Eagle River community.
- This Plan Update includes a more detailed approach for providing needed infrastructure, with the goal of delivering water, sewer and other public services as cost-effectively as possible.

Map 7. Site Specific Land Use Plan for Carol Creek Parcel



## Land Use Recommendations

The Carol Creek parcel is a large site that can accommodate a variety of land uses. The key feature that define the site is Carol Creek and associated wetlands, which provide an important drainage function and natural resource corridor. The parcel naturally divides into distinct areas based on site topography and the presence of the wetlands. The site plan, Map 7, outlines the geography of these sections and Table 8 below summarizes the recommendations.

Table 8. Summary of Recommended Land Uses for Carol Creek Parcel

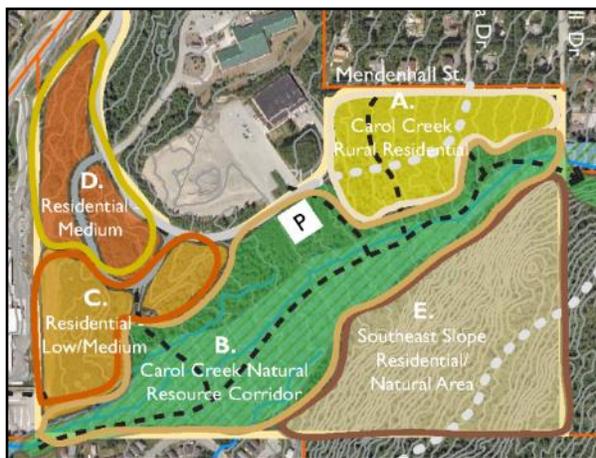
Area	Land Use Classification	Land Use Classification Description
<b>Tract 1</b>	Residential, Medium Density (7 to 15 DUA)	<p>Provides for a range of single- and multi-family housing in neighborhoods and offers a diversity of housing choices. Recommended residential uses include townhouses and multi-family, including row or cottage homes.</p> <p>The intended overall density range is between 7 and 15 dwelling units per gross acre. The physical form, appearance and street orientation of multi-family/attached housing development should be designed to be compatible with nearby lower density housing. Building scale, single-family character and landscaped setbacks of new development, as well as low traffic volumes on local streets, can contribute to neighborhood character and support compatibility with surrounding areas.</p> <p>No more than 115 dwelling units shall be developed on this tract.</p>
<b>Tract 2</b>	Residential, Low Density (1-2 DUA)  <i>Note: density above 2 DUA requires connection to the public water system</i>	<p>Provides for neighborhoods with a semi-rural atmosphere consisting generally of single-family homes on half acre or larger sized lots. Allows the option for accessory dwelling units.</p> <p>Building scale and landscaped setbacks of new development, as well as low traffic volumes on local streets, contribute to a low intensity living environment. Development to match the density and character of the adjacent neighborhood.</p> <p>No more than 7 dwelling units shall be developed on this tract.</p>
<b>Tract 3</b>	Park and Natural Resources	<p>Retain a substantial open space corridor along Carol Creek, including the creek itself and adjoining wetlands and forested areas. Provide for active and passive recreation, conservation of natural areas, and trail corridors connecting neighborhoods.</p> <p>Manage this corridor to be substantially undisturbed, to protect water quality, to ensure the integrity of the wetlands, to provide non-motorized trails, and to maintain an open space buffer between the residential neighborhoods on either side of this green space.</p>
<b>Tract 4</b>	PLI	<p>Sell this parcel to AWaterWU for the purpose of reservoir(s) construction, at fair market value, to help supply the overall water needs of Eagle River. Purchase agreement to outline the framework for a memorandum of understanding about shared infrastructure costs.</p>

Area	Land Use Classification	Land Use Classification Description
Tract 5	Very Low Density Residential or Park and Natural Resource	<p>Provides for large-lot, single-family residences in a rural environment, much of which is served by onsite wells and septic systems.</p> <p>The predominant land use consists of detached houses on lots one acre or larger in size. The intended overall density for new development is less than one housing unit per gross acre. This type of development results from a combination of preferred lifestyles, a lack of public infrastructure, remoteness and environmental constraints.</p> <p>No more than 3 dwelling units shall be developed on this tract. If this tract remains undeveloped open space, the 3 units should be allocated instead to Tract 1.</p> <p>See above for Park and Natural Resource description.</p>

### Housing Development

This Plan Update proposes to maintain the maximum number of housing units allowed in the 2010 Plan. The proposed land uses recommended on Map 7 and summarized in Table 8 may be developed within the proposed density ranges for Tracts 1, 2 and 5, but the total number of dwelling units shall not exceed 125 for the entire parcel. See comparison of the 2010 to 2018 site plans below.

2010 Plan



2018 Update



Table 9 presents a range of housing units for each Tract and Section of the Plan Update based on the proposed land use classifications and associated densities. This Plan seeks to allow flexibility to respond to the market, infrastructure costs, and site characteristics; HLB recognizes that setting a site-wide threshold of housing units for an individual Tract or Section may be necessary, similar to the strategy in the 2010 Plan.

