

Land Use Alternative 4: Regional and Community Park with Elementary School Reserve and Conservation Subdivision

Natural Open Space and Trails	(68 acres ⁵)
Community Sports Fields	(20 acres)
Neighborhood Park Facilities	(5 acres)
Multi-use Chalet / Recreation Center	(5 acres)
Conservation Residential Subdivision	(26 acres)
Neighborhood Collector Street	(8.5 acres)
School Reserve Lands:	(9 acres)

Land Use Alternative 4 is a variation of *Alternatives 2 and 3* that represents a compromise between park and residential uses on the NW¼ Section 25. A portion of the central northeastern plain of the Study Area deemed excess to public needs, is zoned R-6 Suburban Residential (large lot), and disposed of for development. This alternative illustrates implications of mixed park and residential uses.

Alternative 4 is based on the argument that the easterly plain is excess to municipal needs. Chugiak-Eagle River will enjoy two times as many acres of regional park per person as will the Anchorage Bowl in 2020. Beach Lake Regional Park is 1,688 acres in size. As Chugiak-Eagle River grows and Birchwood approaches build-out, there may be increasing pressure for greater access to more recreational activities in the main body of Beach Lake Park.

The southwestern extent of residential development is limited because of a legitimate public facility need for community sports fields. A chalet site is illustrated on the map, but has less significance here because a chalet site has already been identified north of Section 25, and this Land Use Alternative is based on future increased access to the main body of the park to the north.

The Hill Loop Trail, northwestern hills, and southeastern ridge slope remain strategic additions to the regional park. The Hill Loop and the rugged northeastern Study Area are natural extensions of the adjacent Beach Lake trails. Their terrain, prized for nordic ski trails, is relatively difficult for housing development. Trail corridors connect the Hill Loop Trail and Beach Lake Park to the southeastern ridge. Incentives could encourage the proposed residential to preserve 11 of its 26 acres as greenbelts linked to Beach Lake Regional Park. Such “conservation subdivision” incentives are explained on page 47.

⁵ The 68 acres includes the approximate 4.5-acre AWWU water pipeline easement as a trail.



Land Use Alternative 4 - Regional / Community Park and Conservation Subdivision

- Regional Park**
Natural Open Space and Trails (68 acres)
- Community Park**
Sports Fields and Neighborhood Park (25 acres)
- Conservation Subdivision**
1 house per acre; 65% conserved open space (16 acres)
and 35% residential with 15,000sf lots (10 acres)
- School Reserve Land**
Elementary School Site or R-7 Residential (8 acres)



Chalet Warm-up / Multi-use Recreation Facility
exact location not yet determined (5 acres)



Neighborhood Collector / Chalet Access Street
(100' Easement) connecting Powder Reserve
and Chugiak High School (8.5 acres)

