Gravina Access Project

Existing Land Use Technical Memorandum

Prepared for:

State of Alaska
Department of Transportation and Public Facilities
6860 Glacier Highway
Juneau, Alaska 99801

Prepared by:

HDR Alaska, Inc.
712 West 12th St.
Juneau, AK 99801

July 2000

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1.0 Introduction

This memorandum analyzes the existing land use situation in the Ketchikan Gateway Borough (KGB), particularly as it relates to the Gravina Access Project. The document presents the results of a land use survey and vacant land analysis of property in the KGB. The results of this survey provide a current assessment of the amount of vacant industrial and commercial land that is road accessible and developable on Revilla Island.

The purpose of the memorandum is twofold. First, the document provides information directly relevant to the purpose and need statement. The purpose and need statement for the project identifies a need to access Borough lands and other developable or recreation lands on Gravina Island. Agencies and the public requested that the Department of Transportation and Public Facilities (DOT&PF) document the need for access to additional developable land. As a result, DOT&PF initiated two studies; (1) an analysis of the existing land supply and (2) an analysis of the land demand. The intent of first study (contained in this document) is to examine existing land uses in the Borough and in particular evaluate the supply of vacant developable land. A second, parallel study is being conducted to examine local economic conditions and the implications on land demand. After both studies are complete, team members will compare information on the land supply to the land demand allowing team members to project future development needs on Gravina Island.

Secondly, traffic forecasts for the various crossing options will hinge, in part, on understanding what land uses are likely to be located on Gravina Island in the future. Analysis comparing the land supply with the future demand will enable team members to project likely land uses to occur on Gravina. That land development projection will be factored into the traffic forecasts by estimating trips for each type of projected land use. The trip generation information will be used in combination with other traffic forecasting techniques to arrive at composite traffic forecasts. The traffic forecasts are in turn needed to assess traffic impacts to the existing traffic and infrastructure on Revilla Island. The traffic forecasts and land use projections for Gravina will be used together to analyze the secondary and cumulative impacts anticipated to occur

The structure of this document is as follows: Section 2.0 presents the results of the land use survey and provides an overview of how land is currently being used in the Borough. Section 3.0 reviews the amount, location, and suitability of vacant land in the Borough, particularly of available industrial and commercial lands.

2.0 Existing Land Use

The following two sections of this document present the results of a land-use survey conducted in support of the Ketchikan 2020 and Gravina Access Project. This section, Section 3.0, presents an analysis of land currently being used, and the following section, Section 4.0, presents an overview and analysis of vacant land. The survey includes only those lands tracked by the tax assessor and doesn't include federal lands of the Tongass National Forest.

2.1 Existing Land Use

Table 2-1 presents the tax assessor's summary of land use borough wide. Aside from mining claims, the main uses, according to the tax assessor, are institutional uses such as schools, churches, parks, and other land. HDR discovered that much of this land (1,800 acres) is actually vacant but held in public ownership (exempt from taxes). For the purposes of this survey, HDR considered these lands as vacant and analyzed them as part of the vacant land analysis.

Table 2-1
Property Class Use
Ketchikan Gateway Borough Tax Assessor, 1999

Property Class Use	Acres
Churches, Schools, misc. exempts	3,130.25
Commercial Improvement	631.00
Heavy Industrial Improvement	402.36
Light Industrial Improvement	179.04
Mining Claims	9,995.11
Possessory Interests (Leaseholds)	74.97
R-O-W & Easements	20.50
Rural/Recreational Improvement	436.63
Tidelands	1,494.80
Residential	
Single Family Residential	1,266.51
Single Family (2-4 units)	223.71
Homesite Permits	38.90
Mobil Home(s)	69.56
Multifamily (5+ units)	25.95
Multifamily – Condominium	12.66
Residential Subtotal	1,637.28
Other	99.11
In–use Subtotal	18,026.10
Vacant	45,285.75
Total	63,311.84

Source: KGB Tax Assessor Database, 1999

To get another picture of how land is being used, HDR developed a land use coding system and conducted a survey of land uses in the Borough. The KGB recommended using a coding system developed by the American Planning Association (APA). The APA has created land-based classification standards (LBCS) to provide a consistent model for classifying land uses based on their characteristics.

Table 4-2 shows the results of the land use survey. Approximately one-third (36%) of the acreage is in use and two-thirds (64%) is vacant. Aside from the natural resource category, which contains more than 10,700 acres, the relative amounts of acreage in use in the borough follow fairly typical patterns of land use experienced in other locations. The residential category accounts for the greatest acreage of property with actual physical improvements. Discrepancies between table 2-1 and 2-2 results from refinement of the coding and differences between how the tax assessor codes land use and how the LBCS suggests coding land use. Appendix B contains a description of the category definitions.

Table 2-2
Borough-Wide Land Use by Activity

Category	Acres
Residential	2,202.71
Shopping, Business, or Trade	506.45
Industrial, Manufacturing, and Waste-related	1,012.33
Social, Institutional, or Infrastructure-related	1,252.64
Travel or Movement	3,491.16
Mass Assembly of People	46.24
Leisure	3,078.67
Natural Resource-related[2,3]	10,150.01
Tidelands[1]	908.35
In-use Subtotal	22,652.09
Vacant[4,5]	40,659.76
Total	63,311.88

Source: HDR Alaska, Inc. & KGB Tax Assessor Database, 1999

1 To be conveyed or leased, the applicant is required to indicate their intended use of the property as part of the process with the state (Stone 2000). In other words, tidelands are only conveyed or leased if there is an approved use. Where possible, specific tideland uses were identified and coded. The remaining tidelands (908 acres) have not been LBCS coded. This study presumes they are in use in association with upland uses. On Revilla Island there are very few identifiable tideland parcels that are not in use.

2 Tongass National Forest lands are not tracked by the tax assessor and were therefore not included in the land use survey. Harvest areas in the Tongass National Forest would make this acreage considerably higher.

3 According to tax assessor records, mining claims account for the largest category of land use. It must be noted however, that mining claims in the borough generally apply only to the subsurface rights. As such, the tax assessor classifies mining claims separately from the surface rights, with a completely different parcel number and record in the database. The actual useable surface acreage is smaller (by the amount of the mining claim acreage, 9,995 acres). Moreover, the acreage of mining claims are not all working mines but have been included in the "in use" section because they are otherwise designated for this activity.

4 Vacant land includes land that is actually in use for forestry or other extraction activities, but because it does not have a structure it is classified by the assessor as vacant. .

5 HDR found that the tax assessor information was quite accurate for identifying "vacant" property, in other words property that did not have an improvement. Simply because the tax assessor classified a property as vacant, however, does not necessarily mean that the property is not in use. The tax assessor typically classified parks, parking lots, and industrial and commercial storage lots as "vacant," but from a planning perspective, these lots are "in use" or unavailable for development. The acreage difference in "vacant" land use between Table 2-1 and 2-2 is 6,439.59 acres. A significant portion of this acreage occurs at large park/recreational parcels in public ownership such as the tract at Lake Harriet Hunt, which HDR classified as a recreation area.

Based on the available data and budget and the methodology used in the survey, it was not possible to discern and classify land in the "vacant" category that was actually in use for timber

production. Some jurisdictions in the country, (Oregon, for example) zone forest lands intended to be harvested in the same fashion as active farmland is considered in use in most jurisdictions. If the KGB were to conduct similar zoning, it is likely that large portions of the land identified as vacant would actually be zoned "forestry" and be considered in use.

This is particularly true of the future development zone (FD). The FD zone on Revilla has been applied to areas that are typically very steep and not suitable for building development (or only marginally so) but are well suited to growing trees that are likely to be harvested in the future. See Appendix D for a description of each of the Borough's zoning classifications. Thus, it is likely that a significant portion of the vacant land, particularly KGB, Alaska Department of Natural Resources (DNR), University of Alaska, Mental Health Trust lands, and Cape Fox Corporation lands could actually be considered in use for timber production, and the vacant land supply would be considerably less and the natural resources category significantly more. The Whipple Creek area is an example of a location that is classified as FD vacant, but has been harvested, and could be considered in use for timber production.

2.2 Housing Supply

Project team members identified 2,202 acres of land in residential use. Table 2-3 categorizes this acreage. As Table 2-3 notes, the largest category of residential land use was "Single Family Residential," with over 1,300 acres. Also of note is the category "Rural Recreational Improvement," which is residential land use on 416 acres of remote land outside of the developed roaded area of Revilla Island. Recreational improvements on this land likely consist of primarily cabins, trailers, or single-family homes. (This assumption is based on tax assessment data rather than a field survey of residential property.)

