

APPENDICES

APPENDIX A — ECONOMIC FORECAST ASSUMPTIONS

ASSUMPTIONS USED IN ECONOMIC PROJECTIONS 1990 ISER STUDY FOR ALASKA HOUSING FINANCE CORPORATION

Assumptions	Base Case	Low Case	High Case																
A. <u>Petroleum Price Assumptions</u>																			
1. Average Expected OPEC Price	<p>Three alternatives are considered for the world oil price (Saudi Light delivered to the U.S. Gulf.) In real 1989 dollars, they are as follows:</p> <table> <tr> <td></td><td><u>1990</u></td><td><u>2000</u></td><td><u>2010</u></td></tr> <tr> <td>Low</td><td>\$18</td><td>\$14</td><td>\$14</td></tr> <tr> <td>Mid</td><td>18</td><td>19</td><td>21</td></tr> <tr> <td>High</td><td>18</td><td>25</td><td>35</td></tr> </table> <p>\$18 Saudi Light delivered to the U.S. Gulf corresponds to \$17 Alaska North Slope crude delivered to the U.S. Gulf. (\$17 in 1989\$ is \$18.75 in 1991\$.)</p>				<u>1990</u>	<u>2000</u>	<u>2010</u>	Low	\$18	\$14	\$14	Mid	18	19	21	High	18	25	35
	<u>1990</u>	<u>2000</u>	<u>2010</u>																
Low	\$18	\$14	\$14																
Mid	18	19	21																
High	18	25	35																
B. <u>Industry Assumptions</u>																			
1. Trans-Alaska Pipeline	Operating employment remains constant at 885 through 2010, with 390 at headquarters in Anchorage and the remainder along the pipeline corridor.																		
2. Pipeline Corrosion	Corrosion-related repairs and maintenance results in construction employment peaking at 1,200 in 1991 and 1992, falling to a constant level of 150 in 1994.																		
3. Oil Spill	The Exxon Valdez oil spill generated employment of 2,650 in 1989 and \$700 million in additional personal income to Alaskans.																		
4. North Slope Petroleum Development and Production	This case is based upon an expansion of production to include West Sak or a comparable major new field in the 1990's.	This case is based upon an expansion of production to include West Sak or a comparable new major field after 2000.	Same as Base case.																
5. ANWR	Exploration but no development in ANWR.	Same as Base case.	Development of a major field in ANWR with production commencing after 2000.																

Assumptions	Base Case	Low Case	High Case
6. Upper Cook Inlet - Petroleum Projections	Employment in exploration and development of oil and gas in the Upper Cook Inlet area declines gradually (1 percent annually) as the major oil fields are depleted.		
7. Oil Industry Headquarters	This case is associated with additional development of North Slope fields.	Same as Base case.	This case is associated with development of fields in new regions.
8. TAGS Pipeline			The "TAGS" pipeline to transport North Slope natural gas to market in Japan is constructed over a 5-year period. Construction begins in 1993. Operations begin in 1998. The line extends from Prudhoe Bay to Valdez and includes compressor stations, conditioning facilities, and a liquefaction plant and marine terminal. Construction employment peaks at 7,000. Operations employment is 1,130. Construction and operations employment occurs all along the pipeline corridor. The pipeline produces \$200 million (nominal \$) in State revenue in its first year of operation.
9. Beluga Coal Production	Development of a 3.5 million ton/year mine for export beginning in 1993 results in employment of 375 in 1995 and beyond.		
10. U.S. Borax			The U.S. Borax molybdenum mine near Ketchikan is brought into production in 1995. Operating employment is initially 685 and grows to 1,020 over the next 15 years.
11. Greens Creek Mine	Production from the Greens Creek Mine on Admiralty Island begins at the end of 1988. Employment in the mine is constant at 250 through 2010.		