Table 9. Estimated Residential Units Proposed for Carol Creek Parcel (Revised based on Planning & Zoning Commission December 2017 Public Hearing)

2016 Plan Tract + Section	2010 Plan Section	Gross Area (acres)	Developable Area (approx. ~70%; acres)	2016 UPDATE PROPOSED Density	REVISED Density based on Dec. PZC Discussion	REVISED Housing Units based on Dec. PZC Discussion	2010 Adopted Plan - Housing Units
<b>Tract 1 (Medium Density Residential)</b>	<b>C + D</b>	<b>27.61</b>	<b>15.946</b>	<b>7-30 DUA</b>	<b>7-15 DUA</b>	<b>115</b>	<b>110</b>
<i>Approximate Access and Utility Allocation</i>	<i>Density ranged from 3-6 DUA to 7-10 DUA</i>	2.6	N/A				
Tract 1 Previously Referred to as Section 1.1*		4.44	3.11	15-30 DUA			
Tract 1 Previously Referred to as Section 1.2*		8.54	5.98	15-30 DUA			
Tract 1 Previously Referred to as Section 1.3*		1.97	1.38	7-15 DUA			
Tract 1 Previously Referred to as Section 1.4*		4.64	3.25	7-15 DUA			
Tract 1 Previously Referred to as Section 1.5*		3.19	2.23	7-10 DUA			
<b>Tract 2 (Low Density Residential)</b>	<b>A</b>	<b>8.37</b>	<b>4.89</b>	<b>1-2 DUA</b>	<b>1-2 DUA</b>	<b>7</b>	<b>10</b>
Tract 2 Previously Referred to as Section 2.1*	<i>Density 1-2 DUA</i>	4.2	2.94	1-2 DUA			
Tract 2 Previously Referred to as Section 2.2*		2.78	1.95	1-2 DUA			
Tract 3 (Open Space)	<b>E</b>	25.48	N/A		-		
Tract 4 (AWWU Reservoir)	<b>A</b>	3.5	N/A		-		
Tract 5 (Rural Residential)	<b>B</b>	26.12	N/A	<b>&lt;1 DUA</b>	<b>&lt;1 DUA</b>	<b>3</b>	<b>5</b>
<b>TOTAL</b>		<b>92 acres</b>	<b>76 acres</b>			<b>125</b>	<b>125</b>

\*See Appendix E for Site-Specific Land Use Map as presented to the Planning & Zoning Commission December 2017 Public Hearing that defines the boundaries of the Tract Sections.

## Roads and Other Infrastructure

Roads, water and sewer, and other infrastructure improvements are required to service the new residential development. To be successful, development of this site will require thoughtful coordination of the road improvements and water service delivery with the development of AWWU's reservoir site, as well as coordination with other municipal entities such as the Private Development Division, the Anchorage School District and the Parks and Recreation Department. Map 8 identifies specific public infrastructure improvements that the site will need for development. Detailed recommendations follow.

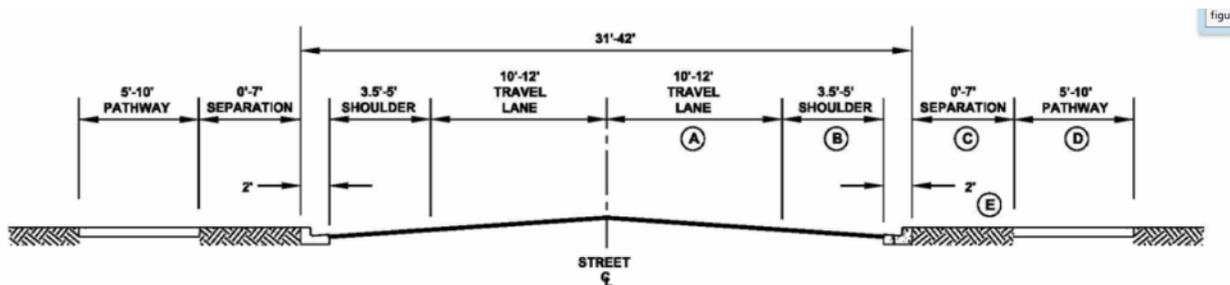
### Access and Transportation

The Development Objective related to access and transportation outlined in the 2010 Plan continues to hold true for this 2018 Plan Update. That objective is to provide access to new areas of development, connectivity to and between existing neighborhoods, and to plan new roadway and pedestrian circulation in a manner that reduces traffic speeds, maximizes safety, creates attractive streets that maintain rural character, minimizes environmental impacts, and encourages use of alternatives to the automobile - walking, biking, and transit.

### Roads

The road access status of the area remains the same as in the 2010 Plan and is described as follows. There are two points of road access into the project area: the Fish Hatchery Road and the Harry McDonald Road. Fish Hatchery Road on the north provides the only access to a system of smaller residential streets, serving approximately 80 homes (this includes the addition of the Troy Davis homes built on the former HLB Muldrow Street parcels). Harry McDonald Road provides access to the Mac Center and the Fire Lake Elementary School. This "road" is not built to normal municipal public road standards. Since the passage of the 2010 Plan, the new Official Streets and Highways Plan (OSHP) has classified Harry McDonald Road as a collector.