Table 2-3
Borough-Wide Residential Land Use

Category	Acres
Single Family Residential	1,334.50
Homesite Permits	38.90
Tideland Residential	7.99
Mobil Home(s)	71.43
Rural/Recreational Improvement	416.75
Condo/Townhouse	18.13
Multifamily (> 1 Unit)	279.25
Commercial Lodging	19.28
Public/Private Nonprofit	16.49
Total	2,202.71

Source: HDR Alaska, Inc. & KGB Tax Assessor Database, 1999

Table 2-4 depicts the existing residential land use on Gravina Island. According to the tax assessor, approximately 33 parcels have a residential use on Gravina Island. Housing is clustered around Clam Cove (KGB Map Units 5710 and 5820). A smaller cluster of homes is located at the north end of the island in map units 5110 and 5220. Figure 3.1 shows the location of the map units.

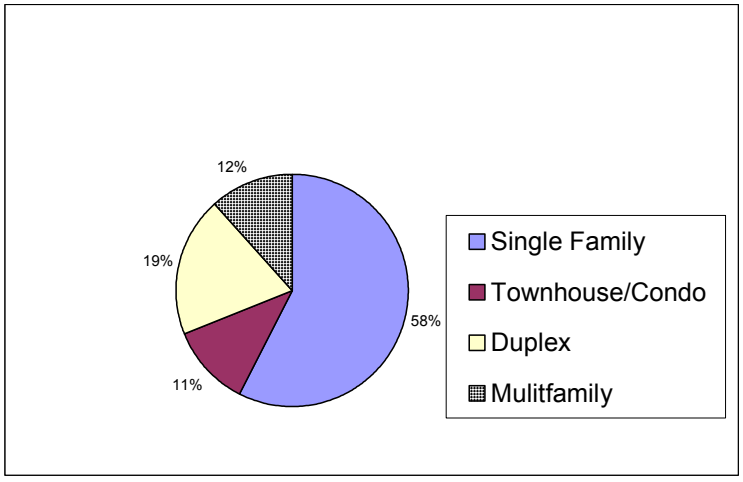
Table 2-4
Existing Residential Use
Gravina Island, 1999

Map Unit*		Stats
5110	Acres	51.32
	Parcels	3
5220	Acres	4.21
	Parcels	2
5320	Acres	8.71
	Parcels	6
5420	Acres	1.43
	Parcels	2
5710	Acres	327.01
	Parcels	14
5720	Acres	3.23
	Parcels	7
5820	Acres	1.63
	Parcels	2
5920	Acres	4.97
	Parcels	1

Note: map units refers to the mapping grid system used by the KGB for its base mapping.

Figure 2.1 shows the percentage of each housing type (based on number of units) that comprises the borough's existing housing stock. The majority of units are single family structures (58%), followed by duplex units (19%) where each duplex is counted as two units, followed by multifamily units (12%), and finally townhouse/ condominium units (11%).

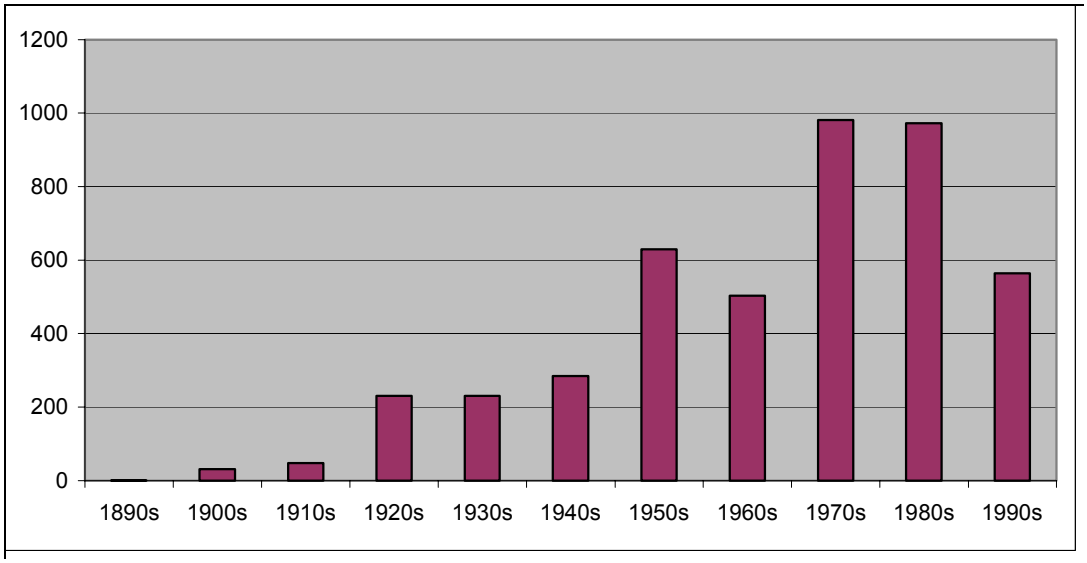
Figure 2.1
Housing Composition
(% of number of units)



Source: KGB Tax Assessor Database

Figure 2.2 shows the age distribution of the housing stock based on the number of units built each decade. Overall, the housing stock is relatively young. Approximately 56% of the housing units have been built since 1970.

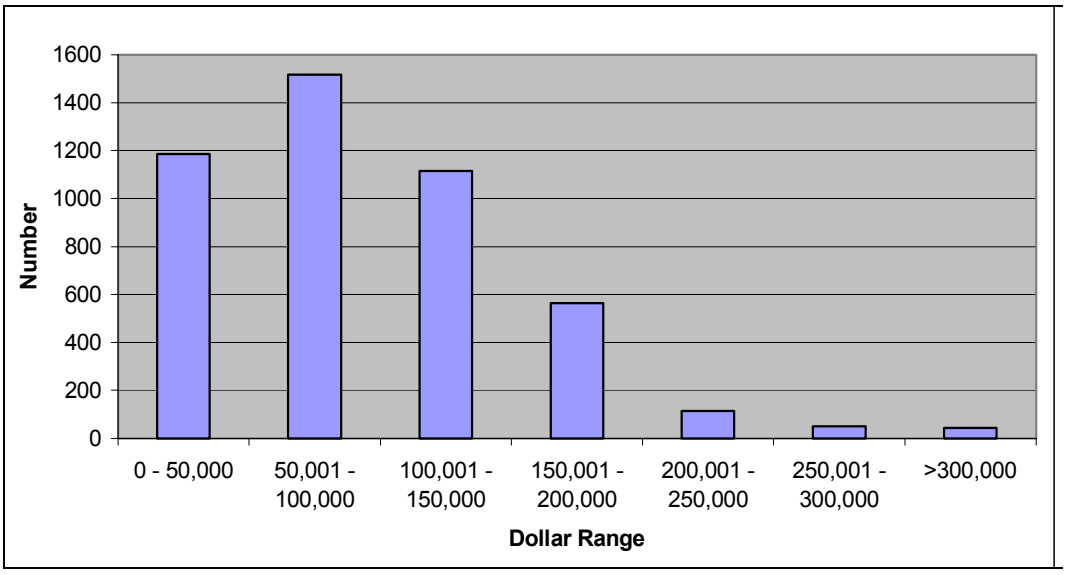
Figure 2.2
Existing Housing Stock – Age
(Number Built in each Decade)



Source: KGB Tax Assessor Database, 1999

Figure 2.3 shows the number of residential structures falling into ranges of assessed value (excluding land values). Most of the houses (58%) have building values assesses under $100,000. The number of units drops sharply at an appraised value of $200,000.