Assumptions	Base Case	Low Case	High Case
12. Red Dog Mine	The Red Dog Mine in the Western Brooks Range begins operation in 1990 with production employment of 350.		
13. Wishbone Hill	This coal mine in the Matanuska-Susitna Valley begins operation in mid-1991, employing 250 in the extraction and export of coal to Japan.		
14. AJ Mine	Echo Bay Mining Company begins production from this gold mine in Juneau in mid-1993. Operations employment is 450.		
15. Kensington Mine	Echo Bay Mining Company begins production from this mine north of Juneau in mid-1993. Operations employment is 340.		
16. Other Mining Activity	Mining employment net of specifically identified projects increases from 650 in 1989 by 3 percent annually.	Same as Base case.	Opening of additional deposits in Canada near Johnny Mountain results in 50 net jobs in Wrangell beginning in 1992. Increased exploration activity on Prince of Wales Island adds 20 jobs in Ketchikan beginning in 1992.
17. Agriculture	Employment in agriculture is constant at 1989 level of 525.		
18. Logging and Sawmills	Logging and milling employment in Southeast Alaska declines in the 1990's by 800 as the Native Corporation harvest falls to a sustainable level. Employment growth in Southcentral Alaska reflects new Native Corporation activities.	Logging and milling employment drops 25 percent between 1995 and 2000 as timber harvest from public land drops from 400 MMbf to 300 MMbf.	Logging and milling employment is 10 percent higher than Base case due to strong demand for cants as Native round log exports decline.
19. Pulp Mills	After 1992, employment declines at a rate of 1 percent per year because of productivity gains.	Ketchikan mill closes in 2005 when current U.S. Forest Service contract expires.	Same as Base case.

Assumptions	Base Case	Low Case	High Case
20. Commercial Fish Harvesting -- Non-Bottomfish	Employment levels in traditional fisheries harvest remain constant at 8,200 through 2010.		
21. Commercial Fish Processing -- Non-Bottomfish	Employment in processing of traditional fisheries harvest increases to 7,500 and then remains constant.	Same as Base case.	Finfish farming commences on Prince of Wales Island causing a fish-feed plant to be built in Ketchikan, employing 50 people.
22. Commercial Fishing -- Bottomfish	Total U.S. bottomfish catch expands to allowable catch. Onshore processing is centered in the Aleutians and Kodiak with additional activity in Anchorage, Kenai Peninsula and Bristol Bay.		
23. Federal Military Employment	Strength level not associated with special projects remains constant at current level.	Same as Base case.	Strength level not associated with special projects grows 1 percent annually.
24. Light Infantry Army Division Deployment	A new Army division is deployed to Fairbanks and Anchorage beginning in 1986 augmenting active-duty personnel by approximately 3,000 in 1989 and 3,400 by 1992.		
25. Navy Cruiser Homeporting			A Navy cruiser is "homeported" in Anchorage starting in mid-1992.
26. Federal Civilian Employment	Employment rises at 0.5 percent annual rate consistent with the long-term trend since 1960.	Employment is constant, consistent with trend since the early 1970's.	Same as Base case.
27. Tourism	Index of tourist visitors to Alaska increases by 3 percent per year.	Same as Base case.	Index of tourists to Alaska increases by 5 percent per year.
28. State Electric Projects	Construction employment from Alaska Power Authority projects includes Bradley Lake.		
C. <u>FISCAL ASSUMPTIONS</u>			
C.1 <u>Revenues</u>			
1. Severance Taxes	No changes from current tax structure.	Calculated using low price.	Calculated using high price.

Assumptions	Base Case	Low Case	High Case
2. Royalties	Current royalty structure continues. These revenues are distributed between the General Fund and the Permanent Fund.	Calculated using low price.	Calculated using high price.
3. Bonuses	Based on projections published by Alaska Department of Revenue. No change in regulations.	Calculated using low price.	Calculated using high price.
4. Property Taxes	Based on projections published by Alaska Department of Revenue augmented by taxes on onshore facilities related to OCS developments.	Calculated using low price.	Calculated using high price.
5. Petroleum Corporate Income Tax	Based on projections published by Alaska Department of Revenue. No change in tax regulations.	Calculated using low price.	Calculated using high price.
6. Rents	Constant in real terms at current level of \$8 million.		
7. Miscellaneous Petroleum Settlement Revenues	Alaska receives \$2 billion (1990\$) over the period FY 1991 to 2000 in settlement of disputed offshore leases in the Beaufort Sea and in settlement of lawsuits regarding the valuation of North Slope oil. These revenues are evenly distributed between the General Fund and the Permanent Fund.		
8. Federal-State Petroleum-Related Shared Revenues	Increasing \$1 million annually from current level of \$25 million.		
9. Personal Income Tax	Reimposed at previous level when State appropriations fall below the FY 1988 level in real terms. Income tax is reimposed prior to elimination of the Dividend but only after Permanent Fund earnings have been appropriated to the General Fund.		

