Comprehensive Plan of the City and Borough of Juneau

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Presented by the CBJ
Community Development Department

City & Borough of Juneau
Alaska's Capital City

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CHAPTER 1. INTRODUCTION AND BACKGROUND

Situated between the sea and steep glacial peaks, the City and Borough of Juneau (CBJ), Alaska's Capital City, is known and appreciated internationally for its awe-inspiring natural beauty. It is no wonder that our city draws nearly a million visitors each year from around the world.

Juneauites feel very lucky to live here. We value the scenic beauty of the surrounding terrain, its lush vegetation and clean waterways, and the abundant fish and wildlife supported by the coastal rainforest. We appreciate the easy access to wooded trails and fishing grounds, and year-round recreational opportunities. We value the small town feel of our city and the unique ways in which we have been able to incorporate big city amenities, such as diverse artistic, theatrical, musical, culinary, and other cultural pastimes, into our small Capital City. We live in safe neighborhoods and go about our day-to-day business within a friendly and functional community. We value a quality education and lifelong learning.

In order to protect and enhance the CBJ's livability, most agree that it is important to safeguard the environment, provide affordable housing and jobs for generations of residents, promote orderliness in growth, and institute reasonable and consistent controls over land development and public services. The Comprehensive Plan (also referred to as the "Plan" and the "Comp Plan") is a long-range blueprint designed to guide the growth, development, and conservation of valued resources within our community over the next 12 years, to the year 2020. It is a collaborative document, incorporating input from diverse sectors of the community with the support of, and coordination by, CBJ staff. The Plan embodies both a long term vision of where we are going as well as concrete policies and actions to get us there. It is used to guide CBJ staff, elected officials and their appointed Boards and Commissions in shaping a better community through allocation of resources in ways that reflect the community's aspirations, values, and needs.

Through the process of comprehensive planning, a community can (1) preserve, promote, protect, and improve the public health, safety, appearance, convenience, provision of services, and general welfare; (2) prevent overcrowding of land and exceeding the "carrying capacity," or adequate level of service, of the land and infrastructure, such as roads, water and sanitary sewage services; and (3) conserve, develop, utilize, and protect natural resources within its jurisdiction.

To be a meaningful and effective document, the Comprehensive Plan must be considered regularly and used by residents, the Planning Commission, and the governing body to guide its decisions and resource allocations and it must be kept current to reflect community values, resources, constraints and opportunities. Discussions related to community growth, redevelopment, capital and social improvements, or budget, must occur in consultation with the Plan. This is not to say that the Plan will be infallible or that it is cast in concrete. It should, however, bring into focus sufficient information and data so that the best possible considered and objective judgments can be made, using the most current data available when the data in the Plan is out of date.

This document, then, comprises the Comprehensive Plan for the CBJ and provides a logical, consistent and purposeful approach to managing community growth and development. The Plan will be a road map that guides residents and their public officials through appropriate courses of action, not only to identify areas suitable for specific types of development but also to assure more efficient utilization of the areas that have already been developed.

The Plan provides a vision of the CBJ's future that has many dimensions. It is a means of reinforcing the CBJ's importance as the State Capital, an opportunity to create access to the CBJ's waterfront, and to develop a variety of housing choices. It is a means to preserve a high level of environmental quality and diverse yet cohesive social interaction. The Plan addresses current conditions in the community and provides leadership and direction in addressing these problems, as well as those anticipated to affect us in the foreseeable future.

2008 Comprehensive Plan Vision and Guiding Principles

The City and Borough of Juneau is a vibrant State Capital that values the diversity and quality of its natural and built environments, creates a safe and satisfying quality of life for its diverse population, provides quality education and employment for its workers, encourages resident participation in community decisions and provides an environment to foster state-wide leadership.

To achieve this vision, the CBJ followed these principles in formulating its Comprehensive Plan:

- **A safe place to raise a family**. Maintain safe neighborhoods and circulation systems; provide public spaces and facilities that foster community interaction and cohesiveness.

- **Quality education from Pre-school to University levels**. Promote quality educational programs and experiences in the schools and lifelong learning for our residents as well as a healthy lifestyle with adequate recreational facilities, resources and programs. Support a vital arts community, celebrating our diverse cultural heritage and unique historic resources.

- **A balanced economy**. Ensure a balanced, sustainable and diverse economy, actively encouraging employment opportunities for residents of all levels and ages that provide a livable wage and a dependable municipal tax base.

- **Natural resources**. Highlight and protect our scenic beauty, protect our streams and fish and wildlife habitat and foster the sustainable use of our natural resources.

- **A balanced community**. Ensure a balance between natural resource protection and the built environment, the efficient provision of infrastructure and goods and services, and housing affordable to all income levels.

- **Neighborhood livability and housing**. Maintain the identity and vitality of our neighborhoods, actively pursuing affordable housing for a diversity of households while promoting compatible livability and high quality design in new buildings.

- **Mobility**. Provide an accessible, convenient and affordable transportation system that integrates vehicle, vessel, rail and aircraft transport with sustainable and innovative transportation options—including convenient and fast public transit service, particularly for commuters to work, and bicycle and pedestrian networks throughout the community.

- **Involved citizenry**. Solicit resident participation and leadership in implementing the Plan policies and actions from all sectors of the community, encouraging mutual understanding and cooperation among all.

Community Setting

The CBJ is located in the central portion of the Alaskan panhandle, approximately 700 miles southeast of Anchorage and 950 miles north of Seattle (see the City and Borough of Juneau Vicinity map). Because of its mountainous terrain and great distances to other urbanized areas, the CBJ is accessible only by sea and air. There are no roads to other southeastern Alaska communities or the Canadian interior.

Covering an area of more than 3,250 square miles, the CBJ is bounded on the west by Lynn Canal; on the east by the Canadian border; on the south by Point Coke; and on the north by the Haines Borough (see the City and Borough of Juneau Boundary map). In 1991, an approximate 150 square mile portion of northern Admiralty Island, encompassing the Greens Creek Mine, was annexed into the CBJ.

About 90 percent of the total area of the CBJ consists of water or rugged mountains and glacial icefields located within the boundaries of the Tongass National Forest. While this remote area is more difficult to use and develop, it is a very important resource for the well-being of the CBJ and is addressed in this Plan.

Community History

The CBJ has developed into an important government, regional shopping, shipping and tourist center as a result of its location and history. The general vicinity was first inhabited by the Auk and Taku Tlingit tribes.

Although nearby waterways were explored by the Spanish and the English in the late 18th century, the first European inhabitants were Russian fur traders. Alaska remained an outpost of the Russian Empire until its sale to the United States in 1867. In 1880, Chief Kowee led two prospectors, Richard Harris and Joe Juneau, to gold in Gold Creek above Last Chance Basin. Soon after, large-scale mining activity was undertaken in Juneau and on Douglas Island. By 1893 the area had become the largest mining center in Alaska.

The territorial capital was moved from Sitka to Juneau in 1906. Steady growth continued until 1944, when the last of the large gold mines closed due to the wartime work force shortage and increasing operational costs. By that time, Juneau had sufficiently diversified its economy to sustain this loss of the mining industry.

Since Alaskan statehood in 1959, a growing tourist industry and the expansion of governmental activities have provided the CBJ with sustained growth. For two decades prior to the 1982 general election, the State considered relocating the State Capital to a more central location, causing a high level of uncertainty about the community's future. That election retained the Capital in Juneau and the 1980s continued with buoyant state budgets, many physical and cultural improvements, and substantial residential and commercial development. However, in 1986, the State's revenue expectations were urgently revised following a substantial plummet in the price of oil. Several hundred state employees were laid off and many left town. Compounding this event was the effect of non-local contractors and construction workers who had arrived in earlier years to participate in the post 1982 boom. When the boom was over, these people also left town. A substantial vacancy in all types of housing, especially apartments, was one of the results, along with substantial loss of value in real estate due to lack of buyers.

The mid-eighties economic downturn eventually came to an end as the CBJ slowly started to grow again, so that by now, twenty years later, the population has grown to nearly 31,000 persons and 12,900 households. Between 1990 and the year 2000, the population increased 13 percent yet housing units increased by only 8 percent. The CBJ's housing stock of approximately 13,000 units reflects a vacancy rate of less than 1 percent for all types of housing except multi-family rental units in apartment buildings, which reflects a 3 percent vacancy rate. With such a low vacancy rate, there is little choice in housing size, price and location for CBJ households. Housing costs, including home heating, can consume more than 50 percent of a household's income. Housing affordability has become a crisis due to the hardships it causes individual households as well as to employers. Business operators comment that they cannot attract or retain valuable workers because they cannot afford to pay high enough salaries to their employees to enable them to purchase homes in the CBJ. Many young Juneauites leave to attend college elsewhere and do not return because of limited opportunities to develop their career goals and/or to find affordable housing to start or grow a family—resulting in what is called the "brain drain" of the CBJ.

For the past few years, the local population and economy has grown relatively slowly, at about a 1 percent annual growth rate. The CBJ's economy is dominated by government and summer season tourism. The CBJ rehabilitated its Downtown docks in the early '90s and cruise ships have increased in size, as well as in the number of visits per season. The CBJ seeks to diversify its economic base by facilitating new or expanded export industries such as mining, food processing and manufacturing.

Study Area and Plan Organization

The study area of the Comprehensive Plan, which largely corresponds with the roaded area, contains land most suitable for future development due to its proximity to existing urban uses, physical characteristics and ownership patterns. The area includes Downtown Juneau and Douglas, as well as the communities of West Juneau, North Douglas, Salmon Creek, Switzer

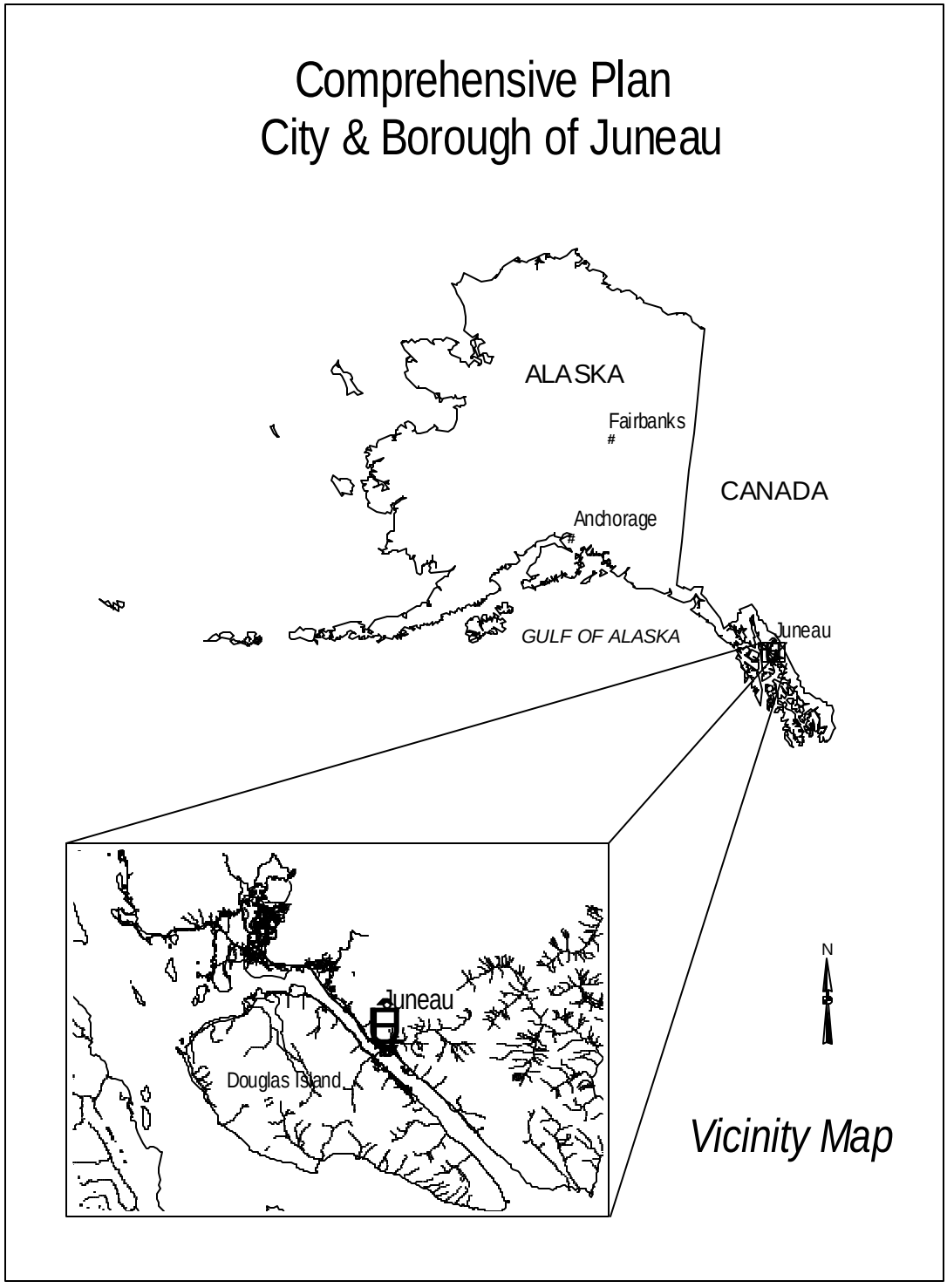
Creek, Lemon Creek, the Mendenhall Valley, Auke Bay, Thane and the "Out the Road" communities of Lena Point and Tee Harbor. Generally, existing development is linear, confined to a narrow bench of land between the sea and the steeply rising mountains to the northeast on the mainland as well as and along the eastern and northern coastline of Douglas Island. The major exception is the Mendenhall Valley, which is a broad, generally flat, glacial plain.

The CBJ's Comprehensive Plan consists of 18 chapters. Each chapter contains one or more subject Policy along with its implementing Standard Operating Procedures (SOPs), Development Guidelines (DGs), and/or Implementing Actions (IAs). Each policy number corresponds to the Chapter in which the policy is found and each numbered policy is preceded by a preamble discussion of findings that form the foundation and planning rationale for the policy. Each SOP, DG, and IA is numbered to correspond to the Chapter and Policy it supports or enacts. This numbering system can be summarized as follows: Chapter #.Policy #.Subtype (SOP, DG, or IA) #.

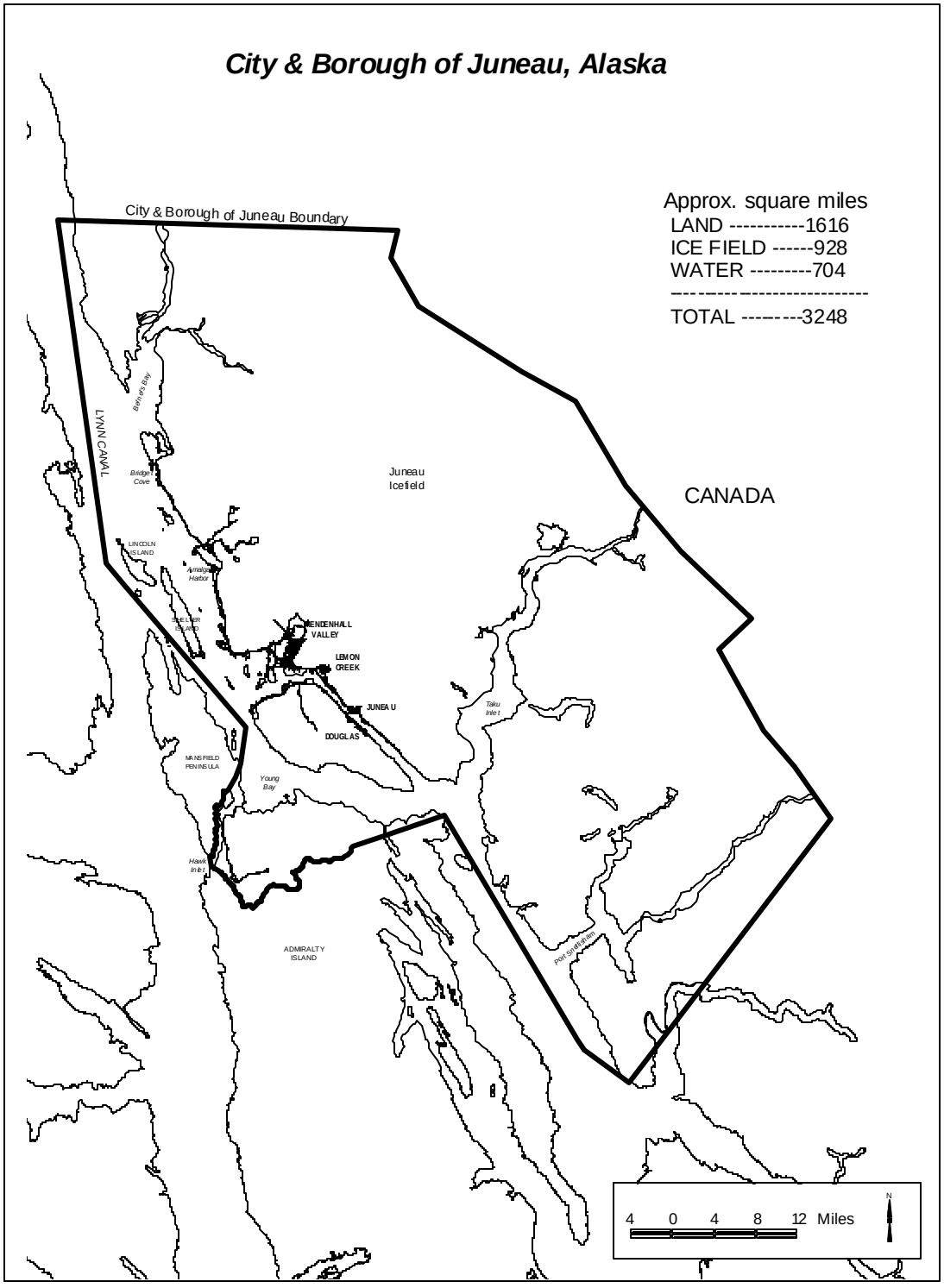
Thus, a citation of Chapter, Policy, SOP, DG, or IA is written in the following manner:

3	Chapter 3
3.1	Chapter 3, Policy 1
3.1.SOP2	Chapter 3, Policy 1, Standard Operating Procedure 2

The policy statements are the most significant parts of the Plan. Policies are statements establishing a course of action for the CBJ by providing the basis for guiding ongoing decisions related to land use, preparation of land use regulations, capital improvement programs, and funding of services to its residents and visitors. The policy was formulated to reflect community values, goals and objectives articulated in neighborhood and stakeholder outreach meetings and opinion surveys conducted as part of this Plan Update. These goals expressed community needs or desired actions such as: Maintain a safe place to raise a family; provide quality education from pre-school to the University level; protect streams and wildlife habitat; provide affordable housing and jobs for generations; and assure human and fish and wildlife access to the water and forested areas. The policies presented in this Plan reflect these values and goals and express commitments to action derived from the stated goal. The Plan is a declaration of public policy to achieve community goals and reflect community values. The policies were also crafted to positively address the community strengths, weaknesses, opportunities and threats, as identified by the Planning Commission during the 2007-08 Plan update process.



City and Borough of Juneau Vicinity Map



City and Borough of Juneau Boundary Map

The Plan is a long-range document that lays out the blueprint for guiding development and conservation actions over its 12 year planning period, to the year 2020. Within this time frame, the CBJ's policy decisions and allocation of resources will be measured by how those actions positively address the Policies contained within this Plan. Staff, community members and decision-makers will measure permit applications, capital improvement proposals and CBJ funding applications by the Policies and their Standard Operating Procedures and Development Guidelines, as well as the relevant Subarea Guidelines of this Plan. Typically, many policies will be applicable to a proposed project or action, and decision-makers will need to weigh the effect of the proposal on the particular resource(s) that the policy seeks to provide or protect. Decision-makers will need to consider the overall impact of the proposal on the policies and guidelines, taking into consideration the:

- Short-term and cumulative effects of the proposed project to the local and CBJ-wide environment;
- Availability of public financial resources to service the project; and
- Overall merits of the proposal.

Each policy statement is generally followed by a SOP, a DG, and/or an IA that are the practical means of putting each policy into effect. The SOPs inform developers, property owners and permit review staff of a particular resource to consider, or agency to consult, when reviewing relevant permits. For example, Economic Development Policy 5.7 seeks to designate sufficient land for commercial and industrial development as part of an overall economic development program. The associated 5.7.SOP1 and 5.7.SOP2 advise staff and decision-makers to consult and consider the location criteria of each industry when allocating land to that use.

The DGs express directions, standards or values about a particular community resource, either for its development or conservation. The DGs are intended for property owners and/or permit applicants to become aware of special treatment and review needed to assess the development or conservation of the subject resource. For example, 5.8.DG2 for Policy 5.8 suggests that when allocating CBJ lands for commercial or industrial businesses, the CBJ should favor local "basic sector" industries that provide employment with medical benefits over candidate businesses that do not provide those benefits.

The IAs describe how the Policy should be implemented and would include such actions as recommended ordinance changes, map revisions, studies and financing mechanisms. For example, 5.8.IA1 for Policy 5.8 seeks to amend the Land Use Code to create a heavy industry zoning district wherein retail, office or other commercial uses and housing would not be permitted and, therefore, could not encroach upon scarce land suitable for manufacturing or other heavy industry.

Future Direction

This Plan provides guidance to residents and local officials as they decide the location, intensity and timing of future public and private development, as well as conservation measures. The community's growth is affected by complex physical, economic, and social factors.

The future of the CBJ is inter-twined with the future of the State of Alaska. This is true, to an extent, for any town in Alaska because so much of a given city's budget is dependent on state-shared revenues and state-sponsored capital improvements. In the CBJ's case, as the Capital City, the State's fortunes are far more significant. Alaska has depended on oil for the vast bulk of its revenue and general well-being. No political/economic scenario now under discussion suggests that the State will ever again enjoy the oil revenues it experienced in the early 1980's.

All scenarios point to a continued reduction in State spending and services. If the CBJ is to grow, however modestly, or even stay in a steady-state economically, there will have to be some growth in other sectors of the economy to make up for continuing reductions in services to local governments and the number of State employees based in the CBJ. If the CBJ is to retain its status as the State's Capital, it needs to be viewed as a vibrant, modern, efficient, culturally-rich, affordable and livable city—one in which State legislators look forward to spending several months each year and, to some degree, would aspire to pattern their home cities, towns and villages after.

CHAPTER 2. SUSTAINABILITY

In Resolution 2401, the City and Borough of Juneau Assembly committed the CBJ to a sustainable future that meets today's needs without compromising the ability of future generations to meet their needs and accepted its responsibility to:

- Support a stable, diverse, and equitable economy;
- Protect the quality of the air, water, land, and other natural resources;
- Conserve native vegetation, fish and wildlife habitats, and ecosystems;
- Minimize human impacts on ecosystems; and
- Minimize energy usage and the release of greenhouse gases.

The concept of sustainability describes a condition in which human use of resources, required for the continuation of life, is in balance with nature's and society's abilities to replenish them. Sustainable communities:

1. Dedicate resources to bring plans for a sustainable future to fruition;
2. Are dedicated to the vitality and integrity of local and global systems;
3. Recognize that the social, economic, political, built, and natural environments need to be managed to sustain a balance, now and in perpetuity;
4. Follow principles that encourage the efficient use of, and avoid the waste of, energy, water, raw materials, and resources, with the goal of preventing environmental degradation; and
5. Meet human needs for productive, comfortable, and safe lives.

The Plan is infused throughout its chapters with strategies that call for short-term actions that support long-term sustainability. The Vision Statement and Guiding Principles of the Plan stated in Chapter 1 provide the framework for developing Sustainability Indicators that guide and measure the viability and adequacy of all Plan Policies, SOPs, DGs and IAs.

POLICY 2.1. IT IS THE POLICY OF THE CBJ TO BUILD A SUSTAINABLE COMMUNITY THAT ENDURES OVER GENERATIONS AND IS SUFFICIENTLY FAR-SEEING AND FLEXIBLE TO MAINTAIN THE VITAL AND ROBUST NATURE OF ITS ECONOMIC, SOCIAL, AND ENVIRONMENTAL SUPPORT SYSTEMS.

Implementing Actions

2.1.IA1 Support the CBJ Commission on Sustainability in completing its mission and tasks to (A) provide ongoing development of sustainability indicators and measures; and (B) periodically review the indicators and measures to confirm their currency and relevance and to track the CBJ's trends.

2.1.IA2 Incorporate the adopted sustainability indicators into the process of scoping, funding, and carrying out all proposed CBJ Capital Improvements including buildings, facilities, equipment, and components.

2.1.IA3 Lead a community-wide discussion on the inevitable high costs of importing fossil fuel to the CBJ and the impact of future fossil fuel scarcity. To help the community prepare for and adapt to this future scenario, develop community awareness, actions, and programs that will contribute to energy self-sufficiency.

2.1.IA4 Conduct community-wide energy and carbon audits. Communicate the findings to the community in a variety of forums with the goal of identifying ways to reduce Juneau's energy consumption and carbon footprint.

2.1.IA5 Provide ongoing information on the need to adapt to climate change with the goal of developing a community response to negative local impacts.

2.1.IA6 Develop and implement a variety of incentive programs to stimulate innovative conservation practices in residential, commercial and governmental sectors.

2.1.IA7 Initiate community development programs to attract sustainable businesses to Juneau and the Southeast Alaska region.

2.1.IA8 Support socio-economic and cultural diversity with the goal of creating and maintaining a community where individuals can live and thrive for the duration of their lives.

2.1.IA9 Protect ecosystems surrounding the community and preserve their inherent biodiversity.

2.1.IA10 Support the individual and commercial production of foods locally with careful evaluation of environmental impacts.

2.1.IA11 Provide ongoing support to sustain Juneau as a robust governmental center and as a regional hub for goods and services.

2.1.IA12 Amend the Land Use Code to create a new land use category for small-scale energy production facilities, such as solar panels and residentially-scaled wind turbines, so that they are not held to the same permitting requirements as industrial-scale energy production facilities.

POLICY 2.2. IT IS THE POLICY OF THE CBJ GOVERNMENT TO MODEL SUSTAINABILITY THROUGH ITS OPERATIONS, PRACTICES, AND PROJECTS.

Standard Operating Procedures

2.2SOP1 Perform ongoing analyzes and evaluation of the sustainable implications of CBJ operations, practices, and projects.

Implementing Actions

2.2.IA1 Complete energy and carbon audits for all CBJ buildings, facilities, and transportation components (public transit, CBJ automobiles, etc).

2.2.IA2 Identify opportunities throughout the CBJ government to conserve energy, use alternative fuels and renewable energy sources, and reduce the CBJ's carbon footprint.

2.2.IA3 Develop administrative policies and procedures, create employee incentive programs, and reward new sustainability promotion ideas that can be practically implemented by CBJ. Such programs might encourage ride-sharing, more efficient ways to use the city's fleet, and active participation in recycling.

2.2.IA4 Monitor and measure conservation initiatives and alternative approaches of CBJ programs at a minimum annually, with ongoing review and refinement from "lessons learned."

2.2.IA5 Develop performance standards for the design of all new or renovated CBJ buildings and provide funding incentives for higher levels of performance.

2.2.IA6 Identify and develop the sustainability expertise of CBJ staff and develop strategies for using the expertise collaboratively throughout CBJ government.

Sustainability Indicators

Indicators show how well a system is working. Effective indicators are:

- Relevant: they show you something about the system that you need to know;
- Easy to understand, even by people who are not expert;
- Reliable: you can trust the information that the indicator is providing;
- Based on accessible data: the information is available and reported at regular intervals.

Indicators help a community judge progress towards its long-term goals. Over time, a community will adjust policies, programs, and collective behavior according to the trends that emerge from using indicators. Indicators reveal the status of large systems, helping a community focus on long-term planning.

Developing indicators begins by selecting important, diverse, measurable categories and topics that the community will commit to measure at regular intervals.

Indicators will be developed by the Juneau Commission on Sustainability and used by appropriate CBJ and community groups. They will be developed from ongoing issues that emerge in the community. The issues will be organized around social, economic, and environmental categories, although it is expected that issues will overlap categories. The indicators and issues are expected to be modified over time, as the community evaluates its actions and as conditions change. The CBJ's level of sustainability will be measured by evaluating the community's actions, projects, and operations with respect to the indicators. The indicators will generate discussion among people with diverse backgrounds and interests, and, through the process, will help create a shared vision of where the community wants to be.

POLICY 2.3 IT IS THE POLICY OF THE CBJ TO DEVELOP AND USE SUSTAINABILITY INDICATORS TO MEASURE JUNEAU'S PROGRESS TOWARD BECOMING A MORE SUSTAINABLE COMMUNITY.

Standard Operating Procedure

2.3.SOP1 Measure CBJ capital improvements, projects, ordinances, and purchases against adopted sustainability indicators to ensure that the CBJ is moving toward a sustainable future.

Implementing Actions

2.3.IA1 Support the CBJ Commission on Sustainability in completing its mission and tasks to (A) provide ongoing development of sustainability indicators and measures; (B) periodically review the indicators and measures to confirm their currency and relevance and to track the CBJ's trends; and (C) incorporate the adopted sustainability indicators into the process of scoping, funding, and carrying out all proposed CBJ Capital Improvements including buildings, facilities, equipment, and components.

2.3.IA2 Periodically assess whether adopted sustainability indicators are measuring sustainability as intended, and amend them as necessary to improve their utility.

CHAPTER 3: COMMUNITY FORM

Existing Character

The 1984 and 1995 Comprehensive Plans were based in part on an anticipated 3 to 4 percent annual increase in population through the late 1990's. In fact, the rate of growth in both population and jobs hovered around 1 percent and is expected to continue at this pace over this Plan's planning horizon of 12 years. This is based on state revenue projections and projected employment in the CBJ's basic economic sectors of government, mining, tourism and food processing. However, with the slow rate of housing production over the past few years, relative to the increase in population (Table 2), there is a need for new residential development in areas that are provided with public sewer, water, and road access. The CBJ seeks to guide development patterns in order to assure the following results:

- Protection of the scenic beauty, fish and wildlife habitat, watersheds and outdoor natural recreation resources that all Juneauites and visitors value and enjoy;
- A balanced economy with a vibrant value-added export industry that provides a livable wage and medical benefits to its employees;
- Sufficient development opportunities to meet a broad range of residents' needs and lifestyles; and
- Compact development within the urban service area (in-fill development) to make the most efficient use of vacant land that is already provided with water, sewer, roads and other utilities and community services, particularly transit, schools and shopping.

The CBJ has four distinct community forms that appeal to a diverse population. Each type of community form satisfies the lifestyle of the residents living therein and those residents have expressed a strong desire to protect and enhance this community form.

Urban: The CBJ's urban areas are represented by Downtown Juneau and Douglas, West Juneau, high density areas of Lemon Creek and Switzer Village, the mixed use area around the Mendenhall Mall, and the village area around Auke Bay Harbor and the University. In these urban areas, residential, commercial, mixed use and and/or public facilities share land and utilities in a compact area. Urban areas are characterized by low- to mid-rise residential and commercial structures, often with the uses mixed within the same structure or with commercial uses lining the edges of residential neighborhoods. Typical mass and scale of these urban neighborhoods are 2 to 3-story structures separated by parking lots, roads, sidewalks and landscaping or small yards. Medium to high residential densities of 10 to 60 residential units per acre can be found in the Downtown Juneau area; densities of 14 units per acre can be found in the West Juneau Area; densities of 7 units per acre can be found in the Lemon Creek and Switzer Creek areas and in the Auke Bay area.

Suburban: The CBJ's suburban areas can be found in the area east of the Mendenhall River, north of the airport and west of Thunder Mountain. This area contains the suburban scale neighborhoods of Hidden Lakes, Pleasant Gardens, Mountain View, Kristel Meadows, Montana Creek Road, the Back Loop Road area, and Glacier Village, among others. Some commercial

and industrial developments can be found in clusters within these suburban areas. Those non-residential uses should provide land areas that serve as buffer zones between their operations and adjacent residential uses. The suburban scale is characterized by low densities represented by single-family, detached homes built to 3 to 5 units per acre. Typical suburban mass and scale reflects 1 to 2- story homes with attached garages on parcels smaller than 1/3 acre. Discretely integrated within these suburban neighborhoods are smaller accessory apartment dwelling units located within the principal home or above, or within, a garage. Structures are separated by modest yards, streets, sidewalks, and landscaping. Where the carrying capacity of roads permit, vacant parcels within the suburban neighborhoods served by sewers should be developed at higher residential densities to make most efficient use of public services and infrastructure therein. Accessory apartments and/or small bungalow homes on small lots can achieve this higher density while maintaining the suburban character of the neighborhood.

Rural: In the CBJ, rural areas can be found in the forested areas west of the Mendenhall River and in Thane, North Douglas and the out the road areas of Tee Harbor, Lena Cove, Indian Cove and Echo Cove. Residential densities are low at from 1 to 3 units per acre. Many of these areas are served by public water but not public sewer service. If and when public sewer service is provided to rural areas, higher residential densities should be permitted in order to make the most efficient use of this sewer resource. Vacant parcels within rural neighborhoods that are provided municipal sewer service should be developed at urban densities, although with site design and massing that reflects the rural character of the neighborhood.

Rural Remote: The rural remote areas can be found in the non-roaded areas of South Douglas, Taku River, Shelter Island and other islands within the CBJ. These areas are characterized by natural resource management and conservation activities and extremely low density homestead-style cabins or homes. The areas are served by few public services, no public water and sewer, and limited police and fire protection. Rural dispersed residential development is intended to occur at a density no greater than one dwelling unit per acre; in some circumstances, densities as low as one unit per 40 acres may be desired. In areas encompassing sensitive fish and wildlife habitat and other natural resources, subdivision of less than 40 acre lots may not be appropriate.

New Development

New development within the planning horizon of this Plan should occur as in-fill development on vacant or underutilized parcels within the Urban Service Area. In the future, new development could occur as new towns or satellite communities in the Echo Cove and West Douglas New Growth Areas designated in this Plan.

Compact "In Fill" Development Within the Urban Service Area: This Plan designates an approximately 238 square mile area within the urban and suburban areas of the CBJ as an Urban Service Area, within which water, sewer, access roads and other community services are provided or will be in the near future. Providing community services to this compact area is efficient and convenient for users. There are over 100 vacant parcels within the Urban Service Area boundary (USAB) of which from 30 to 60 can be deemed vacant buildable parcels, ranging in size from 1 to 150 acres. Buildable land is considered to be vacant or underused land that is relatively flat and dry; that is, with slopes of less than 18 percent and without high value (Class A and B) wetlands.

Land within the USAB should be efficiently developed before its boundaries are extended to properties outside of the USAB. An efficient development would build to the maximum density allowed by the zoning district within which the property lies, provided that road and intersections serving the new development have adequate capacity and levels of service to accommodate the proposed intensity of development. Buildable lands should be developed as medium- to high-density affordable housing or mixed residential and commercial developments wherever possible and practicable. This is particularly true for lands located within walking distance (approximately one-quarter mile) of public transit service.

Rural Area: Care should be taken that land outside the USAB is not developed at densities with well water and septic sanitary sewer systems in an incremental fashion, such that these on-site septic systems, upon cumulative development in the area, would fail. This has happened on North Douglas and the CBJ has had, at great expense, to bail out unsanitary septic systems by extending municipal sewer systems to those neighborhoods. This should not be repeated and great care should be taken to ensure that the zoning designations, and their associated density controls, are appropriate for areas not served by municipal water and/or sewer services. Land outside the USAB containing natural resources in need of protection from development, or that is unsuitable or not needed for more intense urban development, should be designated and zoned for rural or resource conservation purposes. Urban services are not to be planned for, or extended to, these rural areas. New Growth Areas, as defined below, should have their own self-contained water, sewer, utilities and public services and shall not rely on extensions of municipal services to those areas in order to develop.

New Growth Areas: These are areas in remote areas that are suitable and available for future urban/suburban-scale development when specifically approved by the CBJ in accordance with the procedures and criteria set out in this Plan and in the CBJ Land Use Code. These areas are viewed as new, self-contained towns or villages within remote areas of the CBJ. They would have a distinct identity and would plan for adequate commercial, residential, health care, educational facilities and public utilities and services. Certain small-scale, non-residential uses, such as port facilities, resource-related industrial development (e.g. a lumber mill or fish processing plant), or recreational or resort uses, may be appropriate, on an interim basis, on portions of areas designated by this Plan as a New Growth Area.

The designated New Growth Areas in Echo Cove and West Douglas Island would each be a self-contained urban area providing a full complement of public services and facilities. Development of housing and services to this housing should occur in compact areas and should represent a minimum residential density of ten residential units per gross acre, which would: (1) provide the most efficient use of buildable land within these areas; (2) best accommodate population and economic growth; (3) provide affordability in housing; and (4) make efficient use of transportation facilities and services and other community services provided to those areas.

Transition Area: These lands are located within the Urban Service Area and are not yet provided public sewer service. When provided with sewer service, and when roadway and intersections serving these lands have adequate capacities to accommodate new development (such that post-development, the road and intersection Levels of Service would not be worse than LOS D),

transition areas should be rezoned for the designated higher density residential development. Transition areas are identified by the designator (T) on the Comprehensive Plan land use maps.

Adequate Development Opportunities

Private and public land ownership patterns within the CBJ have a significant impact on the location of future urban development. Most of the CBJ's flat, dry parcels within the USAB or the roaded area have been developed. Due to its location at the intersection of a steeply sloped rainforest and the sea, most of the undeveloped land is constrained by steep slopes, avalanche hazards, anadromous streams, and wetlands and are either unbuildable or are very costly to build upon.

Most of the CBJ's land that is designated for commercial use is either developed or large portions of the land are wetlands and may be unbuildable. Similarly, the CBJ's industrially-zoned lands are either developed, contain wetlands, or feature steep terrain that is unsuitable for industry. A major effort in this Plan Update was the identification of buildable land within or adjacent to the USAB to designate for commerce, industry and housing, and particularly housing at densities that could be affordable to low- or moderate-income households and to CBJ renting households who desire to purchase housing. Unfortunately, this search did not result in finding much buildable land that is readily suitable for development. About 120 CBJ-owned vacant parcels located within the USAB were studied and, of those, only two were deemed buildable within the next few years, as they had relatively easy access to public water, sewer and roads. These two buildable sites (one above Dzantik'i Heeni School, and one under Thunder Mountain), representing about 80 buildable acres, could accommodate about 800 small homes, depending upon the site design. Most of the CBJ-owned candidate sites studied were deemed unbuildable due to steep slopes, presence of high-value wetlands, or avalanche hazards. Two CBJ-owned sites near the University could be buildable within this 12 year planning horizon, once new access roads, intersection capacity improvements to arterial roads serving those properties, and the extension of water, sewer, roads and other utilities to the properties take place.

One of the primary responsibilities of the CBJ is to facilitate future growth by ensuring that adequate land is available when needed and in providing a level of public services and facilities sufficient to promote public health, safety, and convenience. Typically, it is advisable to have more than a 15-year supply of vacant land for commerce, industry, housing and public utilities and facilities to facilitate choice in location, price and size of development. The CBJ is no longer in a position to provide this inventory of land zoned for those uses, as most of the undeveloped land in the CBJ is dominated by wetlands, forests, steep slopes and variable terrain and/or is inaccessible by roads. Very few land uses can effectively use this type of terrain and, if they could, the costs to engineer development on those lands, while mitigating environmental impacts, is, today, cost- prohibitive to all but high-priced, low-density residential uses. The CBJ needs to be very efficient and prudent in how it allocates land uses on the few remaining vacant buildable parcels within the USAB.

Due to this scarcity of flat, dry land within the sewered USAB, it is critical that the CBJ identify the most buildable lands within the USAB and make the most efficient use of those limited resources by increasing residential densities along public transit corridors and, in exchange for

these economic benefits to private developers, require the inclusion of long-term low- and moderate-income affordable housing units throughout the new development.

One mechanism the CBJ has used in the past to provide some opportunity for more efficient use of land, while assuring adequate community services to these lands, has been use of the transition area concept, applicable to areas located within the USAB but not yet provided public sewer and/or water service. A designation in a transition area specifies the lower density classification that can be accommodated by well and/or on-site septic service and it specifies a higher density classification that would go into effect with the provision of public water and sewer and adequate roads to the property. For example, areas near the University in the West Valley neighborhood are shown on the Comprehensive Plan maps as Rural Density Residential (Transition to) Medium Density Residential: RDR (T) MDR. This designation means that the present Rural Density Residential land, now served by well and septic systems and allowing one dwelling unit per acre, could qualify for a higher density Medium Density Residential zoning district designation, allowing ten to twenty dwelling units per acre, once water, sewer and adequate roads are provided. This would make the most efficient use of the sewer resource on limited buildable lands.

Another mechanism is the designation of vacant CBJ-owned buildable sites within the USAB for medium- to high-density residential uses. The CBJ would identify the areas of these parcels that are buildable; that is, absent high-value wetlands or slopes greater than 18 percent. The CBJ would then conditionally-rezone these parcels to require the development of a specific density, mix of land uses, site plan, development standards, and levels of housing affordability. The CBJ would then release those parcels to a for-profit or non-profit development corporation who would immediately build the project and assure the affordability of the designated affordable units therein. This same approach could be offered to private owners of vacant properties within the USAB by creating an Affordable Housing Overlay District land use designation or zoning district. If such an overlay district were created, the CBJ would allow owners of vacant residentially- or mixed use zoned land to apply to have the Affordable Housing Overlay District applied to their property, with, as a condition of the zoning map amendment, specific land uses, densities, building heights and scale, site plans, open space/natural areas, recreation and conservation areas, development standards and affordability requirements specified.

Unfortunately, many of the privately-owned vacant parcels are located in areas that are served by collector or arterial roads that have reached their carrying capacity; that is, these roads are severely congested during peak morning and evening travel periods. The Alaska Department of Transportation and Public Facilities (DOT) traffic studies available for these areas indicate that the Levels of Service (LOS) for numerous intersections in the Mendenhall Valley, Juneau and Douglas Island areas are already at LOS D, E and F during peak periods. A LOS A indicates free flow of traffic whereas a LOS D would indicate frequent delays in entering the intersection. A LOS E would require several minutes of delay in entering an un-signalized intersection, particularly if intending to make a left turn onto the road. A LOS F indicates that the traffic volume exceeds the road's or intersection's design capacity and would require more than one cycle to enter a signalized intersection and several minutes wait to make a left turn onto the road. Levels of Service worse than LOS D are unacceptable levels when considering adding new traffic-generating uses to these affected roads. Until roads and intersections are improved to LOS D or better, generally only land uses that generate traffic during off-peak periods, or that

would assure that new patrons or occupants would use public transit services, should be accommodated. [Please also see the Levels of Service discussion in the Glossary section of this Plan]

Transit Oriented Development

There are over 100 vacant parcels, ranging in size from one to 113 acres and totaling about 600 acres of land that are located within one-quarter mile of an express bus route and are served by municipal water and sewer service. Some of these parcels contain wetlands. At a minimum, about 30 privately-owned vacant or underutilized parcels are located within walking distance, or one-quarter mile, of existing and proposed public transit routes and should be designated for medium-to high-density residential or mixed use development.

The 2008 Capital Transit Development Plan proposes a trunk line bus service from Auke Bay to Downtown Juneau to move riders quickly between major transit nodes, with local circulator routes serving the Mendenhall Valley, Lemon Creek, Downtown, and Douglas. Vacant lands within walking distance of new routes with short headways and transfer points can be designated for high-density residential or mixed use Transit Oriented Development (TOD) district.

Transit Oriented Development consists of dynamic, livable developments and/or neighborhoods focusing on compact, walkable communities centered on convenient express public transit systems. Depending on the location of the property, a dynamic mixed use development or higher-density wholly-residential development would be appropriate.

Typical elements of a Transit Oriented Development:

- Safe, convenient pedestrian and bicycle connections from home and/or work to the bus station(s) with no more than two bus transfers to reach a final destination. Transit stations or bus shelters would provide adequate shelter, seating, lighting and signage.
- The urban design of the development in terms of block size, building height and massing, building orientation and ground-level frontage treatments would be pedestrian oriented. The ground-levels of commercial space would provide multiple entrances and transparency, that is, a ratio of windows and doors to the total frontage area should be at least 40 percent.
- Density should be medium-to high with three or more levels of housing; in some locations this may be located above ground-floor commercial space;
- A mix of housing types, sizes and price is important;
- Buildings should be oriented to provide "eyes" on public spaces and gathering places;
- Lower-than-normal parking requirements met on one or two levels with entries from a side street or the rear of the building. Typically, the parking is reduced to as low as one space per four dwelling units;
- A mix of pedestrian-oriented land uses and convenient shopping and personal service uses within walking distance;
- Walkable design of the public spaces and interior courtyards with pedestrian-scale architecture/building massing, lighting, circulation patterns and landscaping;

- Direct connections to express public transit services within a 5 to 10 minute walking distance from each development or to collector transport systems; and
- Support systems and facilities to encourage non-motorized transport as well as carpools, car-sharing programs and non-fossil fuel-burning vehicles (covered, secure bicycle storage, parking spaces with metered electric outlets).