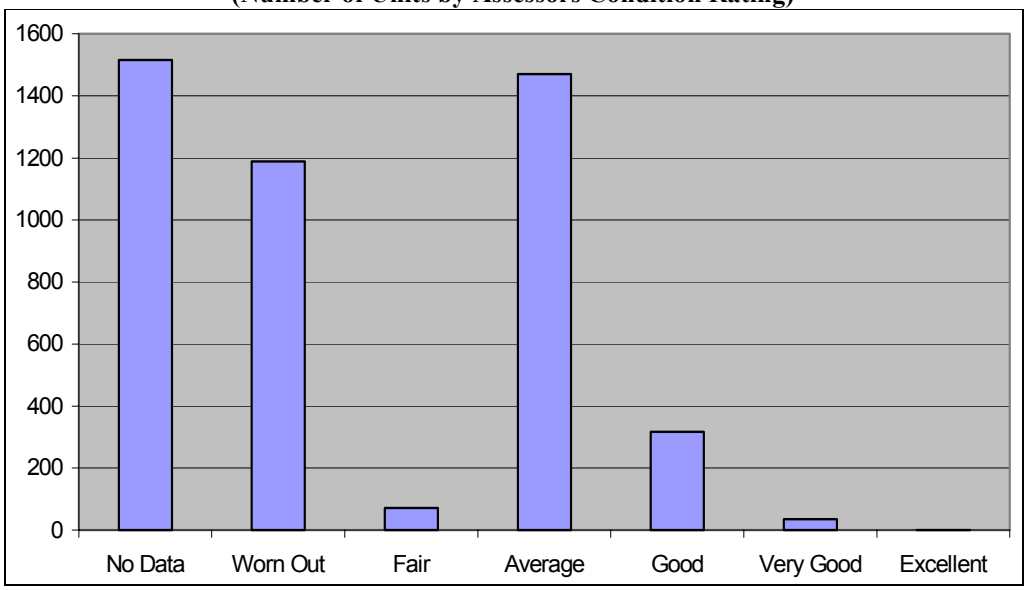
Figure 2.3
Assessed Value
(Number of Units/Dollar Range)



Source: KGB Tax Assessor Database, 1999

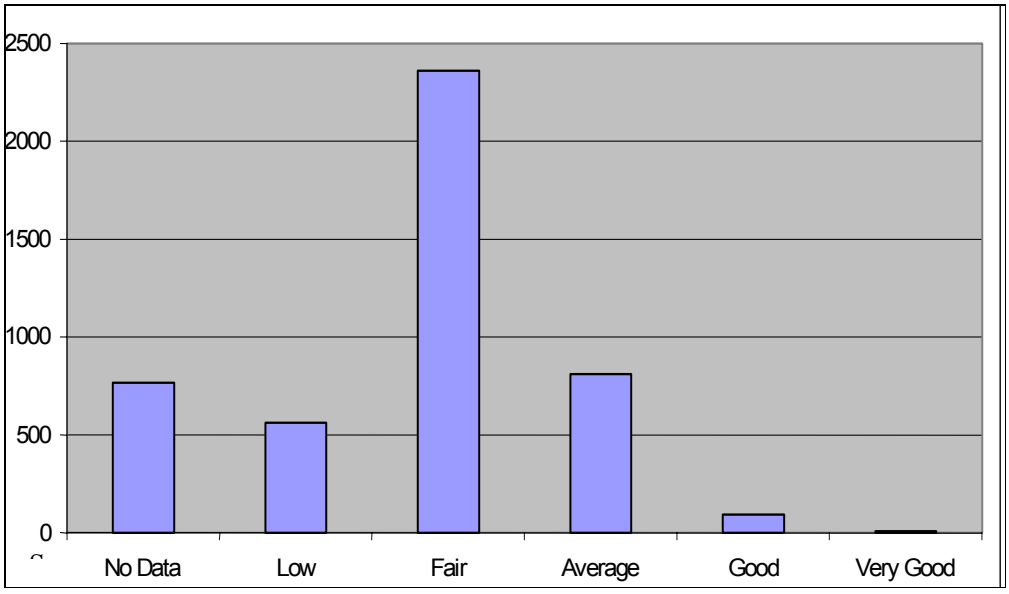
Figures 2.4 and 2.5 provide an indication of the quality of the housing stock. These are ratings assigned by the tax assessor, and they give an indication of the overall condition and the property quality. According to this data, most of the property has been rated as fair to average. Of note is the high number of parcels (1,200) to which the assessor has assigned a "worn out" classification for overall condition. These are properties that are typically older than average (average year built is 1958 as opposed to 1969 overall), and, as expected, are appraised at a lower value than average (average of $68,000 as opposed to $97,000 overall).

Figure 2.4
Overall Condition
(Number of Units by Assessors Condition Rating)



Source: KGB Tax Assessor Database, 1999

Figure 2.5
Property Quality
(Number of Units by Assessors Condition Rating)



Source: KGB Tax Assessor Database, 1999

2.3 Shopping, Business, or Trade

Just over 500 acres in the borough are in commercial use. Table 2-5 categorizes these uses. The largest category is "General Sales or Services." This category, however, likely reflects other commercial uses as well. Where sufficient or specific information was not available, the category "General Sales or Service" was used as a default for commercial uses. It is not accurate, therefore, to assume, for instance, that only 4.64 acres fall into the "Finance and Insurance" land-use category. If information was insufficient to determine the actual use of a particular property, this property would have been coded "General Sales or Service."

Table 2-5
Borough-Wide Commercial Land Use

Category	Acres
General Sales or Service	384.70
Retail Sales or Service	74.79
Finance and Insurance	4.64
Real Estate, Rental, and Leasing	21.72
Business, professional, scientific, and technical Services	10.03
Food Services	7.46
Personal Services	3.10
Total	506.45

Source: HDR Alaska, Inc. & KGB Tax Assessor Database, 1999

2.4 Industrial, Manufacturing, and Waste-Related

A total of 1,012 acres of KGB land is used industrially. Table 2-6 shows the land uses classified as industrial within the borough. The largest category is "Wood, Paper, and Printing," with nearly 600 acres. Businesses in this category manufacture wood (lumber, wood building supplies). Some portion of this acreage includes former KPC holdings that are not currently being used, but are also not vacant (they have industrial/manufacturing structures and equipment on them). Such properties could be rehabilitated and reused, adding to the supply of industrial land base. The category called "Manufacturing and Wholesale Trade" is a general category used to cover a wide range of industrial uses. Where sufficient or specific information was not available, this category was used as a default for industrial uses.

Table 2-6
Borough-Wide Industrial Land Use

Category	Acres
Manufacturing and Wholesale Trade	281.73
Food Textiles and Related	4.06
Wood, Paper, and Printing	595.07
Chemicals, Metals, Machinery Manufacturing	10.05
Miscellaneous Manufacturing	0.30
Warehouse and Storage Services	13.39
Transportation Services	9.76
Utilities	0.24
Fishing (Processing)	36.63
Construction-related (General)	8.76
Building, Developing, General Contracting	42.53
Machinery Related Construction	0.71
Heavy Construction	9.10
Total	1,012.33

Source: HDR Alaska, Inc. & KGB Tax Assessor Database, 1999

2.5 Social, Institutional, or Infrastructure-Related

Table 2-7 presents the 1,252 acres of institutional land uses identified. This category contains schools, emergency services, utilities, health care, and military bases. The first category noted in the table was used as a general default category. When more specific information was not known about the use, it was classified in this category.

Table 2-7
Borough-Wide Social, Institutional, and Infrastructure-Related Land Use

Category	Acres
Social, Infrastructure, or Infrastructure Related (General)	1,052.12
School or Library	93.16
Emergency Response, Public Safety	2.18
Utilities	83.77
Health Care, Medical, or Treatment	10.94
Military Bases	10.47
Total	1,252.64

Source: HDR Alaska, Inc. & KGB Tax Assessor Database, 1999

2.6 Travel or Movement

Table 2-8 depicts the transportation land uses in the borough. Because the tax assessor does not account for all public parcels and rights-of-way, the active runway and taxiway acreage is not included, nor is all the acreage associated with street rights-of-way. A significant portion of the road/ground transportation category is associated with the right-of way for the secondary bypass road. Most of the secondary bypass route is on steep slopes and is not generally suitable for commercial or industrial development.

Table 2-8
Borough-Wide Transportation-Related Land Use

Category	Acres
Transportation Services	31.08
Aviation*	19.69
Road/Ground Transportation	3,296.96
Marine	143.43
Total	3,491.16

* Does not include runways and taxiways
Source: HDR Alaska, Inc. & KGB Tax Assessor Database, 1999

2.7 Mass Assembly of People

This is a catch-all category for activities associated with the mass assembly of people for transportation, spectator sports, entertainment, or social and institutional reasons. Table 2-9 presents the acreage used for these activities.

Table 2-9
Borough-Wide Mass Assembly of People Land Use

Category	Acres
Religious	26.59
Death Care	10.55
Associations, Non-Profits	3.53
Miscellaneous	5.56
Total	46.24

Source: HDR Alaska, Inc. & KGB Tax Assessor Database, 1999

2.8 Leisure

This category is used for classifying all forms of leisure activities. It includes customary active and passive kinds of recreation activities. The considerably large number of acres in the leisure category reflects the classification of large parcels of land primarily used for recreation (such as the Lake Harriet Hunt area) as recreational parks. A number of remote properties that the tax assessor classifies as vacant are likely used and managed for passive or active recreation. These properties could be added to the "Natural and Other Recreational Parks" category. Without further research, HDR was unable classify such management distinctions in terms of land use. Table 2-10 presents this information in more detail.