Assumptions	Base Case	Low Case	High Case
10. Large Project Corporate Income Taxes	Zero.		
11. Miscellaneous Local Revenue Sources	Miscellaneous State-local transfers, large project property taxes, petroleum-related federal transfers all set to zero.		
12. New Federal-State Shared Revenues	Zero.		
C.2 <u>State Appropriations</u> 13. Aggregate Appropriations	Annual appropriation equals current revenues plus 50 percent of General Fund Balance available for appropriations.		
14. Capital/Operations Split	90 percent operations; 10 percent capital.		
15. General Obligation Bonds	Bond sales for capital expenditures occur at a rate which maintains annual debt service payments at a level no more than 5 percent of current State revenues.		
16. Federal Grants-in-Aid for Capital Expenditures	Constant at \$75 million.		
17. State Loan Program	Appropriations from the General Fund for program capitalization terminated after FY 1987. Programs continue functioning on existing capitalization, including AHFC and APA revenue bond expenditures.		
18. Municipal Capital Grants	Funding terminated after FY 1987.		
19. State-Local Revenue Sharing	Continuation proportional to total State expenditures.		
20. State-Local Municipal Assistance	Continuation proportional to total State expenditures.		

Assumptions	Base Case	Low Case	High Case
21. Permanent Fund/Other Appropriations in Excess of Spending Limit	Special appropriation to Permanent Fund of \$150 million in 1991. Special capital appropriation from Railbelt Energy Fund in 1991.		
C.3 <u>Permanent Fund</u>			
22. Permanent Fund Principal	Deposits from petroleum revenues continue at current rates; inflation-proofing eliminated when complete withdrawal of nominal earnings commences.		
23. Permanent Fund Dividend	Continued at the rate of 50 percent of earnings averaged over the previous 5 years until revenues from all other sources are insufficient to maintain State appropriations at real 1988 level. When that milestone is reached, the Dividend is phased out.		
24. Permanent Fund Earnings	After payment of the Dividend, the remaining Fund earnings are added to the corpus of the Permanent Fund –inflation proofing and undistributed income. When State appropriations begin to fall below the real 1988 level, earnings are diverted to the General Fund to maintain the 1988 level.		
25. Real Rate of Return	3 percent.		
C.4 <u>Miscellaneous</u>			
26. State-Local Wage Rates	Wages held constant in nominal \$ for a 2-year period in early 1990's.	Wages held four years.	No cap of wages.
D. <u>NATIONAL VARIABLE ASSUMPTIONS</u>			
1. U.S. Inflation Rate	Consumer prices rise at an annual rate of 5 percent.		

Assumptions	Base Case	Low Case	High Case
2. Real Average Weekly Earnings	Growth in real average weekly earnings averages .05 percent annually.	Same as Base case.	Growth in real average weekly earnings averages 1 percent annually.
3. Real Per Capita Income	Growth in real per capita income averages .5 percent annually in excess of average weekly earnings.		
4. Unemployment Rate	Long-run rate of 6.5 percent.		
E. <u>REGIONAL ASSUMPTIONS</u>			
1. Population	Regional population growth allocated on the basis of existing population and employment growth.		
2. Employment	No significant shifts in the location of support industries.		
F. <u>DEMOGRAPHICS</u>			
1. Labor Force Participation Rate	Stabilizes at 69 percent.		

Source: University of Alaska, Institute of Social and Economic research. July 1990. Economic Projections for Alaska, 1988 - 2010. Prepared for the Alaska Housing Finance Corporation.

APPENDIX B — DEVELOPMENT OF LAND USE PROJECTIONS

I. BASIC METHODOLOGY

In developing land use projections for Chugiak-Eagle River, the following methodology was used:

1. Based on the area's physical characteristics, three land use suitability classifications—suitable, marginally suitable and unsuitable—were developed and mapped.
2. Present and potential sewer service areas were determined.
3. The acreage of vacant, suitable, marginally suitable and unsuitable land was calculated by zoning district, by sub-area and by potential sewer service area.
4. Existing and potential sewer service areas for future housing units were analyzed under varying density ranges.
5. The number of potential housing units on vacant land in currently zoned areas outside the sewer service areas was estimated.
6. The number of new housing units potentially able to be served by the existing, upgraded and proposed sewage treatment plant in Eagle River was estimated.
7. The proposed density of areas currently zoned "Transition" and "Planned Community" was determined.
8. The following assumptions were made:
 - (1) Only 75 percent of the vacant, suitable land will be used;
 - (2) It is less expensive to infill where there is existing under-utilized sewer capacity, so growth will be encouraged in those areas;
 - (3) Growth will continue to occur outside present and potential future sewer service areas;
 - (4) There is an expressed desire to retain the existing semi-rural/suburban lifestyle; and
 - (5) In areas to be sewerred, density ranges will be set high enough to encourage transit.
9. Land use categories were defined.
10. The location of major residential areas was determined using the calculations of acreage and potential housing units, the above assumptions, and the goals and objectives as stated by the community.