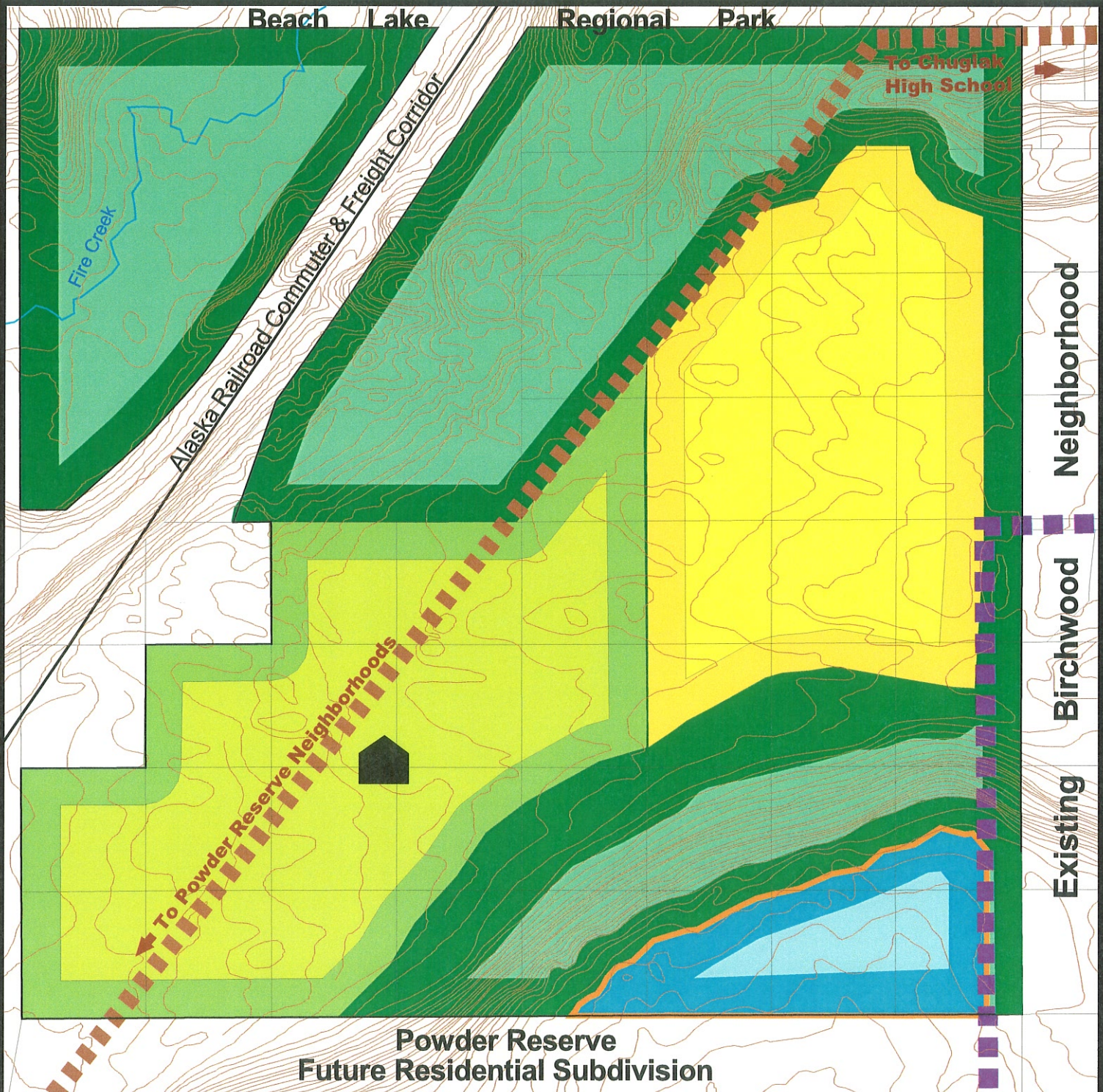


AWWU Eklutna Water Pipeline Easement
(4.5 acres)