Table 2-10
Borough-Wide Leisure Land Use

Category	Acres
Museums	2.65
Amusement, Sports, or Recreation	9.14
Natural and Other Recreational Parks	3,033.40
Leisure Related Associations, Nonprofit, org.	30.43
Miscellaneous	3.06
Total	3,078.67

Source: HDR Alaska, Inc. & KGB Tax Assessor Database, 1999

2.9 Natural Resources-Related

This category includes fishing, quarry and extraction activities, and mining claims. Mining claims generally apply only to the subsurface rights in the borough. Surface uses were classified separately. Typically, the mining claims are below-surface land that is vacant. It is likely that the surface rights to most of the 9,995 acres are vacant and have been included in the vacant land analysis. Table 2-11 depicts this category of land use.

Table 2-11
Borough-Wide Natural Resources Land Use

Category	Acres
Fishing (Hatchery)	130.75
Quarry and Extraction	21.33
Mining Claims	9,995.11
Misc.	2.82
Total	10,150.01

Source: HDR Alaska, Inc. & KGB Tax Assessor Database, 1999

3.0 Vacant Land Analysis

This section presents an analysis of the vacant land in the KGB. It evaluates the suitability of the vacant land for development in terms of allowed use, location, and accessibility.

3.1 Borough-Wide

The usability of land is in part directly related to its accessibility in terms of its location. To ascertain usability, the project team classified vacant land in terms of its accessibility. Land was first categorized by its location as being on Revilla Island, Gravina Island, or Pennock Island. On Revilla Island, land was further classified in terms of being "road accessible," "marginally accessible," or "inaccessible." For the purpose of this survey, the project team defined road accessible land as land located on the road system. The team defined marginally accessible land as land adjacent to the developed portions of community but not on the road network. Inaccessible land is defined as remote land that is located outside of the developed area and is physically separated from the community.

Table 3-1 shows the location and accessibility of vacant land within the Borough. Approximately 95% of the vacant land on Revilla, Gravina and Pennock Islands is not road accessible. In the vicinity of Ketchikan, the majority (more than 9,000 acres) of the vacant land is located on Gravina Island.

Table 3-1
Location of Vacant Land Borough-Wide

Area	Acreage	Percent
Revilla – Road Accessible	2,284.64	5.6%
Revilla – Marginally Accessible or Inaccessible	28,122.20	69.2%
Gravina Island	9,221.85	22.7%
Pennock Island	1,031.07	2.5%
Total	40,659.76	100%

Source: KGB Tax Assessor Database, 1999

It is important to know how the local government allows for land in its jurisdiction to be used. Table 3-2 shows a breakdown of the vacant land borough-wide by the uses allowed to be developed there according to local zoning. The data indicates that 0.2% of the land is zoned for commercial uses and 1.2% is zoned for industrial uses.

Table 3-2
Vacant Land by Allowed Uses[1] – Borough-Wide

Planned Use	Acres	Percent
Commercial Land (CD, CC, CG, HD)	96.34	0.2%
Heavy Industrial (IH, AD)	486.02	1.2%
Light Industrial (IL)	20.37	0.1%
Multifamily Land (RH)	50.77	0.1%
Public Lands & Institutions (PLI)	343.25	0.8%
Residential Land (RL, RM, RS)	14,238.46	35.0%
Rural/Recreational (FD, RR)	25,424.55	62.5%
Grand Total	40,659.76	100%

Source: KGB Tax Assessor Database, 1999
[1] See Appendix D for a description of the Borough's zoning classifications.

3.2 Revilla Island

This section presents a more detailed analysis of the vacant land on Revilla Island. Table 3-3 presents a summary of vacant property by location. Table 3-4 presents a summary of the vacant land supply by location and intended use. Table 3-5 presents both the location and allowed use of this vacant land in more detail.

Table 3-3
Summary of Road Accessible Vacant Land by Location
Revilla Island, 1999

Location	Acres
Borough (General Areas) Total	748.29
City of Ketchikan Total	489.88
City of Saxman Total	310.45
Forest Park Total	2.18
Gold Nugget Total	12.59
Mountain Point Total	93.51
Mud Bight Total	159.43
Nichols View (South Tongass) Total	96.31
Shoreline Total	168.28
Shoup St. Total	2.43
South End Fire Total	136.45
Waterfall Total	64.84
Grand Total	2,284.64

Source: KGB Tax Assessor Database, 1999

Approximately 65% of the road accessible, vacant land supply is located outside of the Cities of Ketchikan and Saxman. Approximately 21% (489 acres) of the vacant land supply is located within the City of Ketchikan, and 13.5% (310 acres) is located in the City of Saxman. Forest Park, Gold Nugget, Mountain Point, Mud Bight, Nichols View, and Shoup Street are primarily residential subdivisions. Because of their location and the character of the existing development, these areas are not highly suitable for industrial or commercial development.

Table 3-4
Summary of Road Accessible Vacant Land by Allowed Use[1]
Revilla Island, 1999

Planned Use	Acres	Percent
Commercial Land (CD, CC, CG, HD)	96.34	4.2%
Heavy Industrial (IH, AD)	242.43	10.6%
Light Industrial (IL)	20.37	0.9%
Public Lands & Institutions (PLI)	215.41	9.4%
Residential Land (RL, RM, RS)	1,646.81	72.1%
Multi family	50.77	2.2%
Rural/Recreational (FD, RR)	12.51	0.5%
Total	2,284.64	100.0%

Source: KGB Tax Assessor Database, 1999
[1] See Appendix D for a description of the Borough's zoning classifications.

Table 3-5
Detail of Road Accessible Vacant Land by Location & Allowed Use[1]
Revilla Island, Ketchikan Gateway Borough, 1999

Location/Subdivision	Property Class Zone	Acres	% of Subtotal	% of Total
Borough (General Areas)	Commercial Land (CD, CC, CG, HD)	53.46	7.14%	2.34%
	Heavy Industrial (IH, AD)	200.07	26.74%	8.76%
	Light Industrial (IL)	4.01	0.54%	0.18%
	Public Lands & Institutions (PLI)	84.2	11.25%	3.69%
	Residential Land (RL, RM, RS)	406.55	54.33%	17.79%
Subtotal		748.29	100.00%	32.75%
City of Ketchikan	Commercial Land (CD, CC, CG, HD)	33.33	6.80%	1.46%
	Heavy Industrial (IH, AD)	5.84	1.19%	0.26%
	Multifamily Land (RH)	50.77	10.36%	2.22%
	Public Lands & Institutions (PLI)	96.54	19.71%	4.23%
	Residential Land (RL, RM, RS)	290.89	59.38%	12.73%
	Rural/Recreational (FD, RR)	12.51	2.55%	0.55%
Subtotal		489.88	100.00%	21.44%
City of Saxman	Commercial Land (CD, CC, CG, HD)	0.23	0.07%	0.01%
	Heavy Industrial (IH, AD)	8.52	2.74%	0.37%
	Residential Land (RL, RM, RS)	301.7	97.18%	13.21%
Subtotal		310.45	100.00%	13.59%
Forest Park	Residential Land (RL, RM, RS)	2.18	100.00%	0.10%
Subtotal		2.18	100.00%	0.10%
Gold Nugget	Residential Land (RL, RM, RS)	12.59	100.00%	0.55%
Subtotal		12.59	100.00%	0.55%
Mountain Point	Light Industrial (IL)	2.11	2.26%	0.09%
	Public Lands & Institutions (PLI)	27.16	29.05%	1.19%
	Residential Land (RL, RM, RS)	64.24	68.70%	2.81%
Subtotal		93.51	100.00%	4.09%
Mud Bight	Residential Land (RL, RM, RS)	159.43	100.00%	6.98%
Subtotal		159.43	100.00%	6.98%
Nichols View (South Tongass)	Residential Land (RL, RM, RS)	96.31	100.00%	4.22%
Subtotal		96.31	100.00%	4.22%
Shoreline	Commercial Land (CD, CC, CG, HD)	9.21	5.47%	0.40%

Location/Subdivision	Property Class Zone	Acres	% of Subtotal	% of Total
	Heavy Industrial (IH, AD)	18.16	10.79%	0.79%
	Light Industrial (IL)	14.26	8.47%	0.62%
	Public Lands & Institutions (PLI)	1.44	0.86%	0.06%
	Residential Land (RL, RM, RS)	125.22	74.41%	5.48%
Subtotal		168.28	100.00%	7.37%
Shoup St.	Residential Land (RL, RM, RS)	2.43	100.00%	0.11%
Subtotal		2.43	100.00%	0.11%
South End Fire	Commercial Land (CD, CC, CG, HD)	0.11	0.08%	0.00%
	Heavy Industrial (IH, AD)	9.84	7.21%	0.43%
	Public Lands & Institutions (PLI)	6.07	4.45%	0.27%
	Residential Land (RL, RM, RS)	120.43	88.26%	5.27%
Subtotal		136.45	100.00%	5.97%
Waterfall	Residential Land (RL, RM, RS)	64.84	100.00%	2.84%
Subtotal		64.84	100.00%	2.84%
Grand Total		2,284.64	100.00%	100.00%

Source: KGB Tax Assessor Database, 1999
[1] See Appendix D for a description of the Borough's zoning classifications.