Principles for Creating Livable Mixed Use Communities

- Design on a Human Scale
  Compact, pedestrian-friendly communities allow residents, workers and visitors to walk to shops, services, cultural venues, and jobs, reduce traffic congestion and improve people's health. Commercial space should face the street and should mimic a traditional Main Street development pattern with clear display windows, multiple entrances, all weather canopies and seating areas. There should be no blank walls facing public streets or walkways. Parking should be provided in the rear of structures with access roadways limited to side streets. Pedestrian pathways should be well-lit and protected from rain and snow.

- Provide Choices
  People want variety in housing styles and size and want conveniently accessible shopping, recreation, entertainment, transportation and employment. A variety of pedestrian-friendly uses creates dynamic neighborhoods and accommodates residents in different stages of their lives. Residential densities should be a minimum of 10 dwelling units per gross acre of land within the development with higher densities of 30 to 80 units per acre encouraged. These densities facilitate the efficient provision of frequent transit service, convenient shops and services, affordable development, and help create a vibrant street life.

- Adapt to Urban Centers
  Take advantage of the presence of adequate municipal water and sewer services, other utilities, roads and infrastructure by pursuing in-fill development on vacant land within the urban service area, adaptive re-use of vacant buildings and/or redevelopment of underutilized or older, obsolete buildings. In-fill and redevelopment structures should respect the overall character of the existing neighborhood, although building heights and densities will be greater. New developments should provide vehicular, pedestrian and viewshed connectivity to adjacent established neighborhoods.

- Provide Transportation Options
  Design safe, well-lit and convenient all-weather pedestrian pathways, separated bicycle lanes, sheltered bus stops; give preferential parking to carpool vehicles and car-sharing vehicles and provide preferential and metered electric energy stations for electric vehicles. Parking should satisfy the customer/patron needs of the non-residential space with minimal parking provided for residents and workers who are encouraged to take transit. Parking for businesses should be designed as parallel or angled parking along the storefronts rather than a sea of surface parking facing the roadway. Internal vehicle roadways should be designed for slow speeds to minimize hazards to pedestrians and

cyclists. Pull-off lanes for transit, taxi cabs and school buses should be provided at convenient locations.

- Provide a Central Public Gathering Space
  Provide distinct entries to new developments and well-defined and safe public spaces that facilitate public gathering, celebrations, and face-to-face interaction and the viewing of public art. Cluster commercial uses around a common plaza or gathering space that could be integrated with the transit station for the development.

- Protect Environmental Resources
  Provide a balance of preservation of natural systems and new development; ensure that urban runoff and snow storage does not pollute waterways and nearby habitat; mitigate to eliminate or minimize noise, fumes and other air quality impacts; provide facilities to support non-fossil fuel-burning vehicles and buildings; provide convenient facilities to encourage recycling of solid waste materials; and encourage the reduction of the use of packaging materials and shopping bags by businesses, workers and residents of the area.

Other sections of the Comprehensive Plan address community form and community character issues more specifically; these are found in Chapters 4 (Housing Element), 5 (Economic Development), 10 (Land Use) and 11 (Land Use Maps and Subarea Guidelines).

POLICY 3.1. IT IS THE POLICY OF THE CBJ TO BALANCE AVAILABILITY OF SUFFICIENT LAND WITHIN THE DESIGNATED URBAN SERVICE AREA BOUNDARY THAT IS SUITABLY LOCATED AND PROVIDED WITH THE APPROPRIATE PUBLIC SERVICES AND FACILITIES TO MEET THE COMMUNITY'S FUTURE GROWTH NEEDS AND THE PROTECTION OF NATURAL RESOURCES, FISH AND WILDLIFE HABITAT AND SCENIC CORRIDORS.

Standard Operating Procedures

3.1.SOP1 As part of the Comprehensive Plan implementation and updating process (see Chapter 18), monitor land availability for various land uses and designate adequate land on the Comprehensive Plan Land Use Map, as appropriate. An expansion or other amendment to the Urban Service Area boundary would be processed as an amendment to the Comprehensive Plan Land Use Maps.

3.1.SOP2 Develop Capital Improvement Plans and budgets for public facilities and services that are needed to support the land use pattern determined in this Comprehensive Plan. Priority should be given to support infrastructure needed to facilitate compact, in-fill residential development along transit corridors within the Urban Service Area.

Development Guidelines

3.1.DG1 When considering rezoning applications of land located within the Urban Service Area from an industrial zoning district to a commercial, mixed use or residential district, ensure that there is an adequate supply of land suitable for manufacturing or heavy industrial use

elsewhere in the Urban Service Area in an area that can be provided heavy weight-carrying-capacity roads and sewers [see also 10.7.DG2].

3.1.DG2 When considering rezoning applications of land located within the Urban Service Area (a) from a non-residential zoning district to a residential or mixed use district, (b) from a low-density residential district to a higher-density residential district, or (c) from a lower building height district to a higher building height district, promote the development of new medium- (10 to 20 dwelling units per gross acre) to high-density (30, 60 or more units per gross acre) residential developments that include dwelling units affordable to low-income households as a condition of the rezoning. The affordable units should be dispersed throughout the development, constructed at the same time as the market-rate units, and priced or rented to households with incomes no greater than 80 percent of the CBJ Median Family Income (MFI) level by household size, as established annually by the U.S. Department of Housing and Urban Development (HUD).

Implementing Actions

3.1.IA1 Revise the Land Use Code to allow, in zoning Transitional (T) zones, the higher density zoning designation to be allowed upon petition by the property owner and approval by the Community Development Department (CDD) Director, rather than by a rezoning action, provided that, as a condition of approval, the property owner ensures the provision of adequate municipal water and sewer service and provides adequate roadway capacity to serve the increased population. For example, a D-3 (T) D-10 could transition to D-10, and a D-l (T) D-5 could transition to a D-5 as a zoning map amendment, with CDD Director's approval, upon the financial assurance of provision of the water, sewer, road and intersection capacity at a LOS D or better prior to its occupancy.

Suburban and Urban Area Development

The CBJ's future community form depends upon transportation systems, utilities, natural areas and the amount of land available to meet projected demand for residential, commercial and industrial uses and the most appropriate allocation of land for these purposes.

Compact growth in suburban and urban areas is preferable because the use of land is more efficient; urban services are more economically provided and maintained; adverse environmental impacts are minimized; and the majority of residents who prefer a high level of services are better served. In-fill development on vacant lots, or the addition of accessory dwellings or small homes on small lots interspersed throughout an existing neighborhood, is encouraged.

Most commercial and industrial land is located within the Urban Service Area to ensure the provision of the required high level of public services and facilities and to prevent intrusion into environmentally-sensitive and/or resource-rich rural areas. Due to topography and private/public ownership patterns, the developed or urban portion of the CBJ is linear, with major concentrations in the suburban areas of Mendenhall Valley, Salmon Creek, Lemon Creek and Auke Bay on the CBJ mainland, and Douglas and West Juneau on Douglas Island.

To make efficient use of limited buildable land and community services as well as to protect natural resources, compact urban development is preferred to urban sprawl. This is also true for

the New Growth Area towns. By concentrating development, the CBJ will limit the number of acres dedicated to urban uses and minimize the per-unit costs of extending sewer, water, utility lines and roadways. Significant reductions in travel, energy consumption and air pollution will result by encouraging the development of residential uses in close proximity to shopping, employment, cultural and recreational facilities.

POLICY 3.2. IT IS THE POLICY OF THE CBJ TO PROMOTE COMPACT URBAN DEVELOPMENT WITHIN THE DESIGNATED URBAN SERVICE AREA TO ENSURE EFFICIENT UTILIZATION OF LAND RESOURCES AND TO FACILITATE COST EFFECTIVE PROVISION OF COMMUNITY SERVICES AND FACILITIES WHILE BALANCING PROTECTION OF NATURAL RESOURCES, FISH AND WILDLIFE HABITAT AND SCENIC CORRIDORS.

Standard Operating Procedures

3.2.SOP1 As part of an orderly update of the Comprehensive Plan, the CBJ reviews and maintains an Urban Service Area boundary that defines the limits within which the full range of urban services, such as water and sewer, will be provided by the CBJ. Such services should not be provided outside the Urban Service Area. After a thorough review of buildable land within the Urban Service Area, the CBJ may seek to extend the Urban Service Area boundary to provide adequate land for compact development at a minimum residential density of 10 units per gross acre.

3.2.SOP2 Adopt a Capital Improvement Program (CIP) that schedules community sewer, water, storm drainage, transportation improvements and recreational facilities for all areas within the Urban Service Area.

3.2.SOP3 Establish specific policies and land use categories and land use map designations for the full range of needed land uses and activities with an emphasis on compact development of commercial and residential uses along express (fast service to distinct destinations) public transit corridors.

Rural Area Development

A majority of the land and water within the CBJ is located outside existing or planned urban areas on the roaded areas of the mainland or Douglas Island. In this Plan, this is defined as the rural area. It is suitable for a broad range of activities including rural residential development, timber harvest, mining and sand/gravel extraction, scenic resources, fish and wildlife habitat, and many forms of outdoor recreational activities.

POLICY 3.3. OUTSIDE OF THE URBAN SERVICE AREA, IT IS THE POLICY OF THE CBJ TO PERMIT APPROPRIATE LOW-INTENSITY, LOW-IMPACT DEVELOPMENT THAT PROVIDES AN OVERALL PUBLIC BENEFIT IN RURAL AREAS, WHILE ASSURING THE PROTECTION OF NATURAL RESOURCES, FISH AND WILDLIFE HABITAT, WATERSHEDS, SCENIC CORRIDORS, PUBLIC ACCESS TO THE

SHORELINE AND INLAND WATER BODIES, AND RECREATIONAL OPPORTUNITIES.

Standard Operating Procedure

3.3.SOP1 Coordinate all planning and development decisions in the rural area with State and Federal agencies with the applicable jurisdiction.

3.3.SOP2 Designate on the Comprehensive Plan Land Use Maps and the Land Use Code Maps those publicly-owned land areas that warrant protection for (a) watersheds for future potable water sources; (b) riparian habitat of anadromous water bodies; (c) access to water and high recreational value; and (d) potential natural hazards, consistent with the Natural Resources Policies and Guidelines of Chapter 7.

Development Guidelines

3.3.DG1 When developing roads, infrastructure or development projects within the rural and remote areas, ensure the protection of adequate un-fragmented fish and wildlife corridors along anadromous fish streams extending from the icefields and uplands to the sea.

3.3.DG2 CBJ-owned shoreline lands that can provide non-motorized access to water bodies and that provide unobstructed views of the water from the shoreline and/or from public roads should remain in their natural state, with the exception of the provision of low-scale recreational facilities and convenience stations such as restrooms, boat launch and/or picnic facilities.

New Growth Area Development

New Growth Areas are defined as sites in rural or remote areas potentially suitable for mixed use with predominantly residential development and characterized by compact, urban densities and a self-contained, full complement of services and facilities, including roads, water and sewer, transit, recreational, educational and neighborhood- commercial services. In some New Growth Areas, specific areas can accommodate regional support services and facilities such as port facilities, transportation- or resource-related industrial development.

The concept of New Growth Areas responds to the need for limited urban level development opportunities located in remote areas; that is, areas located quite some distance from the existing Urban Service Area. New Growth Areas are particularly well-suited for selected lands of the CBJ, Goldbelt Corporation, and the State. There are two New Growth Areas designated on the Plan's Land Use Maps—Echo Cove and West Douglas Island—that are shown conceptually on the Comprehensive Plan Land Use Maps for Subarea 1 and Subarea 9 of Chapter 11. The exact location, size, nature, timing and public/private involvement in the development of these areas will be determined in the future, via a master plan for each specific New Growth Area. The land within each New Growth Area can be expected to be developed with short-term uses that are permitted by the underlying zoning district designation until the infrastructure needed to safely

and effectively access these remote areas is provided, such as roads and/or bridges and avalanche protection or docks.

Development of New Growth Areas as satellite communities was identified as the most desirable way to accommodate growth outside the urban area, rather than to continually sprawl outward from the Urban Service Area with low-density developments served by wells and septic systems. As master planned communities, the New Growth Areas can provide residents the advantages of urban living in an otherwise rural setting while minimizing incursion into environmentally-sensitive areas and making the provisions of urban services cost-effective.

Under the provisions of the Alaska Statehood Act, the CBJ has acquired nearly 20,000 acres of State lands that were selected on the basis of their potential residential, economic, and recreational value. Much of this property is located in non-urbanized portions of the CBJ.

As a beneficiary of the Alaska Native Claims Settlement Act (ANCSA), Goldbelt, the local ANCSA Corporation, received title to nearly 4,000 acres of property at Echo Cove and on west and south Douglas Island. These tracts are potentially suitable for large-scale residential, recreational, resort, maritime, transportation or resource-related industrial development within the parameters of a New Growth Area.

The development of carefully sited, well-designed New Growth Areas is an innovative means by which the CBJ residents can have the advantages of rural living and urban amenities. Large amounts of land in single ownership facilitate such development.

POLICY 3.4. IT IS THE POLICY OF THE CBJ TO ENCOURAGE AND FACILITATE THE DEVELOPMENT OF NEW GROWTH AREAS IN SUITABLE LOCATIONS IN THE REMOTE AREAS OF THE CBJ IN ORDER TO ACCOMMODATE MASTER PLANNED, SELF-CONTAINED URBAN-LEVEL DEVELOPMENT OPPORTUNITIES OUTSIDE THE URBAN SERVICE AREA.

Development Guidelines

3.4.DG1 New Growth Areas are to be remote, self-contained communities that reflect an urban density yet located a great distance from the Urban Service Area. The gross density should reflect a minimum residential density of ten dwelling units per acre; this can be reflected in a mixture of housing types and densities such as clustered housing and rural, low density housing over the course of the total residentially-designated lands.

3.4.DG2 Require that each New Growth Area be developed according to a unified, comprehensive plan or master development plan that ensures the:

A. Use of energy-efficient siting, design, and construction techniques;
B. Efficient provision of sanitary sewer, water, storm water drainage and roads based on a sufficient population to support these services;
C. Preservation of natural vegetation, watersheds, public vistas, and other natural amenities;

D. Provision of passive and active recreational activities, including water access, open space/natural areas, community recreational facilities, and pedestrian and bicycle paths; and
E. Elimination of land use conflicts. This is particularly important in developments that combine residential and resource extraction, processing and transport uses.

3.4.DG3 When preparing master plans or development plans for designated New Growth Areas or when considering designating new Growth Areas, identify and establish the following design and development parameters:

A. Physical assets and amenities, including views, natural vegetation, topography, water access, etc.;
B. Physical suitability, including potable water, soils, slopes, drainage, climate, prevailing winds, hazard areas, etc.;
C. Potential natural resource conflicts, including fish and wildlife habitats, wetlands, groundwater supplies, commercially-valuable mineral and timber resources, etc.;
D. Size/configuration of the land to be developed, assuming compact residential development representing a minimum residential density of ten units per gross acre of residentially-developed land or land within a mixed use district;
E. Ownership patterns;
F. Proximity to commercial and employment centers;
G. Costs of extending roads and public transport to and through the area, and of providing utilities, community water, sewer, and storm drainage;
H. Market demand and financial feasibility studies conducted by the CBJ or private developers;
I. CBJ disposition/development strategies for lands under its ownership, current usage of the site; and
J. Subsistence or recreational use conflicts.

3.4.DG4 Require developers, including the CBJ, to demonstrate economic feasibility and market demand for the proposed development if public lands and/or investments are involved. Determine the pertinent feasibility information, including demographic characteristics, economic conditions, amenities and growth potential of the CBJ prior to permitting development of New Growth Areas.

3.4.DG5 Identify and require assurances of adequate road corridors and potential mass-transit service for New Growth Areas prior to permitting development.

3.4.DG6 Allow for phasing of the development that permits construction in reasonable increments within an overall master plan or planned unit development design concept.

3.4.DG7 Require developers to post bonds, if necessary, to assure the project is completed within a specified timetable and in substantial compliance with the approved development plan.

Implementing Actions

3.4.IA1 Update the New Growth Area section of the Land Use Code to provide flexibility for developing each individual New Growth Area to include all the implementing measures recommended in this Comprehensive Plan. Establish minimum open space/natural areas, recreational and landscaping requirements, providing flexibility to allow consideration of new data, conditions, and analysis. Provide minimum standards for roadways and bicycle and pedestrian paths assuring a Level of Service D or better.

3.4.IA2 Revise the Land Use Code to require a demonstration from the developer of a New Growth Area that the number of residential units proposed therein will be sufficient to create a viable community and support the efficient and cost-effective provision of roads and utilities such as community-level water, sewer, and drainage systems. The acreage required will be based in part on assuming a minimum average urban density of ten dwelling units per gross acre; this will allow flexibility in providing high density housing clustered around a village center as well as suburban densities outside of the core residential area(s). Additional acreage to accommodate undisturbed fish and wildlife corridors and buffer zones, open space/natural areas, future expansion, recreational, public and commercial uses may be required.

3.4.IA3 Establish policies and procedures for classifications, management and disposal of CBJ lands in New Growth Areas, through the use, in part, of the Lands Management Ordinance (CBJ 53.09).

CHAPTER 4. HOUSING ELEMENT

Conservation and Development

Like many residents across the country, CBJ residents are suffering from a housing crisis: There is an inadequate supply of housing to provide residents adequate choice in housing size, location and price, resulting in residents paying more than 30% of their income on housing.

The three indicators of a housing crisis are the presence of households that (1) are paying more than 30% of their household income for shelter, thereby deemed "overburdened" by housing costs; (2) live in overcrowded conditions, that is, more than one person per room within the home; and/or (3) live in unsafe and/or unsanitary housing units, that is, without a full kitchen and bath. According to year 2000 U.S. Census data, approximately 37% of CBJ *renter* households paid more than 30% of their income for shelter and about 17% of *owner* households paid more than 30% of their income for shelter. However, this figure does not include the costs of essential utilities such as home heating, electric energy, water, sewer or garbage services. In 2000, over 60% of CBJ households earned less than the median income and those 7,000-plus households could not afford to buy a home and were dependent upon a rental housing market with a vacancy rate of less than 1%.

In 2006, the average assessed value of a single family home was $357,355 with a vacancy rate of less than 1%. The average rental rate for a 2-bedroom unit was $1,200 with a vacancy rate of less than 1%. Additionally, the average monthly home heating cost for a 1,000 square foot home was $300 and the average monthly electric energy cost for that unit was $80. Shelter costs can easily exceed 50% of a household's gross income, leaving very little income for food, clothing, transportation, medical care and other living expenses.

Unmet housing need in the CBJ can be measured by a number of criteria, including the number of:

- persons who are homeless;
- persons living in unsanitary housing, that is, without a full kitchen and/or bathroom facility;
- persons with specialized needs living in inadequate housing with regard to physical accessibility;
- persons who cannot live independently without needed support services such as life care or counseling; and/or
- households paying more than 30% of their gross income on shelter costs.

Homelessness. This Plan Update effort did not conduct a survey or inventory of persons or households who were homeless in the CBJ in the year 2006. Rather, staff relied on secondary data that consisted of tallying the number of beds provided to homeless persons by various non-profit organizations and their average occupancy throughout the year. This inventory and occupancy rate was supplemented by a survey of CBJ homeless persons conducted in 2005 by the Alaska Housing Finance Corporation (AHFC).

In 2006, there were 40 beds provided to homeless persons at the Glory Hole Shelter. St. Vincent de Paul of Juneau provided 25 dwelling units for homeless families. Gastineau Human Services provided 75 beds with support services for inmates re-entering society from the local prison who, without the housing, would be homeless. AWARE provided 48 beds for women and children who needed emergency housing. There were about 15 homeless persons who camped at the Thane Road campsite on a daily basis. The 2005 AHFC survey received over 200 responses from homeless persons. There are an unknown number of persons who are without shelter and who are staying with friends for extended periods of time; these folks are referred to as "couch surfers" because they stay with different friends for periods of time until they can afford housing of their own or with roommates. For the purpose of this study, staff used a housing need figure of 200 small-size, efficiency units (studio apartments or Single Room Occupancy units), with support services, to house the CBJ homeless population, excluding the couch-surfing population. Anecdotal information about the couch-surfing population indicate that they are low-income, year-round working adults, typically recent arrivals to town, who need low-rent housing but do not need support services, such as health or mental health services, and are not yet ready to purchase a home. This population is included within the low-income rental housing need category.

Housing Need

The CBJ's households are accommodated in single-family detached and attached homes, accessory apartments in homes, condominium units, two- to four-plex structures, apartments, mobile homes on lots or in parks, group homes or congregate housing units with support services, extended stay hotels and motels, RV parks, float homes and boats, and campgrounds. Therefore, a variety of dwelling unit types and sizes need to be provided throughout the CBJ, but particularly within the roaded area. Due to the cost of land and construction, small unit sizes and high density developments located within the area served by sewers are needed in order to achieve affordability.

The CBJ continues to rely on its experienced non-profit housing developers and service providers to provide housing for the most vulnerable residents in the CBJ; that of the physically- and/or mentally disabled, the homeless and near homeless, and the residents who are unable to sustain full-time, year-round employment needed to afford market-rate rental housing. However, even households consisting of two wage earners holding year-round employment at $14.00 per hour wages find themselves below the median income level for The CBJ established by the U.S. Department of Housing and Urban Development (HUD) and cannot afford to purchase a home in the CBJ. A living wage that supports modest transportation, medical care and food costs for a household and that could support the required mortgage payment for a 1,000 square foot home would require a combined hourly wage of $20.00 for full-time, year-round employment.

Existing Housing Stock

The distribution of the 2006 CBJ housing stock, by type of structure or unit, is summarized in Table 1.

Housing Condition.

Age. According to 2000 Census data, 83% of the total Year 2000 housing units were built from 1960 to March 2000. Only 17% of the residential units were 60 years or older. This is generally considered "sound" housing stock. One problem for the CBJ is the number of older mobile home and manufactured home units that comprise a significant proportion of the CBJ's affordable rental housing stock. "Mobile homes" are dwelling units constructed prior to 1976 when HUD required such units to be built to fire-safety standards. These standards include fire-proof insulation around water heaters and furnaces within the unit; copper wiring instead of aluminum wiring of the electrical systems; two exits out of the unit; and larger bedroom windows as a means of emergency escape in the event of a fire. Such units built after 1976 to HUD standards are called "manufactured homes." The CBJ stock of mobile homes and manufactured homes are, on average, 30 years old. Today, a pre-1976 "mobile home" should be considered functionally obsolete unless it has been rehabilitated to meet the HUD fire safety standards. Manufactured homes that are well-maintained to assure waterproofing and prevention of mold growth can be expected to be safe and habitable housing for 30 years. The CBJ mobile and manufactured homes that have reached or exceeded this age are of concern, particularly in CBJ weather conditions. However, since most of these units are rentals, and the typical valuation of those units ranges from $31,000 to $70,000, these units are an important element in the CBJ's affordable housing stock and care should be taken to ensure that they are well-maintained or, if beyond their functional and economic life, they should be replaced with similarly affordable units. In some cases, whole neighborhoods of mobile and manufactured homes may be in need of major rehabilitation or redevelopment.

Maintenance. Census data do not reveal whether or not the CBJ's housing has been well maintained. In a climate such as ours, it is very important that the roof and siding are maintained in good condition. Housing older than 40 years may be in need of electrical and plumbing upgrades. A random sampling of single-family homes in the five neighborhoods with the lowest per capita income in 2000 resulted in a finding that the older homes therein were in sound condition and had received replacement roofs, and some upgraded plumbing and electrical elements. As a rule, the high value of homes in the CBJ, even older homes, enable homeowners to secure home equity loans to make these improvements. However, a concern expressed by recent buyers of older homes is that, even though the deficiencies were reported to the buyer by the seller, the seller did not discount the price or put any of the sale funds into an escrow account to make the repairs. The result is that the buyer is burdened with both a high mortgage payment and the costs of the declared repairs and improvements. Many times the household is already paying more than 30% of their income on the mortgage, and needed repairs and improvements are deferred to the next buyer. This cycle of deferred maintenance can result in the incremental deterioration of the unit to a condition that is no longer economic to repair and, eventually, the unit would be sold as a "tear down" to make way for a new unit on the property. Over time, a significant number of small, older, and relatively more affordable homes could be lost to this cycle of deferred maintenance and substantial deterioration.

Adequacy of Facilities. In the year 2000, 70% of the housing units were heated by fuel oil. Only 1.2% of the units were deemed to be lacking in complete plumbing facilities and 0.9% lacked complete kitchen facilities; both are indicators of substandard housing. At least 98% of the CBJ housing stock can be deemed in good and sanitary condition with regard to the presence of cooking and bathing facilities.

Assisted-Housing Inventory

The CBJ is fortunate to have a number of talented and successful non-profit housing development corporations. As of 2006, these organizations had produced 1,363 affordable housing units plus 275 beds in supportive housing programs. Of the 1,363 housing units, 305 are supported by Section 8 housing vouchers.

It is reported by service providers that very few rental dwellings in the CBJ are accessible to persons in wheelchairs or who use walkers and need universal design accessibility or design for visitability. Notwithstanding the current need for accessible dwellings, in the future, with the projected aging population throughout the CBJ, it is prudent to incorporate universal design concepts in all new ground-floor dwelling units.

Loss of Housing

Business operators throughout the CBJ have expressed a need for affordable housing for their employees. This is true for businesses who offer year-round, full-time employment as well as summer season, tourist-related businesses. However, a number of summer season business operators have purchased multi-family housing structures for their seasonal employees and choose to keep these units vacant off-season. Such loss of year-round housing places additional burden on residents seeking rental housing.

Conversions of year-round rental housing to ownership condominiums further reduce the number of rental housing units on the market. Rental housing is the most difficult to produce and finance and very few new rental units are being built.

Lastly, a number of structures in Downtown Juneau have dwelling units that have been vacated by the owner and are being kept off the market; that is, the owners have abandoned the units, are keeping them vacant and allowing the facilities to deteriorate. There is no law or regulation that prevents owners from going out of business as a residential landlord and there is no way for the CBJ to prevent the incremental deterioration of these units. The loss of safe and habitable rental dwelling units within the compact Downtown due to owner disinterest is damaging to the CBJ's housing stock and contributes to the housing crisis as well as to the blight of Downtown Juneau.

Abandoned dwellings and deteriorating dwellings in the Downtown historic district and nearby older, historic neighborhoods threaten the health, safety and well-being of those neighborhoods. As property owners defer maintenance and avoid investments in their properties, the structures thereon deteriorate and adjacent properties may become more vulnerable to fire and vandalism due to the presence of the attractive nuisance of an abandoned building. Securing financing for normal maintenance and repair of the neighborhood's occupied dwellings becomes more costly to the homeowner due to the financial institution's perception of blight associated with the nearby abandoned building. Unless and until the CBJ achieves a healthy vacancy rate, all habitable dwellings are valued and needed and uninhabitable units should be rehabilitated or replaced.

Table 1: CBJ Housing Distribution by Type, 2005

Source: CBJ Community Development Department, 2006

Type of Housing	No. of units	% of total Housing stock	Vacancy rate	Persons Per House-hold	Average age of Housing	Avg. Assessed Value of Housing
Single-Family Dwelling unit (du)	5,042	39%	0.86%	2.7	34 years	$357,355
Single-Family With Apt.	1,300	10%	Data Not Available (DNA)	Apt. in SF du 1.91	35	$406,297
Townhouse	175	1%	DNA	1.77	11	$257,918
Condo	960	7%	DNA	1.77	27	$164,705
Duplex	618	5%	DNA	2.6	32	$364,285
Zero Lot line du	812	6%	1.16%	1.16	21	$231,076
Zero Lot du With Apt.	8	DNA	DNA	1.91	14	$257,325
Multi Family unit (apartment)	2,662	21%	3.13%	3.13	26	$865,229
Mobile Home on Lot	257	2%	0.88%	1.33	27	$136,000
Mobile Home in Park	966	7%	0.88%	1.33	29	$30,936
RV on Lot	3	DNA	DNA	1	33	$69,200
Live-aboard Boat	104	DNA	0	1.8	DNA	DNA
Total	12,907					

Housing Production Trends

In the last decade, housing starts have not kept up with population growth as shown in the table below. In the period from 2000 through 2006, 628 new dwelling units were built, representing a rate of less than 90 units per year. This Plan anticipates a 1% annual population and economic growth rate over the 12 year planning horizon, to the year 2020.

Table 2: CBJ Housing and Population Growth Trends, 1970 to 2006

Source: U.S. Census

Census Year	Population	# change from previous decade	% change from previous decade	Housing Units	# change from previous decade	% change from previous decade
1970	13,556			4,529		
1980	19,528	5,972	44%	7,656	3,127	69%
1990	26,751	7,223	37%	10,638	2,982	39%
2000	30,711	3,960	15%	11,543	905	8%
2006	30,737	26	0%*	12,771	1,228	11%*

*Change in six-year period from 2000 to 2006

Housing Demand and Affordability

Vacancy Rate. One of the most effective indicators of housing choice is the vacancy rate of each housing type in the CBJ's inventory. A 5% vacancy rate for each type of housing *need* is generally deemed an indicator that there is adequate choice in the type, size and price of housing. In the CBJ, however, a vacancy rate of 5% or more has only been reached during times of economic downturn. The CBJ achieved and exceeded this 5% vacancy rate threshold in its inventory of *single-family homes* from 1986 through 1989, in its *mobile home/manufactured home* inventory in 1986 and 1987, and in its *apartment/condo* inventory from 1985 through 1988 and has not experienced it since that period. A 5% vacancy rate is not a healthy vacancy rate for all housing types in the CBJ, although it may be a healthy rate for multi-family residences. The current (2007) vacancy rate for single-family homes is 0.86%; for multi-family units (condos or apartments) is 3.13%; and for mobile homes is 0.88%. Practically speaking, a 1 percent vacancy rate is equivalent to zero availability of housing and demonstrates a critical housing shortage. This most often results in overcrowding and overpayment; that is, residents pay more than 30% of their income for housing that is too small to accommodate their household size. Residents who are not able to find or afford housing that fits their household size or budget, and are situated in less accommodating units, are deemed to represent a pent up demand for housing that suits their needs. The pent up demand for housing in the CBJ includes the following elements:

- 200 homeless persons
- 200 "couch-surfers"
- 420 households below the poverty level and not served by the CBJ's 305 Section 8 Vouchers and not counted as homeless or couch-surfers
- 134 households living in over-crowded conditions
- 7 units to house 25 disabled adults needing assisted living quarters
- 12 units to house 30 youth needing supportive services
- 2,668 renter and owner households paying more than 30% of their income for housing (not including the households in over-crowded units)

It appears that a healthy vacancy rate in the CBJ is somewhere above the current vacancy rate and below 5% for most housing types, and differs between housing types. To meet the current pent up demand of 3,600 units, assuming a medium residential density of 10 units per acre, over 450 acres of buildable land would be needed for the CBJ's for-profit and non-profit housing

developers to construct 3,600 units. This level of construction could create impacts of its own. The competition for labor and materials could bid up the costs of housing. New workers brought in to build that housing, as well as new commercial and public projects such as the extension of Highway 7, the Kensington mine operations, and other major construction projects, would create its own housing demand. A vacancy rate that is too high can lead to sharp declines in home value, which in turn can lead to a bust in the housing development cycle. Within this context, it may not be possible to expect a doubling of the rate of housing construction with the existing construction labor pool within this time-frame, unless the units were designed and built much more efficiently; that is, as smaller, higher density units in multiple-unit structures located throughout the CBJ's Urban Service Area (the area served by sewers and adequate roads and intersections), rather than as land- and labor-intensive single-family, detached homes.

Adequate Supply of Land for Housing

The City and Borough of Juneau (CBJ) encompasses 3,248 square miles, of which 1,616 square miles are land, 928 are icefield and 704 are water. Of the land area, approximately 14, 956 acres are zoned for residential use, of which approximately 8,900 acres are vacant, representing 60 percent of all residentially-zoned land in the CBJ. However, only 1,190 acres are zoned for densities of 10 residential units per acre (10 RAC) or greater, which is the minimum density needed to produce housing affordable to moderate to lower-income households. Of these 1,190 acres, 484 acres are vacant, representing 40% of the CBJ's high density land. It would appear that there is sufficient vacant land designated at densities that can produce affordable housing.

The question is, why is that land still vacant and how can the CBJ induce owners to develop it? The CBJ embarked on an investigation to find buildable lands within the area that is provided municipal water and sewer service and that can be extended roads into the property. Seeking to make the most efficient use of land at the least per unit cost, the study focused on vacant lands located within or near the Urban Service Area boundary (USAB) and to which municipal sewer service could be extended within the 12 year planning horizon of this Plan. The CBJ Community Development Department (CDD) looked at vacant and underutilized lands within the USAB that were one-quarter acre or more in size. An underutilized parcel is one with a structure or other improvement that is assessed at $50,000 or less by the CBJ Assessor.

The query produced 847 vacant or underutilized parcels of a quarter-acre or more in size within the USAB; of these, 119 are CBJ-owned. Eliminated from consideration as buildable sites were CBJ-owned parcels that were designated for parks, open space/natural areas or greenbelts and parcels zoned for commercial, industrial or waterfront commercial uses. Thirty-one (31) CBJ-owned parcels were reviewed for consideration and were analyzed for proximity to access roads, steep slopes, airport flight safety hazards and avalanche and mass-wasting hazard potential. It was determined that parcels that were predominantly steeply sloped would not be suitable for affordable housing due to the increased engineering costs associated with providing access and building pads. Of the 31 potential candidates, 14 sites qualified as candidate CBJ-owned buildable sites that were the subject of on-site reconnaissance for land use suitability and wetlands evaluation and delineation.

Of the 14 candidate sites, only portions of 4 sites can be deemed suitable for development for affordable housing. It should be noted, however, that these sites are located on the edge of the

USAB and will need roads and utilities extended to and through the property; some of the infrastructure will require bridges that cross anadromous streams and wetlands, all of which are costly. It is expected, therefore, that a large portion of the total units provided on the sites will need to be priced at market rates so that those units can internally subsidize the costs of bringing infrastructure to the development. It should also be noted that many of the arterial roadways that would serve these CBJ-owned buildable sites are already congested, reflecting Levels of Service (LOS) of D, E and F during peak commute periods.

Under a LOS D, several vehicles would be queued up at an intersection and the rear vehicle would require several minutes of delay before getting to pass through the intersection; this is, typically, considered by motorists to be "irritating." Under a LOS E scenario, there may be 10 to 20 vehicles queued up to enter an intersection and a motorist may wait two full traffic signal cycles before entering the intersection or, at an unsignalized intersection may wait up to 15 minutes before passing through an intersection; this is, typically, considered terribly annoying by motorists. Under a LOS F, which is often termed "gridlock," a motorist may wait several signal cycles before passing through the intersection and may be forced to turn around to find another route if seeking to turn left at an un-signalized intersection with a LOS F; this, typically, is considered unacceptable by motorists. By national planning standards, any Level of Service of D or worse is considered beyond the carrying capacity of the roadway and further traffic-generating land uses should not be routed through this roadway.

Only three of the 14 CBJ-owned buildable sites are in areas served by roadways with Levels of Service C or better; these three are located near the University on the Mendenhall Peninsula and east of Auke Lake on Pederson Hill. These three sites are also located within walking distance of existing public transit routes that can assist in reducing the parking requirements and resulting costs of development.

There are about 30 privately-owned vacant parcels within the USAB and within walking distance of public transit service; greater attention should be paid toward their efficient development for affordable housing. In the following section, this Plan suggests a number of strategies for inducing owners of those properties to develop them as high density, compact mixed use or Transit Oriented Developments (TODs).

Housing Policies

The purpose of this section is to recommend policies that encourage adequate housing for all CBJ residents and to protect the character and livability of its neighborhoods.

As housing choice is influenced both by lifestyle and income, the CBJ should encourage and facilitate the provision of a variety of affordable housing opportunities to its residents including: Single family detached and attached housing, condominiums, apartments, efficiency units or Single Room Occupancy (SRO) units, modular homes and manufactured homes, and float homes. Insuring an adequate supply of rental housing, particularly for low-income residents, is also an important priority.

Other sections of the Comprehensive Plan addressing housing issues are found in Chapters 2 (Community Form), 8 (Transportation), 10 (Land Use) and 11 (Land Use Maps and Subarea Guidelines).

POLICY 4.1. IT IS THE POLICY OF THE CBJ TO FACILITATE THE PROVISION AND MAINTENANCE OF SAFE, SANITARY AND AFFORDABLE HOUSING FOR ITS RESIDENTS.

Standard Operating Procedures

4.1.SOP1 Fund, or assist in securing funding for, emergency shelters, transitional housing, permanent supportive housing, and appropriate supportive services for people who are homeless or near homeless, particularly families and unaccompanied youth.

Implementing Actions

4.1.IA1 Support funding mechanisms that can create new rental housing, such as CBJ housing bonds, a local land and/or housing trust, or tax increment financing.

4.1.IA2 Advocate for the use of federal Community Development Block Grant monies to be used to provide low interest housing rehabilitation loans.

4.1.IA3 Investigate potential new financing strategies for new affordable housing development.

4.1.IA4 Report, on an annual basis, the inventory of housing stock and vacancy rates in the CBJ, new housing permit review and construction activity, and any loss of housing due to demolition, abandonment and conversion of dwelling units to non-residential use or, to the extent possible to track, to non-year-round occupancies.

4.1.IA5 Update the CBJ Housing Situation Report at least every five years and monitor change in housing conditions and assess whether policies, programs, guidelines and other mechanisms are achieving their objectives.

4.1.IA6 Facilitate the provision of special needs housing and their supportive services in residential neighborhoods that are readily accessible to public transit, shopping, public amenities and supportive services.

4.1.IA7 The CBJ should participate with other local agencies in the federal program to prepare and adopt a "Ten Year Plan to End Homelessness" in the CBJ.

4.1.IA8 Assist in the establishment and maintenance of an effective integrated client assessment and referral system for homeless and near-homeless residents that links all housing, medical and social service providers to develop greater efficiencies, client tracking and program funding and evaluation tools. [Please also see 13.3.IA2]

POLICY 4.2. IT IS THE POLICY OF THE CBJ TO FACILITATE THE PROVISION OF AN ADEQUATE SUPPLY OF VARIOUS HOUSING TYPES AND SIZES TO ACCOMMODATE PRESENT AND FUTURE HOUSING NEEDS FOR ALL ECONOMIC GROUPS.

Standard Operating Procedures

4.2.SOP1 Designate on the Comprehensive Plan Land Use Maps adequate sites and supporting infrastructure within the Urban Service Area Boundary to accommodate a diversity of housing types, size, price and types of neighborhood scale and character to satisfy the desires of all residents.

4.2.SOP2 The CBJ should monitor the inventory of all types of housing and should focus efforts, funding and resources on producing the types of housing that have not yet reached a sufficient supply to meet demand.

4.2.SOP3 The CBJ should seek and facilitate new housing production, for all types, at an annual rate that mimics the growth rate of new households in the CBJ, in order to maintain adequate choice of residence type, location, and cost.

Implementing Actions

4.2.IA1 Upgrade the CDD capability to track and monitor development activity and vacancy rates. Refine the CDD vacancy analysis, and its ability to estimate CBJ housing demand by type of housing. Track the impact of mining development and tourism on the housing stock and vacancy rate.

4.2.IA2 Review planned unit development (PUD) provisions in the Land Use Code to ensure maximum opportunity for flexible siting, design, and construction of residential developments. Clustering of new structures and provision of mixed densities within each new subdivision should be encouraged.

4.2.IA3 Provide land use incentives, such as increased densities and building heights and lowered parking requirements, to induce the private sector to build Single Room Occupancy (SRO) or "efficiency" or "compact living unit" developments in Downtown Juneau, in Mixed Use Districts, in shopping centers, and near the University.

4.2.IA4 Conduct an inventory of dwelling units that are kept off the year-round rental market. The CBJ should investigate incentives to encourage those property owners to rent those units year-round, particularly units suitable for students, workers or legislative staff.

4.2.IA5 Investigate ways to encourage preservation of rental housing and avoid its conversion to transient housing or non-residential uses.

4.2.IA6 Encourage the preservation, rehabilitation and year-round occupancy of Downtown Juneau upper-level rental housing units in mixed use buildings.

4.2.IA7 Support increasing the supply of low-income affordable rental housing by providing CBJ-owned land at discount prices to for-profit and non-profit housing developers who agree to utilize strategies such as: the development of mixed-income housing, with higher priced dwelling units subsidizing development costs for lower-priced units for low- and moderate-income households, or strategies such as land trust agreements.

4.2.IA8 Provide needed infrastructure (water, sewer, roads), allow higher densities and, where appropriate, higher building heights for housing developments committed to providing affordable rental housing.

4.2.IA9 Investigate the costs, benefits and implications to the CBJ affordable housing market of adopting a new Comprehensive Plan policy to encourage new housing and major rehabilitation of existing housing to be designed with a wide doorway, at least one zero-step entrance, and a first-level bathroom that responds to Universal Design and Visitability principles. Exceptions to such a policy would be housing on parcels where terrain would not permit wheelchair accessibility.

4.2.IA10 Create a program of seminars where private parties and developers can be trained in permitting procedures, and the CBJ building and development permitting process for all types of residential developments. Include in this program, when possible, training by staff from other relevant permitting agencies such as DEC, the Corps, CBJ Engineering, and DOT.

POLICY 4.3. IT IS THE POLICY OF THE CBJ TO DESIGNATE ON LAND USE MAPS AN ADEQUATE SUPPLY OF BUILDABLE LAND WITHIN THE URBAN SERVICE AREA, AND PARTICULARLY ALONG TRANSIT CORRIDORS, FOR RESIDENTIAL USE AT DENSITIES THAT CAN PRODUCE HOUSING AFFORDABLE TO ALL ECONOMIC GROUPS.

Standard Operating Procedure

4.3.SOP1 Monitor and, when necessary, designate an adequate amount of vacant land for residential development on the Comprehensive Plan Land Use Maps. Densities within the USAB and New Growth Areas should foster compact development at medium- to high-densities. As a target goal for compact development, a minimum density of ten dwelling units per acre for residentially-zoned lands within the USAB would make prudent and efficient use of these limited land resources. A density of 30 dwelling units per acre, or greater, along major transit corridors is recommended to produce affordable housing and to make efficient use of transit services therein.

Implementing Actions

4.3.IA1 Amend the Title 49 Land Use Code to allow rezoning requests to medium-to-high density districts within the Urban Service Area to be requested by a property owner at any time of the year.

4.3.IA2 Amend the Land Use Code to provide for an Affordable Housing Overlay District (AHOD) as a zoning map amendment that could lie upon any parcel located within the Urban Service Area. The AHOD would allow higher densities than the underlying zoning designation and may adjust development standards, where appropriate, for projects that include housing affordable to low-income households–Below Market Rate (BMR) units.

4.3.IA3 Designate suitable land within one-quarter mile distance from public transit routes from Auke Bay to Downtown Juneau as a Transit-Oriented Corridor (TOC) overlay zoning district within which medium-to high-density housing in wholly residential or mixed use developments and with lesser parking requirements would be allowed.

4.3.IA4 Encourage high-density Transit Oriented Developments and/or Mixed Use Developments in existing or new shopping centers and office parks.

POLICY 4.4. IT IS THE POLICY OF THE CBJ TO FACILITATE THE PRESERVATION AND REHABILITATION OF EXISTING HOUSING, PARTICULARLY HOUSING AFFORDABLE TO LOW- INCOME RESIDENTS.

Implementing Actions

4.4.IA1 Report, on an annual basis, the inventory of housing stock and vacancy rates in the CBJ, new housing permit review and construction activity, and any loss of housing due to demolition, abandonment and conversion of dwelling units to non-residential use or, to the extent possible to track, to non-year-round occupancies.

4.4.IA2 Adopt building and fire code standards for housing rehabilitation that are reasonable in cost and that continue to meet acceptable levels of public health and safety.

4.4.IA3 The CBJ should investigate ways to encourage property owners to maintain habitable rental dwelling units in residential use.

4.4.IA4 Identify and inventory substandard housing, including pre-1976 mobile homes that do not comply with HUD standards of habitability, and pursue strategies to rehabilitate or replace these units with safe, sanitary and HUD-compliant units.

4.4.IA5 Improve the quality of housing and neighborhoods by educating landlords, tenants and property owners about health and safety code requirements and property maintenance Best Management Practices and by enforcing code compliance when necessary.

4.4.IA6 Identify and zone appropriate land areas within the USAB for new and/or replacement manufactured home parks or subdivisions.

4.4.IA7 Subsidize residential rehabilitation through State and Federal funds to conserve existing housing stock in established neighborhoods. When rehabilitating these units, incorporate appropriate features that address universal design/visitability principles. Depending upon the level of rehabilitation, these features could include wide doorways, at least a half bath on the main floor, accessible placement of electrical controls and at least one zero-step entrance to a building.

POLICY 4.5. IT IS THE POLICY OF THE CBJ TO MAINTAIN THE LONG-TERM AFFORDABILITY OF DWELLING UNITS DESIGNATED AFFORDABLE AS A CONDITION OF APPROVAL FOR THE GRANTING OF A REZONING, INCREASED BUILDING HEIGHT, REDUCED PARKING, OR OTHER ECONOMIC BENEFIT TO THE DEVELOPMENT PROJECT.