11. Densities were assigned to land classed as residential.
12. Commercial acreages were calculated by taking projected employment figures and relating them to current employment per acre figures, and to the amount of suitable vacant land which is commercially zoned.

II. LAND USE ALTERNATIVES

Four land use alternatives were developed:

1. **Low Alternative** (population forecast of 36,777.) This alternative assumes a continuation of the current rural lifestyle but with some more urbanized areas.

- (1) Residential

- (a) Multi-Family

- The ratio of multi-family to single family will remain at the current 15 percent multi-family to 85 percent single family.
- Multi-family will infill in the presently zoned multi-family sewerred areas.

- (b) Single Family

- Some new single family homes will be built on vacant, residentially zoned, suitable land in Birchwood, Chugiak, Eklutna, Peters Creek, South Fork and Eagle River Valley.
- Some new single family residential development will take place in the sewer service area.
- Growth areas in South Fork and Eagle River Valley will develop at R-6 densities.
- Due to demand, the new Hiland Bridge and the extension of natural gas to South Fork, there will be some development on environmentally sensitive lands in South Fork and Eagle River Valley.
- There will be sewerling of two growth areas, Dena'ina Estates and the powder reserve, will enable development at 4 dwelling units per acre.

- (2) Commercial

- (a) Commercial employment will be primarily local serving and will continue at the current level of 11 percent of the population.

- All B-3 and R-O zoned land is developed at 50 percent of capacity.
- Peters Creek will develop at lesser densities of employees per acre than Eagle River.
- Some commercial recreation development will take place.

2. **Medium - A Alternative** (population forecast of 46,152.) This alternative assumes a continuation of the rural lifestyle with minimum sewerage. The present sewage treatment plant capacity would be sufficient. This alternative builds on the low alternative and makes the same assumptions except for the following:

(1) Residential

(a) Multi-Family

- Some multi-family units must be provided for in the newly sewerage areas. This increases the density in the powder reserve area to 6 dwelling units per acre and increases the area served by sewer in the powder reserve.
- Half of the B-3 property at the corner of Eagle River Road and Eagle River Loop Road will be developed as multi-family units.

(b) Single Family

- Eklutna growth areas will develop at an R-6 density.
- More single family homes will go to the newly sewerage areas, with the Dena'ina Estates having a density of 6 dwelling units per acre, the powder reserve having 4 dwelling units per acre, and the area south of Dena'ina Estates having sewer extended at a density of 4 dwelling units per acre.
- Development will take place in the R-10 and R-6 areas on environmentally sensitive lands.

(2) Commercial

- (a) Commercial employment will remain primarily local-serving, with some increase in the percentage of jobs in the area (up to 13 percent of the population), but with most people being employed outside the area.
- (b) The east side of the new North Eagle River interchange will become residential.
- (c) Half the B-3 acreage at the corner of Eagle River Road and Eagle River Loop Road will be commercial.
- (d) Commercial recreation employment will expand and intensify.

3. **Medium - B Alternative** (also 46,152 population projection.) This alternative is like the Medium-A alternative because it has the same population projection and single family/multi-family split. However, it assumes more urbanization and that the Eklutna, Inc. land between the highways is sewerred, which triggers the need for expansion of the sewage treatment plant. It also assumes that more of the population (20 percent) is employed in the Chugiak-Eagle River area.
- (1) Residential
 - (a) Multi-Family
 - Some of the multi-family development moves to the Eklutna, Inc. land between the Old and New Glenn Highways.
 - (b) Single Family
 - Single family development will take place on Eklutna, Inc. land between the old and new Glenn Highways at a density of 3 to 6 dwelling units per acre.
 - (2) Commercial
 - (a) All areas zoned R-O and B-3 will develop or be redeveloped for commercial use.
 - (b) The area of commercial development at the North Eagle River interchange will be expanded to the north and west.
 - (c) Some commercial development will take place on Eklutna, Inc. land between the highways.
 - (d) All B-3 property at the intersection of Eagle River Road and Eagle River Loop Road will be developed for commercial use.
4. **High Alternative** (population projection of 60,349.) This alternative builds on the Medium-B alternative. It is the most urbanized alternative and assumes that sewer service will be extended to Peters Creek. An expanded treatment plant capacity of 4 million gallons per day will be required.
- (1) Residential
 - (a) Multi-Family
 - Some of the powder reserve east of the Railroad tract and all of the Eklutna, Inc. land between the highways will be developed at a multi-family to