100 0 100 Feet

— Study Area Boundary



Land Use Alternative 4 Evaluation Sheet

	<i>Key Issues</i>	<i>Evaluation</i>	<i>Implications</i>
Site Planning Issues	<i>Site suitability and environmental constraints - slope, wetlands, soils</i>	Developable wetland in NE corner may not be compatible with on-site water and wastewater.	Residential development near the NE corner may require replacement of some existing soil with gravel fill.
	<i>Conservation of unique site features - trees, scenic views, terrain</i>	Trails, ridge top views, attractive ski terrain are preserved.	The easterly plain of the Study Area may be developed without loss of unique terrain, vegetation, or views.
	<i>Optimum site locations for proposed land uses</i>	The central upland plain is a natural extension of the existing neighborhood to the east.	The central plain, if surplus to public needs, is an appropriate location for residential.
Land Use Compatibility	<i>Compatibility with surrounding neighborhoods</i>	Limited extension of R-6 residential is compatible with the existing neighborhood.	Proposed residential land use in the Study Area should be at R-6 (large lot) density.
	<i>Compatibility with Beach Lake Regional Park</i>	Residential and park land uses are generally compatible. Chalet is too far to the southwest to be central to ski trail system.	The easterly plain, if surplus, may be appropriate for residential. Favor a chalet site in the north-northeasterly Study Area.
	<i>Compatibility with other land uses proposed in the NW1/4 Section 25</i>	Community sports fields and the chalet may impact residential. Residential development encroaches on the chalet site and trail system.	Buffer residential development with natural open space. Residential is not compatible with a chalet in Study Area. Preserve strategic trail corridors.
	<i>Compatibility with available road infrastructure and water and wastewater</i>	Pioneer Drive can be extended; onsite well/septic is practical. There is no existing infrastructure that is sized to serve future housing in the Study Area.	Low density residential is compatible with available public infrastructure. There are no efficiencies of public infrastructure gained by new housing development in the Study Area.
Community Facility Needs	<i>Need for regional park open space, multi-use trails, chalet and trailhead</i>	A need to maximize regional park expansion is not recognized. The chalet is pushed south of Hill Loop Trail, away from most ski trails.	<i>A Beach Lake Park Master Plan</i> should determine if there is a need for maximum regional park expansion in the Study Area.
	<i>Need for community park with sports fields</i>	Twenty of thirty-five needed acres is reserved.	Increase the acreage; locate facilities to avoid impacts to trails or residential.

Land Use Alternative 5: Conservation Subdivision with Regional Park and Elementary School Reserve

Regional Park: Natural Open Space and Trails	(80 ac. ⁶)
Conservation Subdivision, with Open Space and Trails	(44 ac.)
Neighborhood Collector Street	(8.5 acres)
School Reserve Lands:	(9 acres)

Land Use Alternative 5 represents an opposite pole from *Alternative 1* along the range of possible compromises between park and residential uses. It illustrates a municipal disposal of nearly as much land in the NW $\frac{1}{4}$ Section 25 for residential development as possible, given physical constraints and encumbrances. It also incorporates a “conservation subdivision” design for the residential development in order to provide public-access greenbelt and trail easements.