Implementing Action

4.5.IA1 Pursue mechanisms for assuring affordability consistent with the findings associated with an inclusionary affordable housing study per 4.6.IA3.

POLICY 4.6. IT IS THE POLICY OF THE CBJ TO FACILITATE AND ASSIST IN THE DEVELOPMENT OF AFFORDABLE HOUSING.

Development Guideline

4.6.DG1 When designing a new affordable dwelling unit, take into consideration life cycle cost savings that consider the first costs of materials and equipment and the recurring operating costs related to home heating, energy consumption and the replacement of building elements such as siding, roofs and windows. Using quality materials and finishes will maximize performance and reduce replacement costs. Encourage compact development of multi-dwelling units to make extending utilities, roads and pathways less costly and to maximize the efficient use of buildable

land. The location, orientation and design of each unit on the land should maximize daylight and privacy for occupants while facilitating a sense of community among all occupants of the development.

Implementing Actions

4.6.IA1 Inventory, assess, and make available suitable CBJ-owned lands within the Urban Service Area to transfer to for-profit and/or non-profit residential development corporations that would result in new construction of low- and moderate-income affordable housing. Strategies may include development of mixed income housing with higher priced homes subsidizing lower-priced homes set-aside for low and moderate-income households. Strategies may also include land trades and land trust agreements.

4.6.IA2 When feasible, provide property tax relief for housing developments that are owned and operated by non-profit corporations and in which the units are leased to senior (over the age of 65) and low-income households, provided these savings are passed-through to the tenants in the form of lower rental rates or housing costs.

4.6.IA3 The CBJ should conduct an analysis of inclusionary affordable housing zoning standards and requirements that could be suitable for application in the CBJ.

4.6.IA4 Streamline the residential development permitting process. Coordinate the review of residential developments and affordable housing projects and provide continuity and timeliness in their review by all affected CBJ departments and divisions.

4.6.IA5 Investigate the feasibility of reducing permit fees for dwelling units designated as long-term affordable housing for low and moderate-income households.

POLICY 4.7. IT IS THE POLICY OF THE CBJ TO ENCOURAGE PRESERVATION OF RESIDENTIAL STRUCTURES THAT ARE ARCHITECTURALLY AND/OR HISTORICALLY SIGNIFICANT TO THE CBJ AND WHICH CONTRIBUTE TO THE HISTORIC AND VISUAL CHARACTER AND IDENTITY OF THE NEIGHBORHOOD.

Implementing Actions

4.7.IA1 Identify residential properties of historical significance, using the Downtown Historic District Development Plan and other sources, and seek public and private funding sources for rehabilitation of these properties, and assist owners in obtaining these funds.

4.7.IA2 In developing new zoning or development standards in areas with concentrations of historic structures, ensure that relaxed standards, such as higher building heights, do not induce a property owner to demolish the historic structure in favor of a larger structure or development.

POLICY 4.8. IT IS THE POLICY OF THE CBJ TO BALANCE THE PROTECTION AND PRESERVATION OF THE CHARACTER AND QUALITY OF LIFE OF EXISTING NEIGHBORHOODS WITHIN THE URBAN SERVICE AREA WHILE PROVIDING OPPORTUNITIES FOR A MIXTURE OF NEW HOUSING TYPES.

Development Guideline

4.8.DG1 When reviewing rezoning applications within the Urban Service Area, higher densities than are found on adjacent or surrounding properties should be deemed consistent and harmonious with the character of the neighborhood, provided that the overall scale and massing of the new development is compatible with the neighborhood and the siting and/or design of the new structure(s) assures the privacy, light and air of its neighbors. [Please also see 10.4.DG1 and Policy 10.6 in Chapter 10]

CHAPTER 5. ECONOMIC DEVELOPMENT

The economic circumstances of an area help determine the amount, rate, and type of land development; they also influence the demand for housing, public facilities, and services, and have a strong relationship to the overall quality of living. Over the last decade, economic development has been pursued publicly and privately. Private-sector efforts include the development and operation of precious metal mining; expansion of the seafood processing industry; development and expansion of local manufacturing of goods; development and expansion or retail and service industries; and a tremendous increase in tourism-related businesses. Public efforts include the expansion of the National Oceanic and Atmospheric Administration (NOAA) and University of Alaska facilities; continued program development by the Juneau Economic Development Council (JEDC); upgrades and improvements to the waterfront and docks; upgrades to pedestrian and vehicle circulation in Downtown Juneau; the sale of CBJ land for commercial development; and the further extraction of CBJ gravel to support road and utility infrastructure.

The economy of the CBJ developed originally to support mining activities in the area. Since Juneau became the territorial Capital in 1906, there has been an increasing reliance on government as the major support for the CBJ economy. The commercial fisheries industry has also contributed greatly to Juneau's economic growth in past years. Much of CBJ's economic and population growth since Alaska became a state in 1959 occurred in large part as a result of State government expansion. The increased State role is most evident in resource management and community development activities financed by the State's share of revenues from oil originating in the Prudhoe Bay area. This revenue has declined and will continue to decline as the amount of oil extraction declines. Potential natural gas extraction in the same area of the state bodes well for future revenues, although the revenue stream from this source would be years away. It is of critical importance that the CBJ focus on keeping and expanding the State employee base in order to maintain its current economic base.

Economic sectors in the CBJ can be categorized as "basic" and "support." Basic sector industries are those businesses who sell goods and services to customers from outside of the local area. These businesses create economic growth by bringing new jobs and money into the community. The bulk of basic sector employment in Juneau comes from mining, commercial fishing and fish processing, tourism, and State and Federal government. Support sector industries earn revenue by providing goods and services to local residents, and create economic growth by keeping local money from leaving the community. These industries include retail and wholesale trade, medical and business services, construction, local government, and many others.

Some industries are both basic and support sector depending on who purchases their goods and services. CBJ residents patronize local retail and service businesses. However, visitors to Juneau also shop and obtain services locally. In addition, Juneau's role as a regional center attracts residents of surrounding communities to Juneau to shop, and to obtain medical, financial, repair, transportation and other services, bringing new money into the community.

Opportunities for expanding the economic base in Juneau have increased due to modest growth potential in basic sector industries such as mining, commercial fishing and seafood processing,

and tourism. State government is not expected to grow in the CBJ due to reductions in State spending pending natural gas or other statewide economic development. No such development is envisioned with any certainty over the period to the year 2020. This Plan anticipates a "slow growth" scenario, assuming an annual population and job growth rate of one percent over the next 12 years. [Please also see the Land Use chapter (10) of this Plan]

POLICY 5.1. IT IS THE POLICY OF THE CBJ TO DEVELOP AND SUSTAIN A DIVERSE ECONOMY, PROVIDING OPPORTUNITIES FOR EMPLOYMENT FOR ALL RESIDENTS.

Implementing Actions

5.1.IA1 Work with private-sector industries and businesses and public sector agencies that are interested in locating or expanding in the CBJ, and consider offering land, tax incentives, or other benefits to encourage new development.

5.1.IA2 Monitor the effects of economic drivers on the community.

State Capital

Juneau's position as the State Capital of Alaska is not only a major source of identity for the community but represents its major economic activity; nearly one-quarter (24%) of the CBJ work force is employed by the State of Alaska. Development of new facilities or replacement of existing structures necessary to accommodate the State work force should be planned with careful coordination between State and local officials. This growth will have significant impacts on all other development within the CBJ, including housing, transportation, public services, and cultural, commercial, and recreational activities. The CBJ must continue efforts to make itself as attractive and functional as possible to serve the special needs of a Capital City.

Other sections of the Comprehensive Plan address economic development issues; these are found in Chapters 15 (Cultural Arts Resources), 10 (Land Use) and 11 (Land Use Maps and Subarea Guidelines).

POLICY 5.2. IT IS THE POLICY OF THE CBJ, THROUGH A COOPERATIVE EFFORT WITH THE STATE OF ALASKA, TO PLAN FOR AND SUPPORT DEVELOPMENT OF AN ATTRACTIVE SETTING, FACILITIES, AND OTHER SERVICES TO ENHANCE THE STATE CAPITAL AND TO STRIVE TO PROVIDE AN ATMOSPHERE CONDUCIVE TO GOOD LEADERSHIP IN THE STATE, ACCESSIBLE TO AND SUPPORTIVE OF ALL PEOPLE OF THE STATE OF ALASKA.

Standard Operating Procedures

5.2.SOP1 Monitor and strengthen the health and well-being of the Capital functions in the CBJ and continue to seek improvements to meet the needs of legislators, their support staff and residents.

5.2.SOP2 Support efforts to promote leadership and participation in legislative affairs by supporting affordable accessibility to the Capital for all State residents.

5.2.SOP3 Reach out to the residents of the rest of the State to ensure that the CBJ is seen as an effective location for, and a fair host of, the State Capital.

Implementing Actions

5.2.IA1 Initiate joint planning, with representatives of the State Legislature and appropriate State agencies, for the Capitol Complex. The following issues should be discussed when siting and designing this complex:

A. Defining the physical boundaries of the State Capital planning area consisting of the Capitol site and its surrounding sphere of influence;

B. Formulating a facilities plan that identifies the nature, timing, cost, and local/state government roles and responsibilities for all needed improvements;

C. Integrating new structures into the streetscape of the neighborhood, taking special care to preserve view corridors as well as the visual dominance and character of adjacent historic structures; and,

D. Ensuring that the new complex is universally accessible, pedestrian-friendly and is well-linked to public transit.

5.2.IA2 Work collaboratively with, and request that Federal agencies coordinate their plans for expansion or modification of Federal facilities in the downtown area with CBJ and State plans for the Capitol complex.

5.2.IA3 Encourage coordinated or joint planning efforts to address the need for alternative transportation and parking opportunities for State workers and Legislative personnel. All government agencies should participate in a coordinated Downtown Transportation Management Program per the elements described in Chapter 8 of this Plan (see 8.1.IA6).

5.2.IA4 Seek ways and means to encourage housing for legislative personnel, such as high-density housing along transit corridors, SRO dwellings Downtown, and extended-stay hotels or other lodging in the Downtown and around the airport, provided that this does not result in the net loss of year-round rental housing.

5.2.IA5 Seek ways to expand State and Federal workforce presence in the CBJ.

5.2.IA6 Assume a leadership role in the encouragement of transportation links into and out of the CBJ. Consider all affordable energy-efficient transport alternatives to improve transportation links between the CBJ and other areas of Southeast Alaska, including improved air passenger and cargo service, roadways, ferries, and fixed-guideway systems.

Downtown Juneau

Downtown Juneau is the traditional economic, civic, historical and cultural center of the CBJ. Over the years, shifts in population to the Valley, changes in retail and commercial activity in the Downtown, and growth in the cruise ship industry concentrated in the Downtown area have presented challenges to the Downtown core. Identified concerns include pedestrian and traffic congestion along Egan Drive and South Franklin Street; lack of parking for retail and residential units Downtown; lack of seasonal housing for visitor-related employment in the summer and for Legislators and their staff in the winter/spring; and the poor aesthetics of closed storefronts on South Franklin Street between October and April. Additional concerns include consistency of new building aesthetics with the historic character of the Downtown, potential fire hazards within the historic districts, nighttime security, and the noise and congestion of public inebriants in the South Franklin area.

To secure the sustainability of Downtown, the area needs to create reasons to draw people to the area on a year-round basis. The CBJ seeks a 24-hour, year-round, safe, attractive and dynamic neighborhood in the Downtown. This can be accomplished by increasing the supply of year-round housing for artists, government workers, along with seasonal housing for Legislators and summer workers, as well as by encouraging year-round commercial and arts activities. The creation of an arts district in and around a new performing arts center and an expanded convention center would stimulate year-round visits to the Downtown by Juneau residents and regional visitors.

It is important that new development positively address community objectives for the Downtown, including strengthening public access to the waterfront, enhancing the Capitol Complex, preserving historic structures and neighborhoods, creating new housing downtown, accommodating summer tourism, providing adequate parking and transit facilities, and preserving scenic vistas and view corridors. Careful planning for public facilities and development of an urban design concept and development standards for the Downtown are necessary.

New housing opportunities and commercial facilities should be designed to protect the visual prominence of the historic Downtown. Building height, scale and orientation should be incorporated into Downtown design guidelines, and land use regulations for the Downtown should be established to facilitate new housing above retail and cultural arts activities while strengthening the visual prominence of historic structures and scenic corridors and strengthening the multi-cultural character of the area. Steps should be taken to identify historically significant buildings throughout the Downtown and encourage, via tax relief or other incentives, building maintenance and preservation, including installation of sprinkler systems, before historic structures become economically beyond salvage. Increased building heights within the Historic District should not be allowed if it could result in the demolition of historic structures in favor of taller buildings.

[See also Subarea 6 Guidelines and Considerations in Chapter 11 of this Plan]

POLICY 5.3. IT IS THE POLICY OF THE CBJ TO MAINTAIN AND STRENGTHEN DOWNTOWN JUNEAU AS A SAFE, DYNAMIC AND PLEASANT CENTER FOR

GOVERNMENT AND LEGISLATIVE ACTIVITIES, PUBLIC GATHERINGS, CULTURAL AND ENTERTAINMENT EVENTS, AND RESIDENTIAL AND COMMERCIAL ACTIVITIES IN A MANNER THAT COMPLEMENTS ITS RICH HISTORIC CHARACTER AND BUILDING FORMS.

Standard Operating Procedures

5.3.SOP1 Work with the CBJ Historic Resources Advisory Committee (HRAC), other federal and state agencies and private volunteers, as appropriate, to promote historic and cultural preservation within the CBJ's historic districts and neighborhoods.

5.3.SOP2 Work with the Juneau Arts and Humanities Council and other cultural organizations to develop year-round cultural arts venues, resources and events in Downtown Juneau.

5.3.SOP3 Coordinate, and possibly combine, planning for the Downtown with any development effort for the Capitol Complex.

5.3.SOP4 Encourage development and retention of year-round businesses in Downtown.

Development Guidelines

5.3.DG1 When reviewing applications for new Downtown Juneau development, consider the visual impacts on the Downtown building form, urban design and view corridors, as well as impacts to the livability of the Downtown area with regard to circulation, housing accommodations, air quality, noise and hazard abatement and provision of convenience goods and services, to ensure that the Downtown provides a clean, safe, attractive, dynamic, interesting, enjoyable, walkable, culturally diverse and affordable neighborhood within which to live, work and play.

5.3.DG2 Consider the policies, guidelines and development recommendations of plans like the CBJ Long Range Waterfront Plan and the Capital Transit Development Plan when reviewing capital improvement programs and development permits for, or applicable to, the Downtown Juneau area.

Implementing Actions

5.3.IA1 Encourage new high-density residential development as in-fill housing above ground-floor commercial space or as adaptive re-use of historic commercial or other non-residential buildings. Encourage development of housing for residents who would not own or need to park automobiles in the Downtown area, such as student, elder and Downtown workers. Encourage Single-Room-Occupancy (SRO) units, loft-style housing and live-work space in the Downtown area.

5.3.IA2 Develop a comprehensive multi-modal (pedestrian, bicycle, bus, vessel, vehicle) transportation plan for the Downtown area that addresses the need to emphasize, provide for

and/or improve non-private-vehicle transportation facilities throughout the Downtown while assuring adequate short-term parking to support business and government activities. This plan should be a key element of a larger transit system between the Ferry Terminal and Downtown with convenient stops and bus transfer stations in-between, with dispersed park and ride facilities as components of this system, along with high-density, affordable housing.

5.3.IA3 Facilitate the pedestrian usage of Downtown with physical improvements, Land Use Code amendments, or other programs or initiatives which could include:

A. Encourage development that improves year-round safe, convenient and dry pedestrian facilities;
B. Extend the waterfront seawalk;
C. Repair and widen sidewalks and provide a network of canopies throughout the Downtown;
D. Separate pedestrian ways from vehicular traffic, where practical;
E. Encourage development of dry, secure bicycle storage throughout the Downtown; and
F. Consider revising the parking requirements in the CBJ Land Use Code to eliminate or drastically reduce the parking requirement for Single-Room-Occupancy (SRO), efficiency, and other dwelling types.

5.3.IA4 Work with the State of Alaska and UAS to determine the feasibility of reconstructing the State Office Building parking garage or using the Bill Ray Center, respectively, to provide additional parking as part of a parking management program for Legislators, their staff and other State employees. This parking could be shared with nighttime and evening patrons and customers of cultural arts, dining, shopping and entertainment activities and venues concentrated in a nearby Cultural Campus district.

5.3.IA5 Encourage continued public and private redevelopment of the Downtown waterfront area pursuant to the CBJ Long Range Waterfront Plan and considering the following:

A. Create additional buildable sites bordering the waterfront while protecting view corridors;
B. Encourage redevelopment for mixed uses and incorporate architectural guidelines to ensure aesthetic and harmonious building styles;
C. Expand dock facilities for small boats. Any expansion of docking facilities for cruise ships should be reviewed pursuant to the procedure outlined in the Long Range Waterfront Plan Section 3.9;
D. Promote cultural and historic preservation within the CBJ's historic districts and neighborhoods; and
E. Promote heritage tourism by continued support of Downtown historic interpretive signage.

5.3.IA6 Amend the Land Use Code to establish design guidelines for the South Franklin area of the Downtown to require appropriate year-round outdoor lighting, sidewalk snow and ice clearing and maintenance, and display window treatments to avoid the blighted appearance and effects of summer-season storefronts closed from October to May each year.

5.3.IA7 Work with the CBJ Historic Resources Advisory Committee (HRAC) to formulate, adopt and advise on historic district design guidelines.

5.3.IA8 Support and facilitate the abatement of fire hazards in Downtown.

5.3.IA9 Facilitate the development of a cultural campus arts district by establishing zoning regulations that would support its development [see 5.4.IA2].

Tourism and Visitors

Tourism is the CBJ's largest private industry. It plays a major role in diversifying the economy and requires partnerships and collaboration between tour operators, suppliers, retailers, service providers and residents in order to thrive. The scale of operations involved in the tourism industry varies widely and serves several different types of visitors. There are several market segments with different characteristics and needs, such as: cruise, convention, over-night independent, and group travelers, along with private yacht and small cruise ship users. Long-range planning efforts should focus on strategies to promote and accommodate each type of use, while mitigating any associated adverse on- and off-site impacts.

It is important to develop and encourage visitor facilities and services that reflect and strengthen the CBJ's identity as a unique historical, cultural, and outdoor recreation community in a way that assures the CBJ's long-term sustainability as a visitor destination.

Facilities that serve visitors, such as the Juneau International Airport, docks and harbors, are important gateway points into the CBJ. These facilities should be maintained and aesthetically designed to strengthen the CBJ's reputation as an outstanding visitor destination and Capital City.

Cruise Ship Passengers

The CBJ had approximately one million visitors in 2006, over 90% of whom are represented by cruise passengers, an increase of over half a million since 1992. The rate of growth of cruise passenger volume has slowed considerably over the past 5 years to 1 to 4% annually. Cruise ship passengers and crew have shown an increase in numbers due, in part, to the building of larger ships, better docks in Downtown Juneau and the market demand for cruise vacations. Future growth is contingent upon ship sizes, dock facilities, shore-side infrastructure and continued market demand. The scarcity of cheap oil to fuel aircraft and marine vessels could also reduce visitor traffic within the 12 year planning horizon of this Plan.

Public and private facilities have endeavored to keep pace with this growth with the addition of the Marine Park deck-over, South Franklin Street vehicle round-about and sidewalk widening,

Seward Street upgrades, and the addition of the South Franklin Street and the A-J dock facilities. Concerns associated with the current and future cruise ship growth include: The physical carrying-capacity of the harbor area for larger ships and for CBJ destinations for more passengers; pedestrian and vehicle congestion; view blockage by ships; visitor satisfaction due to congestion of destinations and the over-concentration of same or similar retail outlets in the Downtown; and the CBJ's changing character as a tourist rather than a fishing port city.

Convention and Business Travelers

Convention and business travelers are an important sector of the year-round visitor traffic in the CBJ. As the Capital City, general government and judicial services center, increasingly diverse regional shopping hub, and business and trade center, the CBJ also hosts business travelers and constituents who come to lobby or work with colleagues and the government, and to hold conventions and meetings—which is especially important during the fall/winter/spring months. Summer convention and business travelers often extend their trips to take advantage of the CBJ's summer tourism experiences. Centennial Hall Convention & Civic Center is a key facility for supporting conventions and community events. It is important that the Center continue to be maintained and upgraded in order to remain competitive and sustain its ability to attract regional, state and out-of-state meetings. Convention-related visits should be encouraged to ensure continued growth of the segment. New and improved facilities and services to serve its needs should be provided.

Independent and Over-night Group Travelers

Independent travelers are a diverse group. They may arrive in the CBJ via air, ferry, private boat or plane and engage in a variety of activities in the community. Over-night group travelers are those associated with tour itineraries that include one or more nights in the CBJ. The distinguishing factor of these markets is their tendency to utilize the CBJ's various lodging and camping facilities and their higher per-person-per-day spending pattern compared to a day visit cruise passenger. In general, independent travelers are not part of a packaged cruise tour and include overnight visitation in the CBJ. As cruise experiences diversify with the addition of optional land tours, the definition blurs. This segment of the industry is primarily a summer market and should continue to be cultivated, while development that supports year-round visitor services and activities should also be encouraged.

Private Yachting and Small Cruise Ship Tourism

Private yachting and small cruise ship visitors are another primarily summer market. The economic benefits come in the form of the use of air service, food service and overnight lodging as well as support services throughout town. As a major marine town along the Inside Passage, Capital City, retail center and airline connection, the CBJ is a coveted port to visit by these visitors. Their time in the CBJ generally ranges from overnight to multi-week stays. These modes of transportation also allow many of their guests to spend time in the CBJ twice, as both a starting and ending location for their itinerary. These guests tend to be higher dollar-spent-per-person-per-day additions to the economy than day visitors.

Winter Tourism

Efforts have been made to promote Eaglecrest as a year-round outdoor recreation destination in the CBJ and the surrounding region. Improvements have been made to upgrade the lodge building, the parking area, and the ski trails, all of which have increased Eaglecrest's appeal as a

winter destination. Private-public partnerships have been developed recently—and should continue to be cultivated—to provide summer season activities to extend enjoyment of the area year-round. Development of additional diverse winter venues and activities in the CBJ (hockey/cross-country trail/snowmobile course) could be a draw for additional regional visitors.

Arts and Cultural Tourism

A new performing arts complex in the Downtown area would be an additional asset for the CBJ as a visitor destination and would provide a much-needed year-round venue for arts and cultural performances for residents and visitors to enjoy. A performing arts center could also be an anchor facility that might spur supporting development in the surrounding area for additional residential and commercial services. A performing arts center could also provide auxiliary exhibition and meeting space for events, conventions and meetings held at Centennial Hall or at the State Capitol.

Visitor Information Center

Visitor information centers are an integral part of the community infrastructure and provide an important service for in-state and out-of-state visitors and CBJ residents. Properly located and staffed, information centers increase visitor expenditures by educating visitors on activities and services available, serve as an outward expression of the CBJ's hospitality, and serve as a resource for community events, activities and services.

The visitor industry is a major contributor to the economic diversity of the CBJ and the strength and vitality of the Downtown area. On the other hand, some tourism-related activities impact the quality of life for local residents due to noise, dust, fumes and congestion from buses, aircraft and marine vessels and crowded streets and sidewalks in the Downtown and other tourist destination areas. As a result of such community concerns, the volunteer Tourism Best Management Program was developed in 1996 to improve operational activities related to tourism in order to better balance the needs of local residents and support the established policy of protecting our natural attractions. Although Juneauites are wonderfully friendly and accommodating to their million plus annual visitors, there is a challenge to providing a quality and unique experience for the visitor while minimizing impacts to the resident population, natural habitat and infrastructure. Long-range tourism planning is needed in order to provide a quality and unique experience for the visitor while minimizing adverse impacts to the resident population, fish and wildlife habitat, infrastructure and the scenery that makes the CBJ a unique and enjoyable visitor destination and experience.

POLICY 5.4. IT IS THE POLICY OF THE CBJ TO ENCOURAGE TOURISM, CONVENTION AND OTHER VISITOR-RELATED ACTIVITIES THROUGH THE DEVELOPMENT OF APPROPRIATE FACILITIES AND SERVICES, WHILE PROTECTING JUNEAU'S NATURAL, CULTURAL AND ECONOMIC ATTRACTIONS FOR LOCAL RESIDENTS AND VISITORS ALIKE, AND TO PARTICIPATE IN THE ACCOMMODATION OF THE FUTURE GROWTH OF TOURISM IN A MANNER THAT ADDRESSES BOTH COMMUNITY AND INDUSTRY CONCERNS.

Standard Operating Procedures

5.4.SOP1 Strengthen the local economy by enhancing and marketing the CBJ as a year-round visitor destination.

5.4.SOP2 Encourage recognition of the value of historic resources and their preservation to tourism in the CBJ and promote accurate representation of the CBJ's unique cultures. Utilize the Juneau-Douglas City Museum for dissemination of accurate CBJ history.

5.4.SOP3 Focus primary marketing efforts on cultivating over-night leisure and convention visitors.

5.4.SOP4 Develop Eaglecrest as a year-round local and regional recreation and tourist facility.

5.4.SOP5 Work with the tourism industry to create and market shoulder season (October through May) activities and recreational opportunities CBJ-wide.

Development Guidelines

5.4.DG1 Ensure that areas with unique or locally important values, such as Treadwell, Last Chance Basin and Perseverance Trail, Mendenhall Glacier, and Auke Nu village area are not adversely impacted by commercial use.

5.4.DG2 When considering capital improvements and when reviewing permit applications for tourism-related developments, assess the costs and benefits of the proposed projects against the policies of this Comprehensive Plan and any adopted CBJ Tourism Management Plan or BMPs.

Implementing Actions

5.4.IA1 Adopt a Tourism Management Plan or Best Management Practices (BMPs) for Tourism and maintain an entity to carry out its provisions. This Plan should outline a process by which the comprehensive impacts of tourism, as identified by the Assembly and its subcommittees, will be evaluated, and negative impacts mitigated on: (1) an individual project or service basis to address the impacts of specific undertakings; (2) a sector basis such as the cruise sector, the convention sector or other sector if the negative impact is attributable to a particular sector; and (3) an industry-wide basis if the impact is attributable to the entire industry. The Tourism Best Management Practices Program is an example of a sector-wide mitigation program.

5.4.IA2 Expand the Centennial Hall Convention and Civic Center facilities as needed in coordination with a combined or separate performing arts complex within a cultural campus area of Downtown Juneau generally bounded by Gold Creek, Willoughby Avenue and Egan Drive. This cultural campus would provide a much-needed venue for arts and cultural performances for residents and summer visitors to enjoy as well as additional exhibition and meeting space for events, conventions and meetings held at Centennial Hall and additional space for Legislators, staff and visitors to the Capital City.

5.4.IA3 Work with representatives from the cruise line and yachting industries, private developers, Juneau Convention and Visitors Bureau, and other tourism-related businesses to plan and develop additional or improved moorage and berthing facilities for private yacht charters and large pleasure craft, including additional lightering and short-term moorage facilities.

5.4.IA4 Establish a covered walkway network throughout the Downtown.

5.4.IA5 Conduct frequent appraisals of public and private transportation facilities to ensure they meet local and tour-related uses and demands.

University of Alaska Southeast

The University of Alaska Southeast (UAS) is an important contributor to the educational, social, cultural, and economic vitality of the CBJ. Through cooperative efforts, the UAS will be able to expand to accommodate its needs and develop in a manner consistent with the planning and development objectives of the CBJ. One of the attractions of the UAS campus to students and faculty is its proximity to natural areas and marine environments. Although campus facilities and student and faculty housing constitute an urban environment surrounded by the natural and scenic assets of Auke Bay and its environs, new such development to accommodate expansion of the University should be carefully designed to maintain and protect its scenic and natural surroundings.

POLICY 5.5. IT IS THE POLICY OF THE CBJ TO SUPPORT EXPANSION AND DEVELOPMENT PLANS OF THE UNIVERSITY OF ALASKA SOUTHEAST (UAS) WHILE PROTECTING THE NATURE OF ITS SETTING, WHICH IS AN INTEGRAL PART OF ITS UNIQUE ADVANTAGE.

Standard Operating Procedures

5.5.SOP1 Work with representatives of the University of Alaska Land Trust and State Office of Land Management and other agencies, as appropriate, to facilitate partnerships in land development for UAS expansion and the development of student and faculty housing in and near the university campus.

5.5.SOP2 Encourage UAS to provide a full range of university programs that take advantage of the local environment, both natural and governmental, to attract students from other Alaska communities as well as from outside of Alaska.

5.5.SOP3 Assist the University of Alaska Southeast in the development of additional student and faculty housing, including designating lands near the University for high-density, family-size affordable student and faculty housing as well as for the smaller Single Room Occupancy (SRO) units.

Implementing Actions

5.5.IA1 Allocate CBJ staff to work with UAS to develop and maintain a GIS modeling project to forecast the land needs for the expansion of UAS to accommodate 3,000 full time students within the next 25 years.

5.5.IA2 Support the provision of affordable housing for the University of Alaska Southeast (UAS) students and faculty on or near the campus.

5.5.IA3 Seek opportunities to facilitate communication between the Juneau School District, employers, UAS, and the State Department of Labor to develop training programs to address regional employment needs.

Port Facilities

Historically, port development in the Juneau-Douglas area has been a significant factor in the layout and physical form of the community's built environment. Typically, port facilities are low scale, water-borne structures with low scale land-side support structures facing the water. This results in scenic vistas of the water from the uplands and scenic vistas of the townscape from the water. Shoreline Port facilities are very well utilized and additional development of the Juneau and Auke Bay areas are expected to support commercial fisheries, maritime shipping and tourism industries. Care should be taken to ensure water access to such water-dependent land uses on Port properties, rather than allocate these limited shoreline lands to commercial or residential uses that can be accommodated adequately on upland areas. Port development issues are interwoven into many sections of the Comprehensive Plan including waterfront development; Downtown Juneau and Douglas; tourism/visitors; mining development; regional transportation; and commercial, industrial and public facilities.

The major port facilities for commercial and industrial goods and materials are located on the waterfront at Salmon Creek, at the Rock Dump east of Downtown Juneau and in Auke Bay harbor. Because of the geography, water depth, and development patterns of those areas, room for expansion is limited. Due to low tides, glacial sediments and uplift, traveling up the Gastineau Channel is difficult for most marine traffic. Heavy truck traffic to and from the Port and the barge loading at the rock dump add to the noise and congestion in the Downtown Juneau area.

Port development continues to be of importance to both commerce and recreation throughout the CBJ. Tour ship visits are increasing every year; tour vessel lengths are increasing as well as the number passengers carried. Moorage for tour ships and upland support areas have become extremely important to the tour industry and local private enterprise. Recreational boat use is also on the increase and the CBJ Harbormaster has a long waiting list for berths. Summer season private boat visits are also on the increase with small ocean-going yacht visits becoming more familiar in the CBJ area.

Ferry traffic is increasing in the Auke Bay area as the Alaska Marine Highway expands the number of voyages to accommodate increasing numbers of drive-on tourists during the summer season. From time to time, Auke Bay is also frequented by ore ships serving Skagway and Greens Creek Mine.

In the short term, it is important to expand and improve on the existing waterfront industrial sites within the CBJ. In the long term, development of new port facilities that would be more accessible to marine traffic of Southeast Alaska should be located along the water's edge of West Douglas Island, if deep water ports, breakwater facilities and adequate roads and a channel crossing (bridge or tunnel) were available to support this development. An appropriate West Douglas site should provide protected docking space and adequate land for storage and industrial facilities.

POLICY 5.6. IT IS THE POLICY OF THE CBJ TO FACILITATE AVAILABILITY OF SUFFICIENT AND SUITABLE WATER-BASED FACILITIES AND ASSOCIATED LAND-BASED ACREAGE TO SUPPORT WATER-DEPENDENT USES, AND TO WORK CLOSELY WITH THE PUBLIC AND PRIVATE SECTORS TO FACILITATE SUSTAINABLE MARINE COMMERCE, RECREATION, PUBLIC ACCESS TO THE SHORELINE AND ENJOYMENT OF THE WATERFRONT THROUGH DEVELOPMENT OF WELL DESIGNED PORT FACILITIES.

Standard Operating Procedures

5.6.SOP1 Protect from land use conflict and/or displacement, potential new, existing, or expanded port and water-dependent industrial, commercial, governmental, and recreational facilities.

5.6.SOP2 Encourage the expanded use of and home porting in the CBJ by State and Federal government vessels and cooperate with those agencies in the development of adequate water-dependent port and related upland facilities to meet present and future needs.

5.6.SOP3 Evaluate the effect of changes in State and Federal laws on water-related and water-dependent facilities such as fuel docks, tidal grids, upland boat storage and repair yards, and seafood processing plants, and the role of the CBJ in facilitating compliance with those laws through the planning and zoning process.

Development Guidelines

5.6.DG1 Assure public access to the shoreline and water when reviewing development applications.

5.6.DG2 To the greatest extent practicable, orient new structures and facilities located on the waterfront in such a way as to preserve views of the water from public roadways and vista points.

5.6.DG3 Deep water ports and navigable waters are valued assets and are critical to the sustainability of our economy and livability. New development along the shoreline should ensure that deep water navigable lanes and deep water port sites for marine vessels critical to the local economy are protected from encroachment from incompatible uses or obstructions.

Implementing Actions

5.6.IA1 Develop neighborhood plans and create Marine Mixed Use zoning districts for Auke Bay and Downtown Douglas that assure provision of adequate port, docks and harbor facilities and support land side facilities and services [see Guideline 1 for Subarea 3 and Guideline 16 for Subarea 9 in Chapter 11].

5.6.IA2 Evaluate methods for assuring shore-side security without using fencing or security gates on CBJ docks, harbors and recreational facilities used by residents and visitors.

Commercial and Industrial Development

The CBJ features several shopping centers (including two malls), a downtown Juneau shopping district, a commercial center featuring a Costco and a Home Depot, and several stand-alone retail stores, including Fred Meyer and a new Wal-Mart. Although local businesses provide a wide variety of goods and services to CBJ residents, visitors and businesses, there still exists some retail sales "leakage"—the purchase of many goods via the internet, by mail, and in Anchorage and Seattle due to a greater variety and, perhaps, lower prices.

Commercial and industrial activity requires sufficient and suitable land. Careful attention to the spatial requirements and locational considerations of potential uses is necessary to promote and maintain the local economy. CBJ staff conducted a survey of all business types as part of this Plan Update and found a need to expand the land available for retail and office uses, particularly in areas with high proximity to, and visibility from, major thoroughfares. Industrially-zoned areas in Lemon Creek (near Costco) and near the airport have been encroached upon by non-industrial uses that have generated traffic congestion, higher land prices and lease rates, and commercial neighbors who are intolerant of the noise, odors, glare, dust, and other impacts of industry. For industry to grow, including food processing and heavy material handling or manufacturing, a new industry-only zoning district category with parcels ranging in size from 5 to 20 acres each, is needed at a location near utilities and heavy load-carrying capacity roads, but distant from residential and general commercial uses. A West Douglas Conceptual Land Use Plan has been adopted by the CBJ for the West Douglas New Growth Area that identifies a 50 to 70 acre "Development Area 2" that would provide opportunities for marine-related industry when access to and from the mainland is provided. Areas around gravel extraction activities can convert to industrial districts once the land is leveled and gravel extraction on those lands are complete.

POLICY 5.7. IT IS THE POLICY OF THE CBJ TO DESIGNATE SUFFICIENT AND SUITABLE LAND FOR ANTICIPATED COMMERCIAL AND INDUSTRIAL DEVELOPMENT AS PART OF ITS OVERALL ECONOMIC DEVELOPMENT PROGRAM.

Standard Operating Procedures

5.7.SOP1 Follow the specific land use policies of this Plan that establish criteria for designation of commercial and industrial lands, including those cited in Chapters 3, Community Form and 10, Land Use.

5.7.SOP2 When additional land is needed for commercial or industrial uses or when there are particular locational requirements for certain activities, initiate appropriate amendments to the Comprehensive Plan and Zoning maps to accommodate this need. These new commercial and industrial zones should be evaluated in relation to all applicable policies of the Comprehensive Plan.

POLICY 5.8. IT IS THE POLICY OF THE CBJ TO ENCOURAGE THE LOCATION AND GROWTH OF LOCALLY-BASED BASIC SECTOR INDUSTRIES THAT PROVIDE YEAR-ROUND, FULL-TIME EMPLOYMENT AND PROVIDE TAX REVENUES THAT SUPPORT PUBLIC SERVICES.

Development Guidelines

5.8.DG1 When requests are made to rezone industrially-zoned land to a non-industrial use district, assess and consider the impacts of the loss of this land for industry on the CBJ economy as a whole as well as on current needs for industrial land for expansion of existing industrial businesses. An industrial lands inventory and needs assessment may be required as part of such a rezoning application. Lands designated for Industrial Use on the Comprehensive Plan Land Use Maps should not be converted to uses not allowed in the Industrial land use definition of Chapter 11 unless an essential public purpose, as deemed by the Planning Commission and CBJ Assembly, warrants such conversion.

5.8.DG2 When allocating public lands, infrastructure, tax benefits or other public benefits for new commercial or industrial activities, the CBJ should consider favoring locally-based basic sector industries that provide employment with medical benefits over non-local candidate businesses that do not provide those benefits.

Implementing Actions

5.8.IA1 Establish a new zoning district category for heavy industry in which light industrial and heavy industrial uses are permitted as-of-right and retail, office and residential uses are not permitted. Identify current Industrial zoning districts or other suitable area(s) that should be designated as this heavy industry zoning district and so designate those lands [see the Land Use definition for the Industrial (IND) land use category in Chapter 11].

5.8.IA2 In an effort to avoid further encroachment on industrially-zoned lands by retail, office and other non-industrial uses, identify lands within current industrial districts that meet the location criteria for office and retail use and that have been predominantly encroached upon by these uses and rezone those lands for retail, office and heavy commercial uses. Any existing light or heavy industrial uses therein should be allowed to remain and, even, expand and relocate therein, if necessary to support that business [see the Land Use definition for the Heavy Commercial/Light Industrial (HC/LI) use category in Chapter 11].

Mining

Along with our brewery and seafood processing plants, mining is an important private sector industry that provides well-paid full-time, year-around employment with benefits. The one active mine and one under development located within the CBJ would each provide about 200 such jobs and would contract with local businesses for materials, transportation, repair services and food service for mine operations. Additionally, smaller gravel extraction operations offer a critical resource to the CBJ's private- and public-sector development and maintenance operations.

POLICY 5.9. IT IS THE POLICY OF THE CBJ TO SUPPORT THE EXTRACTION AND PROCESSING OF MINERAL RESOURCES IN AN ENVIRONMENTALLY-SOUND MANNER, GIVING PROPER RECOGNITION TO THE UNIQUE VALUES OF THIS COMMUNITY.

Development Guidelines

5.9.DG1 Implement the CBJ Mining Ordinance, which provides for review of mining permit applications and ensures that information is gathered and analyses are performed in a manner that satisfies the needs of the CBJ and the operator of the mining operation.

5.9.DG2 Encourage the mining entity to develop the necessary roads, ports, worker housing and other infrastructure and facilities needed to adequately service the mining operation.

5.9.DG3 If necessary, encourage mining operators to partner with local housing developers to produce long-term worker housing in the existing Urban Service Area, thereby maximizing economic benefits and avoiding sprawl. This Guideline would not preclude the provision of rustic camps that provide short-term housing and minimal services on or near the mine operations as a means to reduce worker commuting and to conserve fossil fuels.

5.9.DG4 Encourage coordination and cooperation among the mining, tourism, fishing and recreation industries in both development and operation of mining activities. Mining operations should not operate in a manner that would be detrimental to the natural environment needed by these other industries or to human and wildlife neighbors.

5.9.DG5 Where gravel resources have been depleted by extraction activities, utilize these land resources to the most efficient extent possible by filling open pits with construction debris or

other non-toxic materials and engineering the lands to be suitable for other uses, such as habitat mitigation, public facilities, recreation resources or residential, commercial, or industrial development.

Implementing Action

5.9.IA1 Identify and map on the GIS system all abandoned, depleted or nearly-depleted gravel pits in the CBJ and identify suitable adaptive reuse strategies and land use designations for those lands.

Seafood Industry and Commercial Fishing

The commercial and sport fishing industry is an important sector of the CBJ economy. Segments of the tourist economy rely on charter sport fishing. Salmon hatcheries assure a healthy and viable commercial fishing sector. The State-collected raw fish processing tax goes back to the community in which the fish are brought ashore, not where they are caught. Care should be taken to ensure that suitable shoreline land is available to accommodate repair and maintenance facilities needed for the fishing and maritime tourism businesses; this would include vessel haul-out facilities, space for repair of nets, an ice plant in Auke Bay, and facilities to fast-freeze fresh fish. Fast and affordable air cargo transport of fresh fish, crab and other seafood is also important to the commercial fishing industry.

The CBJ has lost some prominence as a source of support and service to the commercial fishing fleet over the decades, and there is a clear need to re-establish maritime services of several types in order to rebuild the resident commercial fishing fleet. On the positive side, there is a very active and growing private sector effort to process fish locally and an increasing level of success in producing more fish as the result of hatcheries and habitat protection. Commercial fishing and other forms of commercial marine activity combine with sport and pleasure marine activity to create a stronger market for facilities and services.

POLICY 5.10. IT IS THE POLICY OF THE CBJ TO SUPPORT THE DEVELOPMENT AND EXPANSION OF THE SEAFOOD INDUSTRY AND OF SERVICES AND FACILITIES THAT BENEFIT COMMERCIAL FISHING ACTIVITY AND TO ATTRACT AND RETAIN HARVESTERS, PROCESSORS, AND SUSTAINABLE AQUACULTURE ACTIVITIES IN JUNEAU.

Standard Operating Procedure

5.10.SOP1 Encourage the location and expansion, as envisioned in Alaska Department of Fish & Game regional plans, of hatcheries and remote release projects in the CBJ to support the local fishing industry.

Implementing Actions

5.10.IA1 Assist in the provision of facilities suitable for commercial fishing vessels, repair facilities and land for businesses that repair fishing vessels and gear.

5.10.IA2 Assist in the development of a large-capacity ice plant in the Auke Bay area.

5.10.IA3 Assist in the location of suitable sites for seafood processing activities.

5.10.IA4 Support aquaculture that does not have unacceptable impacts on important fish and wildlife habitat and other maritime-related activities such as fisheries, tourism, the Coast Guard and marine research. Use of invasive species or harmful food or waste products in these operations is to be prohibited.

Regional Economics and Services

The CBJ is a political/commercial/transportation hub for central and northern Southeast Alaska. There are many examples of regional economic interchange including: regional participation at the University of Alaska Southeast; commercial-retail shopping by outside residents; regional marketing of special events; regional participation in sporting and cultural events; manufacture of goods for outlying communities; supply and shipping for outlying resource development activities; participation of the regional populace with State and Federal agencies including the Alaska State Legislature; financial, insurance, medical, clerical, consulting, and communications services provided to residents of outlying communities as well as many others.

Transportation is particularly significant to the development of regional commerce as the CBJ is accessible only by marine and air transport. Goods, customers and information rely on the ability to travel in and out of the community rapidly, safely, and at the lowest cost to achieve maximum participation.

The CBJ has a unique and important role to play in helping the region achieve a successful future. Finding an equitable balance between the CBJ's contribution to solving the region's problems and the benefits that CBJ will receive for participating in regional solutions has been an ongoing challenge. Only by fully participating in regional development planning efforts will the CBJ see its economic development goals fulfilled. Clearly, the CBJ has responsibilities and opportunities as a provider of regional services and as a significant political, cultural, and economic presence in southeast Alaska.

The CBJ should strengthen its regional planning and coordination efforts with municipalities and communities throughout the region and should offer residents of those communities ease in transport and accommodations when traveling here for legislative, judicial, medical care, sports and recreation, arts and entertainment, and shopping activities.

POLICY 5.11. IT IS THE POLICY OF THE CBJ TO ENCOURAGE AND SUPPORT REGIONAL ECONOMIC DEVELOPMENT IN OTHER CITIES AND LOCATIONS IN SOUTHEAST ALASKA TO CREATE A LOCAL ENVIRONMENT OF SERVICES AND OFFERINGS ATTRACTIVE TO COMMERCE ORIGINATING FROM OUTSIDE THE CBJ, AND TO ACTIVELY PARTICIPATE IN DEVELOPMENT AND IMPLEMENTATION OF REGIONAL SUSTAINABLE DEVELOPMENT GOALS.

Standard Operating Procedures

5.11.SOP1 Maintain a current Overall Economic Development Plan related to both local and regional economic development.

5.11.SOP2 Encourage regional marketing for locally-made goods and locally-provided services and encourage partnerships in producing and marketing regionally-made goods and services.

5.11.SOP3 Participate in regional planning processes.

5.11.SOP4 Consider the impact of local activities on regional systems. Coordinate with other regional communities and jurisdictions to avoid, minimize or reconcile intergovernmental and/or private-sector conflicts.