#### Typical Design for Collector Road



#### NOTES:

- (A) 12-FOOT TRAVEL LANES SHALL BE USED ONLY ON INDUSTRIAL/COMMERCIAL COLLECTORS OR RESIDENTIAL/NEIGHBORHOOD COLLECTORS WITH HIGH TRUCK TRAFFIC.
- (B) A 7-FOOT SHOULDER WILL ONLY BE ALLOWED WHERE THERE IS ON-STREET PARKING. ON-STREET PARKING MAY ONLY BE PROVIDED ON ONE SIDE OF A NEIGHBORHOOD OR RESIDENTIAL COLLECTOR ROADWAY. PARKING WILL BE ALLOWED ON ONE OR BOTH SIDES OF AN INDUSTRIAL/COMMERCIAL COLLECTOR.
- (C) THE DESIRABLE SEPARATION FOR PEDESTRIAN FACILITIES ALONG ALL COLLECTORS IS 7 FEET. IN SOME CASES THE PEDESTRIAN FACILITIES MAY BE ATTACHED TO THE BACK OF CURB PROVIDING THERE IS A 5-FOOT SHOULDER. THE MINIMUM MAINTAINABLE WIDTH FOR A VEGETATED BUFFER IS 3 FEET.
- (D) PEDESTRIAN FACILITIES MUST BE PROVIDED ON BOTH SIDES OF A COLLECTOR ROAD. THE MINIMUM WIDTH OF A SIDEWALK IS 5 FEET. MULTI-USE PATHWAYS MAY VARY IN WIDTH BETWEEN 8 TO 10 FEET.
- (E) CURB AND GUTTER MUST BE TYPE 1 (REF. DCM SECTION 1.9F DESIGN COMPONENTS).

Source: Municipality of Anchorage Project Management and Engineering Design Criteria Manual (2007)

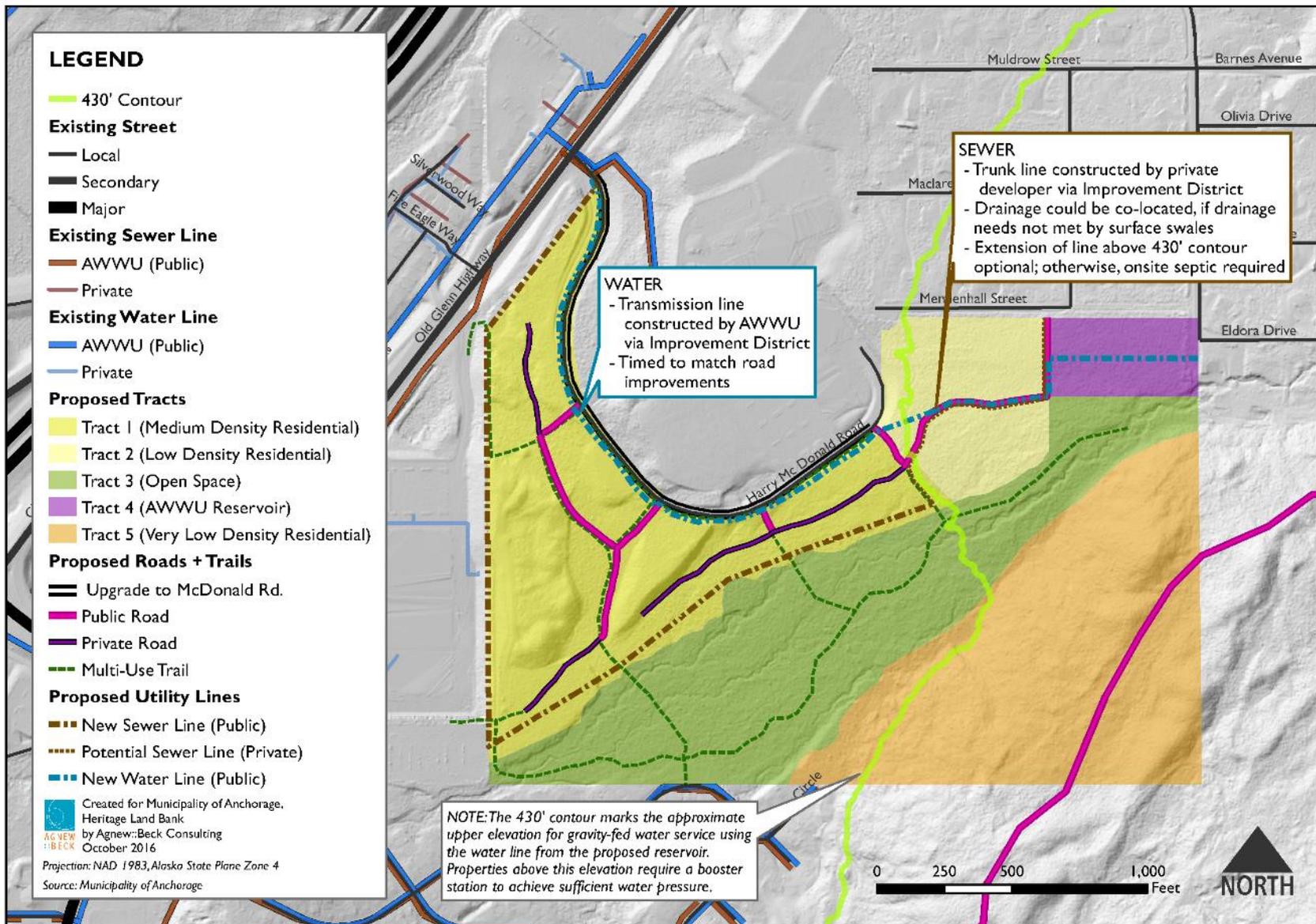
Like in the 2010 Plan, this 2018 Plan Update carries forward the policy of connecting the existing Fish Hatchery Road residential road system westward into Harry McDonald Road. This extension will provide an indirect but functional alternative access to the existing residential area, increasing safety and emergency access and an option for the neighborhood to reach the sports center and school by a more direct route. This intent reflects a Municipality-wide policy of creating connectivity between adjoining neighborhoods.

The project team was mindful of the concerns by existing residents regarding the roadway to connect the Harry McDonald Road to the rural residential neighborhood off Fish Hatchery Road. As outlined above, this new connection will be designed as a meandering rural road, in order to discourage heavy use of this route.