single family ratio of 75 to 25 percent, a higher ratio than is presently the case.

(b) Single Family

- The northwest quarter of Section 25 is developed at an R-6 density.
- The South Fork growth area is all sewerred at a density of 5 dwelling units per acre.
- Vacant portions of Peters Creek are developed with sewer service.

(2) Commercial

- (a) There is expanded commercial development at the Eklutna Village interchange.
- (b) Peters Creek becomes a secondary commercial node like Eagle River.
- (c) Commercial development extends even further north and south at the North Eagle River interchange.
- (d) The area of commercial development in Eagle River will expand by 10 acres.
- (e) There will be commercial development on I-2SL lands by the Birchwood airport.
- (f) Large scale commercial recreation development will take place, including a hotel.
- (g) There will be a large region-serving industry, such as the Railroad.

III. SELECTED LAND USE ALTERNATIVE

The four alternatives were presented to the Citizens Advisory Committee and several community councils for their input, and a recommended land use plan with the following assumptions was developed. During the plan adoption process, several of these assumptions were modified by the Planning and Zoning Commission and the Assembly. In particular, the amount of land recommended for Mixed Use was significantly expanded as a means of providing for greater flexibility of development.

1. Residential

(1) Multi-Family

- (a) The ratio of multi-family to single family housing will remain at the current ratio of 15 percent multi-family to 85 percent single family.
- (b) Multi-family residential development will infill in the presently zoned multi-family sewerred areas.
- (c) Some multi-family units will be provided in the newly sewerred areas.

(2) Single Family

- (a) Some single family homes will be built on vacant, residentially zoned, suitable land in Birchwood, Chugiak, Eklutna, Peters Creek, South Fork and the Eagle River valley.
- (b) Additional housing units will be built within areas which are presently sewerred.
- (c) Three potential sewer service areas will be sewerred: Dena'ina Estates, the old powder reserve, and the area between the old and new Glenn Highways.

2. Commercial

- (1) The east and west sides of the new North Eagle River interchange will have associated commercial areas.
- (2) All of the B-3 acreage at the corner of Eagle River Road and Eagle River Loop Road will remain in commercial use.
- (3) There will be a limited amount of commercial land on the south side of Hiland Road.
- (4) The downtown Eagle River business district will be expanded and encouraged to develop.
- (5) Commercial recreation employment will expand and intensify.

3. Industrial

- (1) Major industrial areas will either remain or be developed near the Birchwood airport, along the old Glenn Highway in Chugiak, and at east Artillery Way and Springbrook Drive in Eagle River.
- (2) As the Comprehensive Plan is generalized, individual commercial or industrial lots will not be designated.

APPENDIX C — TRAILS COMMITTEE

The Conceptual Trails Plan map and the Requested Snowmobile Trails map contained in this Appendix are not formally adopted as part of this Plan.

The Comprehensive Plan is a general guide to the future character and development of Chugiak-Eagle River. As such, it provides the basis for parks and trails plans, as well as general concepts and goals.

Parks and trails plans use the factual information, policies and recommendations contained in the Comprehensive Plan as the basis for developing detailed locations, designs, standards, management criteria and implementation methods. It is the detailed trails plan which translates the goals of the Comprehensive Plan into specific sites for acquisition and/or development.

Both a park plan and a trails plan were adopted for the Chugiak-Eagle River area in 1985.