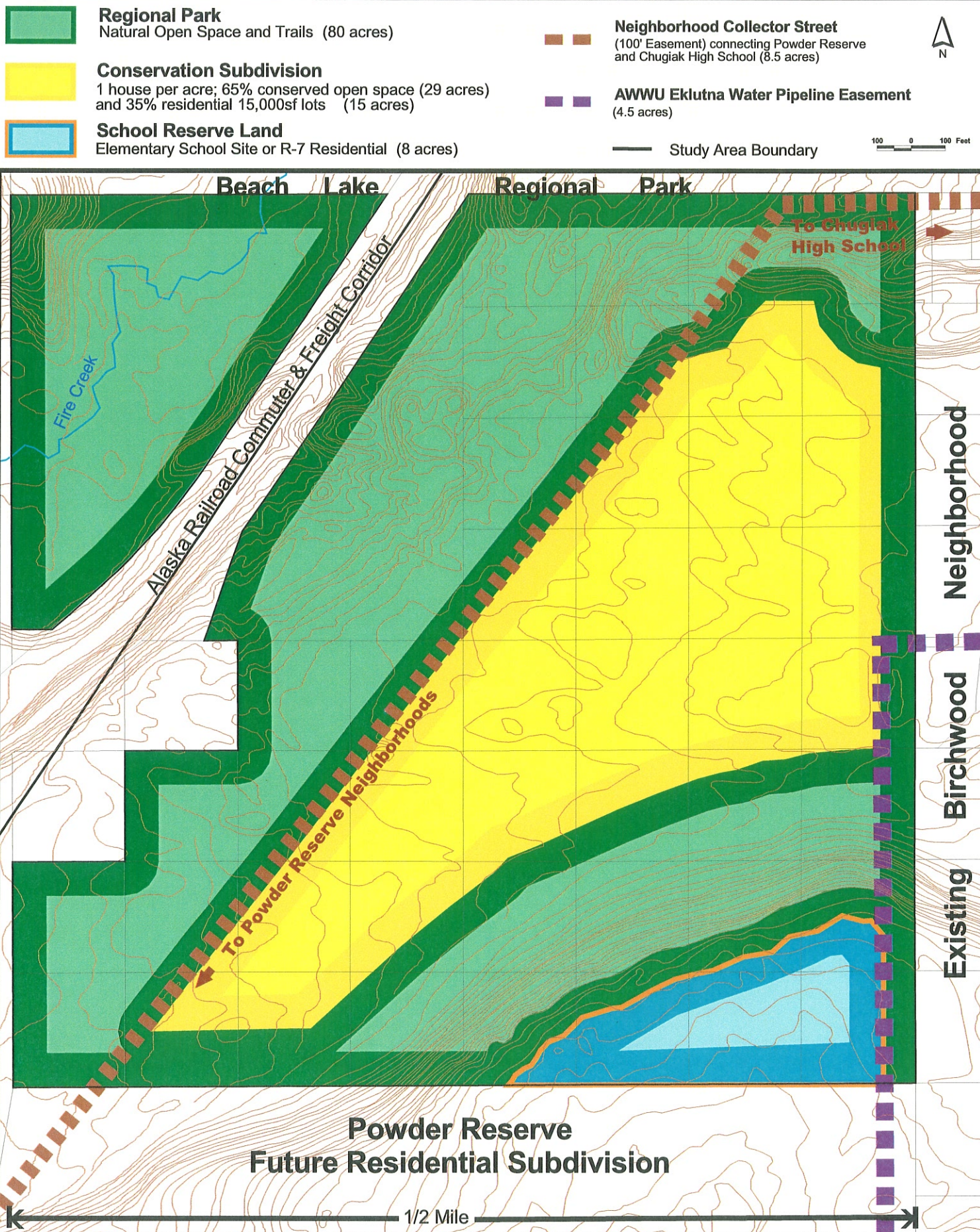
Natural open space and forest still predominate in *Alternative 5*. As in previous alternatives, the Hill Loop Trail, northwestern hills, and southeastern ridge slope are priority acquisitions to the regional park. Multi-use trails still loop through the Study Area. The trails connect the Hill Loop Trail and Beach Lake Park to the ridge in the southeast corner, via forest greenbelts through the sports park and residential subdivision. The transmission line alignment serves as a collector street and a boundary between the Hill Loop Trail and the conservation subdivision. A natural open space corridor extends from the Hill Loop toward the beaver dams in the Powder Reserve.

The central plain of the Study Area is zoned for R-6 residential, one dwelling unit per 1 $\frac{1}{4}$ acres, and disposed of for development. “Conservation subdivision” incentives preserve natural open space greenbelts, and provide public trail links for the surrounding park. Density incentives encourage conservation set asides and public usage easements. The easements permit residents of the public to use the trail greenbelt linkages as part of the surrounding regional park.

Residences are secluded in “villages” of 10,000 to 15,000 square-foot (1/3-acre) home sites. In this way, home sites occupy 35 percent of the subdivision land, and are surrounded by the network of public and private natural open spaces and trails. The home sites share both community water well and wastewater (septic) on-site.

⁶ The 80 acres includes the approximate 4.5-acre AWWU water pipeline easement as a trail.