As Table 3-4 notes, of the road accessible vacant land on Revilla Island, 4% is intended for commercial use and 11.5% for industrial use. Table 3-6 shows the general location and intended use of those vacant lands that are deemed marginally accessible and inaccessible. Of the land considered road accessible, the vast majority (83%) is considered "inaccessible," meaning it is located off the road system and outside the urban area. Land was classified as marginally accessible does not have road access, but, is generally located adjacent to the community. Road access may be difficult to construct to many of these locations due to steep terrain. The primary locations of the lands classified as "marginally accessible land" are those parcels above Mountain Point subdivision, above Bear Valley, above the highway along George Inlet, above Roosevelt Drive, above the North Tongass Highway between the 10,000 and 16,000 blocks, above Cedar Drive, Fawn Mountain, above Fairy Chasm Drive, and northeast of the University.

Table 3-6
Vacant Land by Allowed Use[1]
Marginally Accessible and Inaccessible Locations on Revilla Island, 1999

	Acres	% of Subtotal	% of Total
Marginally Accessible Lands			
Heavy Industrial (IH, AD)	31.31	0.67%	0.11%
Residential Land (RL, RM, RS)	821.53	17.46%	2.92%
Rural/Recreational (FD, RR)	3,741.59	79.52%	13.30%
Public Lands & Institutions (PLI)	110.81	2.36%	0.39%
Subtotal	4,705.24	100.00%	16.73%
Inaccessible Lands			
Residential Land (RL, RM, RS)	10,259.16	43.81%	36.48%
Rural/Recreational (FD, RR)	13,143.08	56.13%	46.74%
Public Lands & Institutions (PLI)	14.72	0.06%	0.05%
Subtotal	23,416.96	100.00%	83.27%
Grand Total	28,122.20		100.00%

Source: KGB Tax Assessor Database, 1999
[1] See Appendix D for a description of the Borough's zoning classifications.

Table 4-7 shows the ownership of marginally accessible vacant lands on Revilla Island. The largest landowner with 28% of the acreage is the Alaska Mental Health Trust, followed by the KGB and the DNR.

Table 4-7
Marginally Accessible Vacant Land by Owner, Revilla Island, 1999

Entity	Acres	Percent
Alaska Mental Health Trust Authority*	1335.43	28.38%
KGB*	980.57	20.84%
DNR*	958.69	20.37%
U.S. Coast Guard	426.52	9.06%
University of Alaska	352.38	7.49%
BLM	267.92	5.69%
Private	248.82	5.29%
U.S. Government	87.35	1.86%
City of Ketchikan	47.57	1.01%
Total	4705.25	100.00%

Source: KGB Tax Assessor Database, 1999. * Note: The Borough's land selection process with the State is concluded but the tax assessor database has not been fully updated to reflect the Mental Health Trust land settlement.

Table 3-8 shows the location of vacant lands classified as inaccessible land. The largest concentration of inaccessible holdings of vacant land (aside from Gravina Island) occurs at Leask Lake/Salt Lagoon (7,474 acres), followed by Clover Passage (3,442 acres).

Table 3-8
Inaccessible Vacant Land by Location, Revilla Island, 1999

Location	Acres	% of Total
Bear Valley	14.46	0.06%
Beaver Lake	20.64	0.09%
Betton Is; South End	280.00	1.20%
Boat House Cove	379.00	1.62%
Carroll Inlet	97.65	0.42%
Clover Island	5.00	0.02%
Clover Passage	3,442.33	14.70%
Deep Bay	53.16	0.23%
Dude Mountain	200.00	0.85%
George Inlet; Bat Cove	762.55	3.26%
George Inlet; Bat Point	24.42	0.10%
George Inlet; Bull Island	35.10	0.15%
George Inlet; Leask Cove	51.31	0.22%
George Inlet; TSA Cove	120.86	0.52%
Herring Cove	838.00	3.58%
Ice House Cove	4.19	0.02%
Joe Island/Grant Island Ptn	135.00	0.58%
Leask Lake/Salt Lagoon	7,473.63	31.92%
Long Arm; Moser Bay	279.92	1.20%
Loring	1.78	0.01%
Mahoney Lake Tract	1,821.31	7.78%
Moth Bay	103.31	0.44%
Naha Bay	20.44	0.09%

Location	Acres	% of Total
Neets Bay	1,965.00	8.39%
Pup Island	60.00	0.26%
Rainbow Creek	360.00	1.54%
Refuge Cove; Small Islands	1.39	0.01%
Revilla, Various Other	2,010.03	8.58%
Thorne Arm	218.22	0.93%
Traitors Cove	450.00	1.92%
Whipple Creek	2,188.29	9.34%
Grand Total	23,416.97	100.00%

Source: KGB Tax Assessor Database, 1999

The largest landowner of inaccessible vacant land is the Department of Natural Resources with 65% of the land. It should be reiterated that Tongass National Forest lands are not included in the survey. Table 3-9 shows the landowners of the parcels classified as inaccessible.

Table 3-9
Inaccessible Vacant Land by Owner, Revilla Island, 1999

Owner	Acres	% of Total
Department of Natural Resources	15,218.86	64.99%
Ketchikan Gateway Borough	3,146.11	13.44%
Private	3,078.13	13.14%
Bureau of Land Management	1,834.41	7.83%
Alaska Mental Health Trust Authority	121.79	0.52%
State of Alaska	17.67	0.08%
Grand Total	23,416.97	100.00%

Source: KGB Tax Assessor Database, 1999

3.3 Gravina Island

Gravina Island contains substantial vacant land. Table 3-10 shows the location and allowed uses of vacant land on Gravina. It is again important to note that Tongass National Forest land is not included in the survey. Much of Gravina Island is planned for rural recreational or residential land uses. The rural recreational classification includes both the "Rural Recreational" zone and the "Future Development" zone. The future development zone is essentially a placeholder zone that could change in the future if access is improved or as demand for uses warrants. It is likely that much of the future development zone will be changed and modified based on the outcome of the KGB's Gravina Island Development Planning process. Portions of the airport reserve and private holdings north of the airport have already been redesignated as industrial; these changes are not reflected in the tax assessor's database, upon which this vacant land analysis is based.

Table 3-10
Vacant Land by Location and Allowed Use[1] - Gravina Island

Location	Planned Use	Acres
Airport Reserve	Rural/Recreational (FD, RR)	277.43
Blank Inlet	Rural/Recreational (FD, RR)	80.00
Bostwick Inlet	Rural/Recreational (FD, RR)	4.32
Cable Crossing West	Residential Land (RL, RM, RS)	58.43
Cable Crossing West	Rural/Recreational (FD, RR)	7.55
Clam Cove	Residential Land (RL, RM, RS)	0.65
Clam Cove	Rural/Recreational (FD, RR)	2.16
Dall Bay	Rural/Recreational (FD, RR)	66.77
East Clump	Rural/Recreational (FD, RR)	379.92
Gravina Island	Heavy Industrial (IH, AD)	212.28
(general)	Rural/Recreational (FD, RR)	3,109.02
Gravina Point	Rural/Recreational (FD, RR)	13.90
Rosa Reef	Residential Land (RL, RM, RS)	145.69
Seal Cove	Rural/Recreational (FD, RR)	190.37
Vallenar Bay	Residential Land (RL, RM, RS)	208.14
Vallenar Bay	Rural/Recreational (FD, RR)	4,012.00
Vallenar Point	Rural/Recreational (FD, RR)	350.54
Vallenar Point	Residential Land (RL, RM, RS)	69.27
West channel	Rural/Recreational (FD, RR)	33.40
Total		9,221.85

Source: KGB Tax Assessor Database, 1999
[1] See Appendix D for a description of the Borough's zoning classifications.

3.4 Pennock Island

Approximately 1,000 acres of vacant land occurs on Pennock Island. Except for 2.3 acres zoned "Public Lands and Institutions," all of Pennock Island's vacant land is intended for residential development. Table 3-11 presents Pennock Island's vacant land and planned use.