### **Pedestrian Facilities**

The project area has a well-developed, largely informal trail system, with a number of frequently used trails along Carol Creek, and connections to those trails from the residential neighborhoods to the north and south. A sidewalk runs along the road up to the access drive into Fire Lake Elementary. Informal, but well-trod trails, run across the northeastern corner of Tract 1, likely providing a more direct route for people coming up from the Old Glenn Highway, in particular residents on the south side of the highway going to and from school and/or the Harry J. McDonald Memorial Center. Likewise there are well established social trails along the length of the western edge of Tract 1, and connecting from the southwest corner of the tract into the Fred Meyer parking lot.

Map 8. Proposed Infrastructure Improvements and Coordinated Development



Throughout the update process, the project team met with the Traffic Department and Project Management and Engineering representatives to better understand access and traffic issues in the area, to review the development proposal, understand what traffic improvements the proposed plan may trigger, and develop a cost-saving approach to providing needed infrastructure. Specific outcomes of this process, building from the policies in the 2010 Plan, and focused on the road system, are outlined below.

Specific recommendations for creating an integrated system of pedestrian and vehicular travel ways are included in the development standards section in the following Chapter.

### ***Recommended Access Strategies and Improvements:***

- Develop neighborhood roads and walkways considering all modes of transportation including pedestrians, cyclists and automobiles to maximize the efficiency and safety of the circulation system (*See Development standards section for more details on policies for sidewalk and trail systems*).
- Upgrade Harry McDonald Road to municipal standards for a collector street up to the Harry J. McDonald Memorial Center (currently this road is a driveway). It is recommended that HLB staff nominate the collector upgrade of Harry McDonald Road during the upcoming 2019 Anchorage Metropolitan Area Transportation Solutions (AMATS) Transportation Improvement Program (TIP) planning effort. This program would gain access to federal funding with a local match.
- The improvements to Harry McDonald Road from a private local road to a collector should be timed to coincide with AWWU's installation of the water line needed to serve the new reservoir. Installing the water line and improving the road at the same time can lead to substantial cost savings, allow for cost sharing, and reduces the length of time public access is disrupted (*see Water and Sewer*).
- To reduce the cost of roadway improvements this Plan Update recommends that the 80-foot right-of-way for the Harry McDonald Road be shifted so right-of-way is located on land shared between HLB, the Anchorage School District, and the Parks and Recreation Department managed Harry J. McDonald Memorial Center property. This would free up a small but non-trivial increment of HLB land for housing, while providing for an improved road that benefits all these users.
- Extend Harry McDonald Road through Tract 2 to the existing rural residential area –Mendenhall and Malaspina Streets. Provide a circuitous route and build to rural standards.
- When Harry McDonald Road is improved, include enhanced pedestrian safety and street crossing(s) to Fire Lake Elementary and the Harry J. McDonald Memorial Center. Provide for safe pedestrian facilities (sidewalk and/or multi-use trail) along both sides of the road, from the Old Glenn Highway to the Harry J. McDonald Memorial Center, and the extension into the Mendenhall and Malaspina residential areas.
- Work with the Anchorage School District and Alaska Department of Transportation and Public Facilities (ADOT&PF) to provide for safe pedestrian access along Harry McDonald Road and across the Old Glenn Highway. Ultimately, a controlled intersection (stop light) may be required at the intersection of Harry McDonald Road with the Old Glenn Highway, primarily due to the new traffic tied to new residential development, as well as existing development to the west of the highway, and public use of the Harry J. McDonald Memorial Center and Fire Lake Elementary School (*See note below regarding traffic impact analysis*).
- Public streets within new residential areas will be built to local residential street standards.
- Individual developers will determine the specific layout of residential areas, including roads, trails, storm water conveyance, etc., consistent with policies established in this Plan Update, resulting in a refined site plan and subdivision design, as required under the introduction to the development standards section on Page 36.

- A road to serve the southeast slope, low-density residential development area may be needed if that development occurs in the future. As this road would traverse a steep area, the following objectives will be followed:
  - Choose a route that requires the least amount of cut and grading; design the route to be minimally visible from off site.
  - Design the road to work with existing topography, e.g., contouring across the property either just above the open space corridor, or two thirds of the way up the slope in the area where there are several more flat, potential home sites.
  - Design road to minimize impact with adjacent open space corridor.
  - Road design should be rural in nature.
  - Avoid switchback roads.
- Formalize access and improve the trail system and wayfinding within the Carol Creek corridor.

### **Traffic Impact Analysis**

The typical threshold for a Traffic Impact Analysis (TIA) is whether the new development will generate 100 trips in the peak hour of the adjacent roadway. The level of development proposed for these tracts will likely require a TIA at the time of platting, zoning, or other basic project approvals. The TIA will help to determine whether a signalized intersection would be required for the development. National practices for the development of TIAs are evolving, shifting to reflect a growing emphasis on the importance of reducing traffic generation through shifting trips from private automobiles to trips on foot, by bike or transit. The future TIA should reflect these trends, and take into account the design of the project and the resulting options for people to get to commercial services, to school, and other destinations without reliance on a vehicle.

### **Storm Water**

The 2010 Plan did not include specific strategies for managing storm water. During this planning process the Project Team consulted with the Private Development Division and discussed several options for dealing with storm water: a fully piped system, surface flow to Carol Creek, and onsite storage in filtration ponds. Each system has benefits, costs and varying standards. For instance, where public systems are used, pipes in roads with curbs and gutters require less land than surface swales, which can free up more property for development. Surface swales that extend for longer distances require a large public right of way for maintenance and access of the drainage swale. The public right-of-way required for lengthy surface swales is at least 20 feet wide, and capable of supporting a 70,000 lb. vehicle, which is in effect a small road. Shorter swales do not require these higher standards.