Conservation Subdivision with Regional Park and School Reserve



Land Use Alternative 5 Evaluation Sheet

	<i>Key Issues</i>	<i>Evaluation</i>	<i>Implications</i>
Site Planning Issues	<i>Conservation of unique site features - trees, scenic views, terrain</i>	Scenic views, hilly ski terrain, and open space corridors to beaver dams are preserved.	The central plain of the Study Area may be developed without loss of unique terrain, vegetation, or views.
	<i>Optimum site locations for proposed land uses</i>	<p>The toe of the SE ridge is poorly drained, offers little sunlight.</p> <p>The central upland plain is lost as a potential chalet site.</p>	<p>Reserve the black spruce area at toe of ridge for ridge trail use.</p> <p>Housing should not be developed in the central plain if there is not an alternative chalet site.</p>
Land Use Compatibility	<i>Compatibility with surrounding neighborhoods</i>	Gross residential density is the same as in the R-6 neighborhood, but the "Conservation Subdivision" site plan may reduce lot sizes to 1/3 acre.	Buffer existing residences from any "village" of 1/3 acre home sites of a "Conservation Subdivision".
	<i>Compatibility with Beach Lake Regional Park</i>	Residential and park land uses are compatible, particularly with incentives for conservation.	The plain can be an appropriate location for residential, and even provide open space and trails.
	<i>Compatibility with other land uses proposed in the NW1/4 Section 25</i>	Incentives encourage conservation set asides and greenbelt corridors.	Conservation subdivision greenbelts and trails complement the park.
	<i>Compatibility with available road infrastructure and water and wastewater</i>	On-site water and wastewater as well as community systems are practical.	Low density residential with on-site systems is compatible with existing infrastructure.
Community Facility Needs	<i>Need for regional park open space, multi-use trails, chalet and trailhead</i>	The need for additional regional park acreage for trails or a chalet site is not recognized.	Add key terrain from Study Area to the park, and update the <i>Beach Lake Park Master Plan</i> .
	<i>Need for community park with sports fields</i>	The need for 35 or more acres in Birchwood is not addressed.	Reserve an appropriate portion of the Study Area for sports fields.
	<i>Need for north-south collector system and site access road for park facilities</i>	There is no need in this alternative for an access road for park facilities in the NW1/4 Section 25. However, a road is still needed for areawide connectivity.	Without sports fields or a chalet in the Study Area, the need for a north-south collector needs to be weighed against impacts to trails.

Overlay Alternative: Gravel Extraction with Temporary Park Use and School Reserve

Natural Open Space and Trails	(64 acres)
Gravel Extraction Pit / Temporary Park Uses	(60 acres)
Neighborhood Collector Street	(8.5 acres)
Gravel Truck Haul Route	(? acres)
School Reserve Lands:	(9 acres)

The *Overlay Alternative – Gravel Extraction* provides a way to evaluate the effects of gravel extraction on the proposed land uses in the previous alternatives.

ADOT&PF identified a need for gravel material underlying the Study Area. In this alternative, gravel is extracted from the NW¼ Section 25 over a number of decades. Extraction would be likely to progress from the southwestern corner of the Study Area toward the northeast, depleting one “cell” at a time. The extraction would lower the existing central alluvial plain of the Study Area by 20 or more feet in elevation. Ongoing operations will limit site reclamation until all extraction operations cease. Reclamation of most of the site for park use may therefore be 50 to 75 years into the future. A more limited extraction area would reduce the delay before reclamation, providing for timely development of sports fields or trails.

The map shows certain preservation and buffer areas. The Hill Loop Trail and northeastern corner of the Study Area are preserved. The Hill Loop Trail is an established, popular trail integral to Beach Lake Park and designated as a Multi-use Trail in the Areawide Trails plan. The natural terrain under this trail and in the northeastern Study Area is undulating, challenging, unique, and a natural extension of the Beach Lake trails system, as well as a buffer for the park against gravel extraction noise and visual impacts. On-site water for a recreation building is contingent on preservation of the gravel material on a portion of the Study Area.