Table 3-11
Vacant Land by Planned Use - Pennock Island

Location	Planned Use	Acres
Bald Headed Cove	Residential Land (RL, RM, RS)	16.11
East Channel	Residential Land (RL, RM, RS)	51.85
North End	Residential Land (RL, RM, RS)	69.33
Pennock Island (general)	Public Lands & Institutions (PLI)	2.31
Pennock Island (general)	Residential Land (RL, RM, RS)	735.69
Radenbough Cove	Residential Land (RL, RM, RS)	24.97
Snug Harbor	Residential Land (RL, RM, RS)	6.3
South End	Residential Land (RL, RM, RS)	14.06
West Channel	Residential Land (RL, RM, RS)	75.95
Whiskey Cove	Residential Land (RL, RM, RS)	34.5
Total		1,031.07

Source: KGB Tax Assessor Database, 1999
[1] See Appendix D for a description of the Borough's zoning classifications.

3.5 Vacant Industrial

Because an important component of the purpose and need statement for the Gravina Access Project includes access to additional lands in support of development, a specific analysis of vacant industrial land is included in this technical memorandum.

3.5.1 Location

A total of 506 acres of vacant industrial-zoned land exists in the entire borough. Of this total, 486 acres are planned for heavy industrial use and 20 acres are planned for light industrial use. Table 3-12 shows the location of the vacant industrial lands in the borough by map unit (Figure 3.1 depicts the map units). On Revilla Island, most of this acreage (53% of the vacant industrial acreage) occurs surrounding Ward Cove in Map units 3230, 3220, 3310, and 3340.

Table 3-12
Vacant Industrial Land by Map Unit

Map Unit	Planned Use	Acreage
1112	Heavy Industrial (IH, AD)	3.13
1232	Heavy Industrial (IH, AD)	0.04
1432	Heavy Industrial (IH, AD)	0.52
1441	Heavy Industrial (IH, AD)	0.01
1532	Heavy Industrial (IH, AD)	2.15
2230	Heavy Industrial (IH, AD)	8.52
2320	Light Industrial (IL)	2.11
2430	Heavy Industrial (IH, AD)	9.84
3220	Heavy Industrial (IH, AD)	38.61
3230	Heavy Industrial (IH, AD)	36.55
3240	Heavy Industrial (IH, AD)	16.82
	Light Industrial (IL)	14.26
3310	Heavy Industrial (IH, AD)	14.63
3340	Heavy Industrial (IH, AD)	65.03
3440	Heavy Industrial (IH, AD)	36.91
3530	Light Industrial (IL)	4.01
3540	Heavy Industrial (IH, AD)	40.99
5410*	Heavy Industrial (IH, AD)	4.82
5420*	Heavy Industrial (IH, AD)	11.46
5710*	Heavy Industrial (IH, AD)	196.01
Grand Total		506.40

Source: KGB Tax Assessor Database, 1999.
Does not reflect recent zoning changes on Gravina Island.
[1] See Appendix D for a description of the Borough's zoning classifications.

3.5.2 Ownership

The 506 acres of vacant industrial property is owned by 42 separate entities; seven landowners own 433.5 acres (85.6% of the total acreage). The other 35 owners have relatively small holdings; all 35 of them are less than seven acres each. Of the 506 acres, 294 acres are on Revilla and 78% of that land is owned by six entities. Of that 294 acres of vacant industrial land on Revilla, 262 acres are road accessible, and 210 acres (80%) of those road accessible acres are

Figure 3.1
Index to Map Units

controlled by five entities. Table 3-13 presents ownership information of the major landholders of vacant industrial property on Revilla Island.

Table 3-13
Holdings of Vacant Industrial Land Road Accessible on Revilla by Owner (Top 5)

Owner	Acreage
Gateway Forest Products Inc.	87.25
Ketchikan Pulp Company	52.07
Wards Cove Packing Co Inc.	34.67
Seley Corporation	18.33
Alaska Mental Health Trust Authority	18.14
Total	210.46

Source: KGB Tax Assessor Database, 1999

3.5.3 Parcel Size

Nine parcels of vacant industrial land in the borough are greater than 10 acres in size: two of these are on Gravina Island and one of them is not on the road system on Revilla. There are six road accessible vacant industrial parcels on Revilla that are greater than 10 acres. Once again these parcels are concentrated in the Ward Cove area (Map units 3230, 3220, 3310, and 3340). Table 3-14 depicts the vacant industrial parcels.

Table 3-14
Vacant Industrial Parcels Greater Than 3 Acres – Borough-Wide

Index map	Location	Owner	Industrial Zone	Acres
5710	Gravina Island	State of Alaska*	Heavy	153.52
5710	Gravina Island	State of Alaska*	Heavy	42.49
3440	Revilla – Road accessible	Gateway	Heavy	35.37
3230	Revilla – Road accessible	Wards Cove Packing	Heavy	33.80
3340	Revilla – Road accessible	KPC	Heavy	29.86
3540	Marginally accessible	Individual	Heavy	23.02
3340	Revilla – Road accessible	KPC	Heavy	22.21
3240	Revilla – Road accessible	Seley Corporation	Heavy	16.82
3220	Revilla – Road accessible	Gateway	Heavy	12.32
3540	Revilla – Road accessible	AMHTA	Heavy	9.68
2230	City of Saxman	Individual	Heavy	6.43
3340	Revilla – Road accessible	Gateway	Heavy	6.39
3310	Revilla – Road accessible	Gateway	Heavy	5.16
3220	Revilla – Road accessible	AMHTA	Heavy	4.86
3240	Revilla – Road accessible	Individual	Light	4.58
3220	Revilla – Road accessible	Gateway	Heavy	4.57
3540	Marginally accessible	Cape Fox Corporation	Heavy	4.15
3310	Revilla – Road accessible	Gateway	Heavy	4.00
2430	Revilla – Road accessible	KGB	Heavy	3.62
3340	Revilla – Road accessible	Durette Construction	Heavy	3.57
3220	Revilla – Road accessible	Gateway	Heavy	3.17
1112	City of Ketchikan	Carlanna Construction	Heavy	3.13
3220	Revilla – Road accessible	Gateway	Heavy	3.04
3340	Revilla - Road accessible	Gateway	Heavy	3.00

* Not reflective of the Alaska Mental Health Trust Settlement or recent zone changes on Gravina Island. Source: KGB Tax Assessor Database, 1999

3.6 Vacant Commercial

There are 96 acres of vacant commercially zoned land in the borough. All vacant commercial land is located on Revilla Island, and the project team has classified it as road accessible. Table 3-15 shows the location of this acreage by map unit. As with industrial property, the largest concentrations of vacant commercial property occur around the Ward Cove area. Map Units 3310, 3230, and 3340 have 50% of the acreage (48 acres).

Table 3-15
Vacant Commercial land (CD, CC, CG, HD)
by Location – Borough-Wide

Map Unit	Acreage	Map Unit	Acreage
1112	11.72	2130	0.11
1114	1.51	2140	0.23
1242	0.20	3130	1.11
1244	0.41	3230	3.83
1334	0.07	3240	4.27
1341	0.27	3310	30.77
1342	0.11	3330	0.24
1423	4.17	3340	13.33
1431	0.94	3430	0.92
1432	0.03	3540	2.55
1441	10.55	3610	1.44
1442	1.81	3620	4.21
1532	1.53		
		Grand Total	96.34

Source: KGB Tax Assessor Database, 1999

Table 3-16 indicates the acreage owned by the five largest owners of vacant commercial land on Revilla Island. The top five owners hold 68% of the supply. Table 4-17 shows a survey of the vacant parcels greater than one acre in size.