The Carol Creek project will likely rely on several different drainage strategies, reflecting the characteristics of the land in each Section of the parcel. The overarching strategy is to minimize drainage requirements by relying on onsite infiltration, and flow of water into the adjoining Carol Creek open space. This approach – which helps minimize development costs, should work well for most of the Tract 1 and for Tract 2. These tracts all adjoin the Carol Creek open space corridor, and drainage needs to be met through short surface swales into that open space. Exact dimensions would vary depending on whether they were publicly or privately developed and owned.

The terrain in the northwestern corner of Tract 1, adjacent to the Old Glenn Highway, flows to the north. This area may need to rely on subsurface storm water drains. The Private Development Division indicated that the storm water pipe along the Old Glenn Highway is owned by the state. ADOT&PF indicated that storm water could likely be piped from the development into the pipe beneath the Old Glenn Highway. When the parcel is developed, a drainage analysis can help to ensure the pipe being tapped into is large enough to handle the additional flow.

### ***Summary of Recommended Storm Water Strategies and Improvements:***

- Use different approaches to manage storm water based on the site conditions of the section of the parcel being developed, with primary reliance on surface drainage to the nearby Carol Creek open space corridor.
- Minimize the amount of impervious surfaces developed as part of the site, and maximize onsite infiltration.
- In areas where a piped storm water system may be required, coordinate installation of this system with the sanitary sewer installation, to reduce costs by sharing the trench needed for both pipe systems.
- Subdivision or development immediately adjoining Carol Creek may require analysis to determine the elevation and extent of the 100-year flood along Carol Creek.

### **Public Water and Sewer; Onsite Private (Well and Septic) Systems**

The conditions related to water and sewer have not materially changed since the 2010 Plan. As before, the Harry J. McDonald Memorial Center currently is connected to municipal water and sewer; the surrounding residential neighborhoods on the north side of the project area rely on onsite wells and septic systems. Portions of the surrounding north-side neighborhoods have a history of challenges with onsite systems – most notably the residential area above Knob Hill Drive, where ground water resources are limited, and for the several homes that rely on surface water from Carol Creek.

The same general policy guidelines in the 2010 Plan remain for this 2018 Plan Update. This plan seeks to develop appropriate water and sewer facilities to accommodate the proposed areas of development. The majority of the site – Tract 1 – is planned to link to municipal public water and sewer service. Tract 2 development will likely rely on onsite well and septic systems, and these should be designed to not impact existing systems or water quality.

### **Public Water**

This planning update looked more deeply at one of the development policies presented in the 2010 Plan, which was to “explore options to pay for necessary extension of public water and sewer to serve the Carol Creek residential areas, requiring cooperative arrangements between the Municipality, AWWU, and the private developers of Carol Creek residential projects.”

AWWU is a partner in this current planning effort as they pursue the acquisition of a portion of the Carol Creek property for a water reservoir site. This alliance has opened up new opportunities for coordination of infrastructure improvements to the site and methods for sharing improvement costs. Specifically, AWWU will need to build a new water transmission line to deliver water to the new reservoir. This update recommends the planned new residential development be timed in order to utilize the new water transmission line after it is constructed. Likewise, this Plan Update proposes that improvements to the Harry McDonald Road are timed to correspond with construction of the water line. AWWU is currently projecting design funding for the water transmission line and reservoir and will be requested in the next six to ten years, with a request for construction funding and actual construction following the design phase. That time frame could align with the proposed funding of the Harry McDonald Road improvements through the AMATS project nomination process in 2019.

Construction of the water transmission line by AWWU reduces the overall cost of infrastructure to be borne by developers. If developers construct the water line prior to AWWU, the full cost is borne by the developer with a contribution from AWWU for a small portion of the construction costs. It is therefore, more economical for developers to wait for AWWU to construct water transmission infrastructure.

AWWU has indicated the water line to the reservoir can only serve development below 427-foot elevation (approximate elevation shown along the 430-foot contour line on Maps 6 and 8). Areas above that elevation would not have enough pressure to be served without construction of a booster station to add pressure to the stored water, which would cost approximately \$1 million plus 1,000 linear feet of distribution line. Given these costs, it is not likely that the small amount of new residential development planned for Tract 2 could afford these costs.

It is possible that at some point in the future, the owners of the new properties proposed in Tract 2, as well as the approximately 80 homes to the north in the Fish Hatchery Road neighborhood, would opt to collectively pay for the extension of public water and/or sewer. This would require the residents to work together and with AWWU to develop a special assessment district to finance the infrastructure improvements needed to deliver either or both of these services.

### **Public Sewer**

A possible location for a sewer line to serve new development in Tract 1 of the Carol Creek parcel is shown in Map 8. Sewer is gravity fed and can support development in both Tracts 1 and 2. Conversations with AWWU when preparing the 2018 Plan Update support sewer development by a private entity. Depending on the phasing of residential development, this line may be incrementally extended, starting with units developed closest to the Old Glenn Highway intersection in Tract 1, but sized to support buildout of the full site.

Other cost saving measures may be possible at the time of development. A more precisely planned alignment of the sewer line is likely, based on the siting of the development and topography, which could reduce the length of the line and the cost to build. In addition, depending on the depth of the trench required for each type of infrastructure, if a piped storm water system is required, the same trench could support both sanitary sewer and storm water. If feasible, it offers another opportunity to coordinate infrastructure improvements to minimize the amount of groundwork, excavation, and costs.