There are three known potential gravel haul routes by which gravel trucks might haul gravel from the site. The first is a Hillcrest Drive route to Birchwood Loop Road, via Hillcrest Drive through an existing neighborhood. The second is south through the Powder Reserve development area, and depends on an agreement with Eklutna, Inc., to allow access. The Powder Reserve will gradually develop and this second route will also eventually impact a neighborhood. Finally, the Alaska Railroad has offered to allow ADOT to construct a haul road along the railroad alignment up to Beach Lake Road. This route through the regional park would be along the northwest border of the existing ski trail system. It would increase gravel truck traffic on South Birchwood Loop Road at Chugiak High School.

Land Use Overlay Alternative - Gravel Pit with Temporary Park Use and School Reserve



Planning Department
Municipality of Anchorage

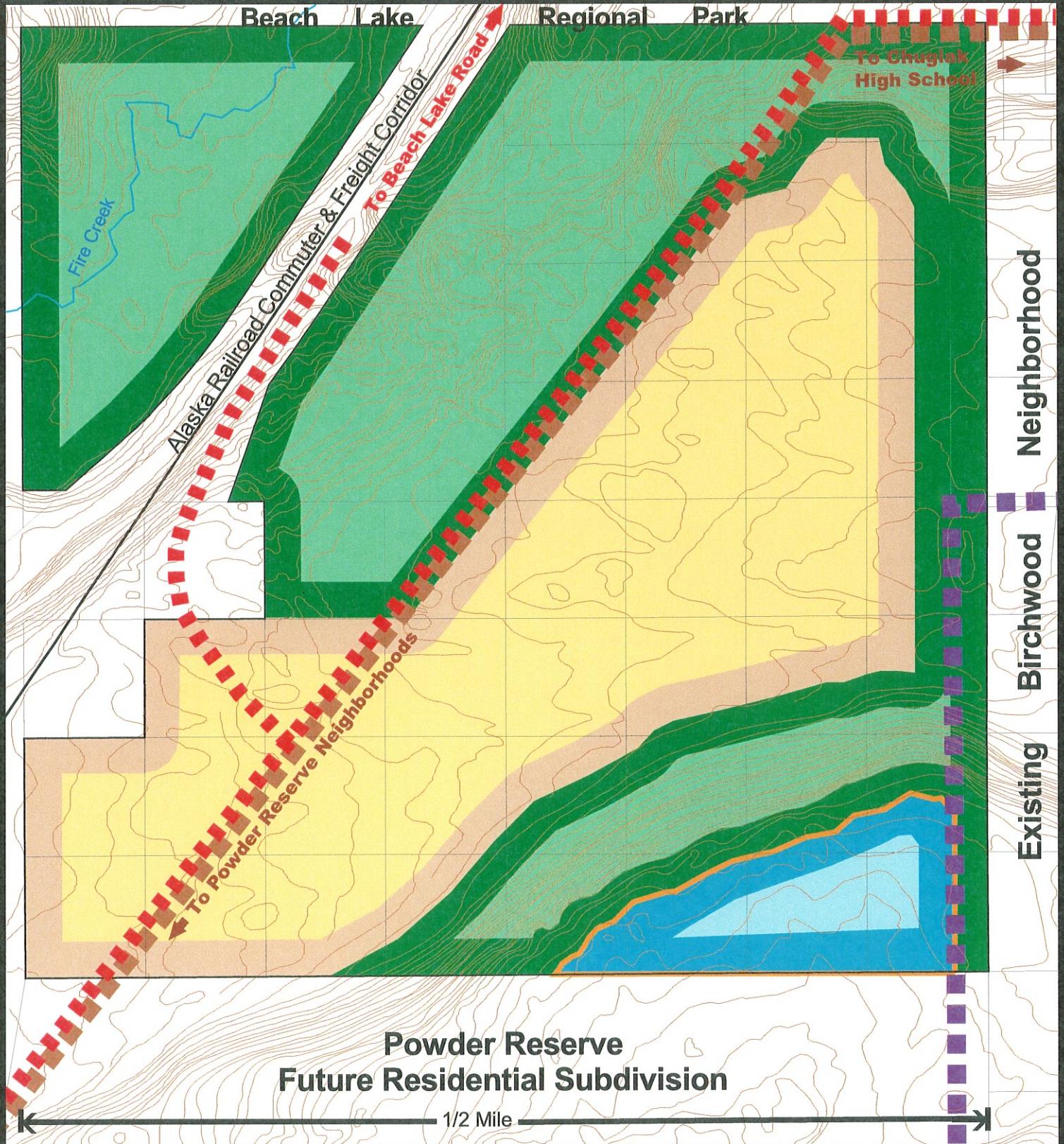
- Regional Park**
Natural Open Space and Trails (64 acres)
- Gravel Pit**
Gravel Extracted Gradually in "cells";
20 - 40ft deep (60 acres)
- School Reserve Land**
Elementary School Site or R-7 Residential
(8 acres)