As a part of this Plan, a Trails Committee for Chugiak-Eagle River was convened by Dick Kerbow, Manager, Chugiak-Eagle River Parks and Recreation. Trail user groups represented were cross-country skiing, dog mushers, snowmachiners and equestrians. Individuals who participated on the Trails Committee included:

Jim Cantor
Dave Christy
Cory Cronquist
Gerry Cronquist
Joe Curro
Fred Dyson
Allen Hingst
Lee Hingst
Pete Johnson
Jerry Lewanski
Ann Newbury
Nancy Raty
John Rodda
Ted Ross
Dixie Waddell
Jim Welch
Larry Williams
Dave Young

Each user group was given two topographic base maps. Existing, legally protected trails were designated on one map and proposed trails on the other. The two maps were then combined. (See Conceptual Trails Plan map.) After the generalized overall map was completed, the snowmachiners presented their separate request. (See Requested Snowmobile Trails map.)

The generalized overall map was presented to the Chugiak-Eagle River Parks and Recreation Board of Supervisors for its review, with the snowmobilers making their request at the same meeting. Preliminary approval was given to the bicycle, dog mushing, skiing and equestrian trails and a portion of the snowmobile trails.

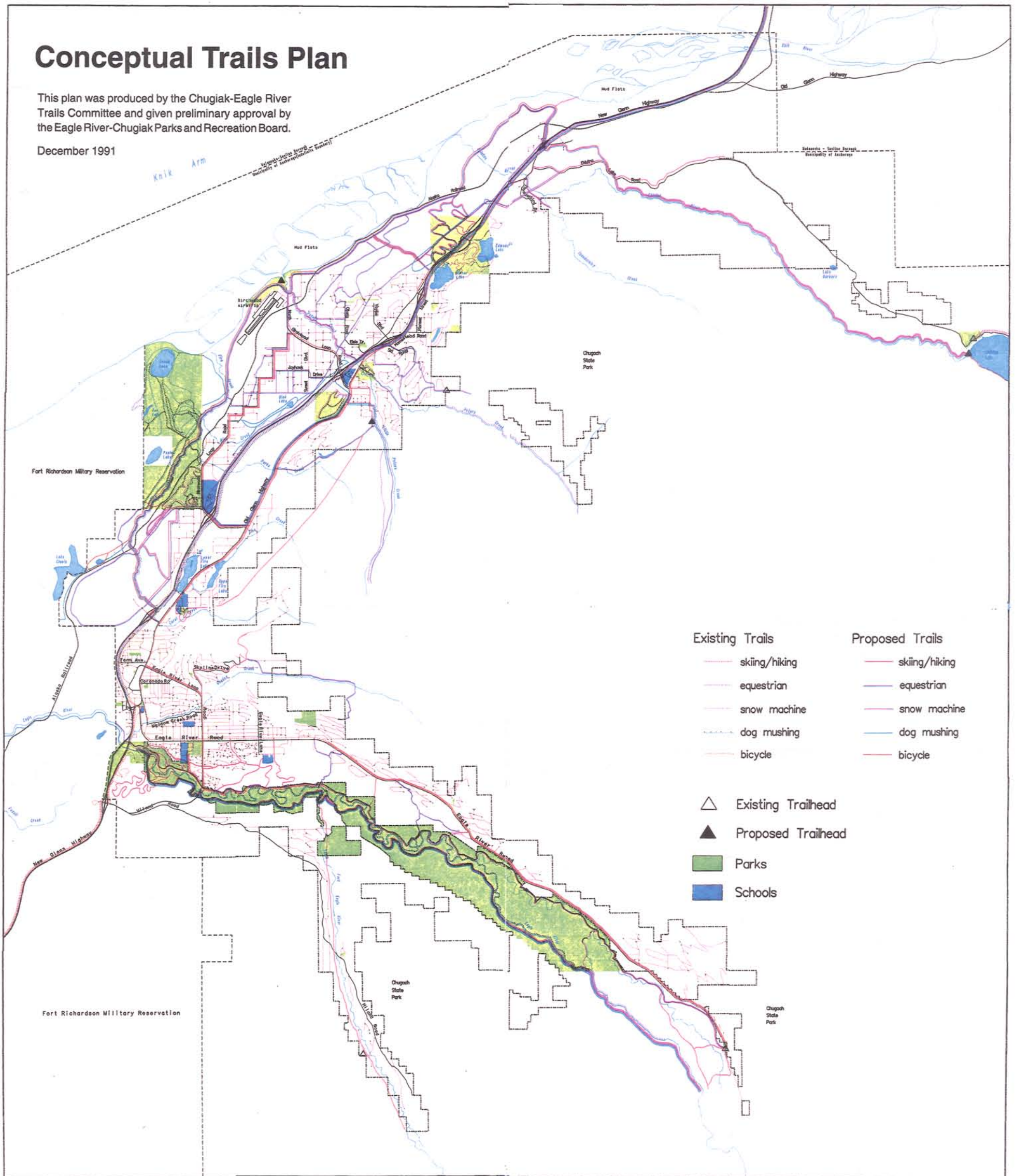
Additional detailed studies, including field work, must be undertaken to ascertain precise trail locations, to resolve conflicting trail uses, and to determine implementation methods. Funding for these studies must also be sought.