5.11.SOP5 Encourage economic development; in particular, industries that represent regional economic strengths and that support the production and distribution of renewable energy sources.

5.11.SOP6 Strengthen and expand the partnership between communities in Southeast Alaska, using the Southeast Conference and other means.

5.11.SOP7 Strengthen Juneau's role as a regional services hub for such things as fisheries research, medical, retail, tourism, transportation, and education.

Implementing Actions

5.11.IA1 Host symposia on fisheries management, research, and other topics.

5.11.IA2 Host symposia on medical topics.

5.11.IA3 Encourage continued and expanded transportation systems that serve the Southeast Region while retaining those systems currently serving the region.

5.11.IA4 Evaluate the CBJ Charter and Code, and pursue adoption of an amendment to the appropriate document in order to allow the CBJ to participate in private/public partnerships in constructing new facilities and supporting economic development in the CBJ.

CHAPTER 6: ENERGY

The topic of energy is pervasive in every element of human activity, interaction and comfort. The economic impacts associated with fossil fuel consumption, and the unique potential of the CBJ's renewable hydroelectric sites, presents policy makers with an enviable opportunity for guiding future community growth toward renewable energy sources. There is also the need to balance the needs of the consumers with the sustainability of our energy sources.

Access to affordable, secure supplies of energy is necessary for almost every activity of government, business and private residents. The overall goal of an energy policy should be to assure least cost alternatives to energy sources. Costs could be classified as broadly as actual out of pocket costs to the consumer, impact costs to the City budget or impact costs on our environment. Given the ways in which communities are affected by, and affect the global arena, energy policy should reflect the need to establish a fair degree of independence from uncertain international energy markets, and to ensure responsible contributions of our community to the global human and natural environment. The ultimate goal needs to be creation of an energy system that is sustainable, locally and globally. Energy policies can play a crucial role in the development of a local, regional, and national energy system that can help assure the long-term economic viability of the CBJ, and the Southeast Alaska region.

Further development of renewable energy sources will be needed to convert energy systems from fossil fuels for both local and regional use. The CBJ is blessed with significant hydro opportunity as well as tidal and other potential renewable energy sources, all of which should be elements of a comprehensive energy program. Least-cost, or integrated-resource planning, in which investment in energy conservation is weighed against investment in energy purchase, and in which life-cycle costs are included in all decision making, can provide a framework for cost-effective, responsible energy planning and conservation. Working capital must also be equally weighted as it is likewise a scarce resource economically defined. Education is an important element in giving direct assistance to energy users and for maintaining an informed citizenry. As used below, "near-term" means one to five years; and "long-term" means five years or longer.

Energy Planning

For many reasons, energy production, conservation, and use have come to the forefront of world consciousness in recent times. In Juneau, the disruption of the supply of hydroelectric energy to the community in the spring of 2008 has made energy issues even more relevant to the well being of the community. New energy sources are being discovered and new technologies for energy generation, transmission, and conservation are being developed. Federal and State funding sources are becoming available for renewable and/or efficient energy planning and projects. It would be beneficial to the CBJ to examine these emerging sources, technologies and funding sources for potential use in the community and as a revenue source to external communities.

Understanding where energy is used in the CBJ (internal and external uses), its sources, and the financial and social implications of our energy use is fundamental to establishing a sound policy

for energy development and use. In order to implement the policies outlined in this Chapter it will be necessary to establish a plan for the future use of energy resources in the CBJ.

POLICY 6.1. IT IS THE POLICY OF THE CBJ TO ANALYZE THE CBJ ENERGY SYSTEM, POTENTIAL RENEWABLE ENERGY SOURCES, AND EMERGING TECHNOLOGIES; ESTABLISH A LONG-TERM ENERGY PLAN; AND IMPLEMENT THAT PLAN FOR THE AFFORDABLE AND SUSTAINABLE USE OF ENERGY IN THE CBJ.

Implementing Actions

6.1.IA1 Analyze Juneau's internal and external energy economies and systems throughout system life-cycles.

6.1.IA2 Develop and implement a long range energy plan for Juneau that addresses both private-sector and CBJ energy conservation and management goals, objectives, and an action plan. The plan should consider renewable energy sources, emerging technologies, and other plans being developed within the region and the state.

6.1.IA3 Host research projects that identify energy sources that use renewable resources such as hydro, tidal, solar, wind, and energy from organic waste (e.g. cellulosic ethanol) that can be used by households, businesses and the public sector.

6.1.IA4 (i) Develop and examine scenarios for alternative long-term energy plans, including a risk management plan.

(ii) Based on alternative scenarios, identify courses of action for each scenario.

(iii) Implement actions that maintain flexible energy strategies that best meet Juneau's future energy needs.

6.1.IA5 Work with the State of Alaska, Southeast Conference, Tlingit Haida Central Council, and other entities in planning for energy resource development and use in the Southeast Alaska Region.

6.1.IA6 Conduct public meetings to explain and develop the CBJ long range energy plan.

6.1.IA7 Once an energy plan is developed, undertake an immediate reconsideration and rewrite of the policies and actions in this chapter for approval of the Borough Assembly.

POLICY 6.2 IT IS THE POLICY OF CBJ TO SUPPORT THE DEVELOPMENT OF RENEWABLE ENERGY RESOURCES IN THE CBJ AND SOUTHEAST ALASKA REGION.

Implementing Action

6.2.IA1 Work with the State of Alaska, Southeast Conference, Tlingit Haida Central Council and other interested entities toward the planning, funding and development of renewable resources in CBJ and the region.

POLICY 6.3 IT IS THE POLICY OF CBJ TO SUPPORT THE DEVELOPMENT OF A SOUTHEAST ALASKA INTERTIE.

6.3.IA1 Work with the State of Alaska, Southeast Conference, Tlingit Haida Central Council and other interested entities toward the planning, funding and development of a regional electrical intertie.

Support State Capital Functions

As Alaska's Capital, it is vital for the CBJ to offer modern transport and communications systems and facilities to Alaskan residents who wish to participate in State legislative affairs. Over the years, the CBJ has invested in such facilities, systems and infrastructure and will continue to support effective citizen participation in State affairs. As the availability of fossil fuels decreases throughout the world, it will be increasingly important to identify energy-efficient means of assuring cost-effective electronic and physical access to the Capital.

POLICY 6.4. IT IS THE POLICY OF THE CBJ TO PROVIDE COST-EFFECTIVE AND ENERGY-EFFICIENT FACILITIES, SYSTEMS AND INFRASTRUCTURE THAT STRENGTHENS ITS ROLE AS THE STATE CAPITAL.

Standard Operating Procedure

6.4.SOP1 Invest in energy-efficient technologies and equipment that provide affordable electronic and physical access to State legislative, courts and other governmental agencies for Alaskan residents.

6.4.SOP2 The City must weigh the additional costs of investment up front with the long term savings over the life of the improvement and it must at least generate a positive return.

Energy Efficient CBJ Buildings and Projects

In addition to keeping costs to CBJ's taxpayers as low as possible and conserving energy in general, it is the role of the CBJ to set an example for businesses and individuals in adopting cost effective energy saving technologies and operating procedures.

POLICY 6.5. IT IS THE POLICY OF THE CBJ TO INCORPORATE TECHNOLOGIES AND OPERATING PRACTICES THAT WILL PROMOTE EFFICIENT AND COST EFFECTIVE ENERGY USE INTO ALL OF ITS NEW AND EXISTING BUILDINGS AND ENERGY-USING PROJECTS.

Standard Operating Procedure

6.5.SOP1 Replace inefficient street lighting and lighting in CBJ buildings and facilities with efficient fixtures upon replacement cycle.

Implementing Actions

6.5.IA1 Establish and fund a revolving energy conservation investment fund, to invest in energy-saving public projects that meet CBJ return-on-investment criteria.

6.5.IA2 Invest in necessary metering equipment to produce monthly project energy reports.

6.5.IA3 Conduct energy audits and establish energy management goals for CBJ buildings.

6.5.IA4 Develop and implement a system for rewarding CBJ employee initiative and responsibility in good energy management.

6.5.IA5 Incorporate LEED, or other similar principles and standards when designing public structures and facilities. The LEED or other standards should be adapted for local climate and materials resources and should include life-cycle cost analyses (including long-term operational costs) with appropriate fuel cost sensitivity analyses over the long term life of the Project.

6.5.IA6 When designing new facilities or major renovation of CBJ facilities, analyze life-cycle costs of energy applications.

6.5.IA7 Analyze the workings of the CBJ water and wastewater facilities and incorporate energy saving methods and technologies where appropriate.

Maximize Use of Local Energy Resources

The CBJ's fossil fuel supply is subject to disruption due to a variety of reasons: embargoes, price hikes, shipping disputes, or disasters, among others. Use of local energy resources reduces these risks. As the Snettisham avalanches of 2008 showed, however, dependence on exposed, remote transmission lines for delivering electricity to users exposes the electrical system to unforeseen disruption. Most of the money used to purchase fossil fuels leaves the CBJ. The CBJ can have a much healthier local economy if we develop and encourage the use of our own energy resources that are adequately protected from disruption by relatively predictable natural disasters such as avalanches.

POLICY 6.6. IT IS THE POLICY OF THE CBJ TO MAXIMIZE THE RATIO OF LOCAL, RENEWABLE-SOURCE ENERGY TO IMPORTED FOSSIL-SOURCE ENERGY IN JUNEAU'S INTERNAL ENERGY ECONOMY.

Standard Operating Procedure

6.6.SOP1 Encourage energy conservation to reduce the amount of money leaving the community to pay for fuels.

Implementing Actions

6.6.IA1 Seek federal and state funding to convert the CBJ fleet and, particularly, public transit vehicles, to dual-fuel, hybrid, or other fuel technologies with reduced carbon footprints and enhanced sustainability over fossil-fuel burning vehicles.

6.6.IA2 Where practicable in large industrial operations, encourage co-generation processes to transform by-product heat to electrical energy for use by the operation and adjacent uses or for transmission to a nearby electrical grid.

6.6.IA3 Where practicable and where there are no significant adverse impacts to marine or other ecosystems, encourage the use of tidal, geothermal, wind and other renewable energy sources to generate energy for adjacent uses or for transmission to the electrical grid.

6.6.IA4 Encourage dual fuel systems that are cost effective for buildings.

6.6.IA5 Coordinate with the University of Alaska, other research organizations, and companies to identify potential renewable energy sources to power vehicles, vessels, aircraft, and structures. Analyze both the short-term and long-term costs and environmental impacts of energy production and distribution systems giving preference to dependable, cost-competitive, renewable sources that do not adversely affect natural resources and wildlife habitat when choosing a source of energy.

6.6.IA6 Amend the Land Use Code to create a new land use category for small-scale energy production facilities, such as solar panels and residentially-scaled wind turbines, so that they are not held to the same permitting requirements as industrial-scale energy production facilities.

Maximize Efficient Use of Renewable Energy Resources

In 1995, about 85 percent of the energy used in the CBJ was provided by fossil fuels. Conservation and renewable resources could displace much of this fossil fuel and greatly reduce both the dependence on these fuels and the export of capital from the CBJ and Alaska.

POLICY 6.7 IT IS THE POLICY OF THE CBJ TO MAXIMIZE THE EFFICIENT USE OF RENEWABLE ENERGY RESOURCES.

Implementing Actions

6.7.IA1 Coordinate efforts with the University of Alaska and other research organizations and entities to identify potential renewable energy sources to fuel vehicles, vessels, aircraft, structures and utilities and to heat structures. Analyze both the short-term and long-term costs and environmental impacts of energy production and distribution systems and give preference to dependable, cost-competitive, renewable sources that do not adversely affect natural resources and ecosystems when choosing a source of energy.

6.7.IA2 When designing new facilities or major renovation of CBJ facilities, analyze life-cycle costs of energy applications with consideration of renewable sources given priority.

Full-Cost Analysis

The very real environmental and social costs, now and in future generations, of relying completely on fossil fuels are not included in the prices we pay for fossil fuel-based energy. Wise local and global energy production and use requires these external costs to be internalized into energy prices, in order to conserve energy and to encourage its production from renewable, low impact sources. Additionally, the Federal, State and City budgets are strained with less funds trickling down to the City. Working capital or funds available for investment are therefore a scarce resource not unlike energy. Therefore, careful consideration of impact on the local citizenry must include how redirecting those scarce dollars to renewable energy or conservation may have a very real impact. Because national and state policies, where they exist, have not been implemented to do this, the CBJ should take the initiative to protect the long-term interests of its residents. The exact dollar value of these costs is always hard to determine, yet they must not be ignored since they ultimately have a major economic impact on the quality of our lives.

POLICY 6.8 IT IS THE POLICY OF THE CBJ TO INCLUDE THE FULL COSTS (DIRECT AND INDIRECT) OF ENERGY USE IN ITS ECONOMIC ANALYSES.

Standard Operating Procedure

6.8.SOP1 Use quantifiable external and indirect costs in establishing the cost of energy when conducting life-cycle cost analyses of CBJ facilities, projects, and operations.

Implementing Action

6.8.IA1 Incorporate energy costs into scenario analyses conducted as part of long term energy planning. [see 6.1IA.4(iii)]

Minimize Utility Investment

The peak rate of energy use (peak load) determines the size of generators, transformers, wires, backup generators, and other equipment needed to provide that peak load. The cost of these capital investments has a major effect on rates, and can be reduced by leveling out energy use on a daily and seasonal basis.

POLICY 6.9 IT IS THE POLICY OF THE CBJ TO ENCOURAGE ELECTRICAL ENERGY USE PATTERNS THAT MINIMIZE UTILITY INVESTMENT.

Implementing Action

6.9.IA1 Work with electrical utility providers to develop programs and educational materials promoting energy conservation.

Use of Favorable Energy Assets for Job Creation

A stable and reasonably priced source of electricity will enhance the CBJ's business and industrial climate. The CBJ's favorable electric energy assets include a current hydroelectric supply with a back-up system that uses diesel fuel. Potential renewable energy resources within the CBJ should be protected.

POLICY 6.10 IT IS THE POLICY OF THE CBJ TO TAKE ADVANTAGE OF JUNEAU'S FAVORABLE ELECTRICAL ENERGY ASSETS TO ADD QUALITY JOB OPPORTUNITIES.

Implementing Actions

6.10.IA1 Encourage the Juneau Economic Development Council (JEDC) to promote the CBJ's favorable energy assets to potential investors, entrepreneurs, and employers.

6.10.IA2 Implement an aggressive water and energy conservation program; and use other renewable energy sources, such as geothermal and micro-hydro electrical generators.

6.10.IA3 Actively support hydroelectric development and other renewable energy projects.

Use Renewable Energy for Transportation

We do not have a current assessment of CBJ government and resident use of fossil fuels but, clearly, we, as a community, are dependent upon the use of fossil fuels to power our vehicles, vessels and aircraft and to heat our homes, among other things. The scarcity of fossil fuels, particularly oil and natural gas, will cause the price of these non-renewable resources to rise over time. Powering transport facilities by fossil fuels may not be affordable in the short-term or sustainable in the long term. The CBJ's linear topology is amenable to an efficient, high-quality public transportation system. It is prudent to reduce our dependence upon the private vehicle for transportation and to ensure that public transit offers a safe, convenient and affordable means of travel.

POLICY 6.11 IT IS THE POLICY OF THE CBJ TO ENCOURAGE THE TRANSPORTATION OF CBJ RESIDENTS, VISITORS, FREIGHT AND MAIL BY RENEWABLE ENERGY SOURCES ON BOTH PRIVATE AND PUBLIC TRANSPORTATION.

Standard Operating Procedure

6.11.SOP1 Promote the use of public transportation and car pooling to reduce the reliance of CBJ residents and visitors on single-occupant vehicles.

Implementing Actions

6.11.IA1 Use a mix of vehicle sizes and fuels for CBJ-provided public transport to promote fuel and cost efficiency, and to keep frequency of service such that it will encourage use of public transportation systems.

6.11.IA2 Seek to convert fossil-fueled CBJ buses to renewable energy-fueled or hybrid vehicles. Hybrid or other dual-fuel buses that can run on fuel other than electricity are preferable to electric-only buses, especially in light of the effect of the April 2008 Snettisham avalanches and their effect on the provision of electricity to Juneau.

6.11.IA3 Encourage conversion of private fossil-fueled busses to renewable energy.

6.11.IA4 Provide metered electric energy sources at public parking lots and garages to re-charge public and private electric automobiles, and provide preferential parking spaces for those vehicles. The metered electrical sources should have the functionality of being turned off automatically or manually by AEL&P and/or CBJ staff during periods of peak loading of the electrical system or emergency situations.

6.11.IA4 Retain adequate rights-of-way for fixed-guideway transit systems pending investigation of the feasibility of providing light or heavy rail public transit service, fueled by renewable energy sources, linking existing and new neighborhoods of Douglas Island with the mainland, the Mendenhall Valley with downtown Juneau and, in the future, connecting the Juneau area to the Alaskan interior. In the analysis of the feasibility of such a Borough-wide rail transport system, consider the life-cycle costs of design, construction, environmental mitigation and monitoring, as well as operation and maintenance costs.

Energy Efficient Buildings

The CBJ's maritime climate and comparatively cold winters mean that keeping living spaces warm must needlessly consume energy if efficient heating, insulating and ventilating practices, materials, equipment and design are not used in the construction of new buildings and in remodeling existing buildings.

POLICY 6.12 IT IS THE POLICY OF THE CBJ TO ENCOURAGE COST EFFECTIVE ENERGY EFFICIENT BUILDING AND REMODELING PRACTICES.

Implementing Actions

6.12.IA1 Encourage the installation of energy-efficient heating systems in new construction.

6.12.IA2 Encourage participation in current residential energy efficient mortgage programs for both new and existing homes. Encourage favorable lending rate programs for energy efficient multifamily housing and commercial construction or renovation.

6.12.IA3 Establish energy efficient standards for new and existing buildings.

6.12.IA4 Encourage the conversion of existing heating systems from fossil fuel to renewable sources of energy.

6.12.IA5 Consider enacting water conservation ordinances that would lead to significant energy savings to the CBJ in pumping water and in treating wastewater.

6.12.IA6 Encourage consideration of "life cycle" costs, the use of energy efficient construction techniques, materials and equipment that are consistent with acceptable health and safety standards and that are appropriate for local climatic conditions, while keeping project costs low.

6.12.IA7 Consider providing incentives supporting 6.12.IA6.

Industrial Energy Use

The design and operation of industrial developments can be managed to reduce, transfer or minimize waste of energy and to maximize use of renewable energy. Mining projects tend to be energy intensive and short-lived (tens of years). Within the CBJ they could have a great effect on the CBJ energy economy and be greatly affected by the CBJ energy policy. For industries with large amounts of fuel material by-products (e.g. wood waste), or with high temperature energy by-products (e.g. steam), the generation of electrical energy for sale to the utility grid can be useful and increase overall community energy efficiency. Similarly, there are industries that produce large amounts of heat as a by-product, e.g., over one megawatt thermal, and could use this energy resource to displace fossil fuel energy in nearby structures for space heating or other low temperature processes. The CBJ could play a role in making such projects viable, saving considerable energy dollars for use in the community, rather than for export to pay fossil fuel energy costs.

POLICY 6.13 IT IS THE POLICY OF THE CBJ TO ENCOURAGE INDUSTRIAL AND COMMERCIAL USERS TO BE AS EFFICIENT AS POSSIBLE IN THEIR USE OF ENERGY, TO USE RENEWABLE ENERGY SOURCES, AND TO MAKE ENERGY BY-PRODUCTS AVAILABLE FOR USE ELSEWHERE IN THE COMMUNITY.

Implementing Actions

6.13.IA1 Encourage energy intensive projects to follow CBJ energy policy.

6.13.IA2 Assist those proposing energy intensive projects, such as mining, in understanding, at the earliest point in their projects, the CBJ energy policy.

6.13.IA3 Require the use of renewable and environmentally-sensitive energy sources for energy intensive projects, where cost effective.

6.13.IA4 Encourage the development of co-generated electrical energy at avoided cost.

6.13.IA5 Encourage appropriate land use patterns of development close to potential sources of surplus by-product heat.

Waste Reduction, Reuse and Recycling

It is in the long-term interest of all people in the CBJ to minimize waste disposal and to recycle used materials as a part of local efforts to conserve natural resources. Recycling, where appropriate, will lead to the more efficient and economical use of resources and will lessen the impact on the environment by decreasing the need for the disposal of materials. It is recognized that since the CBJ is located far from major recycling markets, it may not be energy efficient to recycle some classes of materials at the present time. Therefore, reduced resource use is especially important. Direct, immediate or short-term costs should not be the sole consideration for CBJ support of programs and policies for waste reduction, reuse and recycling. Instead, related indirect, future or long-term costs should also be considered, such as the costs of a landfill operation and its remediation, once closed. The CBJ understands that effective efforts towards materials conservation, reuse, and recycling, as well as energy conservation, necessarily involve close and on-going communication, coordination, and cooperation between the public, private and non-profit sectors. While some programs may not be cost effective in Juneau alone, the CBJ could work with regional entities that are forming a regional solid waste authority, and developing plans for a central facility for the region.

POLICY 6.14 IT IS THE POLICY OF THE CBJ TO ENCOURAGE WASTE REDUCTION, REUSE AND RECYCLING ACTIVITIES THAT HAVE POSITIVE ECONOMIC AND/OR ENVIRONMENTAL BENEFITS.

Implementing Actions

6.14.IA1 Implement the *Final Solid Waste Management Strategy for the City and Borough of Juneau*, as adopted on November 29, 2007 and amended January 7, 2008.

6.14.IA2 Coordinate/cooperate with villages, towns, municipalities, private companies and non-profit organizations within the region on solid waste management programs.

Public Education on Energy

Individual consumer decisions and behavior are significant in governing the extent of required energy development. Nationally, there is a trend toward using rate incentives to further community energy goals. The effect of these incentives is maximized by advising consumers on how to take advantage of them. Only a well-educated citizenry is able to make well-informed decisions.

POLICY 6.15 IT IS THE POLICY OF THE CBJ TO INCREASE PUBLIC UNDERSTANDING OF HOW INDIVIDUAL AND CBJ ENERGY DECISIONS AFFECT INDIVIDUAL CONSUMER COSTS, AS WELL AS THE LIVABILITY AND SUSTAINABILITY OF THE COMMUNITY.

Implementing Actions

6.15.IA1 The CBJ Commission and the Juneau School District should work together to improve energy education in K-12 public school educational curriculum within the Juneau Douglas School District, including:

- energy as a fundamental human need;
- historical perspective of energy;
- understanding our local energy system, and how it fits within the regional, state, federal, and world systems;
- helping students become smart consumers;
- informing future voters on the need to establish and maintain an energy system that is high quality, secure, equitable, and sustainable; and
- a multi-disciplinary approach to energy.

6.15.IA2 Encourage the private sector, with financial assistance from the CBJ and support from the Commission on Sustainability, to conduct a public education program to explain the benefits of conservation of energy.

6.15.IA3 Conduct public meetings to explain and discuss the Energy Chapter of this Plan.

CHAPTER 7. NATURAL RESOURCES AND HAZARDS

The CBJ is situated in a spectacular and varied natural setting. Its aquatic and terrestrial resources not only are of exceptional economic, aesthetic and recreational value but also have numerous implications for land use planning and management. In addition to their distinctive characteristics, each resource is interdependent in a complex and often highly sensitive environment.

The CBJ does not engage in areas of natural resource management that are usually reserved to the State or Federal governments, such as lumber, fish or game allocation. However, conservation or development of some local natural resources that are now controlled by Federal and State agencies, such as fish and wildlife habitat and shorelines, are best managed by local entities. This is true in terms of trying to achieve habitat protection in a way that is sensitive to the rights of landowners as well as to the resource. It is also true because cities have a much broader grant of authority from the State, that of land use control, than do State agencies.

The policies, SOPs, development guidelines and implementing actions that follow are those called for by the citizenry and appropriate to the management of natural resources at the local level through the use of local authority. In some cases, notably wetlands, the CBJ has taken a highly protective stance and proposed a prominent management role for itself, in part to manage the values these resources represent, but also to conduct wetlands management and regulatory affairs in a manner more sensitive to the needs of land owners and developers than might be the case if wetlands management was left entirely in the hands of State and Federal agencies.

NATURAL RESOURCES

Environmental Protection

The CBJ is located in a temperate rainforest and has been characterized as one of the world's most beautiful natural settings. Throughout this comprehensive planning process, residents have indicated repeatedly their desire to protect the region's scenic beauty, fish and wildlife habitat and public access to water and forested areas. They also seek to promote the careful management of natural resources while supporting the local fishing, tourism and recreational activities that depend on the health and vitality of these resources. Through a Plan that emphasizes compact development, the CBJ can mitigate adverse impacts of urban life and provide community sewer and water systems sufficient to protect public health, while avoiding or minimizing harm to the region's surface, groundwater and fish and wildlife resources.

Other sections of the Comprehensive Plan address natural resource issues; these are found in Chapters 9 (Parks, Recreation, Trails and Natural Areas), 11 (Land Use Maps and Subarea Guidelines), and 12 (Public and Private Utilities and Facilities).

POLICY 7.1. IT IS THE POLICY OF THE CBJ TO PROTECT THE REGION'S SCENIC, ENVIRONMENTAL, AND ECONOMICALLY-VALUABLE NATURAL RESOURCES FROM THE ADVERSE IMPACTS OF URBAN DEVELOPMENT. DEVELOPMENT SHALL BE CONTROLLED CAREFULLY AND, IF NECESSARY, PROHIBITED IN NATURALLY HAZARDOUS AND ECOLOGICALLY-PRODUCTIVE OR SENSITIVE AREAS.

Standard Operating Procedure

7.1.SOP1 Designate on the Comprehensive Plan Land Use Maps those areas containing valuable natural resources and/or natural hazards. Provide development standards and controls for those lands to minimize the adverse impacts of urban development and use.

Development Guideline

7.1.DG1 Care should be taken when clearing land for development to maintain healthy trees and, when selecting which trees to remove, to avoid and mitigate against the effects of "blow down" when trees are removed on one property, creating new wind patterns for adjacent properties, such that mature trees on those lands are blown down by winds.

Implementing Actions

7.1.IA1 Fund a work program to include adequate staff, equipment and software to establish and maintain an inventory and electronic map on the CBJ's Geographic Information System (GIS) of high-value delineated wetlands and anadromous watercourses within the roaded areas.

7.1.IA2 On the CBJ GIS maps, staff should map the anadromous watercourses and high value wetlands to determine whether lands need to be purchased to create continuous, un-fragmented fish and wildlife corridors from the upland forested areas and icefield to the sea. These un-fragmented corridors may also be suitable as non-motorized hiking trails.

7.1.IA3 Collaborate with state and federal agencies to compile and maintain an inventory, a GIS database map of locations, and should develop management plans for all categories of CBJ-owned natural resources such as firewood, sand and gravel.

7.1.IA4 Adopt a "dark sky" outdoor lighting code and require adherence to this code in rural areas of the CBJ from which stars and the aurora borealis can be viewed. Those areas should be protected from glare from outdoor lighting that obscures those sightings.

Coastal Resources Planning

Coastal resources are clearly important to the environmental quality and economic vitality of the CBJ. They provide natural habitat for valued species, recreation, view corridors, food sources,

and a sense of well-being for residents and visitors. Nearly all the developable land in the CBJ is within the area defined as the coastal zone by the State. Environmentally-sensitive habitats and waterfront areas that are particularly subject to intense development pressures, such as Downtown Juneau, Auke Bay, North Douglas Island and Echo Cove, merit special attention.

POLICY 7.2. IT IS THE POLICY OF THE CBJ TO PRESERVE AND PROTECT FISH AND WILDLIFE HABITAT, SCENIC CORRIDORS AND PUBLIC ACCESS TO THE WATER, AS WELL AS WATER-DEPENDENT USES IN PLANNING FOR USE OF COASTAL AREAS.

Implementing Actions

7.2.IA1 Designate areas for water-dependent uses on the Comprehensive Plan Land Use Maps, the CBJ GIS maps, and the Land Use Code Maps. Identify and designate on these maps publicly-owned shoreline areas that are appropriate for publicly-accessible open space/natural areas or recreational use, for fish and wildlife corridors for fishing and hunting, and/or for view corridors.

7.2.IA2 Seek expanded authority for the granting of U.S. Army Corps of Engineers Section 404 permits by the CBJ for wetland areas specified in the CBJ Wetlands Management Plan, as periodically updated.

Stream Corridors and Lake Shorelines

Stream courses and lakes possess unique ecological, recreational and scenic values. Portions of the stream corridors also function as floodways and floodplains and protect against erosion of adjacent properties. Development along stream corridors and lake shorelines can destroy their ecological, scenic and recreational values. It also can cause destruction of stream banks, increased runoff, sedimentation and pollution, and increase the danger of flooding to people and property. Carefully designed and sited development that is responsive to the conditions of the site can diminish the potential negative impacts on these ecosystems as well as surrounding land uses, and may be able to actually enhance degraded stream and lake habitat and water quality.

Shoreline values can be maintained and destruction of property from flooding and stream bank erosion minimized by careful management of shoreline development, which primarily takes the form of requiring development to be set back from shorelines of creeks, streams and lakes and to retain or restore natural vegetation. The Land Use Code provides for some basic, or minimum, streamside protection. Additionally, in 1985, a resolution was passed that designated approximately 2,056 acres throughout the CBJ as open space/natural areas in recognition of anadromous stream corridors, and many parcels along the Mendenhall River have been purchased by the CBJ as greenbelt areas, providing greater protection for these water bodies and habitats. Further efforts are required to protect those and other stream corridors and to coordinate the various management and enhancement activities.

POLICY 7.3. IT IS THE POLICY OF THE CBJ TO PROTECT RIPARIAN HABITAT, INCLUDING STREAM CORRIDORS AND LAKE SHORELINES, FROM ADVERSE EFFECTS OF DEVELOPMENT AND TO PROVIDE A HIGHER LEVEL OF PROTECTION FOR NON-URBAN SHORELINES IN PUBLIC OWNERSHIP.

Development Guidelines

7.3.DG1 Rivers, streams, and lakes should be managed so as to protect natural vegetation, water quality, fish or wildlife habitat, and natural water flow.

7.3.DG2 On publicly-owned lands, designated on the Land Use Code Maps as not appropriate for development an area extending 200 feet from the ordinary high water mark of the shorelines or stream corridors of the anadromous fish creeks, streams, and lakes listed in the most recently CBJ-adopted Alaska Department of Fish and Game (ADF&G) inventory of anadromous streams.

On CBJ-owned lands that are not designated for disposal in the 1999 CBJ Land Management Plan, maintain 200 foot stream buffers from the ordinary high water mark of the shorelines of the following anadromous fish streams: Peterson Creek (out-the-road), Shrine Creek, Bridget Creek, Cowee Creek, Davies Creek, Peterson Creek (northwest Douglas Island), Eleven Mile Creek, Middle Creek, and Hilda Creek. This buffer zone or setback may be adjusted or altered, on a case-by-case basis, when a scientific analysis of the specific function(s) of the particular creek's value(s) finds that the setback should be more based on its functional value(s).

7.3.DG3 On privately-owned lands, require a minimum setback of 50 feet from the ordinary high-water mark of all creeks, stream corridors and lake shorelines listed in the most recently CBJ-adopted ADF&G inventory of anadromous streams. This 50 foot setback is to be considered a basic or minimum setback from the water body and its riparian habitat until a biological functional analysis of the water body and adjacent habitat is conducted that identifies a specific greater or lesser setback distance appropriate to the development and functional value of the particular water body and associated riparian habitat, and an ordinance amending that setback is adopted.

7.3.DG4 CBJ Community Development Department staff will determine the Ordinary High Water Mark (OHWM) on properties subject to development permits. OHWM determinations will be based on habitat and biological considerations according to the adopted OHWM definition in Title 49, the Land Use Code.

Implementing Actions

7.3.IA1 Amend the Comprehensive Plan Land Use Map for Subarea 3 to designate a Stream Protection Corridor (SC) along both sides of the banks of Montana Creek where it is shown on the 1995 Land Use Maps as Recreational Service Park (RS), Conservation Area (CA)

and Resource Development (RD). This Stream Protection Corridor would remain the same width and breadth in the portions designated in the 1995 Plan as RS and CA, and would be expanded to include the lands within 500 feet of each side of the banks within the area designated RD in the 1995 Plan. The designation of the area SC around the shooting ranges should not adversely affect the existing operations of the outdoor shooting range, the indoor shooting range or the archery shooting range.

7.3.IA2 Fund an effort to develop for adoption into the Land Use Code a riparian habitat protection ordinance that tailors riparian standards to the particular stream-type, functional value and location and which would be consistent with, and complementary to, related Title 49 regulations protecting wetlands, flood zones and coastal areas.

7.3.IA3 Update the CBJ Wetlands Management Plan and Implementation Program to:

A. Clarify and strengthen the regulations for high value wetlands;

B. Increase permit predictability to wetlands owners,

C. As much as is practicable, to make CBJ valuation methodologies and classifications consistent with those of relevant State and Federal agencies and the Army Corps of Engineers; and

D. Update existing wetland maps and expand the geographic areas of the wetlands inventory and delineation area to include the areas included in the Urban Service Area, identified in this Comprehensive Plan Update, for new development to the year 2020.

7.3.IA4 Amend the Land Use Code to update the definition of Ordinary High Water Mark (OHWM) as soon as possible.

7.3.IA5 Investigate the feasibility of providing tax incentives and tax relief for property owners who implement riparian or wetland habitat protection and conservation measures and improvements to their land, such as easements, restoration and assured Best Management Practices (BMPs) maintenance activities.

7.3.IA6 Require recorded easements on plats and on property records for major developments to provide public access to shorelines and stream corridors, consistent with appropriate statutory and case law.

7.3.IA7 Give high priority to public acquisition of open space/natural areas and/or public recreation easements to the stream corridor of Pederson Hill Creek (aka “Casa Del Sol Creek”) to add to the recent public acquisition of stream corridors of Montana Creek and the west side of the Mendenhall River.

7.3.IA8 Where development or other causes have led to serious stream bank erosion, undertake programs in cooperation with other appropriate agencies and private owners to restore degraded stream banks and prevent further erosion in a manner that provides erosion protection and safe fish habitat.

7.3.IA9 Amend the Land Use Code to include additional criteria in the variance standards that require an evaluation of the cumulative impacts to habitat and water quality for variance requests from streamside and lakeshore setbacks, and to provide for mitigation when variances to stream or lakeshore setbacks are granted.

7.3.IA10 The Wetlands Review Board (WRB) should advise the Planning Commission regarding direct and cumulative impacts to riparian functions when variances to stream and lakeshore setbacks are requested by Applicants. Although such variances should be strongly discouraged, the WRB should also make recommendations regarding appropriate mitigation measures when such variances are deemed warranted by the WRB and Planning Commission.

7.3.IA11 Amend the Land Use Code to include additional criteria in the grounds for variance standards that require an evaluation of impacts to habitat and water quality for variance requests from streamside and lakeshore setbacks, and to provide for mitigation when variances to stream or lakeshore setbacks are granted.

7.3.IA12 The CBJ should designate publicly-owned shoreline areas along the roaded areas of the CBJ for public access recreation, stream corridor protection and/or wildlife access protection areas.

7.3.IA.13 Conduct biological functional analyses on streams and adjacent habitat to determine the appropriate setback from each of the following streams for new development on CBJ–owned land: Peterson Creek (out-the-road), Shrine Creek, Bridget Creek, Cowee Creek, Davies Creek, Peterson Creek (northwest Douglas Island), Eleven Mile Creek, Middle Creek, and Hilda Creek. Once the appropriate stream corridor width has been determined for a stream, adopt that stream corridor as a required protection area in the Comprehensive Plan and/or Land Use Code.

POLICY 7.4. IT IS THE POLICY OF THE CBJ TO ADOPT THE MOST RECENT ALASKA DEPARTMENT OF FISH AND GAME (ADF&G) INVENTORY OF ANADROMOUS STREAMS FOR USE IN REVIEWING DEVELOPMENT PROPOSALS ON LAND CONTAINING WATERBODIES.

Implementing Actions

7.4.IA1 Annually adopt by Ordinance or Resolution the most recent list of anadromous streams pursuant to the ADF&G annual or biannual inventory entitled *Waters Important to Spawning, Rearing, or Migration of Anadromous Fishes–Southeastern Region*. Update the CBJ's GIS database and mapping layers and the CBJ Open Space Resolution as additions or corrections are made to the list. The CBJ should post the adopted updated list on the CBJ website.

7.4.IA2 Concurrently with adoption of the ADF&G annual or biannual inventory of CBJ anadromous streams, revise the Land Use Code §49.70.310(a)(4) to state "Within 50 feet of the banks of streams designated as anadromous by the most recently CBJ adopted inventory of anadromous streams listed by the Alaska Department of Fish and Game."

7.4.IA3 Revise the Title 49 Land Use Code to pull together in one section, or cross-reference, all of the requirements for stream and lake shoreline management that are now under Habitat and Wetlands Management and map water bodies and riparian habitat subject to those regulations and guidelines on the CBJ GIS system.

Wetlands

The CBJ's extensive wetlands include estuarine areas, freshwater wetlands that may or may not be directly adjacent to a water body, and forested wetlands. Wetlands are defined by the U.S. Army Corps of Engineers (Corps) as areas where the prevalent vegetation is typically adapted for life in saturated soils, where there is water sufficient to saturate the soil during part of the growing season, and where soil conditions indicate that the soil is saturated. Approximately 54 percent of the areas addressed in the CBJ Wetlands Management Plan (Mendenhall Valley, Lemon Creek, Auke Bay and North Douglas) were defined as wetlands by the Corps in 1986. Additional wetland areas have been, and continue to be, identified by the Corps and added to the CBJ's wetland base.

Wetlands serve important natural and human functions. These include providing fish and wildlife habitat and food sources, storm-water retention, recharge of groundwater, cleaning surface waters by retaining sediment and toxins, flood protection and erosion control, and providing recreational and scenic values to the CBJ's population.

Prior to 1993, regulation of wetlands management in the CBJ was primarily the purview of the Corps. To establish a stronger local role in wetlands management, in 1993 the CBJ adopted the CBJ Wetlands Management Plan (JWMP), which:

1. classifies wetlands based on their environmental functions and community needs (from the higher value Category A and B wetlands, to the lower value Category C and D wetlands);

2. requires mitigation for development impacts that is appropriate to the environmental value of the wetland;

3. provides for establishment of a CBJ-administered Wetlands Mitigation Bank; and

4. provides for local wetlands permitting for lower value wetlands through decisions of the CBJ Wetlands Review Board.

The regulatory provisions of the CBJ Wetlands Management Plan and the maps of the wetlands covered under that Plan have been adopted into the CBJ Land Use Code. The Code also established a nine-member CBJ Wetlands Review Board. The Board has responsibility for issuing local wetlands permits for the Category C, D, and EP (enhancement potential) wetlands classified in the JWMP. The Board has also adopted a general wetlands mitigation strategy that recommends that, to mitigate for historic and future impacts to the wetlands base in the CBJ, the CBJ pursue (1) wetlands protection, (2) public education, and (3) wetlands restoration and creation projects. The Board has conceptually approved a wetlands mitigation document, *Recommendations for a Juneau Wetlands Mitigation Strategy*, a technical report prepared by the Alaska Department of Fish and Game through funding provided by the Alaska Coastal Management Program.

The CBJ worked for many years to obtain a General Permit from the Corps to allow the Wetlands Review Board to assume all responsibility for wetlands permitting on the Category C, D and EP wetlands. In March 1994, the CBJ and Corp signed a cooperative permitting agreement that allowed the CBJ to conduct its local wetlands permit process for projects in lower value wetlands and in July 1995, the Corps issued the General Permit.

The CBJ's wetlands management program is guiding the use and protection of our wetland resources. The Land Use Code codifies key portions of the CBJ Wetlands Management Plan. The Comprehensive Plan serves as the policy backbone for the wetlands regulatory program and addresses issues that can't be addressed solely through regulation of private development.

POLICY 7.5. IT IS THE POLICY OF THE CBJ TO PROTECT HIGH-VALUE WETLANDS FROM ADVERSE EFFECTS OF DEVELOPMENT THROUGH LAND USE MANAGEMENT AND TO SPONSOR OR PARTICIPATE IN EFFORTS TO ENHANCE OR RESTORE THE ENVIRONMENTAL VALUES OF WETLANDS IN THE CBJ.

Standard Operating Procedures

7.5.SOP1 Seek acquisition of Category A and EP (enhancement potential) wetlands to CBJ ownership for protection, and for use as wetland mitigation projects, respectively.

7.5.SOP2 Fulfill permitting authority gained by issuance of a General Permit by the Army Corps of Engineers which delegated authority to the CBJ for permitting of fills for Category C, D, and EP wetlands.

7.5.SOP3 Protect the values of wetlands that have been developed as, or identified as prospective education sites, from impacts caused by adjacent development. Cooperate with public agencies and interest groups in the identification and development of appropriate wetlands interpretive and education sites and facilities.

7.5.SOP4 Incorporate wetland and stream habitat considerations into the planning, site selection, budgeting, design, construction and operation of CBJ projects affecting wetlands and anadromous stream corridors.

Development Guidelines

7.5.DG1 Identify and assess, and decision-makers should consider, the cumulative impacts associated with wetland fills while making local wetland management decisions. The JWMP requires that cumulative changes in the wetlands base be considered by the Wetlands Review Board for each local wetland permit issued, as well as during preparation of an annual report on local wetlands management.

7.5.DG2 Require long-term monitoring of mitigation projects undertaken by the CBJ or private parties to ensure that the mitigation measures were undertaken as required by the permit and to ascertain their success.

Implementing Actions

7.5.IA1 Fund the establishment and maintenance of a Wetlands Mitigation Bank program for use by developers of public and private projects. This program should provide for (1) wetlands protection, (2) public education, and (3) wetlands restoration, enhancement, and creation.

7.5.IA2 Update existing maps and expand the coverage of the JWMP to include wetlands identified by the Corp since 1986 (the date of the Corp's maps used as the basis for the JWMP), particularly forested wetlands. Extend the wetland classification system to these wetlands and include lower value wetlands under a General Permit, as appropriate under the Corp's requirements for General Permits.

7.5.IA3 Provide mechanisms to facilitate protection of high value privately-owned wetlands, such as through conservation easements and tax reductions.

7.5.IA4 Take appropriate administrative actions to protect high-value wetlands on public lands, such as formally designating greenbelts along selected anadromous fish streams and vacating unneeded CBJ rights-of-way.

7.5.IA5 For Category A and B and other high-value wetlands on private lands, provide for the consideration of the wetlands classification and any history of development permit denials during property tax calculations conducted by the CBJ Assessor.

7.5.IA6 Provide flexibility in residential and non-residential development standards, including density standards, to allow developments to be designed to minimize impacts to

wetlands and stream habitats, such as through cluster development, transfer of development rights to select receiving areas, and conservation easements.

7.5.IA7 Develop and maintain a computer database and GIS mapping capability to map and track locally-issued permits, wetlands acreage developed under CBJ permits, mitigation required, mitigation success, and enforcement actions.

7.5.IA8 Assure adequate staffing in CDD to monitor enforcement of mitigation measures and plans to ensure that projects comply with approved plans and conditions placed on local wetland permits. Work actively to enforce violations.

POLICY 7.6. IT IS THE POLICY OF THE CBJ TO RETAIN ALL CBJ-OWNED CATEGORY A AND B WETLANDS IN CBJ OWNERSHIP AND TO MANAGE THEM FOR ENVIRONMENTAL PROTECTION AND PUBLIC EDUCATION. HOWEVER, WHEN DEVELOPMENT OF SUCH WETLANDS HAS BEEN DEEMED BY THE CBJ ASSEMBLY AS NECESSARY FOR THE OVERALL HEALTH, SAFETY AND/OR WELL-BEING OF THE COMMUNITY, SUCH DEVELOPMENT MAY OCCUR WHEN ADEQUATE MITIGATION OF THE LOSS OF SUCH WETLANDS IS PROVIDED.

Implementing Action

7.6.IA1 Identify select degraded wetlands on CBJ lands or on private property with portions of impaired anadromous streams as receiving or target restoration lands, water bodies and resources for Mitigation Bank purposes.

Water Quality

In the CBJ, significant sources of adverse impacts to water quality are "non-point sources" of pollution to surface and groundwater resources. Non-point sources are broad, diffuse sources of pollution or activities that release harmful wastes by being spilled, leaked, leached, eroded or dumped onto land or into the water. Non-point source pollutants can include soil sediment, hydrocarbons, fecal coliform bacteria, heavy metals and other pollutants that are generated through stream bank or upland erosion, urban runoff, off-site sewage system leach-fields, and other common features of our urban and rural landscapes.

These non-point sources are distinct from "point sources" of pollution that are traceable to distinct operations or activities that include manufacturing, industrial activities, and large private and public facilities such as waste water treatment plants. These point sources are currently managed by Federal Environmental Protection Agency (EPA) and State of Alaska Department of Environmental Conservation (DEC) permits.