- Neighborhood Collector Street**
(100' Easement) connecting Powder Reserve
and Chugiak High School (8.5 acres)
- Potential Gravel Haul Route**
- AWWU Eklutna Water Pipeline Easement**
(4.5 acres)



100 0 100 Feet

Study Area Boundary



Overlay Alternative (Gravel Extraction) Evaluation Sheet

	<i>Key Issues</i>	<i>Evaluation</i>	<i>Implications</i>
Site Planning	<i>Conservation of unique site features - trees, scenic views, terrain</i>	Hill Loop Trail and NE corner of Study Area offer good natural terrain for trails and a park buffer.	The natural terrain in the north and hills in the NE should be preserved for trails and to buffer existing park.
Land Use Compatibility	<i>Compatibility with surrounding neighborhoods</i>	Heavy industrial activity would deliver noise, dust, and truck traffic impacts to adjacent residential neighborhood.	Preserve a minimum buffer along the east boundary of the Study Area. Focus gravel processing and extraction in the SW Study Area. Avoid gravel haul route to the NE.
	<i>Compatibility with Beach Lake Regional Park</i>	Heavy industrial activity would deliver noise, dust, and truck traffic impacts to adjacent park, and force chalet facilities north.	Preserve the Hill Loop and the NE corner to buffer the existing park. Focus gravel processing and extraction in the SW Study Area.
	<i>Compatibility with other land uses proposed in the NW1/4 Section 25</i>	Noise, dust, and truck traffic impacts adjacent trails, delays development of a chalet or sports fields, and would leave a deep, barren valley.	Limit timing, depth, extent of extraction for park/chalet needs. Contour and vegetate depleted areas for park uses.
	<i>Compatibility with available road infrastructure and water and wastewater</i>	Extraction removes opportunity for on-site water / wastewater.	Adequate gravel should be left for chalet on-site water / wastewater.
Community Facility Needs	<i>Need for regional park open space, multi-use trails, chalet and trailhead</i>	Permanent trails and chalet in the northeastern Study Area could be delayed by half a century or more. Hill Loop Trail is a popular, designated, and challenging trail integral to Beach Lake Park.	Gravel extraction in NE would force permanent chalet investments north into Beach Lake Park. The Hill Loop Trail must be preserved for trail use and a buffer for the park from gravel extraction.
	<i>Need for community park with sports fields</i>	Extraction for a limited period can be compatible with subsequent, relatively timely development of sports fields.	Overlay the gravel extraction with subsequent development of a community park in the SW Study Area.
	<i>Need for an elementary school</i>	The SE ridge top has relatively poor gravel and is a favored school site.	Preserve the SE ridge, toe, and ridge top from gravel extraction, to accommodate the needed school.

Evaluation Summary

The evaluation tables for the Land Use Alternatives provide a basis for a land use recommendation. Following is a summary of themes that underlie the evaluations.