Table 3-16
Holdings of Vacant Commercial Land Road accessible on Revilla
by Owner (Top 5)

Owner	Acres
Single Individual	21.67
Ketchikan Pulp Company	13.33
Carlanna Construction Inc	11.72
Cape Fox Corporation	10.90
Wacker City Properties Inc.	7.87

Source: KGB Tax Assessor Database, 1999

Table 3-17
Vacant Commercial Parcels Greater Than 1 Acre – Borough-Wide

Index Map	Owner	Acres
3310	Single Individual	21.67
3340	Ketchikan Pulp Company	13.33
1112	Carlanna Construction Inc.	11.72
1441	Cape Fox Corporation	7.72
3230	Department of Natural Resources	3.83
3310	Wacker City Properties Inc.	2.95
3310	Wacker City Properties Inc.	2.62
3540	Individual	2.55
1423	Bear Valley Warehouse & Storage	2.18
1441	Cape Fox Corporation	1.69
3240	Individual	1.56
1532	CP Inc.	1.53
1114	Tongass Trading Company	1.51
3310	Wacker City Properties Inc.	1.49
3610	Single Individual	1.44
3620	Ketchikan Gateway Borough	1.06

Source: KGB Tax Assessor Database, 1999

4.0 Summary

The purpose of this memo was to examine existing land uses in the Borough and evaluate the supply of vacant developable land on Revilla Island. The key findings include

- Excluding USFS lands, approximately one-third (36%) of the acreage is in use and two-thirds (64%) is vacant.
- There are approximately 2,200 acres of land in residential use; the largest category of residential land use was "Single Family Residential," with over 1,300 acres.
- According to the tax assessor, approximately 33 parcels have a residential use on Gravina Island.
- Just over 500 acres in the borough are in commercial use.
- A total of 1,012 acres of KGB land is used industrially.
- Approximately 95% of the vacant land on Revilla, Gravina and Pennock Islands is not road accessible.
- On Revilla Island, approximately 65% of the road accessible, vacant land supply is located outside of the City limits of Ketchikan and Saxman.
- Of the road accessible vacant land on Revilla Island, 4% allows for commercial use and 11.5% for industrial use.
- Excluding USFS lands, the majority (more than 9,000 acres) of the vacant land is located on Gravina Island.
- Approximately 1,000 acres of vacant land occurs on Pennock Island.
- A total of 506 acres of vacant industrial-zoned land exists in the entire borough.
- Of the 506 acres of vacant industrial-zoned land, 294 acres are on Revilla and 78% of that land is owned by six entities. Most of 294 acres (154 acres or 53%) occurs surrounding Ward Cove.
- There are six road accessible vacant industrial parcels on Revilla that are greater than 10 acres.
- There are 96 acres of vacant commercially zoned land in the borough. Five owners hold 68% of the supply.
- The largest concentrations (50% of the acreage) of vacant commercial property occur around the Ward Cove area.

This study (land supply), in combination with a market analysis (land demand), will be used to project future development needs on Gravina Island by comparing the land supply to the land demand. The land development projection will be used in determining traffic forecasts and for assessing secondary and cumulative impacts.

5.0 References

Alaska Department of Natural Resources. 2000. Phone conversation between DNR staff and John McPherson of HDR Alaska.

American Planning Association. October 7, 1999. Land-Based Classification Standards. From the LBCS Project. <http//www.planning.org/lbcs>

Ketchikan Gateway Borough. 1999. Information from tax assessor database.

Ketchikan Gateway Borough Planning Department. 1996. "Ketchikan Gateway Borough Comprehensive Plan."

Appendix A

Land Use Survey Methodology & Example Data Collection Form

Land Use Survey Methodology

Pre-Survey Preparation

HDR obtained a parcel base map from the KGB Department of Planning and Community Development for use in collecting land use data. In consultation with the KGB Planning Department, HDR developed a land use coding system to be used in data collection and analysis. The KGB recommended using a coding system developed by the American Planning Association (APA). The APA has created land-based classification standards (LBCS) to provide a consistent model for classifying land uses based on their characteristics. The LBCS expands upon previous classification systems by refining traditional categories into multiple dimensions, such as activities, functions, building types, site development character, and ownership constraints (APA October 1999). Each dimension has categories and subcategories that allow users to have more control over land-use classifications.

For local planning purposes, the APA recommends classifying land uses in the following dimensions: "Activity," "Function," "Structure Type," "Site Development Character," and "Ownership". The following descriptions of each field in the LBCS classification system are repeated verbatim from the LBCS Manual (APA October 1999).

> **Activity** refers to the actual use of land based on its observable characteristics. It describes what actually takes place in physical or observable terms (e.g., farming, shopping, manufacturing, vehicular movement, etc.). An office activity, for example, refers only to the physical activity on the premises, which could apply equally to a law firm, a nonprofit institution, a courthouse, a corporate office, or any other office use. Similarly, residential uses in single-family dwellings, multi-family structures, manufactured houses, or any other type of building, would all be classified as residential activity.
>
> **Function** refers to the economic function or type of establishment using the land. Every land use can be characterized by the type of establishment it serves. Land-use terms, such as agricultural, commercial, industrial, relate to enterprises. The type of economic function served by the land use gets classified in this dimension; it is independent of actual activity on the land. Establishments can have a variety of activities on their premises, yet serve a single function.

Structure refers to the type of structure or building on the land. Land-use terms embody a structural or building characteristic, which suggests the utility of the space (in a building) or land (when there is no building). Land-use terms, such as single-family house, office building, warehouse, hospital building, or highway, also describe structural characteristic. Although many activities and functions are closely associated with certain structures, it is not always so. Many buildings are often adapted for uses other than its original use. For instance, a single-family residential structure may be used as an office.

Site development character refers to the overall physical development character of the land. It describes "what is on the land" in general physical terms. For most land uses, it is simply expressed in terms of whether the site is developed or not. But not all sites without observable development can be treated as undeveloped. Land uses, such as parks and open spaces, which often have a complex mix of activities, functions, and structures on them, need categories independent of other dimensions. This dimension uses categories that describe the overall site development characteristics.

Ownership refers to the relationship between the use and its land rights. Since the function of most land uses is either public or private and not both, distinguishing ownership characteristics seems obvious. However, relying solely on the functional character may obscure such uses as private parks, public theaters, private stadiums, private prisons, and mixed public and private ownership. Moreover, easements and similar legal devices also limit or constrain land-use activities and functions. This dimension allows classifying such ownership characteristics more accurately.

The project team coordinated development of the final coding system with the KGB. Based on this coordination, HDR and the KGB agreed upon the level of detail (category and subcategory) to include in each field in the survey.

Office Land-Use Survey

HDR purchased recent, existing aerial photography to assist in identifying land-use features and vacancy information. To minimize expensive field time, HDR conducted air photo interpretation of land uses to help focus the field collection efforts. Based on the photo interpretation, HDR concluded that tax assessor information on vacant parcels and residential development was sufficient for the survey but that more detail would be needed on commercial and industrial uses. In essence, portions of the community that were primarily residential were not inventoried directly in the field; instead, the survey of vacant parcels and residential development was based on the available mapping and tax assessor records and spot checked in the field.

Field Reconnaissance

HDR developed field collection forms to assist in field data collection. Team members sorted the tax assessor's database by map unit and printed several fields (parcel number, location address, owner, property class use, property type, and property style) to assist in the field with identifying parcel location and land use. These forms also included blank fields for noting the LBCS codes for "Activity," "Function," "Structure," and "Site" characteristics. Ownership information was coded directly from the tax assessor's database. Appendix A presents a sample of the field data collection form. Using the KGB's mapping units, the team sorted parcel base maps and printed them at a scale and size for use in the field. Parcel base maps included

addresses, parcel numbers, street names, and parcel boundaries. HDR planners went map unit by map unit—supplied with the parcel base map, data collection forms for those map units, and the LBCS Manual—to code commercial and industrial land uses according to the LBCS.

HDR conducted this survey—termed a "windshield survey" to note team members' assessments of sites by car—on January 17, 18, and 19, 2000. In general, the survey focussed on refining information on commercial and industrial uses to help supplement the tax assessor's coding. Team members classified land uses according to the LBCS coding system and logged information on the data collection forms and maps.

Data Entry and Analysis

To allow for easy conversion to a number of GIS compatible databases, team members entered information into a Microsoft Excel spreadsheet. Information collected in the field survey was supplemented with information from the KGB's business license information and the Ketchikan Public Utilities Yellow Pages. Team members analyzed the data using Microsoft Excel Pivot tables to sort, classify, and present land-use information.