To effectively protect water quality, the CBJ must control non-point source pollutant sources primarily through land use controls and Best Management Practices (BMPs) applied to development projects and business operations during the permitting process. Non-point source controls and BMPs affect where a development is located, and how it is constructed and operated.

Examples of these controls include selecting a project site that is over 50 feet from open water or that avoids wetlands; placing siltation fences around construction sites; constructing a retaining dike around fuel storage or fueling areas; installing an oil/water separator on storm drains for roads and parking lots; and/or careful storage of snow near drainage systems or anadromous fish streams.

Numerous times in the past DEC has failed in its responsibility to monitor on-site septic systems on rural home sites, resulting in on-site and downstream pollution and health and safety hazardous conditions. Consequently, the CBJ has had to bail out such affected homeowners and neighborhoods at great expense to taxpayers. It is estimated that extending sewer systems to rural areas requires local taxpayers to subsidize about 80 percent of the costs of these improvements.

Since 1988, the provision of CBJ sewer utilities to additional areas within the Mendenhall Valley (Back Loop Road) and North Douglas areas has helped to resolve localized surface and groundwater quality problems formerly caused by failed on-site septic systems. In the coming years, the CBJ will extend sewer service to the Industrial Boulevard and additional North Douglas areas, which will further reduce on-site sewage treatment and the potential for water quality impacts.

The Federal Clean Water Act requires that every two years the Alaska Department of Environmental Conservation (DEC) identify, rank, and assess water bodies with persistent water quality problems. Impaired waters, for which conventional technology-based water quality controls are not expected to bring the water quality into compliance with State water quality standards, may be subject to Total Maximum Daily Load (TMDL) allocations for pollutants. This means that DEC determines the maximum amount of various pollutants that can be in the stream without violating water quality standards, and allocate a proportion of that pollutant load to each pollutant source. This type of allocation process can result in extremely stringent development controls in TMDL watersheds.

DEC continues to review CBJ water bodies that fail to meet state water quality standards. The list of impaired water bodies is updated every two years. Table 3 lists the five 2006-designated impaired water bodies in the CBJ.

The CBJ has entered into a Memorandum of Agreement (MOA) with DEC to cooperate in preparing water quality assessments and watershed recovery plans. The mutual goal is to improve the water quality in these listed streams such that they will comply with State Water Quality Standards and be removed from the impaired listing. It is essential that effective plans be implemented to improve the water quality in the impaired streams--both to improve our natural water resources and the fisheries that they support, as well as to avoid the extremely restrictive development controls that the Federal Clean Water Act will impose if the impairment is not remedied.

Given these importance water quality issues, it is appropriate to address them in a comprehensive planning and land use management context.

Table 3: Impaired Water Bodies within the City & Borough of Juneau, 2006

Water Body	Impaired Category	Pollutants	Sources
Duck Creek	4a	Dissolved oxygen, debris, metals, fecal coliform, habitat modification, turbidity	Urban runoff, landfill, road runoff, land development
Jordan Creek	4a 5	Residues Dissolved gas and sediment	Urban runoff Urban runoff
Lemon Creek	4a	Turbidity, sediment, habitat modification debris	Urban runoff, gravel mining
Pederson Hill Creek (aka Casa del Sol Creek)	5	Turbidity, fecal coliform, petroleum products, habitat modification, sediment	Urban runoff
Vanderbilt Creek	4a	Turbidity, debris, sediment, habitat modification	Urban runoff

Stormwater Management

Non-point source pollutants are carried from their source to the streams by stormwater. Stormwater is the water from rainfall or snow melt that flows across the land surface to a receiving water body. From the point on which it hits the land, it travels a course that eventually leads to streams or lakes and eventually to the ocean. As the water moves across the land, it dislodges and picks up sediment and pollutants. Stormwater management is the control of these pollutants before they enter the stream systems. It is also an effort to reduce erosion, which in turn decreases the amount of sediment entering and filling the streams. The goal of stormwater management is to filter out as many of the pollutants and sediments from the stormwater before they enter the receiving water body and to reduce erosion. Natural stream bank buffers, riparian vegetation and wetlands are excellent storm water purifiers and excel in removal and assimilation of sediments and pollutants.

Any activity that alters the natural vegetation and features of the land surface tends to alter the stormwater runoff characteristics. Traditionally, urban development has been the largest factor in increased stormwater runoff problems. The problems are directly tied to runoff quality, quantity and velocity. Methods employed to increase percolation of surface water into the ground will reduce the amount and speed of flow when it enters the streams. Likewise, natural or mechanical filtering of the water before it enters the streams helps improve the water quality and, thus, helps protect the habitat.

Stormwater runoff from urban development and construction sites is one of the leading contributors of degradation of water quality and habitat in streams and lakes nationwide.

In the past, CBJ has made an effort to reduce stormwater pollutants and sedimentation on a case-by-case basis. However, there are currently five streams that are listed by DEC as impaired water

bodies in the CBJ, and more effective methods and procedures are necessary in order to address this problem.

POLICY 7.7. IT IS THE POLICY OF THE CBJ TO PROTECT, MAINTAIN AND IMPROVE SURFACE WATER, GROUNDWATER AND MARINE WATER QUALITY IN ITS JURISDICTION SO THAT ALL WATERS ARE IN COMPLIANCE WITH FEDERAL AND STATE WATER QUALITY STANDARDS AND CONTINUE TO ALLOW AQUATIC LIFE TO THRIVE.

Standard Operating Procedures

7.7.SOP1 Coordinate the various Comprehensive Plan sections that affect water quality (stream management, wetlands, domestic watersheds, open space/natural areas) to ensure that implementing actions protect and maintain surface and groundwater quality.

7.7.SOP2 Participate with the State of Alaska Department of Environmental Conservation (DEC), the Federal Environmental Protection Agency (EPA), and other relevant regulatory organizations in the development and implementation of water body recovery plans for the listed impaired water bodies in the CBJ, including use of Best Management Practices for protection and improvement of water quality.

7.7.SOP3 Coordinate with relevant regulatory organizations when reviewing projects for local approvals (e.g. subdivisions, land use permits, variances), planning CBJ Projects (e.g. gravel mining, land disposals), or conducting enforcement in the impaired watersheds.

7.7.SOP4 Cooperate with relevant regulatory organizations in monitoring permit conditions, permit compliance and watershed restoration in impaired water bodies.

7.7.SOP5 Incorporate the goal of protecting and improving water quality into the planning, site selection, budgeting, design, and construction of CBJ and State-sponsored capital projects.

7.7.SOP6 Consult with private landowners, industry and the public regarding cooperative approaches to improving water quality in the impaired watersheds.

Development Guideline

7.7.DG1 Assure that stream corridors and surface waters receive greater attention in the local permitting process through application of streamside Best Management Practices requirements and adoption of additional requirements or criteria that protect these areas and waters if needed. One of those BMPs is the appropriate removal and storage of snow in residential subdivisions and commercial developments. Snow should be stored away from streams, preferably in areas where

good vegetative cover will trap excess sediment before entering stormwater systems or waterways. This is particularly important where large surface areas are plowed, such as on Airport property, shopping centers or parking lots near anadromous streams.

Implementing Actions

7.7.IA1 Provide community snow storage areas throughout the Urban Service Area, each containing a filter settling basin to reduce the amount of sediment entering local drainage systems and water bodies.

7.7.IA2 Map the impaired watershed areas and their associated drainage systems on the CBJ GIS system and the Land Use Code Maps to ensure that they are accorded special attention when reviewing permit applications.

7.7.IA3 Participate with relevant regulatory organizations in the development and implementation of water body recovery plans for the listed impaired water bodies in the CBJ, including use of Best Management Practices for protection and improvement of water quality.

Watersheds

Water supplies for domestic uses in the CBJ are a limited resource. The existing domestic water sources are the Gold Creek/Last Chance Basin and the Salmon Creek watersheds. The *Watershed Control Program–Salmon Creek Source* (1993), and the *Watershed Control and Wellhead Protection Program–Gold Creek Source* (1994) were adopted as part of the CBJ Comprehensive Plan to provide guidelines for the protection of the domestic water supply. In addition, the *1994 Update–Last Chance Basin Land Management Plan*, which guides land use activities for the protection of the Gold Creek water source, was also adopted by the CBJ.

Steps must be taken to assure that sufficient high-quality water will be available for future domestic users. Existing and potential sources should be protected from degradation of quality and quantity. Of particular concern is the long-term availability of potable water for future growth areas in Auke Bay, the Mendenhall Valley and on Douglas Island.

POLICY 7.8. IT IS THE POLICY OF THE CBJ TO PROTECT WATERSHED AREAS THAT ARE, OR POTENTIALLY COULD BE, DEVELOPED FOR DOMESTIC WATER SUPPLIES TO PROVIDE AN ADEQUATE SUPPLY OF CLEAN, SAFE DRINKING WATER.

Standard Operating Procedures

7.8.SOP1 Evaluate the potential of local watersheds for surface or groundwater development of municipal water supplies.

7.8.SOP2 Implement the *Watershed Control and Wellhead Program–Gold Creek Source* (1994), the *Watershed Control and Wellhead Program–Salmon Creek Source* (1993) and the *1994 Update–Last Chance Basin Land Management Plan* for the protection of Juneau's municipal water supply.

7.8.SOP3 Certain lands within the CBJ serve as watersheds for potable water supplies and/or potential potable water supplies. The CBJ should continue to designate those lands as Watershed protection areas on the Land Use Maps of the Comprehensive Plan and should limit and control development therein.

Development Guidelines

7.8.DG1 Regulate all development proposals and major activities in watershed areas that have high potential for development as a municipal water source to ensure maintenance of high quality water. Regulate direct discharge from storm-water control devices into designated watershed areas.

7.8.DG2 Prohibit filling or draining of wetlands, bogs and muskegs in designated watershed protection areas if it is shown that such activity could result in degradation of water quality.

7.8.DG3 Permit development that would not result in degradation of water quality.

Implementing Actions

7.8.IA1 Establish Best Management Practices (BMPs) for land use activities permitted within the watershed protection areas that would prevent or mitigate degradation of the watershed habitat or surface or ground water quality from the use of pesticides, fertilizers or other chemicals. The introduction or maintenance of invasive species shall be prohibited by the prohibition of sale or importation of such species. Plant retailers, suppliers, contractors, and the CBJ should post notices and illustrations for the public to understand which plant species are invasive and how to properly eradicate them.

7.8.IA2 Support an effort to map those portions of watersheds that could be a source for domestic water in the CBJ GIS system and adopt appropriate protections for those new watersheds. Development of new water sources for West Douglas Island will need to progress with development of the West Douglas New Growth Areas; other new water sources, particularly for Auke Bay, the Mendenhall Valley, and North Douglas will likely be required after 2025.

7.8.IA3 The City Manager should assign a CBJ agency or division to monitor water quality, particularly within watersheds, and coordinate enforcement activities with State and Federal land management and regulatory agencies.

Air Quality

Air quality refers to the quality or purity of the air we breathe, the quality of the air we see and see through, as well as the absence of harmful, nuisance or annoying sounds or odors that are transmitted through the air.

Although breathable and visible air quality in the CBJ area has generally been high, it can be a serious problem in some areas of concentrated burning of fire places, wood-stoves, outdoor burning of refuse, and the increase of engine emissions from vehicles, cruise ships and aircraft. The Mendenhall and Lemon Creek Valleys are the areas most seriously affected by breathable air pollution, due to air inversions during the winter months. The CBJ has adopted air quality control regulations that prohibit wood-stove burning during periods of poor air quality, provide for emission standards for new wood-stoves, prohibit open burning during the winter, and require construction of energy- efficient single-family homes. The CBJ has also enacted laws to regulate open burning. Another significant effort being made to assure compliance with air quality regulations is through the program to pave residential streets to control dust. As a result of these efforts, the CBJ's air quality is relatively good most of the time.

Noise is a significant problem during the summer season when flightseeing aircraft pass above public waterways, parks, trails and residential areas. The volunteer Tourism Best Management Practices Program (TBMP) seeks to minimize noise impacts from float planes and helicopters, but noise impacts from these non-stationary sources are difficult to control and whether the noise is noticeable, annoying or a nuisance is subjective, and varies from person to person. In neighborhood outreach meetings in the Douglas Island and Mendenhall Valley areas as part of this Plan Update, residents have testified that the noise from numerous flightseeing aircraft during the summer remains annoying despite the efforts of the TBMP. Commercial kennels are difficult to find locations for due to noise from barking dogs. In dense, urban areas, such as Downtown Juneau, some residents complain of noise from stationary sources such as adjacent or nearby commercial cooler and air conditioning units that click on and off 24-hours a day.

Overall, it is appropriate for the CBJ to remain concerned with air quality, including noise levels.

POLICY 7.9. IT IS THE POLICY OF THE CBJ TO CONTINUE EDUCATIONAL PROGRAMS, CAPITAL IMPROVEMENT PROJECTS, AND REGULATORY MEASURES TO PROTECT AND IMPROVE OVERALL AIR QUALITY.

Standard Operating Procedure

7.9.SOP1 Cooperate with the Alaska Department of Environmental Conservation (DEC) in implementing CBJ Chapter 36.40 regarding regulation of pollution from wood stoves and outdoor burning.

Implementing Actions

7.9.IA1 Undertake public transit improvements to reduce congestion and encourage residents to utilize non-fossil-fuel dependent forms of transportation. This would include replacing public and private bus fleets with vehicles that operate on non-fossil fuels, such as batteries that can be recharged with renewable energy sources.

7.9.IA2 Establish a CBJ agency or Division within an existing Department that would monitor air quality and would work with State and Federal regulatory agencies and stay abreast of air quality issues, concerns and technology.

7.9.IA3 Consider establishing limits on, or otherwise regulating, CO_2 emissions in the CBJ.

Noise

An increasing problem in the CBJ, the most significant sources of noise are the airport, flightseeing operations throughout the CBJ, gravel quarrying, and vehicle traffic, although the sustained sound of stationary commercial equipment, such as machine motors, and of people partying, car alarms and barking dogs can be annoying. Noise is any objectionable, annoying, nuisance or harmful sound, although it is subjective to the receptor (person). The absence of noise, characterized as "peace and quiet," has become a recognized asset and value to community well-being. Some significant advancements are being made in the reduction of noise at its source, but noise cannot be eliminated completely. Local, state, and federal agencies, in recognition of this fact, have developed guidelines and procedures to deal with noise in the community land use planning process.

The purpose of considering noise in a comprehensive plan and in the regulation of development is not to prevent development but to encourage development in locations that are compatible with various noise levels. The objective is to guide noise-sensitive land uses away from noise sources and to place tolerant land uses where there is noise. For example, homes, schools and hospitals should not be located near airports, but industrial uses are typically not adverse to aircraft noise. Where this separation of compatible and non-compatible land uses is not possible, measures should be included in development projects to reduce the effects of noise. For example, office buildings located within or near aircraft noise contour areas should be constructed with air conditioning and double- or triple-paned windows, rather than single-paned, operable windows for ventilation.

The primary responsibility for integrating noise consideration into the planning process rests with local government. Noise, like soil conditions, floodplains and other considerations, is a valid land use determinant. Scientific evidence clearly points to noise as not simply a nuisance but also an important health and welfare concern.

POLICY 7.10. IT IS THE POLICY OF THE CBJ TO MINIMIZE THE EXPOSURE OF RESIDENTS TO THE HARMFUL EFFECTS OF EXCESSIVE AND/OR OBTRUSIVE NOISE, AND TO CONTROL THE LEVEL OF NOISE POLLUTION IN A MANNER THAT WILL BE COMPATIBLE WITH COMMERCE AND PUBLIC SAFETY, THE USE, VALUE, AND ENJOYMENT OF PROPERTY, SLEEP AND REPOSE, AND THE QUALITY OF THE ENVIRONMENT.

Standard Operating Procedures

7.10.SOP1 Establish land use patterns that minimize the effects of high-noise generators, particularly in the airport vicinity or near other aircraft landing facilities, near industrial zones,

along major traffic corridors, near shooting ranges and off-road-vehicle tracks, and other similar noisy environments.

7.10.SOP2 Consider noise mitigation when reviewing new roadway improvements. Require berms, sound walls and/or planting strips along highways and major arterials in noise sensitive areas where CBJ regulates. Encourage the Alaska Department of Transportation and Public Facilities (DOT) to leave or provide dense vegetation along roadways in residential areas to absorb traffic noise and dust.

7.10.SOP3 Provide leadership in implementing the CBJ "Fly Neighborly Program," an aircraft operator-supported, self-policing program intended to observe and improve an existing voluntary noise abatement program. Should this volunteer program not satisfy noise concerns of the public, a local noise control ordinance should be developed to require mandatory controls and measurable and enforced mitigation measures per 7.10.IA1.

Implementing Actions

7.10.IA1 Adopt a Borough-wide and/or subarea-specific noise ordinance(s) to provide a mechanism for addressing noise complaints and to ensure that new development does not result in noise complaints.

7.10.IA2 Adopt the guidelines developed in the International Airport Master Plan into the Land Use Code to manage aircraft-generated and airport-related noise impacts on surrounding development, consistent with Federal Aviation Administration (FAA) regulations and local regulations.

7.10.IA3 Consider establishing a new Noise Notification Overlay District that encompasses lands near enough to be affected by uses known to generate nuisance noise, such as: gravel extraction areas, landfill sites, outdoor shooting ranges, airports and heliports. Within this overlay district, property owners should be required to notify prospective tenants and/or purchasers of the presence of these land uses and their potential noise impacts. Also consider amending Title 19, the Building Code, to require adequate noise mitigation in building design and construction within this overlay district.

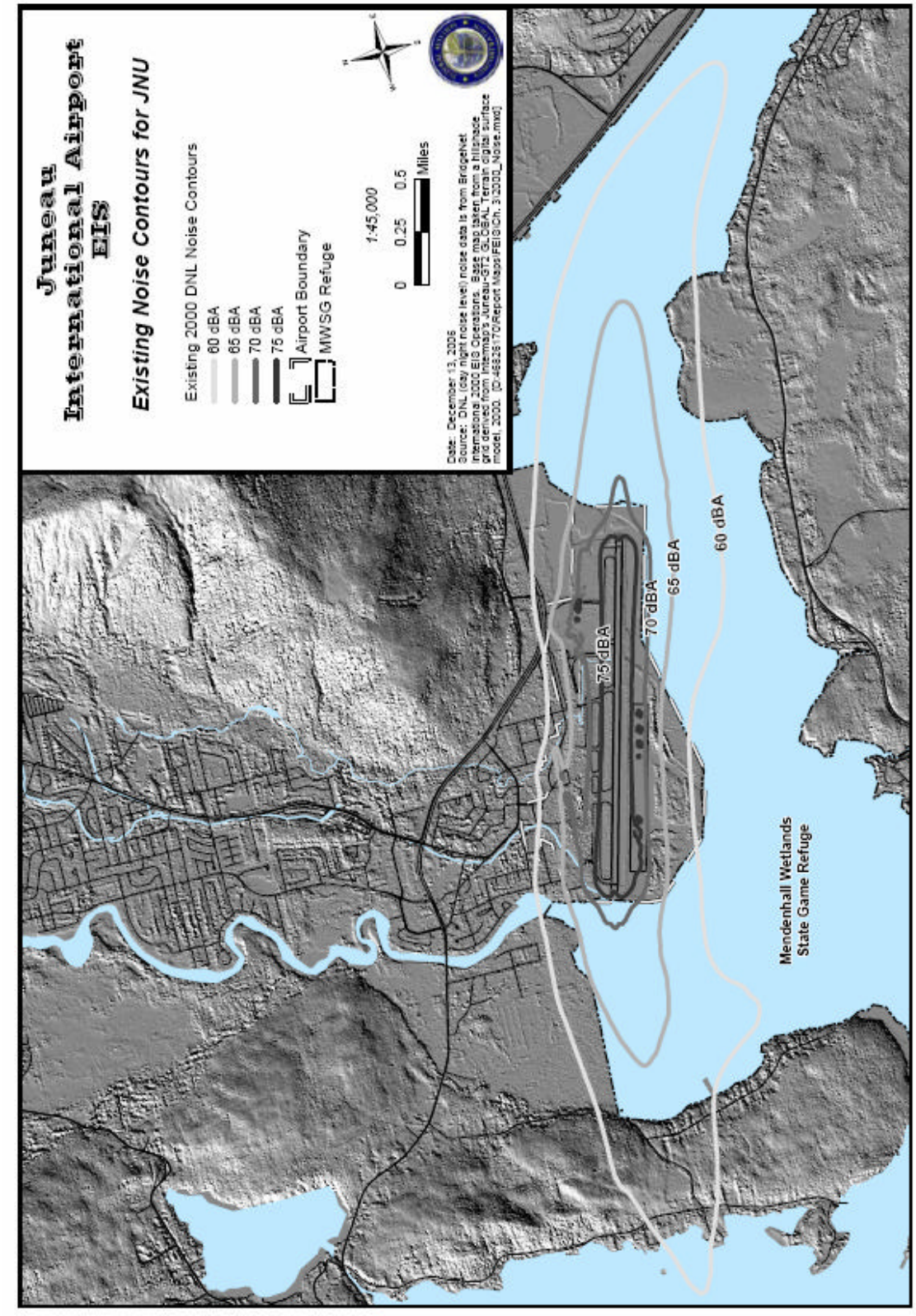
7.10.IA4 Establish special noise attenuation features in the local building code for new construction of habitable structures within areas demonstrating high ambient noise levels of, such that habitable buildings are constructed with materials and by design to attain an interior noise level considered safe and healthy.

7.10.IA5 Initiate development of a Borough-wide or subarea-specific noise control ordinance when noise complaints or other indicators indicate increasing noise pollution and/or community sensitivity to nuisance noise. Such a specific-area noise control ordinance should establish maximum environmental noise levels applicable within designated areas of the CBJ for both stationary (typically equipment, sound systems) and non-stationary noise sources (typically vehicles, human or animal noise). As an example, this may be appropriate for the Downtown Juneau area

or the Lemon Creek subarea where there are high-density residential areas in dose proximity to noisy industrial, commercial, recreational and/or entertainment land use activities (bars, rock blasting and gravel extraction, off-road-vehicle trails).

Airport Noise Contour Map

Source: Juneau International Airport FEIS, Figure 3-3



Habitat Protection

The forests, wetlands, lakes, streams and marine waters of the CBJ are part of a habitat network for fish and wildlife. Each of these areas supports a unique variety of animals. Urbanization often results in habitat fragmentation and degradation, causing long-term damage to animal populations.

The major aquatic habitat types in the CBJ are: coastal marine waters, intertidal flats, estuaries, fresh and saltwater wetlands, creeks, rivers and lakes. These areas contain critical spawning and rearing habitat for many marine species, including salmon, trout, char, herring, halibut, rockfish, clams, mussels, and crab, not to mention the invertebrates, macro-invertebrates, and other species upon which they depend for food.

Development has been accompanied by grading, filling and channeling of waterways, interception and alteration of ground and surface waters, and pollution of the waterways and adjacent riparian habitat. This has caused the degradation of streams and fish resources in the CBJ area. Among the streams most seriously affected, and listed as impaired by the State of Alaska Department of Environmental Conservation (DEC), are Duck, Lemon, Jordan, Vanderbilt and Pederson Hill (aka Casa del Sol) Creeks. Those that retain important fish resource values are listed in the CBJ adopted list of Anadromous Streams and include, among others, the creeks, rivers and lakes with anadromous fishery resources of Cowee, Bridget, Peterson, Tee, Lena, Auke Nu, Waydelich, Auke, Bay, Lake, Montana, McGinnis, Switzer, Lemon, Salmon, Falls, Fish, Windfall, Lake, Steep, Sheep, Neilsen, Grant, Eagle, Kowee, Lawson, Bear, Ready Bullion, Bullion, Nevada, Middle, Hilda, and Petersen Creeks, the Mendenhall, Herbert, and Eagle Rivers, and other named and unnamed creeks.

A prevalent upland habitat type in the CBJ area is the coniferous forest; it also is an important economic asset to the region. Much of this forest habitat is within the Tongass National Forest and is controlled by the U.S. Forest Service. The location and scale of timber harvest can affect the type and amount of fish and wildlife habitat.

Sitka Black-tailed Deer is an important game species whose populations are limited by the availability of wintering habitat. Optimal wintering areas, which are predominantly located in portions of old growth forests, have been identified on Douglas Island and around Lemon Creek. The loss of wintering habitat or the intrusion of human activities and domestic animals lowers the maximum deer population that can be sustained. Two other species, Stellar sea lions and Bald Eagles, have unique requirements because of the Marine Mammal Protection Act, the Endangered Species Act (Stellar sea lions), the Migratory Bird Treaty Act, and the Bald and Golden Eagle Protection Act (Bald Eagles). They are therefore treated separately following this section, as are bears.

In addition to their ecological importance, and in some instances to their value as food sources, fish and wildlife populations of the CBJ are an important natural amenity valued by residents and visitors alike. Some species, such as salmon and herring, are deemed “indicator” or “keystone” species and warrant extra attention by regulatory and management agencies. Indicator species

populations are easily and routinely monitored; changes to their population over time provide an indication of the health of their entire ecosystem. Herring and salmon can both be considered indicator species because their populations are monitored by the Alaska Department of Fish & Game on a regular basis, and as middle-level predators, their populations can indicate the health of the entire ecosystem. Keystone species are crucial to the health of the entire ecosystem; many other species in the ecosystem depend on keystone species to survive, directly or indirectly. Herring are a keystone species in the Inside Passage, because many predators depend on them for food.

Monitoring the health and viability of the habitat of the indicator species, particularly the spawning habitat, will guide us in developing specific interventions to avoid or minimize harmful impacts to that habitat (such as the use of Best Management Practices); this, in turn, will benefit all the species that use that habitat. As herring are both a keystone and an indicator species in the CBJ, protecting their habitat is of great importance to the ecosystem as a whole and to the economy of the CBJ and the Southeast Alaska region due to their relationship with other commercially-harvested species.

Even simple Best Management Practices (BMPs), such as avoiding the introduction and pursuing the eradication of invasive plant species in our yards and gardens, can be critical in protecting the health of our environment.

POLICY 7.11. IT IS THE POLICY OF THE CBJ TO PRESERVE AND PROTECT A DIVERSITY OF FISH AND WILDLIFE HABITAT THROUGHOUT THE CBJ.

Standard Operating Procedure

7.11.SOP1 Urge property owners to protect fish and wildlife habitats, streams and wetlands when designing development projects. Encourage clustering, buffer zones, conservation easements and other design alternatives that could protect fish and wildlife habitat.

7.11.SOP2 Include protection of important fish and wildlife habitats in Capital Improvement Programs and land use planning.

7.11.SOP3 Consult with DEC, ADF&G, NMFS, and any other potentially interested State or Federal resource agency in drafting land use regulations and plans, as well as in permit review for any development that could impact fish or wildlife habitat. Be especially deferential to agency comments on draft regulations, plans, or development permits that could affect herring spawning areas, especially along the east shore of Lynn Canal, Auke Bay, and Gastineau Channel.

Implementing Actions

7.11.IA1 Develop a GIS database to identify natural resources, fish and wildlife habitats, riparian corridors and wetlands. Develop a GIS-based Critical Wildlife Habitat map in cooperation with the Alaska Department of Fish and Game, the Fish and Wildlife Service, and the U.S. Forest Service as an overlay to the Land Use Code maps. Use this map as a guide in managing and

protecting these areas and in identifying un-fragmented fish and wildlife corridors aligned along anadromous streams from the icefield to the sea.

7.11.IA2 Protect important fish and wildlife habitat and assure fauna's access to quality habitat, using a wide variety of tools, including but not limited to: education, incentives (such as conservation easements and tax abatement), development regulations, private donations, tax reductions on lands with conservation easements, or public acquisition. Vary the use of management techniques based upon the size, location, vulnerability, and relative abundance of the fish and wildlife habitat.

Protection from Invasive Species

Many communities in the Alaska interior suffer from Spruce Bark Beetle and other infestations that have destroyed large forested areas and the wildlife habitat therein. In the future, it is reasonable to expect residents to grow their own produce and other food sources. It is also reasonable to expect commercial operators to seek greenhouse and seafood production (aquaculture) of food sources. Great care must be taken to select species of flora and fauna for these activities that are symbiotic with or benign to our native flora and fauna, our microclimates and our soils, and that are energy efficient to grow and harvest. Use of synthetic pesticides and fertilizers should be avoided and invasive species should be prohibited in commercial and household food and fiber production activities.

POLICY 7.12. IT IS THE POLICY OF THE CBJ TO PROTECT LOCAL BIODIVERSITY, INCLUDING NATIVE FLORA AND FAUNA, FROM INVASIVE SPECIES.

Implementing Actions

7.12.IA1 The CBJ should fund or otherwise support a study of the effects of climate change on the potential for invasive species to immigrate and thrive in the CBJ, to the detriment of native species. If this study identifies potential harmful effects of invasive species, the CBJ should undertake aggressive measures to prevent and eliminate this infestation hazard.

7.12.IA2 The CBJ should fund a Borough-wide study of invasive plants to produce an inventory and maps of existing locations of invasive plants on, at least, CBJ lands. This study should include the following elements: (1) development of a priority list of invasive plant species to be targeted for control and eradication throughout the CBJ and a five to ten year plan for achieving that goal; (2) development of a CBJ team within an existing Department or to a contracted non-profit group to coordinate the implementation of that eradication program; (3) development of a prevention plan to identify and address sources of invasive plant species; (4) development and implementation of a public education program to promote awareness of the impacts of and methods to eradicate invasive plant species and to urge retailers not to sell invasive species or to prohibit them from selling them; (5) development of new land use controls to require private property owners to eradicate, or to prevent introduction of invasive species on their

property as part of review and approval of new building or grading permits; and (6) designation of a secure site and procedures for safe disposal of pulled or cut invasive species.

Stellar Sea Lion Habitat

The Stellar sea lion, while apparently healthy in Southeast Alaska, has been listed as threatened in Alaska. Benjamin Island is a major Stellar sea lion haul-out. The island has supported as many as 227 sea lions at one time, according to the 1991 Recovery Plan for the Stellar sea lion prepared by the National Marine Fisheries Service. The primary sea lion haul-out is on the northwest shore of Benjamin Island; however, sea lions use the entire periphery of the island. Major haul-outs such as that on Benjamin Island are considered critical habitat for the species. It is one of only 19 known major (supporting over 200 sea lions) sea lion haul-outs in Southeast Alaska. The site is a popular local sea lion viewing destination and is of growing interest to visitors. Stellar sea lions consume seasonal prey, such as spawning herring, cod, salmon and eulachon, as well as year-round prey, such as pollock, cephalopods, mackerel, flounder, rock sole and sand lance. Threats to the mammal include intentional killings by fishermen, competition with commercial fisheries resulting in reduced prey from over-fishing, toxic substances in sea water and prey, disturbance of fishing areas and rookeries by vessel traffic and tourism, and killer whales.

POLICY 7.13. IT IS THE POLICY OF THE CBJ TO PROTECT AND PRESERVE THE AREAS ON BENJAMIN ISLAND IDENTIFIED AS CRITICAL STELLAR SEA LION HABITAT.

Standard Operating Procedure

7.13.SOP1 Consult with the National Marine Fisheries Service (NMFS) on all development proposals, including commercial marine and aircraft fish and wildlife viewing that could affect the sea lion's use of the island.

Development Guideline

7.13.DG1 Consult with the NMFS and prohibit development that would interfere with critical sea lion habitat including their haul out.

Implementing Action

7.13.IA1 Identify on the CBJ GIS and Land Use Code Maps the publicly and privately-owned land and water areas identified as critical sea lion habitat in the *Stellar Sea Lion Recovery Plan* published by the NMFS.

Eagle Nesting Areas

Bald eagles are present in the CBJ area in large numbers. Alaskan bald eagles are not an endangered or threatened species, but they are subject to the Bald and Golden Eagle Protection Act of 1940 and the Migratory Bird Treaty Act of 1918. Shoreline areas and old growth forest

habitat are prime nesting areas. The U.S. Fish and Wildlife Service (USFWS) recommends a non-buildable buffer zone of at least 330 feet around known eagle nests and retention of shoreline habitat in this vicinity to a depth of one-eighth mile, although certain development activities can occur within the 330-foot buffer zone without risk of violating either Federal Act, if care is taken in those activities.

Locally, adequate protection can be given to this species by protecting nesting areas from conflicting land uses and human activity. An ordinance protecting eagle nests has been codified in the Land Use Code and prohibits construction within 330 feet of an active nest on public land, or within 50 feet of an active nest on private land, provided that there is no construction within 330 feet of such nest between March 1st and August 31st if it contains actively nesting eagles.

There is a generally held perception that the local population of bald eagles is increasing which, if true, may be attributable to an increase in fish in the area and/or a higher-than-expected tolerance of these birds to human presence. In any case, the eagles are still subject to special protection by law and enjoy considerable local affection.

POLICY 7.14. IT IS THE POLICY OF THE CBJ TO PROTECT AREAS SURROUNDING IDENTIFIED EAGLE NESTS FROM CONFLICTING LAND USES.

Standard Operating Procedures

7.14.SOP1 Mature trees that, typically, are suitable for eagle nests should be retained within $1/8^{th}$ of a mile of the coast.

7.14.SOP2 In situations where lands are proposed for private platting next to CBJ-owned lands, and if the private party is willing, the CBJ will consider exchanging land of equal value for those lands within 330 feet of the eagle nest tree and retain it as an eagle management area.

7.14.SOP3 Prohibit the cutting of trees near shoreline areas for the purpose of eradicating nesting eagles or of preventing eagles from nesting therein.

Development Guideline

7.14.DG1 Private land within the eagle management radius should be left undeveloped or subdivided into large lots, the largest of which should contain the nest tree. Roads should be located as far from the nest as possible, preferably landward from the nest tree. Low density residential or open space/natural areas uses should be located within the eagle management radius.

Implementing Actions

7.14.IA1 Amend the Land Use Code to include variance criteria that apply specifically to requests to allow development within the buffer area around a bald eagle nest. Developing these

criteria is of crucial importance in order to allow responsible development within 330 feet of eagle nests, especially those nests that post-date adjacent development. It may be appropriate to adopt regulations for development near eagle nests based on the level of tolerance of the subject eagles to human activity.

7.14.IA2 Designate and map on the CBJ GIS system eagle nest locations and a 50-foot and 330-foot buffer area around the nest. Update this map to include information gathered by the Fish and Wildlife Service in their annual eagle survey.

7.14.IA3 Consider designating as Natural Areas or other low impact land use categories areas where eagles tend to nest in concentrations.

7.14.IA4 Request that the USFWS evaluate the Bald Eagle in the CBJ urban area in terms of population, behavior and tolerance of human presence and activity. Consider any new suggestions from the USFWS for enhancing the presence and health of eagles in the urban area.

7.14.IA5 Support the efforts of a local non-profit eagle rehabilitation facility to rescue, heal and return to the wild, injured or vulnerable eagles and to educate the public as to the health and well-being of the species.

Bear Protection

A recurring problem that may grow as more of the CBJ becomes developed is the tendency of bears to become food-conditioned to human-generated garbage. Many areas of the CBJ sit astride traditional bear pathways or are adjacent to bear habitat. The clear indication is that once a bear becomes conditioned to eating garbage, it is likely to continue pursuing human-related food items. Given a food reward, normally shy bears become more and more comfortable around homes and people, which often lead to conflicts with people and their property and eventually results in the death of the bear.

Changes to laws regarding garbage storage have resulted in a significant decrease in bear-related complaints to the Juneau Police Department (JPD) and the Alaska Department of Fish and Game (ADF&G). Throughout the CBJ, refuse containers are now required to be bear resistant unless they are kept indoors (CBJ 36.20.056). In addition, garbage cans may not be put on the curb until after 4:00 AM on the day of pickup, and all dumpsters must have either metal locking lids or be kept in bear resistant enclosures. Municipal trash receptacles are bear-proof. All of these changes have resulted in fewer bear/human conflicts simply by making it more difficult for bears to access human food waste.

ADF&G coordinates closely with the JPD regarding bear incidents. The JPD patrol officers inform the JPD Community Service Officers (CSO) about bear problem locations so that CSO's can follow up with closer monitoring of garbage storage at those locations. CSO's issue tickets to property owners who do not comply with laws on garbage storage. This enforcement has made a

huge difference in getting the attention of community residents and lessening the number of human/bear conflicts.

In addition, the CBJ, along with the ADF&G and the United States Forest Service, have teamed up to sponsor the "Alaska Bears in Communities" program that provides bear education to students in grades 1, 3, 5 and 7 in the Juneau School District. This effort enhances the knowledge and appreciation of CBJ residents toward bears and leads to a greater stewardship by residents that begins with proper refuse management.

Bears are enjoyed by the community as a natural resource, and in many cases are sources of pride for residents of the CBJ. Accordingly, trapping or destroying bears because they are accessing garbage is upsetting to many residents. With abundant bear habitat and numerous bears adjacent to urban areas, the CBJ will see its fair share of bear activity in and around the community. It is vital, therefore, that the steps taken thus far to limit access to garbage by bears be continued and built upon. The decrease in bear/human conflicts and associated phone calls and reports to the JPD and ADF&G is a testament to the success of the current strategies of managing refuse.

POLICY 7.15. IT IS THE POLICY OF THE CBJ TO PREVENT BEARS FROM GAINING ACCESS TO AND BECOMING CONDITIONED TO THE CONSUMPTION OF HUMAN-GENERATED FOOD AND GARBAGE BY PROVIDING PUBLIC EDUCATION, PROPER MANAGEMENT OF GARBAGE, AND PROTECTION OF THE NATURAL HABITAT AND FOOD SOURCES UPON WHICH BEARS DEPEND.

Standard Operating Procedures

7.15.SOP1 Continue the current effort coordinated with JPD and CDD to monitor compliance with refuse container ordinances and maintain efficient and effective enforcement.

7.15.SOP2 Provide public education and publicity to enlist the community's efforts to prevent bears from gaining access to garbage.

Development Guidelines

7.15.DG1 Place Bear Food Conditioning Avoidance Best Management Practices on permits, as a condition of approval, for development located in or adjacent to bear habitat.

7.15.DG2 Require construction of bear-proof garbage/refuse/recycling storage facilities in proper locations in all new multi-family residential developments and non-residential developments.

Implementing Action

7.15.IA1 Study the feasibility of mandatory garbage pick-up in the roaded area of the CBJ, its costs, and its effectiveness in preventing stockpiled garbage.

Gravel Resources

Gravel resources, essential to construction, are limited to relatively small areas in the CBJ that are also frequently subject to development pressures. Growth and development in the CBJ area have increased demand for sand, gravel and quarry rock. The most extensive deposits of sand and gravel are in the valleys of the Mendenhall, Herbert, and Eagle Rivers, and Lemon Creek. Primary sources of sand are the alluvial deposits within the Mendenhall Valley and areas adjacent to the Gastineau Channel. Rock suitable for quarrying is located throughout the CBJ area. The *Natural Resource Inventory Sand, Gravel, and Quarry Rock* (1978), the *West Lemon Creek Material Resource Assessment* (1985), and *Eleven Potential Borrow Resource Sites Within and Adjacent to the City and Borough of Juneau* (1988) are the primary sources of information regarding the location of these resources. Local builders state that the highest quality gravel material in the CBJ is on land owned by the CBJ.

Development in areas where potential sand and gravel deposits are located can preclude extraction of these resources, both when they are built upon directly and when residential uses are developed nearby. As growth and development continue in the Mendenhall Valley and Lemon Creek areas, pressure for closing existing pits may grow, primarily because gravel extraction operations produce noise, dust, heavy truck traffic, run-off and other impacts that often conflict with surrounding land uses. As this resource is necessary for all types of development, and given the inherent conflict of this heavy industrial use to less intense neighboring uses, it is important to take steps to avoid or minimize land use conflicts.

POLICY 7.16. IT IS THE POLICY OF THE CBJ TO CONSERVE KNOWN GRAVEL DEPOSITS AND TO PROTECT THEM FROM CONFLICTING LAND USES.

Development Guidelines

7.16.DG1 Where residential or other developments with sensitive receptors are permitted next to gravel deposits, require that a general note be placed on the affected subdivision plat and on property deeds and other appropriate title papers which advises prospective buyers of the proximity of the gravel resource, the potential noise, dust and truck traffic associated with its extraction and transport, and the expected number of years that the gravel extraction is expected to last. Sensitive receptors are all developments whose occupants can be harmed or annoyed by noise, dust, fumes and heavy truck traffic.

7.16.DG2 Companies that transport gravel and rock products should be required to travel on roads with adequate heavy load-carrying capacity. Vehicles carrying rock and gravel are required to cover their loads so that the material remains in the vehicle and does not escape to break windshields or harm pedestrians or bicyclists.

Implementing Action

7.16.IA1 Designate known gravel resource areas on the CBJ GIS and Land Use Code Maps.

7.16.IA2 Amend the Land Use Code to require additional review of any permanent structures or other development proposed within untapped gravel resource areas that would preclude the eventual development of gravel resources: allow development if evaluation by a licensed civil engineer demonstrates that significant gravel resources do not exist on a particular site and if development does not interfere with extraction of gravel resources in nearby areas.

HAZARDS

Landslide and Avalanche Hazards

Avalanches and landslides present a very serious threat to human safety and development in some areas of the CBJ, and their nature and severity have been documented in many, but not all, of the hazard areas. Careful evaluation of specific sites and corresponding land use and engineering solutions can help to minimize the risk of disaster.

Avalanches and landslides are discussed together because of their many similarities. Snow slides, or avalanches, are most likely to occur on moderately steep slopes, and although vegetation can prevent avalanches from beginning as long as the vegetation is taller than the snow is deep, vegetation will not stop an avalanche from starting when the snow level is deeper than the vegetation is tall. Landslides or mudslides also typically start in moderately steep areas with little to no vegetation, or where previously-disturbed root systems cannot hold the underlying material (earth, rock, etc.) in place.

The debris and rubble at the base of steep rock slopes consists of soil and rocky materials that were deposited by slow erosional processes and/or sudden large-scale movements of dirt and rock, which may fall as earth/rock-only landslides or which may become entrained in avalanches. These debris slopes are indicative of historical landslides and/or avalanches. Studies of existing data and an analysis of aerial photographs indicate general locations and boundaries of landslide/avalanche areas.

The Land Use Code regulates development in landslide/avalanche areas and allows a developer to challenge the boundary of the avalanche and mass wasting area shown on the maps by submittal of a site-specific engineering analysis. If the Engineering Department is satisfied with the analysis, and the required criteria have been considered, the maps are revised.

The *Juneau Area Mass-Wasting & Snow Avalanche Hazard Analysis* was completed in 1992, but has not been adopted by the CBJ. It attempted to update portions of a study completed in 1972, the *Geophysical Hazards Investigation for the City and Borough of Juneau, Alaska* and its *Technical Supplement*, which provided initial mapping of these hazards. There are still areas needing more detailed study and other areas where landslide and avalanche potential has not

been studied at all. Documented or not, the threats are real and the consequences can be devastating.

POLICY 7.17. IT IS THE POLICY OF THE CBJ TO MINIMIZE THE THREAT TO HUMAN SAFETY AND DEVELOPMENT POSED BY LANDSLIDES (MASS WASTING) AND AVALANCHES.

Development Guidelines

7.17.DG1 If a developer disagrees with the boundaries shown on the CBJ hazard maps, the developer may seek departmental relocation of the boundaries by submitting site-specific studies prepared by a licensed engineer, geologist, or recognized specialist in snow avalanche or mass-wasting behavior, energy, velocity, and destructive potential. Such studies shall include detailed analyses of topography, vegetation, soil and snow conditions, storm and climate analysis, and other factors relevant to the description of the snow avalanche or mass-wasting process. The study must describe how each of the factors was used in re-evaluating the snow avalanche or mass-wasting hazard. The results must indicate hazard boundaries and the physical characteristics of the process (extent, velocity, energy, flow height, impact and depositional loading, etc.).

7.17.DG2 Review any proposed land disposals of CBJ lands in light of their hazard classification; retain ownership of CBJ lands with moderate- to high- potential for avalanche or mass-wasting (landslide).

7.17.DG3 Eliminate from long- and short-range development plans any public facilities that would have the effect of concentrating people in hazard areas, but do not preclude roads through hazard areas.

7.17.DG4 Tax-foreclosed property in the high hazard areas should be dedicated to the CBJ public natural areas inventory.

Implementing Actions

7.17.IA1 Designate areas of moderate and high landslide/avalanche hazards as being subject to such threats on the CBJ GIS database and maps as well as the Land Use Code Maps.

7.17.IA2 Designate all public lands located in hazard areas as Hazard Areas (HA) on the Comprehensive Plan Maps. Include all CBJ land in hazard area in the Parks and Open Space/Natural Areas Plan.

7.17.IA3 Complete the reassessment of hazard areas and include all areas of the original 1972 study that were not included in the 1992 study, including the Downtown Juneau waterfront area. Complete detailed mapping of the White Subdivision, Thunder Mountain and Thane Road hazard areas.

7.17.IA4 Provide mitigating standards in the Land Use and/or Building Code for development in landslide and avalanche hazard areas based on the 1972 and the 1992 studies. These standards may include dissipating structures or dams, appropriate structural and special engineering, or other techniques that respond to the specific hazards of the site. All development in the hazard areas must include mitigating measures that respond to the specific hazards of that site.