The last step in the process will be to go through the public review process required to adopt an updated Chugiak-Eagle River trails plan.

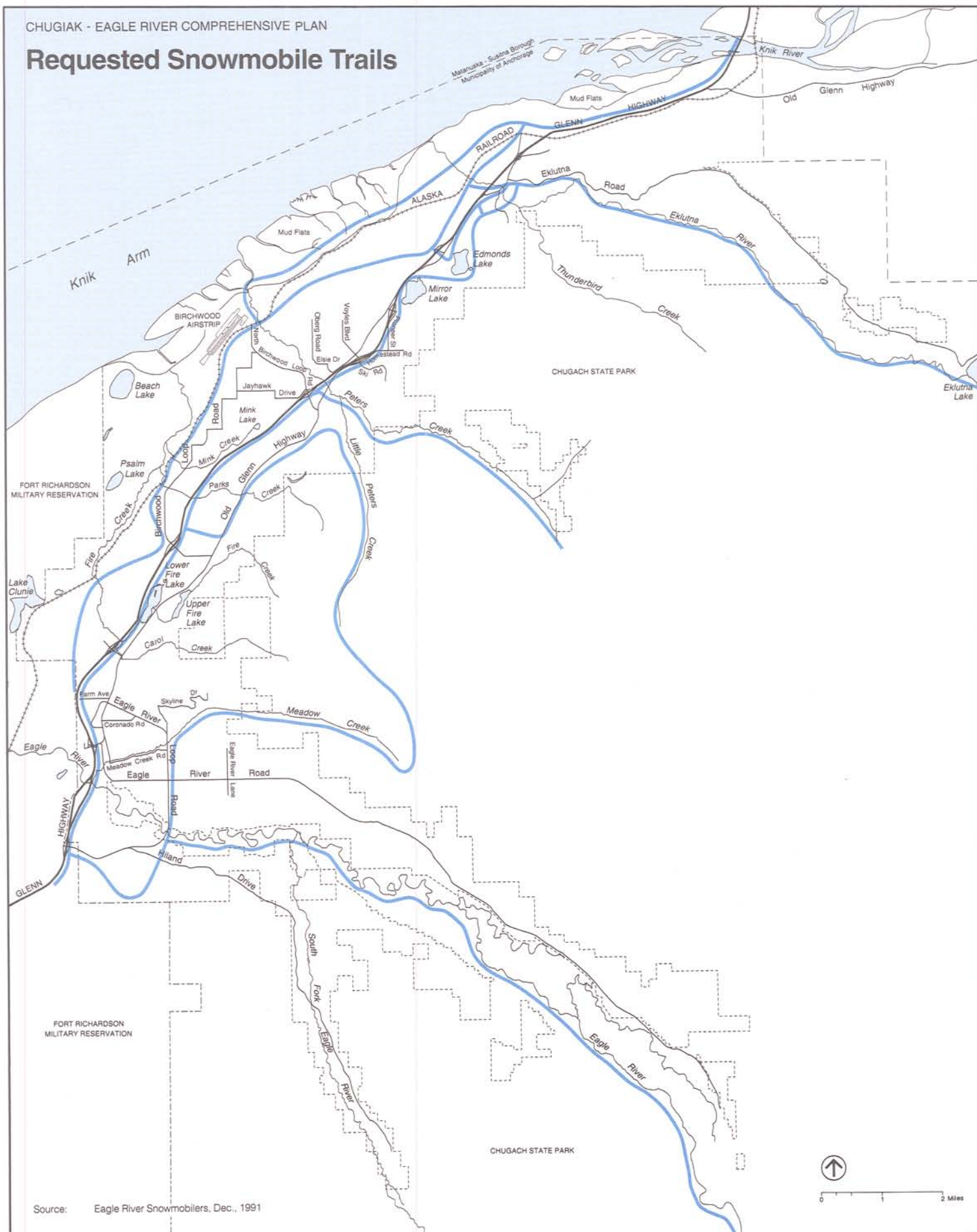
Conceptual Trails Plan

This plan was produced by the Chugiak-Eagle River Trails Committee and given preliminary approval by the Eagle River-Chugiak Parks and Recreation Board.