Tax Assessor Information							LBCS Codes				
INDEX MAP	LOT NUM	LOCATION	OWNER	PROP CLASS USE	PROP TYPE TXT	PROP STYLE TXT	ACTIVITY	FUNCTION	STRUCTURE	SITE	Notes
1114	0021000 44E		John Doe	Mobil Home(s)	No Data	No Data					
1114	000100	ALASKA AVE 3817	Jane Doe	Single Family Residential	Single Family	One Story					
1114	000200	ALASKA AVE 3827	John Doe	Single Family Residential	Single Family	One Story					
1114	002500	GARDEN LN 206	Jane Doe	Single Family Residential	Single Family	One Story					
1114	001000	GARDEN LN 219/221	John Doe	Single Family (2-4 units)	Duplex	One Story					
1114	000900	GARDEN LN 231	Jane Doe	Single Family Residential	Single Family	1.5 Story					
1114	003200	GARDEN LN 232	John Doe	Single Family Residential	Single Family	One Story					
1114	000800	GARDEN LN 305	Jane Doe	Single Family Residential	Single Family	One Story					
1114	004200	HECKMAN ST	John Doe	Vacant	No Data	No Data					
1114	003900	HECKMAN ST 211	Jane Doe	Single Family (2-4 units)	Single Family	One Story					
1114	004000	HECKMAN ST 215	John Doe	Single Family Residential	Single Family	One Story					
1114	004100	HECKMAN ST 219	Jane Doe	Single Family (2-4 units)	Single Family	One Story					
1114	002930	HENEGHAN ST	John Doe	Vacant	No Data	No Data					
1114	002970	HENEGHAN ST	Jane Doe	Vacant	No Data	No Data					
1114	003700	HENEGHAN ST	John Doe	Vacant	No Data	No Data					
1114	003600	HENEGHAN ST 210/212	Jane Doe	Single Family (2-4 units)	Duplex	Two Story					
1114	003400	HENEGHAN ST 214/216	John Doe	Single Family (2-4 units)	Duplex	One Story					
1114	003500	HENEGHAN ST 218/220	Jane Doe	Single Family (2-4 units)	Single Family	One Story					
1114	003000	HENEGHAN ST 233	John Doe	Single Family Residential	Single Family	One Story					
1114	002900	HENEGHAN ST 233	Jane Doe	Vacant	No Data	No Data					
1114	003100	HENEGHAN ST 237	John Doe	Single Family Residential	Single Family	One Story					
1114	003300	HENEGHAN ST 246	Jane Doe	Single Family Residential	Single Family	One Story					
1114	000700	HILLSIDE RD 3816	John Doe	Single Family Residential	Single Family	One Story					

Tax Assessor Information							LBCS Codes				
INDEX MAP	LOT NUM	LOCATION	OWNER	PROP CLASS USE	PROP TYPE TXT	PROP STYLE TXT	ACTIVITY	FUNCTION	STRUCTURE	SITE	Notes
1114	000600	HILLSIDE RD 3826	Jane Doe	Single Family Residential	Single Family	One Story					
1114	000500	HILLSIDE RD 3844	John Doe	Single Family Residential	Single Family	One Story					
1114	000400	HILLSIDE RD 3860	Jane Doe	Single Family Residential	Single Family	One Story					
1114	000300	HILLSIDE RD 3904	John Doe	Single Family Residential	Single Family	Split Level					
1114	001400	HILLSIDE RD 3905	Jane Doe	Single Family Residential	Single Family	One Story					
1114	002810	HUNT AVE AT HENEGHAN	John Doe	Vacant	No Data	No Data					
1114	002800	HUNT AVE AT MARTIN	Jane Doe	Vacant	No Data	No Data					
1114	002000	HUNT ST	John Doe	Vacant	Single Family	One Story					
1114	002300	HUNT ST 3000	Jane Doe	Single Family Residential	Single Family	One Story					
1114	002400	MARTIN ST	John Doe	Vacant	No Data	No Data					
1114	002200	MARTIN ST 100	Jane Doe	Heavy Industrial Improvement	No Data	No Data					
1114	0021000 29A	MARTIN ST 100 SP29	John Doe	Mobil Home(s)	No Data	No Data					
1114	0021000 33B	MARTIN ST 100 SP33	Jane Doe	Mobil Home(s)	Single Family	One Story					
1114	0021000 34C	MARTIN ST 100 SP34	John Doe	Mobil Home(s)	No Data	No Data					
1114	0021000 35C	MARTIN ST 100 SP35	Jane Doe	Mobil Home(s)	Mobil Home	One Story					
1114	0021003 5AB	MARTIN ST 100 SP35A	John Doe	Mobil Home(s)	No Data	No Data					
1114	0021000 36A	MARTIN ST 100 SP36	Jane Doe	Mobil Home(s)	Single Family	One Story					
1114	0021000 37A	MARTIN ST 100 SP37	John Doe	Mobil Home(s)	Single Family	One Story					
1114	0021000 38B	MARTIN ST 100 SP38	Jane Doe	Mobil Home(s)	No Data	No Data					
1114	0021000 39C	MARTIN ST 100 SP39	John Doe	Mobil Home(s)	No Data	2.5 Story					
1114	0021000 40A	MARTIN ST 100 SP40	Jane Doe	Mobil Home(s)	No Data	No Data					

Appendix B

LBCS Activity Definitions

Appendix C

Photo Documentation of Field Visit

Appendix D

Ketchikan Gateway Borough Zoning Descriptions

Commercial Land (CD, CC, CG, HD)

- ***CC Zone, Central Commercial Zone CD Zone, Commercial Development Zone. CG Zone. General Commercial Zone.*** The commercial zones are established to provide for areas where a broad range of retail, wholesale, service establishments, and offices is desirable.

- ***HD Zone. Creek Street Historic District Zone.*** This zone is applied to areas to enhance, restore, maintain, and protect structures of historical or cultural significance in the Creek Street Area.

Heavy Industrial (IH, AD)

- ***IH Zone. Heavy Industrial Zone.*** The IH zone is established to provide for a broad range of industrial uses and for commercial uses which are a beneficial part of such industrial development. Some residential uses and other nonindustrial uses are excluded from this zone because an industrial area is a poor environment for such uses and because it is intended that land in this zone be reserved for industrial and commercial purposes. This zone is intended to be separated from other zones by rail yards, open spaces, or natural boundaries such as rivers, streams, and bluffs.

- ***AD Zone. Airport Development Zone.*** The AD Zone is established to provide for the development of commercial and industrial uses, which are a part of or are compatible with the operation of a public airport. The AD Zone is intended to encourage development of airport related businesses and industries while protecting the limited land area from unrelated development.

Light Industrial (IL)

- ***IL Zone. Light Industrial Zone.*** The IL Zone is designed to provide for the development of industrial and commercial uses which are mutually compatible and which either: (1) Are of a type which has no nuisance effect upon surrounding property; or (2) may be controlled to prevent any nuisance effects upon surrounding property. Some residential uses and other nonindustrial uses are excluded from this zone because an industrial area is a poor environment for such uses and because it is intended that land in this zone be reserved for industrial and commercial uses.

Multifamily Land (RH)

- ***RH Zone. High-Density Residential Zone.*** Lands designated for high density residential use primarily provide for multi-family apartment buildings, condominiums, townhouses, congregant housing (i.e. dormitories and group care homes) and parks for pre-manufactured dwellings.

Public Lands & Institutions (PLI)

- ***PLI Zone. Public Lands and Institutions Zone.*** The Public Lands and Institutions Zone is intended to reserve large or contiguous parcels of land for a City, Borough, State or federal agency, public school district, or public utility in order to develop compatible public services uses including, but not limited to, open space, recreational, administrative and educational uses. Certain public uses of an industrial or correctional nature may be permitted as conditional uses provided they are compatible with surrounding development.

Residential Land (RL, RM, RS)

- ***RL Zone. Low-Density Residential Zone.*** Low-density residential uses are found in areas outside of the City where public services such as sewers, water and road maintenance are not available or desired and where a non-urban, lower density lifestyle is preferred. One and two family (duplexes) residential uses are permitted within this district.

- ***RM Zone. Medium-density Residential Zone.*** The RM Zone is established to provide for areas where a predominantly medium-density residential development is desirable. Nonresidential uses are permitted or prohibited on the basis of their compatibility with the residential character of the environment.

- ***RS Zone. Suburban Residential Zone.*** This category is intended to promote a low density rural lifestyle similar to the RR zone and is applied to areas where past development patterns indicate a need for a transition zone from higher density residential uses to lower density uses. The RS zone is an intermediate lot size, which provide choice in the community and promotes environmental quality.

Rural/Recreational (FD, RR)

- ***FD zone. Future Development Zone.*** The FD Zone is established to apply to areas which should be preserved in a natural state to be used primarily as recreation areas and as watersheds and wildlife reserves. This zone also applies to areas of natural resources which, where possible, should be conserved and extracted on a sustained yield basis and should be developed in a manner, which is not harmful to nearby recreational and residential uses.

- ***RR Zone. Rural Residential Zone.*** The RR Zone is established to provide borough residents with greater variety in the sizes of lots available for residential development. The RR zone will provide for the retention of large lot sizes for residents who prefer the rural lifestyle associated with very low-density residential development, as well as provide for more effective on-site sewage treatment. The principal use permitted in the RR Zone is limited to a single one (1) family dwelling unit per lot.