7.17.IA5 The CBJ should, to the greatest extent practical, acquire properties lying within areas designated as having high mass wasting or avalanche hazard potentials; these CBJ lands should remain undeveloped.

7.17.IA6 Amend the Land Use Code to prohibit industrial and resource extraction activities in high landslide or avalanche hazard areas unless it is determined that these activities will not increase the threat of landslides and avalanches on nearby lands.

7.17.IA7 Amend the Land Use Code to require a hazard threat study for proposed development in areas outside of mapped hazard areas if the property shows potential for containing or being affected by such threats.

Earthquakes

The nearest known active seismic fault is the Fairweather, approximately 100 miles west of Juneau. Lynn Canal, Chatham Strait and the Gastineau Channel are classified as having major, though presently inactive, faults. Studies by the U.S. Army Corps of Engineers have indicated that Juneau is in a Seismic Risk Zone 3, in which major damage to structures from an earthquake equal to or greater than 6.0 on the Richter scale may occur. In the past 50 years, there have been at least five earthquakes of this magnitude within 125 miles (the range at which damage from such an earthquake might occur) of Juneau.

Flooding

Flooding occurs with relative frequency in the CBJ. It is a natural event that becomes a problem only when it threatens human health, safety, or development. Appropriate land use designations and development requirements can help minimize the potential of flood damage and threats to human health and safety. It is important to distinguish between the floodway, which is the main channel that is essential to the rapid drainage of floodwaters, and the floodplain, which is an area floodwaters may cover. Additionally, coastal flooding can occur as a result of high winds and high tides that create storm surges and wave run-ups.

Floods occur when climatic factors and development activities alter natural flow conditions in flood prone areas. Warm rainfall on a heavy snow pack or periods of heavy melting contribute to high stream flows and may result in flooding. The most serious flooding (that which threatens human safety and development) occurs when peak stream flows coincide with high tides.

Development, such as roads and buildings, creates impermeable surfaces that cause increased volumes and rates (velocity) of stormwater runoff. Stream crossings and under-sized culverts that are blocked by stream debris or ice restrict the passage of storm flows and can cause flooding.

Construction in floodways is dangerous to human life and property and further increases flooding potential and is, therefore, prohibited. In the 100-year floodplain, development should be prohibited unless measures that mitigate potential on-site and development-induced upstream and downstream hazards are undertaken.

The current floodplain requirements in the Land Use Code have been developed to comply with the Policy below and with the requirements of the Federal Emergency Management Agency (FEMA) so that local property owners can maintain eligibility under the National Flood Insurance Program. This insurance is available anywhere in the CBJ and is mandatory for any financing of property in Flood Hazard Areas if the loan has federal origins.

POLICY 7.18. IT IS THE POLICY OF THE CBJ TO PROHIBIT RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL DEVELOPMENT IN FLOODWAYS, TO REGULATE DEVELOPMENT IN FLOODPLAINS, AND TO MAINTAIN A PROGRAM OF EDUCATION, ASSISTANCE, AND INFORMATION IN ORDER TO MAINTAIN ELIGIBILITY FOR THE NATIONAL FLOOD INSURANCE PROGRAM FOR THE BENEFIT OF LOCAL PROPERTY OWNERS AND THE LENDING INDUSTRY.

Standard Operating Procedure

7.18.SOP1 Use the floodway and floodplain boundary lines outlined on maps prepared by FEMA as the basis for defining flood boundaries.

Development Guideline

7.18.DG1 Apply the Flood Hazard Provisions of the Land Use Code to development proposals in the 100-year floodplain that increase flood danger, and prohibit commercial or industrial storage of toxic chemicals or materials in the 100-year floodplain.

Implementing Action

7.18.IA1 Designate, on the CBJ GIS maps and Land Use Code Maps, areas within the 100-year floodplain but outside floodways as public open space/natural areas or stream corridor protection areas if the subject land is in public ownership.

Hazardous Materials

Federal law requires information-sharing regarding extremely hazardous material. This law is known as the Emergency Planning and Community Right-to-Know Act. It is intended to encourage and support emergency planning efforts at the state and local level and to provide communities with information concerning potential chemical hazards. In addition, the federal

government is required to identify and investigate potential hazardous waste sites within the community and enforce cleanup if the existing materials are considered hazardous.

In the early 1990's, municipalities were required to take responsibility for household hazardous wastes. In September of 1992, an assessment for disposal of household hazardous wastes was added to the utility billings in the CBJ. At present, the household hazardous waste disposal program is contracted by CBJ to a private contractor and is offered bi-monthly.

There is clearly a local responsibility to be aware of the location, nature, and potential effects of hazardous materials and to minimize the possibility of injury, death and property damage from the inappropriate storage, use, disposal, or release of such materials.

POLICY 7.19. IT IS THE POLICY OF THE CBJ TO ASSIST IN THE IDENTIFICATION AND MITIGATION OF IMPACTS ASSOCIATED WITH HAZARDOUS MATERIALS.

Standard Operating Procedures

7.19.SOP1 Cooperate with State and Federal agencies in the investigation of hazardous waste sites.

7.19.SOP2 Provide managed hazardous and pharmaceutical waste disposal opportunities.

7.19.SOP3 Provide information to the public regarding managed hazardous waste disposal opportunities.

Development Guideline

7.19.DG1 When applicable, require safe, alternative (off-site) siting of more than a weekly supply of hazardous materials for businesses, and/or a Best Management Plan with appropriate mitigation measures in the event of a failure of these measures when approving permits for new development.

Implementing Actions

7.19.IA1 Collect, map on the GIS system, and assess data on the type, amount and location of hazardous materials in the community. This information is to be made available to emergency service personnel for use in developing proper care and storage Best Management Practices for each hazardous materials user, and in planning and implementing an emergency response program for each site.

7.19.IA2 Consider adopting an ordinance to control the transportation of explosives and ammunition through congested areas of the CBJ, particularly downtown Juneau, and to limit the time during which such materials may be transported in order to minimize the risk to visitors to and residents of Juneau posed by such materials.

Litter and Junk

The general CBJ activity of devising and enforcing rules against litter and inappropriate stockpiling of junk has been gathered under the program name "Junk Busters." The program embraces the efforts of the Community Development Department, the Police Department and work by associated contractors and organizations. Television, radio and newspaper advertisements have been developed to promote understanding of litter laws, encourage participation toward solving litter-related problems, and to let the public know what to do if there is a problem. A Junk Busters hotline was established in 1994 that provides three services: Submittal of litter and junk complaints 24 hours a day; a recorded message about current recycling opportunities available in the CBJ; and recorded information about household hazardous waste and waste oil disposal.

Litter Free, Inc. is a non-profit organization with a broad spectrum of volunteers from the community. The CBJ has provided them with a yearly donation to aid their efforts toward coordinating volunteer and non-profit organization cleanups of public areas in CBJ. In addition, the CBJ assists in the annual spring cleanup sponsored by Litter Free, Inc.

Another component of the Junk Busters program addresses illegal dumping. Illegal dumping on public land is reported to CBJ and an investigation of violators is initiated. If investigators are unable to find the culprits or unable to get them to clean up, and when all other methods have failed, the CBJ cleans up the property and, if the violation occurs on private property, recovers the cost through a property tax lien.

Success in these efforts can be defined in two stages. The first is evidenced by the large amounts of refuse being gathered and properly disposed represents the cleanup of both current and long-standing litter and junk problems. The second is demonstrated by a history of steadily reduced amounts of material that has to be gathered, indicating that the community is making progress toward the goal of preventing litter and junk in the first place.

POLICY 7.20 IT IS THE POLICY OF THE CBJ TO CARRY OUT AND IMPROVE PROGRAMS THAT WILL BOTH REDUCE AND ELIMINATE LITTERING AND ACCUMULATION OF JUNK WITHIN THE CBJ AS WELL AS CLEAN UP SUCH MATERIAL WHEN IT IS FOUND.

Standard Operating Procedures

7.20.SOP1 Support a marine cleanup program, including community awareness to discourage use of disposable plastics.

7.20.SOP2 Support non-profit, anti-litter organizations such as Litter Free, Inc. to organize and coordinate community clean up events and standard operating procedures.

7.20.SOP3 Update and improve litter and zoning ordinances that will result in improved community appearance.

7.20.SOP4 Provide information to the public regarding recycling opportunities and the use of recycled or recyclable materials such as cloth shopping bags instead of plastic ones.

Implementing Actions

7.20.IA1 The CBJ should implement the *Final Solid Waste Management Strategy for the City and Borough of Juneau*, as adopted on November 29, 2007 and amended January 7, 2008.

7.20.IA2 Revise the Land Use Code to limit the number of unlicensed or inoperative vehicles allowed on residential property.

7.20.IA3 Investigate, with the business community, a cost effective method for disposal of recyclable materials.

7.20.IA4 Evaluate the need to provide additional facilities for waste oil disposal.

CHAPTER 8. TRANSPORTATION

A safe, efficient, convenient and interconnected transportation system facilitates the movement of people and goods to and within the CBJ while conserving land resources and energy as well as reducing air pollution. Timely and coordinated multi-modal transportation improvements to the current system are necessary to improve the livability of existing neighborhoods where such improvements have not kept up with previous growth and are needed to support the growth patterns envisioned in this Plan. This is particularly true for the provision of public rapid transit to serve affordable housing units within the Urban Service Area and for workers commuting to Downtown Juneau. The CBJ completed an Area Wide Transportation Plan (AWTP) in 2001. The AWTP's top six priority transportation system improvements are paraphrased below for reference.

1. Establish and implement Transportation Demand Management Policies throughout the CBJ focusing on reducing single-occupant-vehicle (SOV) trips and promoting alternative modes of travel such as transit, carpooling, car-sharing, bicycling and walking. These policies should also focus on encouraging telecommuting, flexible work schedules, and be presented as regulations, conditions of approval of use permits, and as incentives;

2. Increase frequency of transit service throughout the urban and suburban areas with express bus service provided from Auke Bay to Downtown Juneau with a link to Downtown Douglas;

3. Develop Local Street Connections/Access Management. The Plan seeks to develop local street connections between subdivisions and adjacent local or collector streets to maximize connectivity and minimize local vehicle trips on principal roadways. Where feasible, connect streets for pedestrian, bicycle and vehicle use. Improve connections from neighborhoods to a regional (interconnected Borough-wide) non-motorized trail system;

4. Establish and maintain Bicycle Lanes, Pathways, Sidewalks and Bus Stops where they are needed. Maintain bicycle lanes, pathways, sidewalks and bus stops with regular re-striping, re-surfacing, street sweeping and snow removal;

5. Enhanced Routes to School Program. The Alaska Department of Transportation/Public Facilities (DOT) funds enhanced routes to school programs to construct sidewalks and/or bicycle lanes and recommends sidewalks on one or both sides of a street, as appropriate, in all medium-to-high- density commercial or residential subdivisions. Throughout the urban and suburban areas of the CBJ, school buses should be provided pull out areas along their routes where operators can pull out of the travel way to allow other vehicles to pass; this will significantly reduce travel times for many peak hour motorists.

6. Seek Federal funds for local transportation needs such as trails, pedestrian safety facilities, bike lanes, scenic enhancements and local transit improvements as well as

roads and other vehicle transport-and parking-related improvements; all of these elements should comprise a coordinated transportation system and program. Federal funding of local improvements must be identified in the DOT Needs List in order to be included in the Statewide Transportation Improvement Program (STIP); the STIP identifies local improvements also funded and implemented by the DOT.

Many of the Implementing Actions described below must be included as improvements in the next two-year STIP before they can be considered for funding. Oftentimes, a single needed roadway improvement waits ten to twelve years before it is funded, designed and constructed. This waiting period encompasses the entire planning horizon of this Plan Update. As such, the approach this Plan takes in identifying more intense use of transportation facilities, and adjacent land uses, is a conservative approach that seeks to minimize impacts on existing transportation systems and facilities that would result in a noticeably lower level of service, lower standard of living, and reduced livability of neighborhoods and communities. In other words, the Plan focuses new development on vacant lands located along public transit routes instead of on vacant lands located within neighborhoods that already have congested roadway intersections.

Other Relevant Adopted Plans

Many of the transportation problems discussed in this chapter are analyzed and recommendations are proposed in the following relevant documents that have been adopted by the CBJ Assembly and which should be reviewed, along with any adopted updates, when considering capital improvements and/or permit applications:

- CBJ Area Wide Transportation Plan, Volume 1, Transportation Plan Recommendations, July 2001, Community Development Department;
- CBJ Capital Transit Development Plan, 2008;
- Juneau Non-Motorized Transportation Plan, September 1997, Parks and Recreation Department;
- The Juneau Trails Plan, January 1993, Parks and Recreation Department in cooperation with the Alaska State Parks Department and the U.S. Forest Service;
- The Long Range Waterfront Plan for the City and Borough of Juneau, November 2004; and
- New and updated plans adopted by the Assembly should also be reviewed.

LOCAL TRANSPORTATION SYSTEM

With the exception of the Mendenhall Valley, existing development in the CBJ is essentially linear; that is, development is confined to narrow benches of land on either side of Gastineau Channel and the east side of Lynn Canal. Most development sites are interspersed within and throughout lands that are not buildable due to terrain, forested lands, streams, wetlands or other environmental assets and constraints. This makes provision of transportation facilities comparatively more expensive than in other more compact areas, where arterial roads can serve more homes or businesses per mile of length. Traffic congestion caused by community growth,

recreation and tourism-related activities has increased in the Auke Bay, Mendenhall Valley, Downtown Juneau area and other corridors in the CBJ. The CBJ has identified a general list of transportation-related problems which include:

1. *Key roadway intersections and bridge capacities are overburdened and inadequate to support increased development in the Mendenhall Valley and on Douglas Island*. The signalized intersection of Egan Drive and Mendenhall Loop Road experiences the lowest and most congested Level of Service (LOS F) in the peak morning commute period (2003 DOT data) and 16 non-signalized intersections experience unacceptable levels of service (LOS D or worse) in the Mendenhall Valley, Glacier Highway and Egan Drive Corridors. Traffic congestion at 10th Street and Egan Drive is at a LOS E and F during the peak morning commute period and Cordova Street and Douglas Highway is at LOS F in the peak morning period. Motorists in areas with LOS D, E, or F experience significant delays in their commute times; those neighborhoods cannot accommodate additional peak hour single-occupancy vehicle traffic related to increased development without noticeable decreased livability and quality of life. In those areas, staggered work hours for Downtown workers, roadway and intersection improvements, and transit improvements are needed and should be analyzed, budgeted and included within the Department of Transportation/Public Facilities (DOT) Needs List for subsequent listing in the State Transportation Improvement Program (STIP) as soon as possible to await their turn in the STIP funding cycle;

2. *A shortage of buses*. Additional Capital Transit bus vehicles are needed and, particularly, the longer "articulated" buses are needed to adequately provide convenient express bus service for commuters traveling to major employment centers;

3. *A shortage of marine industrial port facilities*. This limits the number and type of vessel repair and commercial fishing services that can be provided in the CBJ;

4. *Incomplete and dangerous pedestrian and bicycle circulation systems*, including inadequate sidewalk space in Downtown Juneau during the summer visitor season;

5. *Street pavement marking materials/technology that is inadequate for the CBJ's climate*; and

6. *Lack of coordination of transportation plans, facilities and resources among local agencies and private operators*.

Vehicle Transport

It is critical that the CBJ provide an efficient roadway system that facilitates traffic flow within and between major population centers, including the Valley, Auke Bay, and Douglas Island, as well as to and within Downtown Juneau, the CBJ's employment, cultural, and tourist center.

POLICY 8.1 IT IS THE POLICY OF THE CBJ TO PROMOTE A BALANCED, WELL-INTEGRATED LOCAL MULTI-MODAL SURFACE TRANSPORTATION SYSTEM THAT PROVIDES SAFE, CONVENIENT AND ENERGY-EFFICIENT ACCESS AND TRANSPORT FOR PEOPLE AND COMMODITIES.

Standard Operating Procedures

8.1.SOP1 Provide a safe, convenient, reliable and low-cost public transit and rapid transit system within the Urban Service Area to ensure that everyone has the ability to access work, school, services, shopping and leisure activities by public transit.

8.1.SOP2 Maintain the CBJ overall and subarea transportation plans and ensure their consistency with other relevant CBJ Plans, including the Comprehensive Plan, the Parks and Recreation Comprehensive Plan and the Capital Improvement Plan and Program.

8.1.SOP3 Provide public transit services to low- and moderate-income neighborhoods and support supplementary transit service for the elderly, handicapped and homeless residents seeking work or medical or social services.

Development Guidelines

8.1.DG1 Require dedication of all rights-of-way and easements, including those for trails, roads and transit corridors and facilities on subdivision plats and development plans as determined to be appropriate by the Planning Commission for that development. Obtain commitments to construct trails and local and collector roadway improvements from private developers when projects are approved, and ensure that those improvements are complete prior to issuing building permits on adjacent properties within that development.

8.1.DG2 Review, implement and maintain adequate development standards for major subdivisions and major developments to ensure safe and convenient vehicular traffic and to provide safe pedestrian and bicycle access internal to the subdivision/development as well as to ensure a Level of Service of D or better for roadways and intersections serving the development.

8.1.DG3 Designate corridors for potential road corridors on the Comprehensive Plan Land Use Maps to establish a basis for subsequent site-specific studies, which also address the mitigation of associated environmental impacts through proper location of the actual right-of-way.

8.1.DG4 Minimize access roadways or driveways onto major and minor arterial roadways or highways by requiring shared access points, such as a frontage road, and connections to adjacent subdivisions' roadways that lead to a "downstream" controlled or grade-separated intersection.

Implementing Actions

8.1.IA1 Update the list of needed roadway, intersection, bridge and pedestrian/bicycle pathway improvements according to priority, cost, and potential funding, and incorporate it into the CBJ's capital improvement plan and the Alaska Department of Transportation/Public Facilities Needs List. Priority for improvements should be given to improve Bus Rapid Transit corridors, transit Park and Ride facilities, and to roads, bridges and intersections within the Urban Service Area where vacant lands can accommodate higher-density affordable housing if and when such improvements are made to accommodate this development and to improve Levels Of Service to D or better.

8.1.IA2 Consider the concept of Bus Rapid Transit (BRT) or other dedicated express bus service throughout the Urban Service Area in future Transit Development Plans and related plans and studies in order to provide faster service between major trip origins and destinations.

8.1.IA3 Update, adopt and implement the Capital Transit Development Plan. Elements of an updated plan may include, but are not limited to the following:

A. Providing all day express bus service to facilitate the movement of people between Downtown Juneau and other major destinations in the CBJ;
B. Expanding Capital Transit to provide service on all holidays;
C. Providing additional bus service to reduce overcrowding on buses;
D. Providing bus pullout areas at bus stops to avoid impeding the roadway travel lanes with requirements for motorists to immediately allow buses to re-enter the roadway upon their signaling to re-enter. School buses should also use these bus pullouts;
E. Exploring the feasibility of a Mendenhall Valley shuttle service linked to Downtown by express buses, powered by non-fossil fuels, hybrid technology, or other systems consistent with the CBJ's commitment to sustainability;
F. Providing a downtown circulating shuttle service, serving the Central Business District. Evaluate the feasibility of serving the Federal Building, the Rock Dump, and other popular trip destinations and origins in the downtown area with this shuttle service;
G. Evaluating the best locations and size for Park & Ride facilities and purchase of the land or easements on the land for future improvements. When residential densities warrant, develop the Park & Ride facilities where they can serve commuter traffic from residential areas. These facilities would be in the form of satellite parking areas served directly by transit routes that would provide convenient access and express service to Downtown Juneau for residents living significant distances (more than a quarter mile) from existing transit routes. Likely areas that could be served by Park & Ride facilities would be the Mendenhall Valley north of Egan Drive, and areas beyond the University of Alaska Southeast if significant population increases occur in that area; and
H. Providing a mix of transit vehicle sizes powered by non-fossil fuels or hybrid fuels to promote cost efficiency and to provide flexibility in service.

8.1.IA4 Identify, map and designate on the CBJ GIS system and in Land Use Maps of the Comprehensive Plan a Bus Rapid Transit alignment for which the CBJ should purchase and/or maintain an adequate easement or right-of-way for travel lanes, park & ride facilities, and transit stops and transfer stations.

8.1.IA5 Along the identified Bus Rapid Transit route alignment for the CBJ, identify potential transit and transfer stops or nodes and re-zone land around those nodes for high-density residential and/or mixed use and employment centers to facilitate the convenient and efficient use of the BRT or transit system. The rapid transit system would, ideally, link the Ferry and Airport transport systems to a "chain" of transit nodes representing major destinations such as shopping centers, transit-oriented residential or mixed use developments, schools and the University, the hospital, major recreation or cultural destinations, major employment centers, and Downtown Juneau.

8.1.IA6 To reduce the demand for land-consuming parking spaces, reduce use of fossil fuels, and encourage the use of public transit, the CBJ should urge Downtown federal, state, and local government agencies, as well as private-sector employers to participate in a Coordinated Downtown Transportation Management Program managed by CBJ staff or a third party. The program could include, but would not be limited to, the following features:

A. Free or heavily discounted transit passes to area employees;
B. Improved bus service, including a downtown circulator shuttle;
C. Completion of a downtown transit center complex.
D. Organized vanpools and carpools;
E. Convenient and free parking for car- and van-pool vehicles, preferential parking for car-sharing, electric, hybrid and other alternate fuel-powered or multiple-user vehicles;
F. Re-instituting metered parking Downtown to discourage long-term on-street parking;
G. Instituting residential parking programs to discourage commuting motorists from long-term on-street parking in residential neighborhoods;
H. Satellite parking within shuttle distance to major destinations in Downtown Juneau.
I. Working with the State of Alaska to allow off-hour parking in State parking facilities and lots to ease evening and week-end event parking congestion;
J. Increasing parking enforcement, as nearly all of these parking-related actions require enforcement or they will be of minimal utility;
K. Coordinated, perhaps mandatory, staggered or flexible work hours for area employees to avoid peak hour traffic;
L. Provision of safe pedestrian and bicycle routes throughout the Downtown; and,
M. Provision of secure, dry bicycle storage as well as shower and locker facilities for commuting cyclists.

8.1.IA7 The CBJ should investigate the feasibility of providing light or heavy rail public transit service, powered by renewable energy sources, linking existing and new neighborhoods of Douglas Island with the mainland and, in the future, to the Alaskan interior. The analysis of the feasibility of such a Borough-wide rail transport system should consider the life-cycle costs of design, construction, environmental mitigation and monitoring, as well as operation, maintenance costs.

8.1.IA8 Construct or complete the improvements and planning documents called for in the Area Wide Transportation Plan as funding becomes available. Where there is a public need for those improvements in the immediate future, actively pursue the funding needed to complete those improvements.

Non-Motorized Means of Transportation

Improved pedestrian and bicycle movement within and between major shopping and employment centers, schools and other concentrations of population are needed. Pedestrian and bicycle facilities are needed to provide safer and more efficient movement within and between neighborhoods and major concentrations of population. These facilities are also important as an aspect of recreation.

Despite its contribution to congestion, air pollution, expense, accidents and inefficient use of energy, the private automobile remains the favored mode of transportation by the majority of CBJ residents. In the most recent traffic capacity analyses by DOT, nine of the intersections serving the Mendenhall Valley and seven intersections providing access on Douglas Island are overcrowded and are operating beyond their design capacity, and were at Levels of Service (LOS) D, E, and F, where LOS D or better (A, B, or C) is considered adequate capacity. Due to these existing congested intersection conditions, new residential development within those neighborhoods is either prohibited by current zoning standards or is limited to very small in-fill development such as bungalow homes on small, scattered lots.

To accommodate new development, particularly that of affordable housing, the CBJ should encourage and support the provision of alternative transportation opportunities. The most significant impact results from increasing the patronage of public bus service, augmented by commuter carpools and vanpools. Bicycling is an alternative for shorter commuter and shopping trips as well as recreation many months of the year and should be encouraged within and between all major concentrations of population and development.

Other sections of the Comprehensive Plan address transportation facilities and issues more specifically; these are found in Chapters 10 (Land Use) and 11 (Land Use Maps and Subarea Guidelines).

Transit First Policy

The CBJ's Capital Transit public transit system provides transport services to about 3,000 riders on a typical weekday. About one million times a year a passenger boards a Capital Transit bus. In May 2001, Capital Transit implemented a 30-minute service (headway) on many of its routes, which resulted in an 18% increase in ridership over the previous year. The system is patronized heavily by government office workers commuting between Downtown and Douglas Island, Lemon Creek and the Mendenhall Valley. The system accommodates approximately 8 to 10 percent of the commuter work force in the Downtown area and, with some fleet, route and station improvements, has the potential of displacing a substantial portion of the total vehicular trips made in the CBJ. A number of recommendations in the *1996 Capital Transit Development Plan*, the *2003--2008 Draft Capital Transit Development Plan and Transit Improvement Program*, and the *2008 Transit Development Plan, Transit Improvement Plan, Downtown Circulator Shuttle Feasibility Study, and Coordinated Human Services Transportation Plan* would improve the convenience and quality of transit service. This would increase ridership, would reduce fossil fuel consumption by Single-Occupancy-Vehicles (SOV) and their related air pollution, and could be expected to lessen overall congestion of CBJ roads, intersections and bridges, thereby reducing commute times and improving the quality of life of all travelers, including transit passengers, other High Occupancy Vehicles (HOVs) passengers, such as carpoolers, as well as the remaining SOV motorists.

Increased numbers of transit vehicles are needed to accommodate commuter ridership to Downtown Juneau. Implementation of improved express bus service (over 2008 levels), Bus Rapid Transit (BRT), or other improved transit service along Glacier Highway and Egan Drive should be followed by zoning amendments to accommodate higher residential and employment densities along these transit corridors. Higher residential and non-residential densities along transit corridors will improve the efficiency and reduce the cost-per-passenger of the transit service therein. Typically, 25 to 30 residential units per acre or more would adequately support a BRT or other increased transit service.

Other transportation options, such as car-pooling and formal car-sharing programs should be investigated for feasibility within the Urban Service Area.

The *2008 Transit Development Plan, Coordinated Human Services Transportation Plan*, and the related plans and studies in that document make numerous recommendations for improving transit service in the CBJ, including extending the regular and express service day, adding express service to Sundays and Holidays, and serving emerging residential and commercial areas as well as the Alaska Marine Highway ferry terminal at Auke Bay and the Juneau International Airport. Notwithstanding these valuable upgrades of the system, a successful transportation system depending on a public transit system includes a number of private and public-sector sponsored travel options, including:

- park & ride facilities at transfer station locations;
- "dial-a ride" para-transit programs (such as the Care-A-Van program);
- residential parking permit programs in the neighborhoods around Downtown Juneau;
- higher parking rates for day-long parking in the Downtown Juneau area;
- private taxi service;

- secure storage for bicycles at transit stops and major destinations; and
- residential densities of 25 units per acre or greater along express bus routes to support convenient bus service.

The 1996 Capital Transit Development Plan offers policy statements that are excerpted below for reference, as they were also the guiding statements in developing the 2008 Transit Development Plan:

- Provide an attractive alternative to the private vehicle to reduce their presence in the community and especially in the Downtown Juneau area;
- Provide safe, reliable, low-cost transportation to ensure that everyone has the ability to access and participate in community life;
- Implement service in a manner consistent with the promotion of efficient use of urbanized lands;
- Make special efforts to meet the transportation needs of the elderly and persons with disabilities;
- Work to ensure that the need for transportation services at the Juneau International Airport and the Auke Bay Ferry Terminal are met; and
- Explore, and implement when feasible, innovative transportation systems including the potential for future fixed guide-way applications, such as electric-powered trolleys.

POLICY 8.2 IT IS THE POLICY OF THE CBJ TO PROMOTE AND FACILITATE TRANSPORTATION ALTERNATIVES TO PRIVATE VEHICLES AS A MEANS OF REDUCING TRAFFIC CONGESTION, AIR POLLUTION AND THE CONSUMPTION OF FOSSIL FUELS, AND TO PROVIDE SAFE AND HEALTHY MEANS OF TRANSPORTATION TO ALL PEOPLE.

Development Guidelines

8.2.DG1 Require sidewalks and bicycle paths or lanes along newly constructed arterial and collector streets where appropriate, and provide or work with DOT to provide such amenities along existing roads to provide safe and efficient access and recreation and to reduce pedestrian/automobile conflicts.

8.2.DG2 Provide sidewalks and bicycle paths in and around the expanded campus of the University of Alaska Southeast, particularly in conjunction with the construction of student housing in the Auke Bay area.

8.2.DG3 Require sidewalks and bicycle paths along roadways where higher-density housing is to be provided as a condition of a rezoning application for higher densities.

8.2.DG4 Provide secure, weatherproof bike parking and storage facilities at public buildings and in private developments, particularly developments located along transit corridors.

8.2.DG5 Require that cul-de-sacs and other dead-end streets be connected to neighboring dead-end streets and through-streets with pedestrian and bicycle paths wherever practical in new developments in order to create non-motorized transportation networks for neighborhood residents.

Implementing Actions

8.2.IA1 Complete and/or upgrade a continuous separated bicycle/pedestrian pathway between the Mendenhall Valley and downtown Juneau by connecting those portions now existing.

8.2.IA2 Work with the Alaska Department of Transportation/Public Facilities (DOT) to construct sidewalks and/or separated paths, or where these are not practical, a wide shoulder of at least 36" along roads that lack such improvements, with a priority given to those corridors which have Average Annual Daily Traffic (AADT) of 4000 vehicles or more. According to DOT 2005 data, these corridors are:

1. Glacier Highway – Vintage Boulevard to Fritz Cove Road – 11,000 AADT
2. Glacier Highway – Auke Bay to Ferry Terminal – 6,000 AADT
3. North Douglas Highway – Juneau-Douglas Bridge to Eagle Creek – 4,200 AADT
4. Industrial Boulevard –4,100 AADT

Although it did not meet the criteria of AADT of 4000 or more vehicles and no sidewalks in 2005, the Lemon Creek portion of Glacier Highway (Lemon Drive) had an AADT of between 4500 and 12000 (depending on road segment) and insufficient pedestrian and bicycle facilities; accordingly, this corridor should also be given priority in constructing additional pedestrian and bicycle facilities.

8.2.IA3 Implement the pedestrian and non-motorized improvements called for in the Area Wide Transportation Plan as funding becomes available. Where there is a public need for those improvements in the immediate future, actively pursue the funding needed to complete those improvements.

8.2.IA4 Work with the Juneau School District and other agencies to identify opportunities for improved pedestrian and bicycle access to schools.

Subarea Transportation Needs

To ensure a smoothly functioning transportation system, the CBJ must address some serious transportation problems within and between major concentrations of population. The areas most affected by past and projected growth and, therefore, most affected by congestion, include Downtown Juneau, Lemon/Switzer/Salmon Creeks, Mendenhall Valley, Auke Bay, and Douglas Island.

POLICY 8.3 IT IS THE POLICY OF THE CBJ TO RESPOND TO THE SPECIAL TRANSPORTATION NEEDS OF EACH SUBAREA OF THE CBJ AND TO INTEGRATE THEM INTO A CBJ-WIDE COMPREHENSIVE TRANSPORTATION PLAN. THIS

SYSTEM SHOULD SEEK TO REDUCE THE CONSUMPTION OF FOSSIL FUELS BY FACILITATING EFFICIENT ROUTES OF TRAVEL, CONVENIENT AND RAPID TRANSIT, AND SAFE MOTORIZED- AND NON-MOTORIZED TRAVELWAYS.

Downtown

As documented in the CBJ Area Wide Transportation Plan (AWTP), there are several major transportation problems in Downtown Juneau. As a major destination for all CBJ residents and for one million cruise ship visitors each year, the resolution of those problems will enable the Downtown to evolve into a convenient, attractive and dynamic year-round destination for residents and visitors alike. Coordinated planning is needed to improve pedestrian and traffic circulation, accommodate shared use of additional off-street parking, increase rapid public transit service, and facilitate pedestrian movement on sidewalks and crosswalks.

Implementing Actions

8.3.IA1 The CBJ should immediately establish transportation improvement priorities that can be included in the next revision to the Alaska Department of Transportation/Public Facilities (DOT), and revise the priority table of the CBJ Area Wide Transportation Plan accordingly. Potential priorities for federal, state, and local funding and implementation may include the following:

A. In order to accommodate safe transit, private vehicle, bicycle and pedestrian traffic traveling to and from Douglas Island, urge DOT to immediately improve the traffic capacity and efficiency at the intersection of Tenth St. and Egan Dr. Any improvements to this intersection or the Juneau-Douglas Bridge should provide adequate safe space for motor vehicles (including industrial trucks and buses), pedestrians and bicyclists.

B. The CBJ should seek funding to design, develop and operate a Downtown Transportation Management Program. [see also 8.1.IA6]

C. Encourage DOT to construct one or more additional travel routes across Egan Drive for pedestrian travel to and from Aurora and Harris Harbors.

D. Pursue the construction of a CBJ street parallel to Egan Drive that connects Aurora Harbor with the University of Alaska Southeast Marine Technology Center and Harris Harbor.

8.3.IA2 The CBJ should develop and manage an emergency transportation plan to address temporary or emergency access between all urbanized portions of the borough and emergency facilities, especially Bartlett Regional Hospital and the Juneau International Airport. Duplicate transportation routes and/or modes should be developed wherever access is currently limited to a single transportation route, such as the Juneau-Douglas Bridge, Egan Drive at Channel and Channel View Drives, and Egan Drive at Yandukin Drive and Glacier Highway.

8.3.IA3 Implement the subarea improvements for downtown called for in the Area Wide Transportation Plan as funding becomes available. Where there is a public need for those

improvements in the immediate future, actively pursue the funding needed to complete those improvements.

Lemon Creek, Switzer Creek, and Salmon Creek

The Lemon Creek, Switzer Creek, and Salmon Creek areas are home to numerous children and adults who regularly use public transit facilities, yet who must use an incomplete sidewalk system to reach bus stops. A safe, separated pedestrian and bicycle circulation system throughout the area is needed for the area, along with weather-sheltered bus stops.

The Lemon Creek area is also traversed by heavy trucks carrying gravel and other heavy loads. A roadway suitable for heavy truck loads traveling to and from the industrial areas, particularly the gravel extraction area, and by-passing residential areas is needed.

As the land above Dzantik'i Heeni Middle School is developed for residential use, as envisioned by this plan, a new roadway to access this area will also be needed. This road should not tie into the industrial by-pass road discussed above; instead, the residential access road should be designed for larger numbers of pedestrians and bicyclists and lower traffic speeds than the industrial road.

Both the industrial by-pass road on the eastern side of Lemon Creek and the residential access road on the western side of Lemon Creek are shown on the Subarea 5 Land Use Maps; it should be noted that the alignments shown on these maps are for informational and planning purposes only, and potential alignments will need to be evaluated based on engineering, habitat, cost, and other factors before a route is selected and a road constructed.

Implementing Actions

8.3.IA4 Develop and implement a neighborhood transportation facilities improvement plan, in coordination with an area-wide neighborhood plan, for roadway access, sidewalks, pedestrian crossings, bus pullouts and shelters, intersection control and new intersections for Lemon Creek. Consider limiting new access directly onto Glacier Highway to preserve traffic operations in the roadway. In the vicinity of Dzantik'i Heeni (DZ) Middle School, integrate future traffic control or new intersections with pedestrian needs. This plan and improvement program should include, at a minimum, the following transportation elements:

A. Develop a complete sidewalk system and separated pedestrian/bicycle path throughout the Lemon/Switzer Creek neighborhood, connecting residential land uses to schools, playgrounds, employment centers, retailers, and transit facilities;

B. Construct an industrial vehicle bypass route located away from residential neighborhoods and providing access for heavy vehicles, connecting the industrial area around the Lemon Creek gravel pits to Egan Drive via Glacier Highway;

C. Develop a secondary roadway connection between Downtown Juneau and Bartlett Regional Hospital. The connection would be two lanes with separated pedestrian and bicycle facilities. The road should function as a through-road and as a secondary access to the Hospital; and

D. Improvements to intersections in order to assure a Level of Service of D or better throughout the plan study area.

8.3.IA5 Implement the subarea improvements for the Lemon Creek, Switzer Creek, and Salmon Creek areas called for in the Area Wide Transportation Plan as funding becomes available. Where there is a public need for those improvements in the immediate future, actively pursue the funding needed to complete those improvements.

8.3.IA6 Require sidewalks and bicycle paths or lanes along newly constructed arterial and collector streets where appropriate, and provide or work with DOT to provide such amenities along existing roads to provide safe and efficient access and recreation and to reduce pedestrian/automobile conflicts.

The Mendenhall Valley and Auke Bay

For the past three decades, the Mendenhall Valley has been the most rapidly growing suburban area in the CBJ. Many of the un-signalized intersections serving this area are now heavily congested, reflecting levels of Service (LOS) D, E and F that indicate noticeable (LOS D) to irritating (LOS E) to unacceptable (LOS F) delays for motorists seeking to enter those intersections. This congestion affects both public transit and the single-occupancy-vehicle (SOV). Until these traffic conditions are improved to LOS C or better, further development on parcels served by these intersections should be limited to small, in-fill homes or developments whose occupants would primarily use public transit, or developments whose occupants would travel primarily during off-peak periods. Elsewhere within the Mendenhall Valley, future development should be characterized as medium-to-high density residential, mixed use or commercial developments when contained within transit corridors, defined as lands within a quarter mile of bus routes with headways of no more than one-half-hour during the peak travel periods. Additionally, the Mendenhall Valley intersections that experience LOS E and F should be improved to facilitate transit service therein: This could include bus pull-out lanes, travel lanes exclusive to transit and high-occupancy-vehicles (HOVs) during peak morning and evening traffic periods, or other improvements. Pedestrian pathways are incomplete in much of the Mendenhall Valley area and need to be connected.

Implementing Actions

8.3.IA7 Work with DOT to undertake roadway capacity, vehicular turning movement, bus pullouts and pedestrian and bicycle safety improvements within the Urban Service Area where an existing intersection Level of Service on the state route is compromised (LOS D or worse); priority improvements should be given to intersections that would serve new high-density housing developments.

8.3.IA8 Work with DOT to undertake transportation improvements to state right-of-ways within the Auke Bay area pursuant to recommendations included in a CBJ-adopted Auke Bay neighborhood plan The plan should address existing and anticipated travel demands generated by the ferry terminal, marina, commercial fisheries facilities, affordable housing, expansion of the University of Alaska Southeast, and other destinations located further out the road, and should incorporate the improvements identified in DOT's ABCOR (Auke Bay Corridor) study. Extension of existing sidewalks and provision of additional sidewalks should be high priorities.

8.3.IA9 Vehicle access to the University from the Fritz Cove Road intersection should be discouraged, until that intersection is improved and/or an additional access route is developed.

8.3.IA10 Improve the area between Industrial Blvd. and Fritz Cove Road with a separated pedestrian/bicycle path and lighting.

8.3.IA11 Require sidewalks and bicycle paths or lanes along newly constructed arterial and collector streets where appropriate, and provide or work with DOT to provide such amenities along existing roads to provide safe and efficient access and recreation and to reduce pedestrian/automobile conflicts.

8.3.IA12 Work with DOT to provide a secondary route to Egan Drive where no alternative route currently exists.

8.3.IA13 Implement the subarea improvements for the Mendenhall Valley and Auke Bay called for in the Area Wide Transportation Plan as funding becomes available. Where there is a public need for those improvements in the immediate future, actively pursue the funding needed to complete those improvements.

Douglas Island

Over the years, North Douglas Highway has experienced increased traffic from recreational users of North Douglas lands, shorelines and waters. This is dangerous for pedestrians, joggers, bicyclists and students awaiting school bus service.

North Douglas Island at the boat launch offers many recreational enthusiasts and visitors a world class, spectacular viewscape of the Mendenhall Glacier and access to world class fishing. Eaglecrest is preparing itself to be a year-round destination for recreational enthusiasts. In the years ahead, additional traffic associated with a North Douglas bridge connecting the West Douglas New Growth Area to the mainland may have impacts to the North Douglas Highway traffic capacity and safety, depending on the timing and intensity of development in West Douglas, the location and design of the bridge landing, and the location and type of roadway(s) leading to and from West Douglas.
[Please also refer to Chapter 11, Subarea 9 North Douglas Highway and channel crossing discussions.]

Residential development along the eastern side of Douglas Island in the area between Kowee and Lawson Creeks, called West Juneau, has taxed the capacity of the Cordova Street and Douglas Highway intersection, and has contributed to congestion on the Juneau-Douglas Bridge and the 10th Street and Egan Drive intersection during the 7 AM to 9 AM week day peak commute periods. An August 2006 weekday analysis of vehicle turning movements at the 10th Street and Egan Drive intersection by DOT demonstrated that about half the vehicles from Douglas Island travel to Downtown Juneau and half turn left heading toward the Valley. At the very least, the

Downtown Juneau government agencies employing Douglas Island residents should implement a more effective, and perhaps mandatory, staggered work hour program for those residents to relieve the 7:30 to 8:15 peak morning congestion (LOS F) on the Juneau-Douglas Bridge and 10th Street and Egan Drive intersection. Another short-term improvement would be the installation of bus pull-outs for Capital Transit and school buses to leave the travel ways when Capital Transit buses are picking up or dropping off passengers, and when school buses can allow queued vehicles to pass after children are safely on-board or have crossed the street. Notwithstanding these short-term improvements, vehicle capacity improvements to the Juneau-Douglas Bridge and its landing at 10th Street and Egan Drive will likely be needed to accommodate further residential development on Douglas Island.

The 1995 Comprehensive Plan Land Use Maps for Douglas Island showed a bench road corridor connecting all existing and future communities on the Island; that is, North Douglas, West Douglas, Treadwell/South Douglas, Downtown Douglas and West Juneau, with the exception of a link between Fish Creek Road and the New Growth Area community of West Douglas. The Subarea 9 Land Use Maps now show an alignment for this missing link of the bench road. This trans-island bench road remains in the Plan and should be accompanied by a safe pedestrian/bicycle pathway system linking all Douglas Island communities.

For over twenty years, a North Douglas crossing of Gastineau Channel has been identified as the CBJ's top transportation priority, due to the role this additional access would play in facilitating development of west Douglas Island as well as in providing emergency access in the event the Juneau-Douglas Bridge or another single-route travel corridor in the area (North Douglas Highway or Egan Drive) is inaccessible or out-of-service. The North Douglas neighborhood, the West Douglas Development Working Group, relevant CBJ staff, other interested stakeholder groups and representatives of the community-at-large should participate in a study of the associated transportation elements needed to accommodate the bridge at its landing on the Island, including the location, design and capacity of the bridge landing structure, the road(s) or reserved fixed-guideway right-of-way accommodating the new traffic to and from West Douglas to the mainland via both the new and existing bridge, and separated pedestrian/bicycle pathways. This study should be accompanied by a neighborhood plan as described in Subarea 9 Guidelines and Considerations in Chapter 11 of this Plan.

Implementing Actions

8.3.IA14 Encourage DOT to upgrade North Douglas Highway, with or without a North Douglas bridge and associated arterial roadways, to reduce safety hazards related to the increased traffic on North Douglas Highway due to continuing residential development and increased recreational infrastructure on North Douglas. These improvements may include reduced and consistent speed limits throughout the roadway; installation of better warning signage at curves, bus stops at points with large numbers of residents and/or major destinations; separated pedestrian and bicycle pathways; and pull-off areas for school and public transit buses, if suitable for a minor arterial roadway with over 500 driveway access points.

8.3.IA15 Work with DOT to make improvements to roads, intersections and bridges on Douglas Island to accommodate new affordable housing development. As of 2007, transportation

infrastructure deficiencies that should be addressed in the near future include the capacity of the Tenth Street and Egan Drive intersection, particular turning movements at the Cordova Street and Douglas Highway intersection, and the reliance on a single road connection between Douglas Island and the mainland.

8.3.IA16 Maintain strong municipal support for construction of a North Douglas crossing of Gastineau Channel to accommodate new, compact development of North Douglas and the New Growth Area on west Douglas Island. On the North Douglas landing, the bridge should connect to a roadway that provides sufficient right-of-way to accommodate a future fixed guideway transportation system to West Douglas.

In the near term, the CBJ should conduct a neighborhood plan for the North Douglas neighborhood, which would include:

A. Analysis of potential impacts and improvements needed to maintain and enhance the existing character of the North Douglas community. All improvements should be designed to provide adequate capacity to take residents, workers and visitors of Douglas Island to their destinations on the mainland. This may require improvements to the intersection of 10th Street and Egan Drive as well as providing a new Gastineau Channel crossing route.

B. Evaluation of the engineering design and costs and the environmental impacts of a North Douglas bridge landing intersection, including the options of the landing intersecting with North Douglas Highway or upland of the Highway at a bench road alignment; and

C. Analysis of the location and configuration of separated pedestrian/bicycle pathways, bus pull-offs and any access road(s) carrying traffic from Douglas Island to the mainland.