Balance of Community Facility Needs

It is basic to provide for a legitimate community need that is appropriate for location in the Study Area and that can accommodate other needs on the site. In the case of the NW¼ Section 25, a balanced solution could add the majority of the Study Area to Beach Lake Park for open space and trails expansion, and still provide certain portions of the site to accommodate other needs.

Land Use Alternatives 2&3 and 4 provide a balance of the multiple legitimate community facility needs that are appropriate for the Study Area. Among the needs are a community sports fields, possibly co-located with the potential chalet on the central upland plain, and an elementary school.

Alternative 4 begins to compromise the regional park public facility needs stated for the Study Area. It removes the easterly plain from the park acquisition area because of an unresolved issue regarding future availability of land in the main park. An updated master plan for Beach Lake Park would be required to resolve the question of whether more parkland is needed. A park master plan would identify the long-term needs of recreational user groups for future facilities in the park. *Alternative 4* also pushes the potential chalet site to the southwest, away from the bulk of the existing ski trail system north of Section 25.

Alternatives 1 and 1-a do not address public facility needs such as a community park sports fields or an elementary school. Likewise, the *Overlay Alternative (Gravel Extraction)* illustrates an extent of gravel extraction that could delay permanent chalet and community park facilities for as much as 50 to 75 years.

The need for a collector street must be balanced with the need for expansion of regional open spaces and trails. A compromise may be achieved through a road alignment and design that is sensitive to the park setting, including traffic calming features, narrow lanes and clear zones, and grade-separated trail crossings.

Strategic Site Conservation and Facility Location

Sensitive areas and unique terrain, scenic views, and attractive woodlands are priorities for conservation. Proposed facilities other than natural open space and trails should incorporate strategic greenbelt corridors such as the Hill Loop Trail, the southeastern ridge crest, and regional corridors to the Fire Creek beaver dams.

Most Land Use Alternatives seem able to incorporate these strategic conservation areas. A park facility master plan can help to carefully locate and design facilities in a way to preserve nearby strategic open spaces and trail corridors.

Facility location should also be strategic in relation to other proposed uses in the NW¼ Section 25. For instance a chalet site in the central-eastern Study Area is preferable, because it would be relatively central to the existing ski trail system. A community park with sports fields may work best to the southwest of the chalet, so that there is less impact on the trail system to the north. Gravel extraction in the southwestern Study Area could be compatible with timely development of sports field facilities. However, extraction in the northeastern Study Area would be longer-term, in conflict with near-term chalet development.

Compatibility with Surrounding Areas

The evaluation of Land Use Alternatives also explored the impacts of proposed land uses on Beach Lake Park as a whole, and on residential neighborhoods to the east and south. Community sports field and chalet activity centers may impact adjacent residential neighborhoods. However, in general, park, school, and residential land uses are very compatible.

The central-western Study Area could provide an upland corridor for natural open space and trails connecting Beach Lake Park and the Fire Creek beaver dams. However, a concentration of chalet and trail improvements on the NW¼ Section 25 may avoid greater access for more recreational activities in the main body of the park. The future availability of land in the main park is an unresolved issue.

Most of the alternatives provide a north-south collector street. A lack of north-south connectivity would impact the road system and neighborhoods to the east and south. Trips to the park facilities and to CHS from the Powder Reserve would be circuitous, and would force local roads including Shims Street to function as collector streets. The neighborhood on Shims would be impacted by the traffic. A new collector through the Study Area could provide a more direct route between the Powder Reserve and Birchwood Loop Road, allowing collector traffic to bypass the existing neighborhood and local roads.

Site reclamation after gravel extraction featured in the *Overlay Alternative (Gravel Extraction)* could eventually provide for enhanced park facilities. However, the timetable for gravel extraction is decades-long. Gravel extraction should be limited as much as possible to the central-southwestern Study Area, because of potential impacts on the park, and on neighborhoods to the north and east, and the greater number of years it will take for extraction to progress to the northeast. Another major limitation to gravel extraction could be haul road access to the site.

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