December 1991



Requested Snowmobile Trails



APPENDIX D — ANTENNA SITING

The communications industry is an important element in modern life. As technology has advanced, demands for communication and broadcast services have increased. AM/FM radio, high and low power television, cellular telephone, two-way radio, satellite receivers, HAM radio, and CB radio all require the erection of transmission towers and antenna of differing sizes and designs.

The location of transmission towers has become a divisive issue for some residents. Principal negative impacts cited include aesthetics, interference with home electronic equipment and perceived health risks.

I. SITING CONSIDERATIONS

Most broadcast signals must be delivered on a "line of sight" basis, i.e. the receiving site must be visible to the transmitting site. The physical height of the tower is determined by its location. A tower located at a lower elevation must be taller than one on a mountain top, while a tower which is distant from the receiving area will be taller than one nearby. Transmission tower siting is also limited by three other physical factors: aircraft operations, electric power, and access for maintenance.

Zoning legislation passed by the Assembly in 1989 restricted the location of transmission towers. Towers may be located in any zoning district, but their height determines the minimum site size. The Assembly also implemented a minimum one-mile separation from site to site. The one-mile separation standard significantly reduces the number of available sites.

Generally, conflicts tend to be minimal where residential development follows transmission tower construction. However, where transmission tower construction or substantial alteration follows residential development, the perceived conflict between uses escalates.

Aside from aesthetics, issues raised by nearby residents include interference with common residential electronic equipment, such as radios, tape recorders, televisions and stereo equipment. There is also some concern over the long term health impacts of living near a transmission tower. Unfortunately, national and international experts cannot agree on what constitutes safe levels of exposure.

II. SITING EVALUATION POLICY

A system of preferential ranking is established as part of the Comprehensive Plan. It will assist local residents, the Planning and Zoning Commission and the Assembly in evaluating commercial transmission tower sites in the Chugiak-Eagle River area. Point values are assigned to each attribute of a site. Total points will yield a numerical value to be used to compare

one transmission tower site with another. Applicants for an antenna site must present at least two viable sites for comparison. Although this point system will provide guidance, it is to be only one element to be employed in the selection process.

A. TRANSMISSION TOWER SITING POINTS

1. Zoning

- +5 Antenna Farm
- +3 Industrial
- +1 Commercial
- 0 Public Lands and Institutions/Watershed (non-park or school)
- 2 Residential greater than 1 acre minimum lot area
- 4 Public Lands and Institutions/Watershed (park or school)
- 5 Residential less than 1 acre minimum lot area

2. Distance to Existing Residential Development

- +1 Greater than 2,000 feet
- 0 1,000 to 2,000 feet
- 2 Less than 1,000 feet

3. Structure Type

- +1 Guyed with minimum silhouette (0 - 3 feet)
- 0 Guyed with medium silhouette (3 - 6 feet)
- 1 Guyed with substantial silhouette (6 feet or more)
- 2 Non-guyed

4. Antenna Two-Dimensional Silhouette (total of the greatest silhouette of all mounted antennas)

- +2 1 square foot or less
- 0 More than 1 - 25 square feet
- 3 More than 25 - 100 square feet
- 5 More than 100 square feet

5. Structure Location

- +1 Accessory to another structure (low public visibility)
- 0 Accessory to another structure (high public visibility)

- 1 Stand alone (low public visibility)
- 2 Stand alone (high public visibility)

6. Structure Height

- +1 Less than 75 feet
- 0 75 - 100 feet
- 1 More than 150 - 300 feet
- 2 More than 300 feet

7. Accessory Structure Design Compatibility with Surrounding Structures

- +3 Design compatible
- 0 Design neutral
- 3 Design incompatible

8. Site Ground Elevation

- +1 Low (non-hillside)
- 0 Moderate (mid-hillside)
- 1 High (upper hillside and peaks)

9. Electric Power Source (Normal)

- +1 None or noiseless on-site generation
- 0 Commercial power
- 2 On-site generation

10. Tower Obstruction Lighting

- +1 None
- 0 Red non-flashing
- 1 Red flashing
- 3 Strobe

11. Potential for Interference with Residential Electronic Equipment

- +1 None
- 0 Low
- 2 High