### **Onsite Water and Sewer (Well and Septic) Systems**

The rural residential development proposed for Carol Creek Tract 2 will be served by onsite water and septic systems. Depending on the specific phasing of development in Tract 1, and public sewer line costs, this area may be able to tie into the upper end of the sewer trunk line serving Tract 1. More likely, development in Tract 2 will rely on onsite water and wastewater systems.

Residents in the neighborhoods adjoining the planned new residential areas are concerned about adequate well water and water pressure. Consistent with standard municipal subdivision policy, prior to approving a subdivision plat, test wells need to be drilled and soil samples collected to determine the adequacy of water for the subdivision and affected adjoining areas.

### **Parks and Natural Resources**

Recommendations related to parks and natural resources are identical to the 2010 Plan. As stated in that plan, the proposed 25.5-acre natural resource area is the backbone of the uses planned for the Carol Creek parcel. Preserving this wetland and creek corridor is essential to maintaining the quality of the surrounding neighborhoods, preserve and protect critical wetland habitat and important drainage functions and maintains and improves property values. Out-the-door access to open space and trails is a proven way to increase the desirability of a residential neighborhood, and particularly so for moderate or higher density residential.

Specific development objectives for the natural resource corridor include:

- Ensure connectivity through the greenbelt to and from all surrounding neighborhoods and the adjacent commercial areas. Retain a “green window” along the road looking into the natural resource corridor.
- Provide a network of non-motorized trails within the corridor as well as a public access route leading to Chugach State Park to the east. Existing informal trails in the area provide a good sense of the locations and number of needed trails.
- The 2010 Plan recommended development of a parking area and trailhead on the south side of the Harry McDonald Road, for users outside of the nearby neighborhoods. This Plan Update also includes a recommendation for a medium sized parking area (25 to 30 spaces) somewhere on the parcel. The parking area may be located adjacent to Harry McDonald Road, another existing road with access to the parcel, or within a newly-developed neighborhood in Tract 1 or 2. The location of the parking area will be determined during the subdivision process.
- Ensure that the proposed parking area, is in an appropriate location and connects to existing and new trails within the open space area.
- Design trails to minimize impacts on water quality and the natural environment. Allow only limited clearing of vegetation for trail development. If and when the trail is constructed east of HLB property, across the privately-owned parcel to the east and BLM land bordering Chugach State Park, ensure that the trail is set back from the Creek, to protect water quality.
- Work with the Eagle River Parks and Recreation Division to improve and maintain the area. It is the intent of the HLB to set aside portions of this natural resource corridor for consideration as a wetland mitigation bank site. The decision on whether some portion of this area may become a municipal park will be made in the future.
- Comply with U.S. Army Corps of Engineers requirements in order to obtain wetland mitigation credit for retention and conservation of the wetland.
- Consider the ongoing use of the field immediately west of the Harry J. McDonald Memorial Center as a landing spot for hang gliders and parasailers. The issue here is avoiding extending obstacles higher than 30 feet immediately adjoining this landing area. Current plans for development – which is set well back from the landing area, and which will generally be on slopes below the landing area, and below the tops of the existing tree canopy, suggest the planned residential development will not create safety issues for these users.

Note: Carol Creek contains a 15 foot “screen easement” in the original plat (Appendix A), as well as a 100-foot creek maintenance development setback.

## 8. DEVELOPMENT STANDARDS

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Chapter 7 presented a conceptual site plan that recommends land uses and shows how open space, circulation, drainage and shared infrastructure should work for the project as a whole. This project is likely to be developed in phases: prior to final platting of any given tract, a more refined site plan will be needed that responds to the market conditions at that time, as well as incorporating the required continuity of open space, drainage, trails, circulation and other shared infrastructure. This more refined site plan would show, for example, how the trail and road system in Tract 1 would connect to the roads, trails and open space connections elsewhere in Tract 1 and the dedicated open space in Tract 3. This chapter presents general standards that should be incorporated into any future site plans, addressing circulation and other development issues.

### **Tract I – Medium Density Residential (western area of the parcel)**

#### **Objectives**

Quality design is essential to the success of the creation of this new neighborhood. Overall objectives for the design and character of this project include:

- Compact Development, which promotes the efficient provision of public services and infrastructure, and allows retention of natural areas.
- Multi-Use, which places homes, jobs, stores, parks, and services within walking distance of one another.
- Full Utilization of Urban Services (e.g., water, sewer, storm drainage, parks, and transportation facilities), which maximizes the return on public investments in infrastructure.
- Transportation Efficiency, or development of a street system supporting multiple modes of transportation, which yields more direct routes (shorter distances) between local destinations, conserves energy, reduces emergency response times, and provides alternatives to the automobile for those who are unable or choose not to drive a car.
- Human-Scale Design, or development in which people feel safe and comfortable walking from place to place because buildings, streetscapes, parking areas, landscaping, lighting, and other components of the built environment are designed foremost with pedestrians in mind.
- Environmental Health, or development which requires adequate light and air circulation, management of surface water runoff, and treatment and disposal of waste. The Plan Update recommends a 50 foot setback from the existing stream channels when defining the southern boundary of this tract.
- No more than 115 dwelling units shall be developed on this portion of the parcel.