8.3.IA17 Designate potential road and non-motorized trail linkages between residential neighborhoods throughout the Island, where terrain permits and avoiding high-value wetlands whenever possible.

8.3.IA18 Require sidewalks and bicycle paths or lanes along newly constructed arterial and collector streets where appropriate, and provide or work with DOT to provide such amenities along existing roads to provide safe and efficient access and recreation and to reduce pedestrian/automobile conflicts.

8.3.IA19 Implement the subarea improvements for Douglas Island called for in the Area Wide Transportation Plan as funding becomes available. Where there is a public need for those improvements in the immediate future, actively pursue the funding needed to complete those improvements.

Thane and "Out the Road" Areas

Southeast of Downtown Juneau, Thane Road provides vehicular, bicycle and pedestrian access to residential, recreational, tourist-oriented commercial and other non-residential destinations, including a fish hatchery. Thane Road is an approximately six mile, two-lane paved State-maintained roadway that cuts through steep terrain on both sides. There is no separated pedestrian or bicycle lane and there are numerous places where there is no road shoulder, and curves in the road limit motorists' sight lines. The speed limit of the road varies from area to area. The first few miles pass through hazardous avalanche chutes. Despite these constraints and hazards, the road is the sole access for about 175 Thane residents (Census 2000 count) and is extremely popular with joggers, hikers, berry pickers, cyclists and other recreational enthusiasts.

West of Auke Bay, the two-lane paved Glacier Highway provides vehicular access to about 600 residents of the rural areas referred to as "Out the Road," as well as recreational enthusiasts, hunters, fisherpersons, and boaters. The DOT maintains portions of this road year-round; the northernmost parts of it are snowbound and inaccessible during winter months.

Implementing Actions

8.3.IA20 Encourage DOT to upgrade Thane Road from the CBJ Sewer Treatment Plant to Sheep Creek. All reconstruction of Thane Road should include separated pedestrian and bike lanes which, because of terrain, may need to be located outside of the existing right-of-way and/or along the shoreline.

8.3.IA21 Require sidewalks and bicycle paths or lanes along newly constructed arterial and collector streets where appropriate, and provide or work with DOT to provide such amenities along existing roads to provide safe and efficient access and recreation and to reduce pedestrian/automobile conflicts.

8.3.IA22 Implement the subarea improvements for Thane and Out the Road called for in the Area Wide Transportation Plan as funding becomes available. Where there is a public need for those improvements in the immediate future, actively pursue the funding needed to complete those improvements.

REGIONAL TRANSPORTATION SYSTEM

Due to the lack of a road connection with other regions of Alaska and Canada, the CBJ depends upon air and marine transportation that also serve the southeast region of Alaska. Waterway transit accounts for much of the passenger, most of the freight, and all of the vehicular traffic to and from the CBJ.

POLICY 8.4 IT IS THE POLICY OF THE CBJ TO SUPPORT THE IMPROVEMENT OF TRANSPORTATION FACILITIES AND SYSTEMS THAT REINFORCE JUNEAU'S ROLE AS THE CAPITAL CITY OF ALASKA AND A REGIONAL TRANSPORTATION AND SERVICE CENTER.

Standard Operating Procedure

8.4.SOP1 Assume a leadership role in the encouragement of transportation links into and out of the CBJ. Consider all affordable energy-efficient transport alternatives to improve transportation links between the CBJ and other areas of Southeast Alaska, including improved air passenger and cargo service, roadways, ferries, and fixed-guideway systems.

8.4.SOP2 Support development of a Lynn Canal Highway, as this facility is important to provide improved transportation to the Capital City for Alaska's citizens, Alaska's legislators, and for the economic well being of Juneau and the Southeast Region.

8.4.SOP3 Support the continued operation and improvement of the Alaska Marine Highway System as an important element of access to and from the CBJ and the rest of coastal Alaska that helps ensure access to the Capital City and coastal communities.

Implementing Actions

8.4.IA1 Identify one CBJ agency or staff member, possibly in the City Manager's Office, that or who can maintain very close communication and coordination with all federal, state and local agencies and private operators in the CBJ to ensure that local transportation resources are managed in the most efficient and convenient manner possible.

8.4.IA2 Improve transportation facilities that accommodate air and marine links between the CBJ and outlying communities.

8.4.IA3 Encourage early and meaningful public participation in transportation decision-making processes.

8.4.IA4 When analyzing transportation facility options, consider the life-cycle costs of operation and maintenance on the prospective systems, traveler safety, traveler convenience, the growth-inducing impacts of the project on the community and the affected neighborhoods along the route(s), and the environmental impacts of each option on the affected lands and neighbors, including water quality and air quality (noise, fumes, dust), and energy consumption.

8.4.IA5 Implement the improvements called for in the Area Wide Transportation Plan (AWTP) that reinforce Juneau's role as Alaska's capital city and as a regional transportation and service center as funding becomes available. Update and revise the AWTP as necessary.

Air Transportation

Juneau International Airport (JNU)

The CBJ's airport has played an important role in the past development of the CBJ and will play an even greater role in the future. The airport is essential to many of the policies and implementing actions of the Comprehensive Plan, such as State Capital, tourism and visitors, commercial and industrial development, mining, seafood industry and commercial fishing, regional economics and services, wetlands, noise, trails and regional transportation system. The CBJ's transportation and commerce links are limited to marine and aviation access. This necessarily places a higher value and greater responsibility on the airport's operation and development than found in many communities.

The CBJ is Alaska's Capital City

Alaskans visiting their elected representatives and State and Federal government agencies primarily use air transportation. The activities at the airport are as varied as the commerce, needs, and people who live in or visit the CBJ.

Air transportation in the CBJ is critical for the movement of goods and people. Commerce in the CBJ passes through the airport as mail, air freight or as business people traveling to or from the Capital City.

It is critical that the CBJ continue the orderly development of the airport to meet the expanding needs of CBJ residents and to provide access for Alaskans to their legislature and State government. Wise development of the airport will contribute to the economic growth and diversification of the community.

Alaska Airlines provides the sole commercial jet service to JNU, with direct links to Southeast communities and to Anchorage and Seattle. The advent of Required Navigational Performance (RNP) approaches utilizing airborne equipment, coupled with specific ground-based meteorological equipment has resulted in a significant reduction in poor-weather flight cancellations. This increased dependability has improved the utilization of the airport by reducing delays and allowing operations that otherwise would not occur.

The airport supports Airlift Northwest Medivac service, National Guard search and rescue helicopters, and aircraft operated by the US Fish and Wildlife Service, US Forest Service, Alaska State Troopers, Alaska Department of Public Safety, and Civil Air Patrol mission aircraft. US Coast Guard helicopters routinely utilize JNU in support of their missions.

The nation's third largest helicopter flightseeing fleet operates in the CBJ. The projected growth in tourism will result in an ever busier airport. A strong General Aviation fleet operates from JNU. An unmet need for general aviation hangar space continues to be a challenge at the airport.

The airport serves as a hub for northern Southeast Alaska. Residents of Haines, Skagway, Gustavus (and Glacier Bay National Park), Hoonah, Angoon, Tenakee, and Pelican are served by

air taxi operators using the CBJ's airport. Connections to the Lower 48, as well as the rest of Alaska, are made in the CBJ. The development of the CBJ as a regional center for commerce and medical service emphasizes this aspect of the airport's role. The FAA classifies Juneau International Airport as a small hub airport, based on passenger enplanements in the National Plan of Integrated Airport Systems (NPIAS). Passenger enplanement in the CBJ hovers between the second and third highest in the State.

The Airport operates within the regulatory purview of the Federal Aviation Administration (FAA), which issues the Airport Operating Certificate, and the Transportation Security Administration (TSA). Many other agencies have regulatory, enforcement, or advisory roles related to operations at the airport. These include the US Fish and Wildlife Service, the US Forest Service, the US Department of Agriculture, Alaska Department of Fish and Game, the US Army Corps of Engineers, US Environmental Protection Agency, the National Transportation Safety Board, the Alaska Department of Environmental Conservation, the Alaska Department of Transportation and Public Facilities and, of course, the US Department of Homeland Security.

In the time since its original siting, development has grown toward and around the airport, making aviation-related land use decisions extremely difficult. There is an inherent conflict between airports and adjacent residential uses. Typically, land surrounding an airport is placed in an industrial use designation, which is more compatible with the impacts of aircraft and the shipping functions of the airport; industrial tenants are more tolerant of noise, dust, fumes and traffic associated with airports than are residential neighbors. With the very limited number of buildable sites for residential and commercial uses in the CBJ, those uses have encroached into the industrial buffer zone surrounding the airport, making vacant land for aviation-related businesses more expensive and hard to find.

POLICY 8.5 IT IS THE POLICY OF THE CBJ TO PROMOTE AND SUPPORT AVIATION SAFETY; TO DEVELOP AND MAINTAIN AIRPORT FACILITIES MEETING THE AVIATION TRANSPORTATION NEEDS FOR THE CBJ, ITS RESIDENTS, VISITORS AND COMMERCE; AND TO WORK WITH THE PUBLIC AND PRIVATE SECTORS TO FACILITATE COMMERCE, ECONOMIC DEVELOPMENT, AND ACCESS TO ALASKA'S CAPITAL CITY.

Standard Operating Procedures

8.5.SOP1 Recognize that the proximity of the airport to wetlands and forested lands create an inherent conflict between fish and wildlife habitat and airport operation, development and aviation safety. In reviewing airport development proposals and permit applications, acknowledge that aviation safety is paramount and should not be compromised.

8.5.SOP2 Protect all designated airport properties from land use conflict and/or displacement.

8.5.SOP3 Keep the Airport Master Plan current.

8.5.SOP4 Encourage the continued refinement and application of Global Positioning System (GPS) technologies, such as RNP and CAPSTONE technologies, to allow increased rough-weather landings at the Juneau Airport and to improve aviation safety for both commercial and general aviation.

Implementing Actions

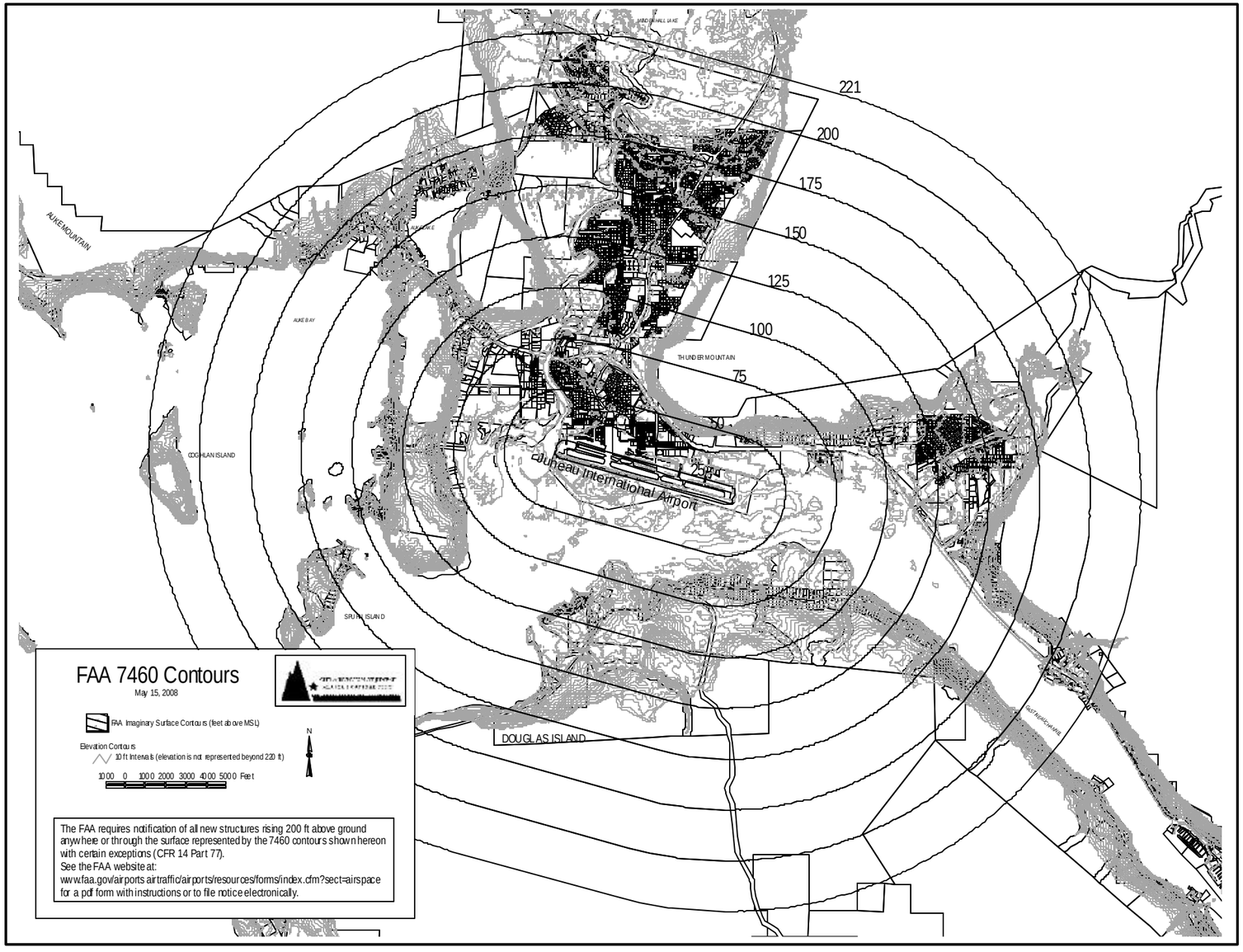
8.5.IA1 Fund and complete the expansion plans and mitigation measures recommended in the Airport Expansion Final Environmental Impact Statement (FEIS).

8.5.IA2 Improve motor vehicle and pedestrian access and circulation to and through the Juneau International Airport including ingress, egress, parking, and non-airport traffic flow.

8.5.IA3 Maintain, and upgrade as feasible, the airport terminal to showcase the CBJ as the Capital City of Alaska while promoting the continued viable operation of large and small carriers in the airport.

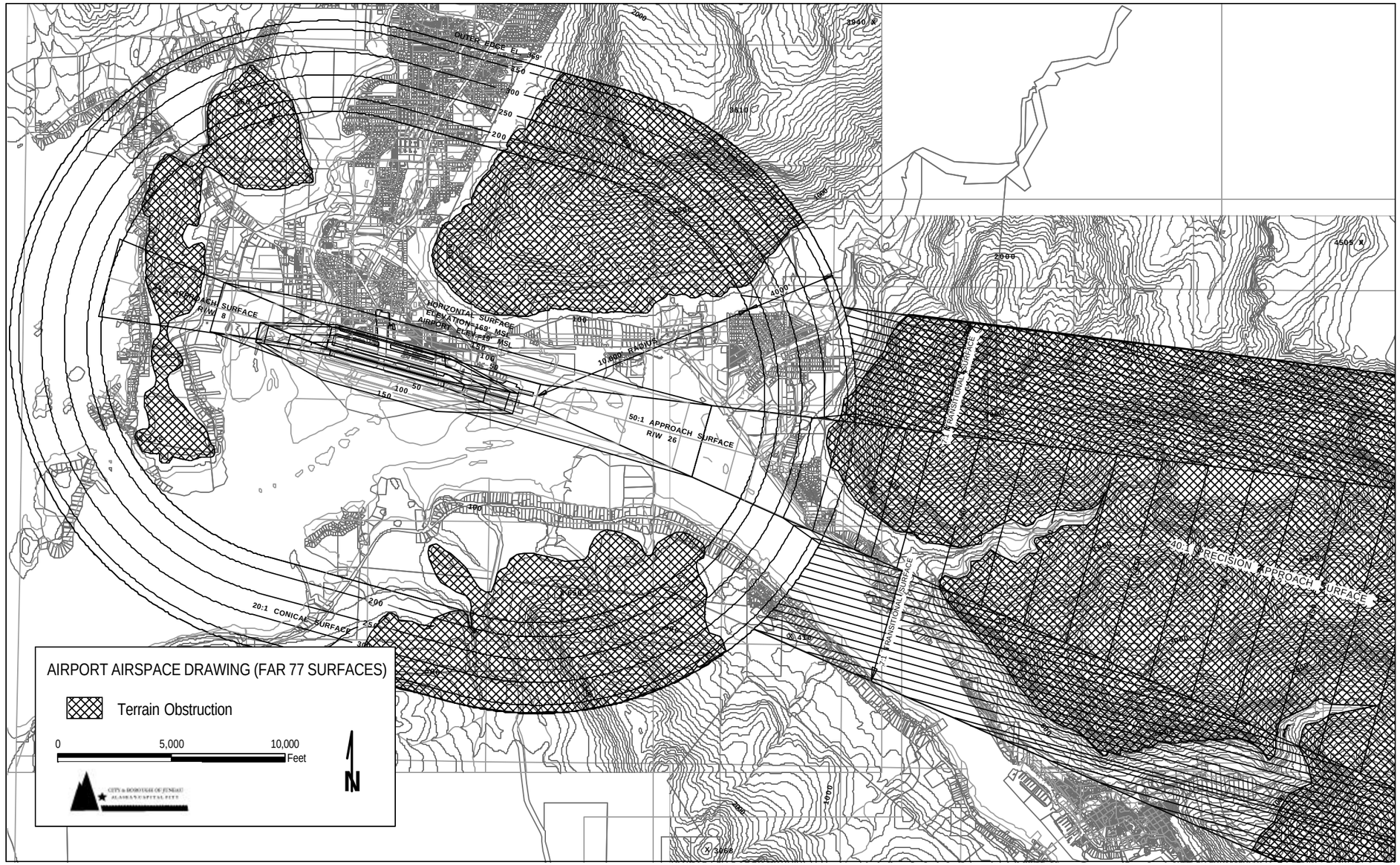
8.5.IA4 Revise the Land Use Code to provide for the mixture of uses that are usual and customary at the Airport and also address neighborhood issues.

8.5.IA5 Consider establishing a new Noise Notification Overlay District that encompasses lands near enough to be affected by uses known to generate nuisance noise, such as: gravel extraction areas, landfill sites, outdoor shooting ranges, airports and heliports. Within this overlay district, property owners should be required to notify prospective tenants and/or purchasers of the presence of these land uses and their potential noise impacts. Also consider amending Title 19, the Building Code, to require adequate noise mitigation in building design and construction within this overlay district.



Prepared by: Community Developement Department

FAA 7460 Contours Map



Prepared by the City and Borough of Juneau Community Development Department
July 10th, 2008

Airport Airspace Drawing (FAR 77 Surfaces)

Marine Transportation

Marine transportation is critical to the CBJ's economy by supporting passenger and freight transport, the commercial fishing industry, and tourism. The CBJ must maintain its regional, national, and international transportation links if it is to prosper despite its physical isolation. As Southeast Alaska's largest city, Juneau can improve its role as a regional transportation and service center by improving its access to this transportation network.

Private barge docks in the CBJ are limited by the depth of the channel. One of the two marine drayage (barge) companies serving the CBJ must navigate Gastineau Channel only at high tide periods and, as such, their location in the Salmon Creek area is not convenient much of the time. Similarly, the only other barge landing, located on the Rock Dump south of Downtown, requires that heavy truck traffic pass through heavily congested pedestrian areas in Downtown Juneau during the summer tourism months. The western side of Douglas Island has been identified as a possible location for new marine freight facilities, but this is feasible only if a North Douglas channel crossing and roadways capable of carrying greater volumes of traffic, including heavy industrial-related trucks, are provided from West Douglas to the mainland.

Cruise ship moorages also require improvement and expansion although they, too, are limited by the depth of water in the Channel. New improvements to small boat marinas and boat ramps, including Amalga Harbor and the government float at Auke Bay, have greatly improved the capacity of these facilities. Additional parking at Auke Bay and continued boat ramp improvements are needed.

The CBJ Docks and Harbors Board was formed by the Assembly to oversee port development projects. Emphasis has been, and should continue to be, placed on improving facilities to serve the commercial fishing fleet and promote local fish processing as well as providing facilities and services to recreational mariners and for eco-tourism.

State and Federal transportation agencies are responsible for providing surface links between the CBJ and other communities of the Alaskan panhandle, or Canada, that have road access.

POLICY 8.6 IT IS THE POLICY OF THE CBJ TO PROMOTE AND FACILITATE MARINE TRANSPORT SYSTEMS AND TO PROVIDE FACILITIES TO TRANSPORT CARGO, VEHICLES, AND PASSENGER TRANSPORTATION, COMMERCIAL FISHING INDUSTRIES, AND RECREATIONAL WATER TRAVEL.

Development Guideline

8.6.DG1 When reviewing development permits for shoreline areas, intertidal areas or areas seaward of mean high tide, ensure that such development does not adversely affect marine transportation.

CHAPTER 9. PARKS, RECREATION, TRAILS AND NATURAL AREA RESOURCES

The forms of recreation chosen by residents and visitors in the CBJ are as diverse as the population. Many people choose to recreate in developed parks and facilities, both indoor and outdoor. Others choose to spend time in natural areas where the existence of minimal improved facilities is the most important element. Therefore, planning for the future of parks and recreation facilities involves provision for both organized recreation in urban level facilities, dispersed recreation where improvements are limited to trail systems and, perhaps, destination cabins or, simply, public access to a creek or shoreline. It should be recognized that providing a broad range of recreational experiences involves a cooperative effort between the local, State and Federal government.

In 1996, the CBJ adopted the *Juneau Parks and Recreation Comprehensive Plan,* which identified community needs, issues, recommended parks and natural area improvements and development standards. In 2007, the Parks and Recreation Department (P&RD) updated Chapter Eight of the Plan, which identified recommendations for parks and natural area acquisitions and improvements. From time to time the *Juneau Parks and Recreation Comprehensive Plan* will be updated and amended to keep its policies, guidelines, standards and development plans current and reflective of community needs and desires. That Plan contains specific resource information, development standards and recommended improvements for neighborhoods identified by subarea. Each amendment of the *Juneau Parks and Recreation Comprehensive Plan* is reviewed for consistency with this CBJ Comprehensive Plan and, therefore, should be reviewed and considered when recommending capital improvements and when reviewing building and use permit applications. Reviewers should also consult the following CBJ-adopted plans when developing or reviewing parks, open space/natural areas, trails, recreation facilities, capital improvement plans or permit applications:

1. The 2007 Chapter Eight revision to the Juneau Parks and Recreation Comprehensive Plan;
2. The 1993 Juneau Trails Plan;
3. The 1997 Juneau Non-Motorized Transportation Plan; and
4. The 1986 West Mendenhall Valley Greenbelt Plan.

In planning for the dispersed portion of recreational opportunities, the P&RD has worked closely with the State Division of Parks and Outdoor Recreation, the U.S. Forest Service, the National Park Service, multiple resident groups and individuals to produce the *Juneau Trails Plan*. As a comprehensive evaluation of all the trails in the CBJ area, regardless of land ownership or management authority, this document identifies a wide spectrum of actions from improvement of existing trail conditions to suggestions for construction of new trails or back-country cabins. The general nature of the plan and its long-term look at trail-related issues makes it an appropriate document to include as a companion to this Comprehensive Plan.

There has been substantial commercial use of some public trails and destinations in connection with the CBJ's robust visitor industry. This use has resulted in overcrowded conditions and

greater maintenance costs on some trails. There is a need to regulate this use and mitigate associated adverse impacts in order to protect the resource and the quality of the recreation experience for local residents and visitors alike. The P&RD facilitated a Trails Working Group which, in June 2001, published a report entitled *Commercial Use of Trails, Recommendations by the Trails Working Group* that identified which trails within each subarea should be allowed commercial use and the type of use the trail could accommodate. That report should be updated as needed and reviewed for consistency when considering commercial use permits for CBJ trails.

There continues to be a lack of adequate neighborhood and community parks and facilities in major areas, including the East Mendenhall Valley, Lemon Creek and Switzer Creek areas. While recreational programs are in great demand in the CBJ, the number of facilities to support these programs is insufficient. Planning underway by the P&RD should be coordinated with the CBJ School District, with the involvement of the CDD.

There is an immediate need to acquire, designate, and maintain public access to beaches and shoreline areas.

The Eaglecrest ski area, located on Douglas Island, is an important winter recreational resource to many CBJ families. The management of the facility is seeking ways to provide year-round recreational activities for residents and visitors to make more efficient use of its resources.

The Capital Improvement Program Six-Year Plan includes a prioritized listing of Parks and Recreation, Eaglecrest, and Centennial Hall projects. Funding is provided primarily through the CBJ budget, with occasional state funding through the legislative process. Other sources of funding should continue to be pursued.

Although the CBJ contains a wide variety of outdoor recreational resources, more park and recreational facilities, both indoor and outdoor, should be provided within the urban area. During the community outreach effort of this Plan Update, residents of all neighborhoods (some for different reasons) supported the following new recreational facilities: a swimming pool in the Valley; a performing arts center; and a dedicated ATV/snowmobile course.

Parks and Recreation Facilities

POLICY 9.1. IT IS THE POLICY OF THE CBJ TO PROVIDE QUALITY DISPERSED OUTDOOR RECREATIONAL OPPORTUNITIES AND TO ACQUIRE AND DEVELOP SUFFICIENT LOCAL PARKS AND RECREATIONAL FACILITIES IN LOCATIONS CONVENIENT TO ALL AREAS OF THE CBJ. PLACES GIVEN PRIORITY FOR NEW FACILITIES INCLUDE RAPIDLY DEVELOPING AREAS AND CURRENTLY DEVELOPED AREAS THAT LACK ADEQUATE PARKS AND RECREATION FACILITIES.

Standard Operating Procedures

9.1.SOP1 Monitor trends in the CBJ demographics and incorporate activities specifically related to under-served populations.

9.1.SOP2 Pursue interdepartmental, interagency and community planning efforts necessary to protect and enhance recreational opportunities in the CBJ.

9.1.SOP3 Pursue funding for acquisition and development of parks and recreation facilities through traditional funding mechanisms such as the Capital Improvement Program, the state legislative process, and federal funding opportunities. Maximize the use of federal and state matching funds. Investigate creative and innovative funding mechanisms for the acquisition and development of parks, facilities, trails and programs. Explore cooperative management agreements, joint ventures, private/public partnerships or other protocols to facilitate progress.

9.1.SOP4 Cooperate with the School District and Parks and Recreation Department to plan for joint use of neighborhood and community parks, community and school facilities, and sports fields by the students and general public.

9.1.SOP5 Provide outreach programs directly to youth; bring programs to the neighborhoods.

9.1.SOP6 Support and seek to expand resources for Youth Activity Grants and scholarships for this program.

9.1.SOP7 Officially welcome participants and otherwise encourage large regional sporting or athletic events such as the Gold Medal Basketball Tournament.

Development Guideline

9.1.DG1 Ensure that proposed commercial use of public trails and their environs is consistent with the P&RD *Commercial Use of Trails* report.

Implementing Actions

9.1.IA1 CDD staff should work with P&RD staff and interested parties to develop thresholds and standards for construction of playgrounds and trail linkages by developers to serve their proposed new subdivisions and residential developments, taking into account existing facilities within the area, proposed development population play and recreation needs, and size of the proposed development. CDD and the P&RD should work with developers to address neighborhood park needs. P&RD and CDD staff should work cooperatively to monitor commitments by developers of new residential developments that may fulfill a condition of the

development. These may include construction of new trails and playgrounds. CDD should work with P&RD to monitor existing community improvements in permitted residential developments.

9.1.IA2 Establish discrete zoning districts in the CBJ Title 49 Land Use Code for CBJ-owned lands dedicated to parks and recreation and natural area uses. These new zoning districts would correspond to the CA (Conservation Area), SC (Stream Protection Corridor), and NP (Natural Area Park) land use designations of this Plan. Amend the zoning map to place those zoning designations on the CBJ-owned lands dedicated to those uses.

9.1.IA3 Initiate a needs assessment with state, CBJ and Federal agencies to assess recreational needs; of particular concern are the expressed needs for (1) lighted cross-country ski trails where snowmobiles are not permitted; (2) an off-road-vehicle track and trail network, and (3) a performing arts center in Downtown Juneau.

9.1.IA4 Provide a centralized recreation program registration venue at a location that is convenient to residents, that is accessible by all modes of transport, and is provided with adequate parking.

9.1.IA5 The P&RD should participate in the planning for new school development to ensure maximum community recreation utility in the design of community rooms, gymnasiums, playgrounds, and sports fields.

9.1.IA6 Ensure that new facilities, programs, and equipment are designed to meet the needs of the disabled community, and that the facilities provide a variety of services for all people with disabilities.

9.1.IA7 Identify traditional and high quality waterfront access areas, recreational anchorages and beaches, beach trail opportunities, boat launch areas, and waterfront park sites. Coordinate with the CBJ Docks and Harbors, Land & Resources, CDD, and State of Alaska to assure that public access to water is provided.

9.1.IA8 CDD and P&RD should work to permanently protect CBJ's Natural Area Parks and Conservation areas. P&RD should initiate a pilot Forever Wild program.

9.1.IA9 Identify locations within the CBJ that provide good, publicly-accessible night sky viewing opportunities and develop those locations with seating, parking and other facilities and protect those locations from light pollution and intrusion.

9.1.IA10 Complete a camping plan for CBJ that identifies a range of camping facilities including highly developed RV campgrounds, remote cabin sites, and primitive campsites.

9.1.IA11 Investigate the location and number of mini-parks needed in the community and construct new mini-parks as needed.

9.1.IA12 Seek location and construction for an ATV/snowmobile course; one that has a programmed riding course as well as trails.

9.1.IA13 Continue the Commercial Use of Trails Working Group, or an equivalent group, to address commercial activities on CBJ park land.

9.1.IA14 Support the establishment of dog parks, per the P&RD Dog Task Force's recommendations.

9.1.IA15 Identify all Parks with signage.

9.1.IA16 Implement the replacement schedule for playground equipment and include accessible equipment in all new purchases.

9.1.IA17 Plan park renovation projects to address changing recreational needs.

9.1.IA18 Enhance the beauty and livability of the CBJ by augmenting the CBJ landscaping program.

9.1.IA19 Work cooperatively with agencies such as the Alaska State Museum, the Historic Resources Advisory Committee, and Gastineau Channel Historical Society to manage activities at the City Museum, the Last Chance Basin Mining Museum, the University of Alaska Southeast, the Alaska State Museum, and other similar venues.

9.1.IA20 Promote development of a performing arts facility that will meet a wide variety of needs.

9.1.IA21 Incorporate park lands in developing areas through designation of publicly owned lands, acquisition of private lands, or dedication of lands during the subdivision process.

9.1.IA22 Develop a GIS map layer that clearly labels developed or designated open space/natural areas, greenbelts, parks, playgrounds and beach access points.

9.1.IA23 Develop parks and recreation facilities, for both urban level and dispersed recreation, based on the CBJ's unique characteristics, needs, and traditions. In developing dispersed recreation opportunities such as fish and wildlife viewing areas and increased sport fishing opportunities, recognize the importance of habitat and sensitive area protection.

9.1.IA24 Enact a permit system for commercial use of public lands that includes commercial user fees as part of the funding source for dispersed recreation development and maintenance costs. Consider the cost of operation and maintenance of the resource, when establishing a commercial user fee.

9.1.IA25 Encourage development of additional facilities at, and provision of electric energy from the CBJ's existing electrical grid, to the Eaglecrest ski area.

Interconnected Trail System

One of the most frequent responses to the community values and opinion surveys conducted as part of this Plan Update was the desire for access to nature in the uplands, forests and the waterways. This access was desired for both human travel and enjoyment and for the health, welfare and sustainability of fish and wildlife. Residents suggested that an un-fragmented trail system located in both developed and undeveloped areas could be sited and designed in such a way as to assure access for fish and wildlife (flora and fauna) from the icefields to the sea, while providing non-motorized trails for local residents and visitors. The fish and wildlife portion of the system could follow the various anadromous streams linking the icefield, through the forested areas, to the sea. Those fish and wildlife corridors could be intersected by a regional non-motorized trail system, thereby assuring access to nature for all residents, human and non-human. This dual-purpose recreational trail/fish and wildlife corridor would assure the most critical habitat for fish and wildlife and could be a receiving area for habitat mitigation. Land outside these corridors and this trail system could then be considered "buildable," if properly mitigated.

POLICY 9.2. IT IS THE POLICY OF THE CBJ TO DEVELOP AND MAINTAIN AN INTERCONNECTED NON-MOTORIZED TRAIL SYSTEM THAT IS COMPLEMENTARY WITH, AND MAY BE CONTIGUOUS WITH, UN-FRAGMENTED FISH AND WILDLIFE CORRIDORS ALONG ANADROMOUS STREAMS WITHIN THE ROADED AREA THAT PROVIDES FISH AND WILDLIFE AND HUMAN ACCESS TO THE SEA FROM THE UPLANDS.

Standard Operating Procedures

9.2.SOP1 Consider the impacts of new development on trails identified in the *Juneau Trails Plan* when reviewing Capital Improvement Plans and permit applications. Seek to implement the Plan's recommendations to establish an un-fragmented trail system throughout the roaded area of the CBJ.

9.2.SOP2 Cooperate with the State of Alaska and the U.S. Forest Service to encourage the establishment of recreational and open space/natural areas facilities and areas.

Implementing Actions

9.2.IA1 Working with State and Federal agencies, create a GIS trail map. On the CBJ GIS system, identify un-fragmented fish and wildlife corridors along the adopted CBJ list of anadromous streams that extends from the Juneau Icefield and other upland areas to the sea. Within the roaded areas of the CBJ, and when compatible with wildlife passage within the corridors, identify an un-fragmented trail network for non-motorized travel by humans within these wildlife corridors.

9.2.IA2 When reviewing capital improvement plans and building or use permit applications, seek to protect lands necessary to establish and/or maintain the un-fragmented fish and wildlife corridors and trail network. This may include the dedication of conservation easements or "no build" zones within a development as well as dedication provision of public access through the trail easements.

9.2.IA3 Improve and expand the CBJ trail system to provide an un-fragmented trail system that offers opportunities for a wide range of experiences, safety of the users, and protection of fish and wildlife habitat.

9.2.IA4 Prioritize construction and maintenance of existing trails including: repair of unsafe conditions, repair of resource degradation; enhancements that allow for greater utilization; construction of new trails that provide connections and construction of new trails in anticipation of future needs.

9.2.IA5 Continue partnering with federal, state and local agencies in the maintenance and development of trails through the non-profit organization, Trail Mix, Inc., or its equivalent.

9.2.IA6 Implement the tri-agency *Juneau Trails Plan* and update it as necessary.

9.2.IA7 Implement adopted Non-Motorized Transportation Plan items in subareas, and update as new subdivisions are constructed.

9.2.IA8 Work with the DOT, the CDD, and Engineering Departments and other relevant agencies to ensure that future CBJ construction includes adequate pedestrian and bicycle facilities, and that existing neighborhoods are connected by a network of non-motorized corridors.

9.2.IA9 Support the designation of Federal Transportation Enhancement Funds for trail development, consistent with SAFETEA-LU or other Federal apportionments and allowances.

Natural Areas

Natural, undeveloped areas (formerly referred to as "open space") are an essential component of the CBJ's community form and identity. They should be maintained and enhanced. Shoreline areas are a major coastal fish and wildlife habitat, offer a valued view corridor, and can function

as valuable natural recreational resources; most are publicly owned. Among the most dramatic, and often visited, locales to enjoy spectacular views of scenic destinations are the Mendenhall Glacier visitor center, the Mount Roberts Tram, and the view of the Mendenhall Glacier from the waterfront roadway from the North Douglas boat launch facility to False Outer Point. These vista points should be preserved and enhanced with low-impact visitor facilities such as parking areas, bike paths and trails.

The West Mendenhall Valley Greenbelt has been established, beach access routes have been identified and signs put in place, and there have been improvements made for recreational access to Echo Cove and Amalga Harbor.

The CBJ should maintain awareness of, and educate the public to, the importance of natural areas in land use and development decisions. Valuable habitat areas within the CBJ require retention of vegetation and water resources. Inadequately regulated development degrades habitat values and scenic resources. The quality of residential developments is enhanced by standards and policies to preserve natural areas. Demand for outdoor recreational opportunities is generated by both resident and visitor populations. Some of the valued community assets most frequently expressed by residents during the Plan Update public opinion survey were (1) preservation of the CBJ's natural beauty and scenery; (2) provision of public access to the water and wilderness areas; and (3) protection of streams and wildlife corridors.

POLICY 9.3. IT IS THE POLICY OF THE CBJ TO PRESERVE AS PUBLIC NATURAL AREAS THOSE PUBLICLY-OWNED LANDS AND SHORELINE AREAS THAT POSSESS IMPORTANT RECREATIONAL, SCENIC, FISH AND WILDLIFE, AND OTHER ENVIRONMENTAL QUALITIES OR ARE SUBJECT TO NATURAL HAZARDS.

Standard Operating Procedures

9.3.SOP1 Designate public areas and sites recommended in the 2007 Update of Chapter 8 of the *Juneau Parks and Recreation Comprehensive Plan* for permanent public access and use. Work toward acquiring privately-owned land through dedication, donation or purchase. Develop legal descriptions and revise the zoning map accordingly.

9.3.SOP2 Acquire land or regulate its use as necessary to protect the public from natural hazards and to preserve sensitive natural resources.

9.3.SOP3 Encourage relevant state agencies to adopt open space/natural areas management policies for State land and tidelands indicated in the *Juneau Parks and Recreation Comprehensive Plan*. Initiate cooperative management agreements proposed in the plan.

Implementing Actions

9.3.IA1 Where regulatory actions are inappropriate, acquire easements through dedication, donation, or purchase of privately-owned streamside lands and other areas indicated in the *Juneau Parks and Recreation Comprehensive Plan*.

9.3.IA2 Revise the Land Use Code to establish a Scenic Corridor/View Overlay District that would be mapped to include the lands designated on the Comprehensive Plan Land Use Maps with the Scenic Corridor/Viewshed (SCV) land use designation.

CHAPTER 10. LAND USE

Land use policies implement important decisions relating to community form, housing, economic and community development, natural resource protection and hazards prevention. They also are the basis for the land use maps in Chapter 11. In this chapter, land use policies are divided into two major categories: residential, and commercial/industrial. Policies for natural areas, recreation, and parks appear in the preceding Chapter 9 and Guidelines for those resources are also found in the discussion of Subareas in Chapter 11.

These policies should guide the CBJ in adopting appropriate regulatory measures, making consistent land use decisions, and investing in public facilities for residential and commercial/industrial development. CBJ Title 49, the Land Use Code, incorporating zoning standards, regulations, maps and permit processes, and the CBJ Capital Improvement Plan (CIP) are the primary means of implementing these policies. Through the CIP, the CBJ can plan for and develop the necessary public facilities and services—roads, sewers, utilities, schools and others—in a timely and orderly manner. Land use policies should assist the CBJ in its efforts to provide a variety of housing, to pursue opportunities for suitable residential and economic development and redevelopment, and to promote conservation and rational development of natural resources.

RESIDENTIAL USE OF LAND

[Please also see Chapter 3, Community Form, and Chapter 4, Housing Element, of this Plan]

Residential Land Availability and Density

A substantial revision of land zoned for residential uses was accomplished in 1987 to bring the zoning map into conformance with the 1984 Comprehensive Plan. A new re-zoning process should be conducted to reflect the more modest changes to land use designations and densities recommended in this 2008 update. Most specifically, higher density residential development along public transit routes are needed to satisfy affordable housing needs, to make the most efficient use of a limited amount of buildable land, and to provide public services efficiently therein.

Availability of lands for residential use should continue to be monitored and adequate public service and facilities provided to accomplish the objectives of assuring safe, sanitary and affordable housing for all income levels and household types in the CBJ.

POLICY 10.1 IT IS THE POLICY OF THE CBJ TO FACILITATE AVAILABILITY OF SUFFICIENT LAND WITH ADEQUATE PUBLIC FACILITIES AND SERVICES FOR A RANGE OF HOUSING TYPES AND DENSITIES TO ENABLE THE PUBLIC AND PRIVATE SECTORS TO PROVIDE AFFORDABLE HOUSING OPPORTUNITIES FOR ALL CBJ RESIDENTS.

Standard Operating Procedures

10.1.SOP1 Monitor land use designations to ensure sufficient land available to meet current and projected needs for residential development in areas with existing or projected municipal water and sewer service, arterial access, public transit service, and other adequate public facilities and services.

10.1.SOP2 Designate sufficient land on the Comprehensive Plan Land Use Maps and zoning maps to provide for a full range of housing types and densities desired by CBJ households. Provide choices in residential neighborhood character such that residents can choose to live in urban, suburban and rural residential settings and neighborhoods.

10.1.SOP3 Prepare and implement a Capital Improvement Program for sewer service, transit service, roads, bridges, traffic intersection improvements and other public facilities and services to serve (a) existing residential areas, (b) areas with potential for in-fill development, and (c) other areas within the CBJ's Urban Service Area that may be suitable for immediate (within the next five years) residential development with sufficient densities to produce low or moderate income affordable housing.

10.1.SOP4 Use the CBJ lands as an important means of providing sufficient land for low- to moderate-income affordable residential development while ensuring that the new, affordable units remain so long-term. Implement the CBJ Land Management Plan, which phases disposal of such lands in accord with projected needs and bases their use on applicable policies of the Comprehensive Plan, such as housing, economic development, natural resource protection, hazard abatement, natural areas, community gardens and parks.

Implementing Actions

10.1.IA1 Identify CBJ-owned lands that are suitable to release for development of affordable housing and develop a procedure, by grant, lottery or sale, to convey this land to a residential builder who would produce the affordable housing as soon as possible after necessary infrastructure is in place.

10.1.IA2 Identify, with neighborhood participation, development plans, densities and design parameters of development projects suitable for CBJ-owned buildable sites identified per 10.1.IA1 and re-zone the land with performance standards to assure its development according to the recommended design and densities.

10.1.IA3 Identify, design, fund and complete the construction of capital improvements needed to facilitate the development of affordable housing on CBJ lands.

10.1.IA4 Investigate, and amend the Land Use Code if necessary, to bring it into compliance with federal law, including the Religious Land Use and Institutionalized Persons Act. As part of this amendment, reduce the regulatory burden for small institutions that will have minimal effects on their neighbors, while ensuring that the negative effects of all institutions on neighboring properties are mitigated appropriately.

POLICY 10.2 IT IS THE POLICY OF THE CBJ TO ALLOW GREATER FLEXIBILITY AND A WIDER RANGE OF CREATIVE SOLUTIONS IN RESIDENTIAL AND MIXED USE LAND DEVELOPMENT WITHIN THE URBAN SERVICE AREA.

Implementing Actions

10.2.IA1 Revise the Land Use Code to define and allow, where appropriate, a variety of housing types and to facilitate their location in suitable locations. A diverse mix of housing types should be accommodated and facilitated in the CBJ including, but not limited to, small Single Room Occupancy (SRO) units or their equivalent compact living unit type; loft housing; live-work units; artist studio housing in commercial or industrial structures; float homes, houseboats, and live-a-boards; panelized, modular, "kit," and manufactured homes on permanent foundations; and other types of housing suitable to diverse CBJ residents' lifestyles and budgets.

10.2.IA2 Review the existing multifamily zoning districts along transit corridors to increase density limits, reduce parking requirements for residential units, decrease lot sizes, and to allow a wider range of housing types including modular or manufactured homes, accessory apartments, live/work units, loft-style dwellings, and co-housing types.

10.2.IA3 Seek the adoption of State and/or CBJ ordinances, regulations and operating procedures necessary to facilitate the redevelopment of underdeveloped properties, obsolete or substandard developments, or otherwise constrained or blighted lands located within the Urban Service Area for higher-density housing or mixed use projects, particularly those lands located within transit corridors that would provide affordable housing.

10.2.IA4 Revise the Land Use Code to allow small-scale renewable energy facilities, such as solar panels and wind turbines, as well as green houses for household food production on individual lots. Small-scale energy conservation, water conservation and subsistence farming facilities should be supported on residential lots and in residential neighborhoods throughout the CBJ.

Residential Location

This Comprehensive Plan provides criteria for locating various densities of residential land use in the land use plan maps and guides future decisions related to these matters.

POLICY 10.3 IT IS THE POLICY OF THE CBJ TO FACILITATE RESIDENTIAL DEVELOPMENTS OF VARIOUS TYPES AND DENSITIES THAT ARE APPROPRIATELY

LOCATED IN RELATION TO SITE CONDITIONS, SURROUNDING LAND USES, AND CAPACITY OF PUBLIC FACILITIES AND TRANSPORTATION SYSTEMS.

Standard Operating Procedures

10.3.SOP1 Designate various categories of residential density on the Comprehensive Plan Land Use Maps and the Land Use Code maps based on evaluation of the following criteria:

A. Physical site conditions including slope, areas of natural hazard, wetlands, watershed value, and/or high value natural resources;

B. Access and capacity of adjacent streets and intersections. Arterial streets should have limited, and controlled, access from local or collector streets;

C. Availability of public facilities and services, especially municipal water and sewer systems and, for low- to medium-income affordable housing, proximity to public transit;

D. Within the Urban Service Area, compatibility of the proposed development with the scale and massing of surrounding neighborhoods with regard to building height and orientation, but not necessarily with regard to similar density as the surrounding or adjacent neighborhood, as the CBJ seeks to make the most efficient use of residentially-buildable lands;

E. Potential of specific sites to accommodate the proposed density including size and shape of property and adequacy of internal circulation, parking, screening and privacy; and/or,

F. Distance from incompatible land uses that may generate offensive or nuisance off-site impacts to the new residential development, including noise, dust, fumes, malodors and/or heavy truck traffic.