#### **Development Standards**

##### *Site Design*

- Create a neighborhood that is safe, accessible, and easy to move through for pedestrians and vehicles.
- Concentrate higher density housing on the west side of the project area.
- Ensure that new development takes advantage of site amenities including the Carol Creek open space corridor and the site's sunny, southwest facing slopes and view shed potential.
- Encourage site design that protects or enhances the natural amenities of the area, as much as practical, through retention of existing trees and vegetation.
- Provide "fingers" of open space, extending from the Carol Creek corridor into residential areas.

- Provide adequate onsite snow storage space or store snow off site to ensure the integrity of the landscaped or natural vegetated areas.
- Minimize predominance of driveways, parking areas, and other paved impervious surfaces.

### ***Circulation of Vehicles and Pedestrians***

- Develop neighborhood roads and walkways to consider all modes of transportation including pedestrians, cyclists and automobiles to maximize the efficiency and safety of the circulation system.
- Provide for a well-developed pedestrian circulation system for the site as a whole, so all new residences have a safe, attractive, convenient, and direct walking routes to:
  - the school and Harry J. McDonald Memorial Center;
  - the commercial areas and the Old Glenn Highway to the west;
  - the Carol Creek open space; and
  - any future access to the Chugach State Park.
- Allow for and encourage use of shared driveways serving small clusters of homes, to reduce costs, maximize retention/provision of existing, or replanted landscapes.

### ***Building Siting and Orientation***

- Use building styles that help create a sense of overall cohesion to the neighborhood, while not creating streets with monotonous repetition of building form. Vary façades and building placement in relationship to the street and adjoining buildings.
- Building design should reflect differences in site locations; for example, corner buildings should have different side façades and window treatment than buildings in interior locations; buildings on slopes should use stepped foundations that respond to local changes in topography.
- Encourage northern design elements to protect solar access and reduce wind exposure and to provide quality development that is responsive to its surroundings and climate.

### ***Building Design and Articulation***

The housing density ranges associated with each tract reflect a transition from an urban to more “rural” neighborhoods, reflecting the current mix of land uses in the area, from commercial areas along the Old Glenn Highway to the large-lot subdivision to the northeast. A primary objective is to avoid developing in the style of site condominiums found across the Old Glenn Highway from the Carol Creek area. Undesirable qualities include monotonous character (structures lack variety, layout is uniform), predominance of garages and parking areas, and lack of natural vegetation and/or space for replanted vegetation. Specific design standards for buildings include:

- Create a positive relationship to the street, with features such as easily visible front entries, reduced dominance of garage doors, and other human scaled features:
  - Require street facing ground floor and front façades windows.
  - Require building front entries to be prominent, inviting and visible from the street
  - Encourage use of features such as covered front porches that give this neighborhood a sense of being a friendly, “people place.”

- Ensure a diversity of housing unit styles by incorporating features that create variety and visual interest. Require a variety of building models that include variations of window placement, entrance location, garage sizes and placements, and façade details.
- Add architectural features such as porches, balconies, bays, varied roof heights, variations in façades to include recesses and extensions, and other building elements to visually reduce the mass of the building and create visual interest. Simple, unadorned box shape buildings are not permitted.
- Maximize light, views and privacy through window placement.
- Sides and rears of buildings should display a similar level of quality and detail as the front façade when visible from the street. On corner lots, blank walls should be avoided.
- Encourage articulation of design features such as projections, recesses, varied rooflines, and building heights.
- Minimize the percentage of garage doors dominating the front elevation through a variety of garage sizes (single-car, tandem, double). For example, for row housing or townhouse style housing, garages are designed to be recessed into the building, with windows, projecting balconies, living space and landscaping as dominating features facing the streetscape.
- Encourage and allow for different housing densities to be located side by side, such as a townhouse adjoining duplexes and single family homes.
  - Medium Density allows a variety of building styles, including townhouses, duplexes, and multi-family dwellings. Small, single-family detached “cottage homes” are also permitted.

### ***Storm Water Drainage***

- Retain natural drainage and contours to the degree possible, recognizing that the site includes several smaller, steep-sided mounds and low ridges that will likely require substantial grading to take advantage of this site’s potential to provide moderate priced housing.
- Manage runoff as much as possible by using surface swales integrated into the site’s open space system and the Carol Creek corridor. Reduce the amount of runoff from new development areas by minimizing impervious surfaces, retaining and/or replanting native vegetation, and directing water to onsite infiltration areas.
- Development should minimize or mitigate adverse impacts on the surrounding neighborhood by effectively managing drainage, snow melt, and storm water run-off.

## **Tract 2 – Low Density Residential (northeastern area of the parcel)**

### **Objective**

New development should preserve the character of existing low-density, residential rural neighborhood. Features that support the character of the adjacent neighborhood include: mature trees and foliage, rural roadways that are narrow and following an indirect route, and individual wells and septic systems. The new development should complement and enhance the quiet, rural sense of the well-established neighborhood to the north. No more than 7 dwelling units shall be developed on this tract.

### **Development Standards**

- Generate a visually diverse stock of low-density housing that retains the existing neighborhood character. Design options include one- or two-story single-family detached housing, with the potential for accessory dwelling units.

- Construct a new road connection through Tract 2 in a way that provides a low volume, secondary connection, and at the same time, provides good access to new residential uses on this tract.
- Retain natural vegetation and trees within building setbacks around periphery of each lot to be consistent with rural, wooded character; exceptions allowed for driveway
- Retain natural drainage and contours to greatest extent possible. Work with existing topography to minimize the amount of grading, cut, and fill.
- Minimize percentage of lot covered by impervious surfaces.
- Plan development to protect the quality and quantity of subsurface water used by existing residents.

### **Tract 3 – Carol Creek Open Space Corridor**

#### **Objective**

Preserve this area as an undeveloped corridor in public ownership. The parcel will be managed to ensure the integrity of the wetlands, preserve important drainage functions, and protect water quality; provide non-motorized trails and recreation opportunities to area residents and visitors from beyond the neighborhood; and to help maintain the quality and property value of the surrounding neighborhoods. It is the intent of the HL to set aside portions of this natural resource corridor for consideration in a wetland mitigation bank. The decision on whether some portion of this area may become municipal parklands will be made in the future.

#### **Development Standards**

- Ensure connectivity through the greenbelt to and from all surrounding neighborhoods and the adjacent commercial areas.
- Provide a network of non-motorized trails within the corridor as well as a public access route leading to Chugach State Park to the east. Existing informal trails in the area provide a good sense of the locations and number of needed trails.
- Design trails to minimize impacts on water quality and the natural environment. Allow only limited clearing of vegetation for trail development. If and when the trail is constructed east of HLB property into Chugach State Park, (crossing land currently held by the BLM), ensure that the trail is set back from the Creek, to protect water quality.

### **Tract 4 – AWWU Reservoir Site**

#### **Objective**

Dispose of land to AWWU to accommodate the development of a water reservoir(s).

#### **Development Standards**

The reservoir(s) shall include visual screening and a buffer to minimize visual impacts to the adjacent neighborhood. Specific development requirements will be determined directly through the AWWU planning process, which includes public involvement, once they acquire the land from HLB.

### **Tract 5 – Southeast Hillside**

#### **Objective**

Retain this area as publicly owned open space in the near term, with the option for future, very large lot development. This development may be more viable in the future if market conditions and access options improve. No more than 3 dwelling units shall be developed on this tract.

### **Development Standards**

The parcel is very steep with several more flat areas that might allow for development of carefully engineered house sites, with superior views. If this site is developed in the future, careful siting and roadway development standards will be necessary.

## ■ 9. IMPLEMENTATION STRATEGY

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### **Plan Implementation Process**

#### **Approval Process Synopsis Based Planning & Zoning Commission Input**

Planning & Zoning Commission (PZC) meeting held on December 11, 2017 considered comments, testimony, and included discussion of the PZC. HLB, as a result of that meeting, has made some changes to the Land Use Plan. Table 10 has been modified to show new zoning recommendations, with special limitations capping the development potential to that of the 2010 Plan. Additionally, Map 7 has been amended to show the lower density portions of Tract 1 to show graphic consistency.

#### **Next Steps :: Platting and Zoning**

After the planning process is complete, and the Plan Update approved as a comprehensive plan amendment, a series of separate steps are required for disposal and development of HLB land. To implement this Plan Update and set the stage for land disposals, HLB will go through the necessary steps to plat and rezone these parcels, consistent with this Plan Update. This process will define the boundaries of the tracts for disposal. The process will also apply the specific zoning codes that implement this Plan Update's land use designations. The process for platting and zoning requires a public noticing and a public hearing. The following zoning is recommended to implement the recommendations of this plan (Table 10).

## Recommended Zoning

Table 10. Recommended Zoning for Carol Creek Parcel

PARCEL NAME	Land Use Recommendation	Recommended Zoning	Zoning Notes
North Knoll (HLB I-071)	Park and Natural Resources	Retain as CE-PLI	
Carol Creek (HLB I-074)			
Tract 1 (Residential)	Medium Density Residential (7 to 15 DUA)	CE-R-2M-SL	Recommend special limitation (SL) for administrative site plan review to conform to design standards; cap at 115 dwelling units.
Tract 2 (Residential)	Low Density Residential (1 to 2 DUA)	CE-R2A or CE-R-6	Recommend special limitation (SL) for min. 40,000 sf lots, if public water and/or sewer not feasible for this site; cap at 7 dwelling units.
Tract 3 (Creek Corridor)	Park and Natural Resources	Retain as CE-PLI	
Tract 4 (AWWU Parcel)	Community Facility (AWWU Reservoir)	Retain as CE-PLI	
Tract 5 (Slope or Residential)	Rural Residential (< 1 DUA) or Park and Natural Resources	CE-R-10 SL or PLI	Recommended special limitation (SL) cap at 3 dwelling units.

## Disposal of Property

The formal steps to dispose of the HLB parcels must follow a process established in AMC § 25.40.025. This process requires public noticing and a public hearing at an HLBAC meeting. After receiving comments from the general public regarding the possible disposal, as well as area Community Councils or other parties, the HLBAC will make its recommendation to the Assembly. The disposal must then be presented in a formal public hearing before the Assembly and approved by Assembly ordinance.

## **Pathway to Development**

Additional platting and permitting will be necessary prior to development of the parcels. Previously identified in this Plan Update is the requirement for a TIA to determine the extent to which the Harry McDonald Road and Old Glenn Highway intersection will need to be improved.

Whether or not this parcel is developed, ultimately it will come down to market demand, developer interest, and whether the development pro forma indicates that the cost to develop new housing can yield a viable return for a developer. As noted in the 2012 Housing Study, current conditions for development are not inspiring the amount and diversity of housing needed for the community. The study points to the need for the Municipality to play a role in incentivizing more diverse housing development. This project offers an opportunity for reducing hurdles and costs to produce the type of diverse housing the greater Anchorage community needs. Effective collaboration between the multiple municipal agencies with an interest and presence in the Carol Creek area can help make the development of the parcel possible.

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