Avoiding Residential Land Use Conflicts

A major concern expressed by residents of the CBJ is the need to protect the character of existing neighborhoods from incompatible uses. Their primary concern is to minimize the intrusion of heavy traffic on neighborhood streets and avoid conflicts related to parking congestion, noise, glare, loss of privacy and other factors associated with higher intensity uses.

POLICY 10.4 IT IS THE POLICY OF THE CBJ TO MINIMIZE CONFLICTS BETWEEN RESIDENTIAL AREAS AND NEARBY RECREATIONAL, COMMERCIAL, OR INDUSTRIAL USES THAT WOULD GENERATE ADVERSE IMPACTS TO EXISTING RESIDENTIAL AREAS THROUGH APPROPRIATE LAND USE LOCATIONAL DECISIONS AND REGULATORY MEASURES.

Development Guidelines

10.4.DG1 New development in the USAB, particularly in-fill development on vacant land within established neighborhoods, should be designed in such a way as to promote compatibility in scale and massing as the adjacent or nearby built environment and should ensure privacy, light

and air to adjacent homes. Density alone should not be considered as a criterion for determining neighborhood harmony within the Urban Service Area provided that (1) light, air and privacy is assured to adjacent residential occupants; (2) parking for the subject project is screened or hidden from view from public streets and from adjacent residential neighbors; and (3) project-serving roads and intersections are improved to a Level of Service D or better. When these criteria are met, higher density development is encouraged.

10.4.DG2 When a developer extends public or private utilities and infrastructure, such as sewer service, roads or electrical lines, to a particular parcel or development, care should be taken to ensure that adjacent lands and infrastructure that would be affected by the new development are adequately improved by the developer to accommodate the proposed project's traffic as well as new traffic or use anticipated by the growth-inducing impacts of such services or infrastructure extensions. For example, when a water or sewer main or road is extended to a property, it should be sized to serve development at a similar scale and density on the adjoining property.

Implementing Actions

10.4.IA1 Seek to reduce or eliminate conflicts between medium or high density residential uses in established low density residential neighborhoods by encouraging the design of higher density housing to be compatible in scale, massing and orientation with the adjacent, lower-density housing and to hide or screen the parking behind or within the structure(s).

10.4.IA2 Maintain and consider enhancing Title 49 Land Use Code requirements for buffering and screening between residential and commercial/industrial uses and careful review of site development plans. Great care should be taken to incorporate design features, materials and good neighbor operating practices into the non-residential development permit in order to mitigate potential adverse noise, dust, odor and glare impacts to adjacent residential neighbors. Such operating practices should be incorporated as conditions of any permit for a non-residential land use located within 200 feet of a residential use or neighborhood.

10.4.IA3 Consider establishing a new Noise Notification Overlay District that encompasses lands near enough to be affected by uses known to generate nuisance noise, such as: gravel extraction areas, landfill sites, outdoor shooting ranges, airports and heliports. Within this overlay district, property owners should be required to notify prospective tenants and/or purchasers of the presence of these land uses and their potential noise impacts. Also consider amending Title 19, the Building Code, to require adequate noise mitigation in building design and construction within this overlay district.

Neighborhood Facilities

It is essential that adequate public facilities be available to support planned and needed residential development in the CBJ and assure that high quality neighborhoods are maintained and established. Both the private and public sectors are responsible for providing such facilities. It is also important to provide land or space for convenient shopping and services and

community gardens within walking distance of new neighborhoods to reduce consumption of fossil fuels and our contribution to climate change.

POLICY 10.5 IT IS THE POLICY OF THE CBJ THAT RESIDENTIAL DEVELOPMENT PROPOSALS, OTHER THAN SINGLE-FAMILY RESIDENCES, MUST BE LOCATED WITHIN THE URBAN SERVICE AREA BOUNDARY OR WITHIN A DESIGNATED NEW GROWTH AREA. APPROVAL OF NEW RESIDENTIAL DEVELOPMENT PERMITS DEPENDS ON THE PROVISION OR AVAILABILITY OF NECESSARY PUBLIC AMENITIES AND FACILITIES, SUCH AS ACCESS, SEWER, AND WATER.

Standard Operating Procedures

10.5.SOP1 Encourage public/private partnerships in the development of new subdivisions with roads, intersections, separated pedestrian and bicycle pathways/trails, water and sanitary sewer systems that meet CBJ standards.

10.5.SOP2 Maintain the provisions in the Land Use Code that require developers to provide for access, facilities, and services prior to final plat approval.

10.5.SOP3 Amend the Land Use Code to allow appropriate urban densities in areas served by community sewer and water systems, being cognizant of the desire to maintain the rural, suburban or urban character of the existing surrounding neighborhoods.

10.5.SOP4 Encourage the location and design of small-scale commercial developments that provide convenient shopping and personal services within or near residential neighborhoods. The building and parking siting and design should ensure mitigation of noise, light and glare, odor and litter impacts to adjacent residential neighborhoods. Any neighborhood-commercial development should be accessible via improved pedestrian and bicycle routes and should provide secure and dry bicycle racks.

Implementing Actions

10.5.IA1 Develop a Capital Improvement Plan to extend facilities and services to areas within the Urban Services Area planned for medium to high density residential development. Priority for capital improvements for road access, municipal water and sewer services should be given to land areas that can accommodate the densities that support affordable housing units (minimum 10 units per acre) or to properties on which affordable housing projects are proposed.

10.5.IA2 Develop infrastructure that supports low- and moderate-income affordable housing developments on municipally-owned lands.

Residential Project Design

CBJ residents support measures that will assure the development of high quality, livable neighborhoods. To accomplish this, regulatory measures and incentives are needed to encourage or require, where necessary, developers to use high-quality site design procedures. Title 49, the CBJ Land Use Code, has many requirements intended to achieve this assurance. Maintenance and enhancement of these requirements will increase physical amenities, protect open space/natural areas, shelter residential areas from adverse impacts of major streets or incompatible land uses, provide for sustainable, energy-efficient transportation opportunities, and improve traffic safety.

POLICY 10.6 IT IS THE POLICY OF THE CBJ TO REQUIRE NEW RESIDENTIAL DEVELOPMENTS TO MEET MINIMUM CRITERIA FOR OVERALL SITE DESIGN INCLUDING PROVISION OF LIGHT, AIR AND PRIVACY.

Implementing Actions

10.6.IA1 Continue existing incentives and develop additional incentives to encourage and reward excellence in site design and provision of amenities or facilities, particularly those related to preservation of natural terrain and vegetation, building orientation to maximize energy efficiency and privacy, and screening the parking in medium-to-high density developments. These incentives may include lower permit fees and/or permit expediting services.

10.6.IA2 The CDD should improve the development review process to require all applications for major residential developments, including major subdivisions, to provide detailed site information at the pre-application stage of review that identifies existing on-site slopes, soil characteristics, natural hazards, drainage channels, locations of old growth trees, access to streets and public utilities, and existing buildings or historic resources, along with the proposed building(s) pads, lot configuration(s), drainage systems, and new road configurations. This pre-application review would focus the site and project analysis and would expedite the review process once the application is made.

10.6.IA3 The CDD should work with the CBJ Parks and Recreation Department to establish within the Land Use Code a set of criteria for the provision of active play areas in multifamily residential developments, along with development standards for developers to adhere to in constructing those facilities.

10.6.IA4 Amend the Land Use Code to ensure that development proposals are evaluated with regard to site design, including:

a. Preservation of anadromous streams, high-value wetlands, natural terrain features, and historic resources;

b. Provision and/or retention of buffers between residential and commercial or industrial uses, and between high- and low-density residential uses to ameliorate

noise, glare, and to otherwise reduce negative impacts associated with conflicting land uses in proximity to one another;

c. Safe and convenient circulation for autos, pedestrians, and bicycles;

d. Building placement that respects the terrain, maximizes light, air, and energy efficiency, as well as protecting the privacy of neighbors; and,

e. Consideration of compatibility factors related to surrounding land uses and public facilities.

COMMERCIAL AND INDUSTRIAL USE OF LAND

Commercial and Industrial Land Availability

The CBJ's distance from national markets, size of the labor force, lack of land-route access and the resulting costs of importing raw materials, as well as the limited amount of renewable natural resources to market to the outside world all impose serious limits to the growth of manufacturing and distributive industrial activities. However, the provision of land for commercial office, retail and tourism-related developments has allowed the CBJ to capture a large share of the local market for retail goods and services, thereby reducing the "leakage" of disposable income to the outside world. The CBJ also serves as a regional destination for goods and services from residents and business operators living in neighboring towns and villages. The CBJ's historic sites, cultural diversity, natural habitats and scenic beauty have strengthened its position as a major tourist destination, particularly for eco-tourism, outdoor adventure tours and historic destinations. These resources provide the CBJ with a comparative advantage over other destinations in the State for these shopping, service, and tourism dollars, resulting in local employment and tax revenues to support public services and infrastructure.

Commercial and industrial uses in the CBJ range from neighborhood-scale retail to resource extraction heavy industries (minerals, sand and gravel). Commercial fisheries, food processing (seafood and beer) and construction industries maintain a strong presence, although nearly every business sector reports that the lack of affordable housing stymies attraction and retention of employees and, therefore, expansion of their businesses.

About 40 percent of local employment consists of government workers, including local, State and Federal agencies, the school district, and the University of Alaska Southeast (UAS). Water-dependent fisheries, transport, shipping, marine-support businesses and recreational or eco-tourism businesses remain important activities in the CBJ. Downtown Juneau remains an important destination for visitors, for local entertainment, ceremonial gatherings and meetings, arts and cultural events, as well as for dining and shopping. The airport area and the area east of the juncture of the Mendenhall River and Egan Drive are major centers of retail activity. Smaller commercial centers or nodes can be found in Douglas, Lemon Creek, Salmon Creek, and Auke Bay.

The CBJ seeks to balance its economy by supporting its government, service, retail and tourism industries while strengthening and facilitating the expansion of its export industries such as food processing, manufacturing and mineral extraction. To do so, we must designate sufficient vacant land to meet future demand for commercial, personal and business services, and institutional, cultural, artistic, and industrial activities. Determination of location and size of commercial and industrial districts should be based on the spatial needs and locational criteria of each sector, as well as the characteristics and features of the vacant land. Typically, retail and office centers seek locations with access to, and visibility from, major thoroughfares. Public transit services should be provided to major employment and shopping areas. Manufacturing and food processing industry seeks flat, dry land located some distance from residential uses yet near roads with heavy load-carrying capacities. Unfortunately, about half of the industrially-zoned lands within the Urban Service Area are or contain wetlands and are largely unsuitable for development. Unfortunately, too, the search for buildable lands conducted for this Plan Update identified very little potential industrial land suitable for development in the short-term; lands found to be suitable for development in the near future include current and former gravel extraction areas.

POLICY 10.7 IT IS THE POLICY OF THE CBJ TO DESIGNATE ON LAND USE AND ZONING MAPS, AND TO PROVIDE SERVICES TO, SUFFICIENT VACANT LAND WITHIN THE URBAN SERVICE AREA APPROPRIATELY LOCATED TO ACCOMMODATE FUTURE COMMERCIAL AND INDUSTRIAL USES.

Standard Operating Procedure

10.7.SOP1 Review local economic indicators and conduct periodic surveys and analyses of the space needs of commercial and industrial sectors in the CBJ and, when appropriate, allocate sufficient land and infrastructure to support the expansion and/or relocation needs of those sectors of the economy.

Development Guidelines

10.7.DG1 In drafting ordinances and resolutions, the CBJ should favor basic industry, locally-based, and/or independent businesses that would provide employment for local residents over other businesses that would not provide those resources, to the extent allowed by law.

10.7.DG2 When designating land for heavy and light industrial uses on the Comprehensive Plan Land Use Maps and the Land Use Code zoning maps, evaluate the sites based on the following criteria:

A. Physical site conditions: Industry needs flat, dry land with soils that can sustain heavy loads;

B. Access and capacity of adjacent streets with consideration for heavy-load-carrying capacity and wide turning radii to accommodate large truck turning movements;

C. Distance from sensitive receptors, such as homes, schools and hospitals, to potential off-site impacts generated by industry including noise, dust, fumes, odors and nighttime light glare;

D. In areas suitable for heavy industry, based on the above criteria, residential, retail, office, personal service and similar traffic-generating uses should not be permitted within heavy industrial districts although light industry such as building contractors, repair services, storage yards and similar business and household services, would be compatible with heavy industrial uses;

E. In areas suitable for light industry but not for heavy industry due to proximity to sensitive receptors, retail, office, bars and restaurants, and personal services uses would be compatible uses; and

F. Residential uses, other than caretaker units, should be discouraged in industrial zones.

10.7.DG3 Ensure adequate infrastructure for projected commercial and industrial development through the Capital Improvement Program and transportation planning.

10.7.DG4 The Industrial Boulevard industrial area should remain in light and heavy industrial use rather than convert to, or be incrementally encroached upon by, retail, office or residential uses.

Implementing Actions

10.7.IA1 Maintain and improve design review procedures to ensure that proposals for commercial (retail, office and institutional) development are evaluated with regard to site design, building placement, parking, landscaping, exterior lighting, screening and buffers, signage and other factors related to surrounding properties, land uses and public facilities.

10.7.IA2 Identify and protect from land use conflicts potential sites for light industrial and heavy industrial uses.

10.7.IA3 Designate land for community-scale food production, processing, and distribution. [see also 10.11.IA3]

Regional Trade, Medical Services and Visitor-Destination Uses

An important economic engine for the CBJ is the attraction of regional, state, national and international visitors to the CBJ. Although the CBJ hosts a robust summer-season cruise ship visitor industry that bolsters the CBJ's sales tax revenues, this sector does not provide full-time, year-round employment for local residents, while it does heavily impact residential and commercial rents, recreational destinations, roadways, and the level of noise in downtown and neighborhoods. In response, business operators within the visitor industry have instituted a volunteer "Tourism Best Management Practices" program to control and minimize adverse noise, traffic, air and water quality impacts of their industry.

Many cruise ship destinations throughout the Southeast offer the same T-shirt shops and jewelry stores, often operated by the same company at each port-of-call; this dilutes the authenticity and uniqueness of our town to visitors. When supporting new visitor destinations in the CBJ, care should be taken to ensure that the destinations or activities reflect an "authentic" Juneau experience, rather than a false, contrived or "Disneyland-esque" type of experience for visitors. Ensuring the authenticity of Juneau, as characterized by its natural habitats, beautiful scenery, cultural richness, and history will strengthen our comparative advantage as a premier destination in the visitor industry.

Many residents and business operators from small towns and villages within the Southeast Region make monthly or quarterly visits to the CBJ to purchase goods and services that are not found within their home towns. This regional trade is an important year-round market for local retail and service businesses and medical service providers. Facilitating this visitor and regional trade is vital to achieving a balanced economy in the CBJ.

POLICY 10.8 IT IS THE POLICY OF THE CBJ TO ENCOURAGE AND STRENGTHEN JUNEAU'S POSITION AS A REGIONAL TRADE CENTER FOR SOUTHEAST COMMUNITIES.

Standard Operating Procedure

10.8.SOP1 Facilitate regional trade by allowing wholesale and retail trade centers and hotels and motels in and near marine and aviation transportation hubs such as the airport and barge and ferry terminals.

POLICY 10.9 IT IS THE POLICY OF THE CBJ TO ENCOURAGE AND STRENGTHEN JUNEAU'S POSITION AS AN INTERNATIONAL VISITOR DESTINATION BY PROTECTING THE RESOURCES AND ASSETS THAT MAKE IT

ATTRACTIVE TO VISITORS, INCLUDING ITS NATURAL ENVIRONMENT, SCENIC BEAUTY, CULTURAL DIVERSITY, HISTORIC RESOURCES AND DIVERSITY OF ACTIVITIES AND EXPERIENCES. VISITOR DESTINATIONS SHOULD CONVEY AUTHENTIC JUNEAU WILDERNESS, RECREATION, HISTORY AND CULTURAL ARTS EXPERIENCES WHILE PROTECTING THOSE RESOURCES FROM OVERUSE AND DEPLETION.

Development Guideline

10.9.DG1 When reviewing permits for visitor destinations and related tourism industry activities, identify and seek to mitigate off-site impacts.

Implementing Actions

10.9.IA1 Investigate and potentially adopt regulatory tools to encourage the development and operation of year-round businesses and commercial visitor destinations, especially those that would provide authentic CBJ goods and services in prominent locations within the development.

10.9.IA2 The CBJ should conduct analyses of potential measures that can strengthen the retail, personal service, food and beverage service, entertainment and cultural offerings and other commercial operations for the Downtown Juneau area, and particularly within the Downtown Historic District, which would convey the unique style and character of the CBJ, and its historic and cultural roots, to cruise ship passengers.

10.9.IA3 The CDD should identify potential sites for new or expanded recreational vehicle parks, campgrounds and related facilities and appropriately designate those lands for those uses on the Comprehensive Plan Land Use Maps.

Neighborhood Commercial Uses

The CBJ recognizes the need for appropriate small-scale commercial development to serve neighborhoods. The Land Use Code contains specific provisions to allow small-scale commercial retail establishments to be located in residential areas. There are a number of locations in the CBJ where additional such "Mom and Pop" stores would be appropriate to provide convenience goods and services for nearby residents to walk or cycle to patronize.

POLICY 10.10 IT IS THE POLICY OF THE CBJ TO ENCOURAGE SMALL-SCALE NEIGHBORHOOD CONVENIENCE COMMERCIAL USES IN APPROPRIATE AREAS IN NEW NEIGHBORHOODS AND WITH APPROPRIATE OPERATING MEASURES WITHIN EXISTING NEIGHBORHOODS.

Development Guideline

10.10.DG1 Maintain provisions in the Land Use Code for neighborhood commercial developments such as convenience grocery stores, including standards and limitations governing permitted uses, hours of operation and that mitigate potential adverse impacts such as traffic, safety, noise, litter, glare and loss of privacy to adjacent residential uses. Maintain and improve design review procedures to assure that proposals for neighborhood commercial development are evaluated with regard to site design, building placement, parking, landscaping, exterior lighting, and other factors related to surrounding properties, land uses and public facilities. Secure, dry bicycle racks or storage facilities should be provided at these sites.

Resource-Based Industrial Development

In addition to government and tourism, the area's natural resources, predominantly in the forms of minerals and seafood, are also important local economic resources. It is important to promote the long-term economic benefits of developing these resources while mitigating any negative impacts of such development on the natural and built environment. Mineral extraction is not a sustainable resource activity; once it is harvested, extracted or depleted, it cannot be renewed. However, abandoned mines and gravel pits can be of recreational or habitat value if properly remediated prior to re-use. When extracting mineral resources, care should be taken to avoid damage to nearby or downstream recreational, scenic, or fish and wildlife habitat that is vital to other basic CBJ industries, such as tourism or fisheries.

Commercial fisheries depend upon careful management of land and maritime resources, particularly the quality of headwaters, upland spawning and rearing habitats, associated watersheds and wetlands, and conveyance water bodies linking upland habitat to the sea. The protection of these resources and the provision of associated maritime support businesses and facilities, such as docks, harbors, vessel and gear repair facilities, marine gear sales and supply outlets, and seafood processing and shipping facilities is essential to sustain the commercial fishing industry.

POLICY 10.11 IT IS THE POLICY OF THE CBJ TO FACILITATE THE CAREFUL DEVELOPMENT OF ECONOMICALLY-VALUABLE NATURAL RESOURCES WHILE AVOIDING, MINIMIZING, AND/OR MITIGATING ADVERSE ENVIRONMENTAL AND/OR ECONOMIC IMPACTS TO OTHER CBJ BUSINESS SECTORS.

Standard Operating Procedures

10.11.SOP1 Work with State and Federal agencies to promote natural resource development that is compatible with the policies contained in this Plan.

10.11.SOP2 Maintain close coordination in the review process for State permit activities that affect land and habitat in the CBJ.

Development Guideline

10.11.DG1 When reviewing permits for resource extraction and harvesting activities, identify and seek to mitigate off-site impacts that may affect fish and wildlife habitat and air and water quality necessary to sustain other economic sectors or subsistence activities in the CBJ.

Implementing Actions

10.11.IA1 Formulate management plans for resource-related activities such as sand and gravel extraction, mining and timber harvesting on CBJ lands. These plans should include measures to avoid or mitigate off-site impacts to adjacent and downstream neighborhoods and habitat and should include plans for remediation and reuse of the land after depletion of the resource.

10.11.IA2 Review Land Use Code provisions regarding timber harvesting. Consider exerting jurisdiction over logging areas larger than 10 acres, adopting regulations to guide timber harvesting, and clarifying the Code to distinguish between land clearing and timber harvest and to establish when logging operations require land use permits.

10.11.IA3 Review Land Use Code provisions regarding home-based, small-scale and medium-scale agriculture and harvesting of flora. Encourage such activities to use careful soil and water management practices, non-invasive and non-synthetic fertilizers and pesticides to assure sustainability over the long-term. [see also 10.7.IA3]

10.11.IA4 Encourage the use of CBJ-owned land for harvesting natural products to develop value-added products in cottage industries to support the local economy.

Waterfront Commercial and Industrial Development

Because of the CBJ's dependence upon waterborne transportation and commerce, careful development of waterfront areas for commercial/industrial uses is critical to the area's continued economic vitality. Adequate docks and harbors are critical to the CBJ's future economic health. This subject is discussed more specifically in the discussion of the Seafood and Commercial Fishing Industry in the "Port Facilities" sections of Chapters 5 and 8 of this Plan. The CBJ should identify and reserve waterfront areas that are appropriate for such facilities based on their physical suitability and access to transportation modes on land and water. The CBJ should also undertake measures to protect important shoreline fish and wildlife habitat and other sensitive coastal resources.

POLICY 10.12 IT IS THE POLICY OF THE CBJ TO DESIGNATE AND RESERVE WATERFRONT LAND WITH ADEQUATE SERVICES AND IN APPROPRIATE LOCATIONS FOR WATER-DEPENDENT RECREATION, PUBLIC ACCESS AND COMMERCIAL/INDUSTRIAL ACTIVITIES WHILE PROTECTING IMPORTANT FISH AND WILDLIFE HABITAT AND OTHER COASTAL RESOURCES.

Standard Operating Procedures

10.12.SOP1 As part of a careful planning analysis of the uses of CBJ shoreline areas, designate lands on the Comprehensive Plan Land Use Maps that are suitable for water-dependent uses such as new or expanded CBJ docks, harbors and port facilities, marine drayage facilities, cruise ship facilities, recreation and tourism boat facilities, marine fuel depots, fisheries gear and vessel repair facilities, ice plants, landing and loading facilities, marine gear sales and service outlets, and public access to the water and shoreline facilities. Designate these areas as Waterfront Commercial (WC) or Waterfront Commercial/Industrial (WCI) lands on Land Use and Zoning Maps and prohibit non-water-dependent uses such as office or non-maritime-related commercial uses within those districts. Allow residences above water-dependent uses in WC-designated lands, and prohibit residences other than caretaker units in WCI-designated lands. Assure public access to the shoreline and waters for passive and active recreation uses.

10.12.SOP2 Within the Capital Improvement Program (CIP), identify special infrastructure needs for port and water-dependent development.

10.12.SOP3 Maintain and improve design review procedures to assure that proposals for waterfront development are evaluated with regard to site design, building placement, protection of view corridors from the sea and to the sea, exterior lighting, public access, water quality, and other factors related to surrounding properties, land uses and public facilities.

Development Guideline

10.12.DG1 Deep water ports and navigable waters are valued assets and are critical to the sustainability of our economy and the livability of Juneau. New development along the shoreline should ensure that deep water navigable lanes for barges, the Coast Guard, commercial fishing vessels, research vessels, and other marine vessels critical to the local economy are protected from encroachment from incompatible land uses or physical obstructions. Although it is considered a navigable waterway by the Federal government, the CBJ does not consider Gastineau Channel navigable within the boundaries of the Mendenhall Wetlands State Game Refuge, as this portion of the channel is only navigable at high tides for a short period of time, and even then it is impassible for large vessels. The Federal classification of this waterway as navigable requires the protection of an above-water area free and clear of obstructions that is equal to the unobstructed area under the Juneau-Douglas Bridge, which makes the design and construction of a North Douglas Crossing much more difficult and expensive than it would be if this channel were not so designated.

Mixed Use Development

Downtown Juneau is the government, employment, tourism, historical and cultural center of the CBJ as well as a residential neighborhood and commercial area. A strong Downtown commercial area is critical to the CBJ's social and economic vitality. Downtown Juneau, however, has seen the historic mix of small retail and residential uses eroded and, in some cases, replaced by

tourist-oriented and government office use. Downtown Juneau near the cruise ship docks has become heavily congested during the summer months with visitor-oriented retail uses. As the cruise ships leave port in the evening, there is little opportunity for passengers to support restaurants, arts or entertainment activities in the Downtown. During the summer tourist season, government workers leave the Downtown after work to escape congestion and Downtown businesses are left to cater to low-wage seasonal workers and local young adults; these groups are not capable, by themselves, of sustaining a vibrant and diverse business community. At the end of the summer tourist season, many of the tourist-oriented businesses close shop and the Downtown seems deserted during the tourism off-season. The Downtown is in need of a greater proportion of residential uses to support a 24-hour, year-round community. This can be achieved by encouraging and facilitating mixed uses. Introducing year-round cultural destinations, an arts and entertainment district, and housing above, behind, and next to shops would create a vibrant, year-round community. This community should be walkable, with transit, bikes and walking as the primary means of intra-city travel.

Mixed use development is also seen as an avenue to implement several Comprehensive Plan policies, notably those pertaining to compact development, energy efficiency/sustainability, efficient transit services, and affordable housing. Locations outside of the Downtown core that are suitable for mixed use development include Downtown Douglas, the village center of Auke Bay near the University, and areas in and around shopping malls and near major employment centers. It should be noted that in mixed use areas around the airport, owners should be required to notify prospective tenants and buyers of aircraft noise impacts.

POLICY 10.13 IT IS THE POLICY OF THE CBJ TO PROVIDE FOR MIXED USE DEVELOPMENT THAT INTEGRATES RESIDENTIAL, RETAIL AND OFFICE USE IN DOWNTOWN AREAS, SHOPPING CENTERS, ALONG TRANSIT CORRIDORS, AND IN OTHER SUITABLE AREAS.

Standard Operating Procedures

10.13.SOP1 Maintain a category on the Comprehensive Plan Land Use Maps and the Zoning Maps that allows high density residential and retail and office uses as mixed use developments. Provision of public transit services to mixed use developments would justify lower parking requirements, particularly for housing to be occupied by students, seasonal workers, the elderly and/or mobility-impaired persons.

10.13.SOP2 Maintain and improve provisions in the Land Use Code that include performance standards covering building height, site coverage, landscaping, buffering from incompatible uses, access, signage, parking and other design standards in the Mixed Use zones. Maintain and improve design review procedures to assure that proposals for mixed use development are evaluated with regard to site design, building placement, parking, landscaping, exterior lighting, and other factors ensuring privacy and livability of the project residents as well as factors to ensure the project is compatible with, and a good neighbor to, surrounding properties, land uses, and public facilities.

Implementing Actions

10.13.IA1 Rezone the land areas designated in this Plan for appropriate mixed use designations.

10.13.IA2 Establish development standards and design guidelines for new mixed use developments patterned on the Transit Oriented Development guidelines cited in Chapter 3 of this Plan.

10.13.IA3 Conduct an area plan for the Auke Bay community to create an attractive, pedestrian-oriented marine mixed use village that promotes affordable housing and accommodates the space and livability needs and objectives of residents, University students and faculty, recreational enthusiasts, fishermen and women, business operators, property owners, and area fish and wildlife.

10.13.IA4 Conduct an area plan for Downtown Douglas to protect and guide the redevelopment of an attractive, pedestrian-oriented marine and mixed use town that promotes affordable housing and accommodates the space and livability needs and objectives of residents, recreational enthusiasts, fishermen and women, business operators, property owners, and area fish and wildlife.

Public Uses

POLICY 10.14 IT IS THE POLICY OF THE CBJ TO RESERVE SUFFICIENT LANDS AND FACILITIES TO SUPPORT THE STATE CAPITAL FUNCTIONS IN DOWNTOWN JUNEAU, INCLUDING THE PROVISION OF ADEQUATE TRANSPORTATION, HOUSING, COMMERCE, COMMUNICATIONS SERVICES, CULTURAL AND ENTERTAINMENT ACTIVITIES AND OTHER SUPPORT SERVICES.

Standard Operating Procedure

10.14.SOP1 Identify land areas on the Comprehensive Plan Land Use Maps for a Capitol Complex in Downtown Juneau that would include adequate land to accommodate a Capitol building and associated office space, meeting rooms, presentation halls, transit services, parking facilities, telecommunications systems and facilities for remote testimony, media services, housing, commerce, entertainment and cultural activities and dining services.

Implementing Action

10.14.IA1 Amend the Land Use Code to create new overlay zoning districts for transit-oriented development (TOD or TOC), for parks and stream corridors, for view corridors (View Corridor Protection Overlay District), and for Noise Notification Overlay Districts and map those districts on the appropriate properties.

CHAPTER 11. COMPREHENSIVE PLAN LAND USE MAPS

The Comprehensive Plan Land Use Maps, generally called the Comprehensive Plan Maps, display land use designations for various subareas of the CBJ. The Comprehensive Plan Maps translate the policies of the preceding chapters into specific land use designations for residential, commercial, industrial, natural areas, resource protection and institutional/public uses.

The land uses shown are expressed in a range of development intensities. All new zoning or re-zoning designations are required to be consistent with the Comprehensive Plan Maps. In some cases, the Comprehensive Plan Map will provide a range of densities that can be allowed, which means that the corresponding zoning classification could be one of several selections within that range. For example, an "Urban Low Density Residential" (ULDR) Comprehensive Plan Land Use designation describes residential development with densities ranging from one to six dwelling units per acre. There are five Land Use Code residential zoning district designations that fall within this density range, and which could then be chosen as consistent with the Comprehensive Plan.

In considering re-zoning requests, the Planning Commission and Assembly should aim to promote the highest and best use of the land under consideration: in some cases, the highest and best use may be increased density or more intensive use of the land; in other cases, the highest and best use may be preservation in an undisturbed state for purposes of habitat preservation, flood control, or providing a buffer between development and areas subject to natural hazards.

Encompassing over 3,000 square miles, the CBJ is difficult to depict unless its components are broken down into more easily mapped and displayed units. Thus, a study area was drawn from within the CBJ. The study area was in turn divided into subareas. The primary presentation of land use and related policies appear in Chapters 4 (Housing), 5 (Economic Development) and the Subarea Maps and related Guidelines described later in this Chapter.

Methodology and Criteria

The Comprehensive Plan Maps were prepared after analyzing each subarea in terms of its relationship to the existing community form, adopted policies, existing natural resources, habitat value, development patterns, suitability for additional development, and other characteristics. The steps taken to prepare the subarea maps are discussed below.

Vacant and potentially buildable land was located in each subarea and physical development constraints such as steep slopes and wetlands were evaluated. Road access, intersection capacity, utilities, adjacent land uses and existing development patterns were also analyzed. In most cases, existing patterns were reinforced with a compatible designation on the subarea maps. Most publicly-owned land within sensitive areas was designated for very low density development or resource conservation in accordance with the Natural Resource and Hazards policies described in

Chapter 7 of this Plan. Designation of residential land was based on the level of existing or planned urban services, the pattern of existing subdivision(s), and compatibility with adjacent land uses.

For each subarea, the designated intensity of future development was determined in large part by whether the subarea is located in the Urban Service Area, rural areas, or New Growth Areas. For example, a key determinant for the use of land in the Downtown Juneau and Downtown Douglas areas are their characteristically urban form. The Lemon Creek, Switzer Creek, and East Mendenhall Valley areas are, overall, characteristically suburban in scale, form and density, although there are areas of high density apartments and manufactured home parks therein. Small areas around the University and Auke Bay share urban form and densities. The area west of the Mendenhall River, however, is rural in character although it is provided sewer service that, typically, warrants a suburban or urban density of development. Likewise, North Douglas is to be provided sewer service that warrants denser residential development. Areas that are planned for sewer service are designated transition areas that, when services and road improvements are provided, should be rezoned to allow increased density of development. The more remote roaded areas of Thane and Out the Road are rural and are not proposed for municipal water or sewer service within the 12 year planning horizon of this Plan.

Commercial uses were generally designated in or adjacent to existing commercial areas if the latter are accessible to major population centers. Water- dependent commercial uses were designated for shoreline areas characterized by adequate services and marine access. Mixed Use development was designated in areas near existing shopping areas, along transit corridors, in Downtown Juneau and Douglas and the village center of Auke Bay, based on existing development patterns, access and location.

Industrial districts were designated according to the type of industrial use therein or based on the location criteria of industrial businesses. Due to the incremental, yet significant, encroachment of commercial retail, office and service uses into industrially-zoned districts in Lemon Creek and near the airport, these areas were re-designated from industrial use to heavy commercial/light industrial use. Other lands that had previously been designated for future park use near the airport (an abandoned sand and gravel pit) and for resource development in Lemon Creek (an active gravel pit) were designated for Resource Development; these areas are expected to be available for development in the long-term.

Waterfront areas were designated for water-dependent development, mixed with compatible commercial and residential uses, provided that public access to the water and valued view corridors are preserved.

The public/institutional designations reflect existing uses. In Downtown Juneau they allow for expansion and redesign of municipal facilities and the State Capitol Complex. Public shoreline access is considered to be an important land use. The Comprehensive Plan Maps indicate existing public shoreline access points. The locations of potential small boat harbors are shown, as are potential roadway corridors.

Descriptions of Land Use Categories

The following descriptions should guide the development of Land Use Code zoning district land uses, development standards and guidelines. These descriptions are intended to describe the overall character of development for each land use category and are not intended to be firm or restrictive definitions, such as with zoning district permitted and conditional uses. The Community Development Department, Planning Commission and the Assembly will use these descriptions of the character of the land use categories and zones to guide their formation of the zoning regulations for each. These land use categories and their uses reflect cultural values and economic and societal needs and, over time, the Comprehensive Plan descriptions of land use categories will change to reflect changing values and circumstances.

Conservation Area (CA). Conservation Areas consist of CBJ-owned Parks and Recreation Department-managed lands with recognized high value environmental qualities that are set aside for the protection and management of the natural environment with recreation, such as fishing, hiking and non-motorized boating, as a secondary objective. These may be non-anadromous watercourses or areas adjacent to anadromous streams that have been designated Stream Protection Corridors (SC), greenbelts, or high value wetlands. No development should be permitted other than structures, roads and trails necessary for the maintenance and protection of the resources or for managed public access for education and passive recreation purposes. These lands should be zoned to prevent residential, commercial, and industrial development, as well as resource extraction activities.

Stream Protection Corridor (SC). On CBJ-owned lands, a SC-Stream Protection Corridor designation serves to protect anadromous streams and their tributaries from development that could cause pollution, erosion, depletion of groundwater infiltration or otherwise could degrade the stream corridor and its biological functions. Upon first designation, a 200 foot wide corridor on both sides of the bank would be included within the designated corridor along anadromous water bodies included within the Alaska Department of Fish and Game Inventory adopted by the CBJ Assembly. However, this "base" designation should be revised and the length and breadth of the specific corridor should be determined by a scientific/biological assessment of the functionality and habitat value of the particular stream segment; the width and length of the protected corridor may be more or less than the 200-foot base protection zone. No development shall be permitted other than passive, non-motorized trails, their support systems and, under special circumstances, roads and parking areas necessary for the maintenance and protection of the resources therein or to facilitate managed non-motorized public access for education and passive recreation activities. These lands should be zoned to prevent residential, commercial, and industrial development, as well as resource extraction activities. The CBJ should retain ownership of these lands.

On publicly-owned lands that are not owned by the CBJ, a SC-Stream Protection Corridor designation is fixed at 200 feet from the ordinary high water mark of the shorelines of the anadromous fish creeks, streams, and lakes listed in the most recently CBJ-adopted Alaska Department of Fish and Game (ADF&G) inventory of anadromous streams.

Natural Area Park (NP). Natural Area Parks are CBJ-owned lands characterized by areas of natural quality designed to serve the entire community by providing fish and wildlife habitat, open space/natural areas, access to water, and opportunities for passive and dispersed recreation activities. No development should be permitted other than structures, roads and trails necessary for the maintenance and protection of the resources or for managed public access for education and passive recreation purposes; this may include parking areas, educational kiosks, cabins, rest stations and similar convenience services for the recreational enthusiast. These lands should be zoned to prevent residential, commercial, and industrial development, as well as resource extraction activities. The CBJ should retain ownership of these lands.

Recreational Service Park (RS). Recreation Service Parks include CBJ-owned lands with parks developed for active recreation and programmed use and/or community gardens, and may be a single use or activity area. Examples include Bonnie Brae mini-park, Chicken Yard neighborhood park, Savikko community park, Community Gardens, Eaglecrest, and the Hank Harmon Rifle Range. The Kaxdigoowu Heen Trail is part of a Recreation Service Park. An All-Terrain Vehicle (ATV) riding park would be an appropriate use of lands under this designation. Recreation, parking, playgrounds and fields, operations and maintenance-related structures and activities are typical components of RS-designated lands. These lands should be zoned to prevent residential, commercial, and industrial development, as well as resource extraction activities beyond those accessory to park infrastructure development. The CBJ should retain ownership of these lands.

Recreational Resource (REC). Land primarily under federal or state management for a range of resources, such as timber, minerals, fish and wildlife and recreation uses, including recreation cabins. Uses may include small-scale, visitor-oriented, and/or seasonal recreational facilities. These lands should be zoned to prevent residential, commercial, and industrial development.

Watershed (WS) Watershed lands are in natural, largely undisturbed states that provide, or could in the future provide, water supplies for domestic water consumption. Any development within WS-designated lands should be designed and/or use Best Management Practices to avoid negative impacts to water quality.

Hazard Area (HA) Hazard Area lands have characteristics that could pose hazards to the general public and, therefore, development therein should be prohibited or, if allowed, should be designed and operated in such a way as to ameliorate any adverse impacts associated with the identified hazard. Examples of hazardous lands include areas with moderate to high potential for avalanche or mass-wasting/landslide events. Lands within Hazard Area designations may be zoned for a mix of zoning districts, most particularly the same district as the surrounding lands. CBJ-owned lands in hazard areas should be retained in CBJ ownership.

Scenic Corridor/Viewshed (SCV) This designation is suitable for CBJ-owned and other public lands whose views of, or whose near and/or distant views from the locale, are deemed as spectacular and/or represent a significant and important representation of the visual character of the CBJ. The views of, or from, the designated SCV land area toward public vista points or viewscapes: demonstrate a scenic view of great natural beauty, a spectacular landscape, an important historic building or site; provide views of the aurora borealis, sea, harbors, or of a

cityscape that is a "signature" viewscape of the CBJ; and is valued by residents and visitors alike and conveys the CBJ as a special place. Lands within the scenic corridor or viewscape should be protected from visual intrusion or obstructions from structures, night light and glare, invasive flora, and/or other similar elements that would diminish the visual prominence of the viewscape. Lands within SCV designations may be zoned for a mix of zoning districts, most particularly the same district as the surrounding lands; however, any new zoning request or rezoning application should identify specific view corridors that would be protected by any new development therein. Land uses that do not require view-blocking structures should be permitted, such as public vista plazas and seating areas, community gardens, boat launch facilities, fishing areas or utility poles.

Institutional and Public Use (IPU). Lands that are in public ownership and dedicated for a variety of public uses, such as the University of Alaska Southeast; local, State and Federal government uses; and for such public facilities as community gardens, schools, libraries, fire stations, treatment plants, and public sanitary landfills. Included are potential sites for future boat harbors, schools, parks, farmers markets, publicly-supported arts events, permitted arts or food-service kiosks or sales activities, parking facilities and road and public transit system easements. Also included are public aircraft facilities. The public use of these lands can be accommodated by any appropriate zoning district, most particularly the same district as the surrounding lands.

Transit Corridors (TC). Bus Rapid Transit (BRT) Corridors, fixed-guideway Transit Corridors, or other major transit routes, including land for common carrier passenger transportation service that is available to any person who pays a prescribed fare and that operates on established schedules along designated routes with specific stops. Park & Ride parking facilities and other off-site parking facilities may also be accommodated within Transit Corridors. Transit Corridors can be expected to support Affordable Housing, Transit Oriented Corridor, and Transit Oriented Development overlay zoning districts.

Resource Development (RD). Land to be managed primarily to identify and conserve natural resources until specific land uses are identified and developed. Such specific uses may include, where appropriate, resource extraction and development, recreational and visitor-oriented facilities, and residential uses. The area outside the study area of this Comprehensive Plan is considered to be designated Resource Development.

Rural Dispersed Residential (RDR). These lands are characterized by dispersed, very low density development not provided with municipal sewer or water. Densities are intended to permit one dwelling unit per acre or larger lot sizes, based on existing platting or the capability of the land to accommodate on-site septic systems and wells. Uses may also include small-scale, visitor-oriented, seasonal recreational facilities.

Rural/Low Density Residential (RLDR). Rural residential land at densities of one to three dwelling units per acre, based on existing platting and capability of the land to accommodate on-site septic systems and wells or whether the land is served by municipal water and sewer service.

Urban/Low Density Residential (ULDR). These lands are characterized by urban or suburban residential lands with detached single-family units, duplex, cottage or bungalow housing, zero-lot-line dwelling units and manufactured homes on permanent foundations at densities of one to

six units per acre. Any commercial development should be of a scale consistent with a single-family residential neighborhood.

Medium Density Residential (MDR). These lands are characterized by urban residential lands for multifamily dwelling units at densities ranging from 5 to 20 units per acre. Any commercial development should be of a scale consistent with a residential neighborhood.

Medium Density Residential—Single Family Detached (MDR/SF). These lands are characterized by single-family detached homes at densities ranging from 10 to 20 units per acre. Only single-family detached homes, single-family detached homes with an accessory apartment, cottage houses and bungalow houses are permitted within this zone. Any commercial development should be of a scale consistent with a single-family residential neighborhood.

High Density Residential (HDR). These lands are characterized by urban residential lands suitable for new, in-fill or redevelopment housing at high densities ranging from 18 to 60 units per acre. Commercial space may be an element of developments on properties under this designation.

Mixed Use (MU). These lands are characterized by high density residential and non-residential land uses in Downtown areas and around shopping centers, the University, major employment centers and public transit corridors, as well as other areas suitable for a mixture of retail, office, general commercial, and high density residential uses at densities ranging from 18 to 60 residential units per acre. Residential and non-residential uses could be combined within a single structure, including off-street parking. Ground floor retail space facing roads with parking behind the retail and housing above would be an appropriate and efficient use of the land.

Marine Mixed Use (M/MU). These lands are characterized by high density residential and non-residential land uses in areas in and around harbors and other water-dependent recreational or commercial/industrial areas. Suitable locations include Auke Bay, Downtown Juneau, Downtown Douglas, and the waterfront areas of the West Douglas and Echo Cove New Growth Areas when Master Development Plans are developed. Typically, neighborhood-serving and marine-related retail, marine industrial, personal service, food and beverage services, recreational services, transit and transportation services should be allowed and encouraged, as well as medium- and high-density residential uses at densities ranging from 10 to 60 residential units per acre. Ground floor retail space facing roads with parking behind the retail and housing above would be an appropriate and efficient use of the land. Float homes, live-a-boards, and house boats, if necessary services (such as sewer) are provided to berthing locations, are appropriate for these areas.

Transit Oriented Development (TOD). These lands are located with one-quarter mile of a bus transfer point, express bus stop, or along a major bus route with short headways and long service hours. This area is characterized by high density residential and non-residential land uses in Downtown areas, in or near shopping centers, near the University and major employment centers. Residential and non-residential uses could be combined within a single structure, including off-street parking. Ground floor retail space facing roads with parking behind the retail and housing above would be an appropriate and efficient use of the land.

Transition Area (T). Predominately undeveloped or low density residential areas within the Urban Service Area boundary that do not yet have public sewer, water, or other specified improvements. A transition area is shown as a lower density classification that would undergo a transition (T) to the specifically-named higher density classification once the needed improvements are made.

General Commercial (GC). Lands devoted to retail, office, food service or personal service uses, including neighborhood retail and community commercial centers, such as shopping centers and malls, office complexes or other large employment centers. Mixed retail/residential/office uses are allowed and encouraged. Residential and non-residential uses could be combined within a single structure, including off-street parking. Residential densities ranging from 18- to 60-units per acre are appropriate in this area. Ground floor retail space facing roads with parking behind the retail and housing above would be an appropriate and efficient use of the land.

Heavy Commercial/Light Industrial (HC/LI). Land to be developed for heavy commercial or light industrial uses such as small- to medium- scale food processing; printing and other business services; wholesale trade; research and development laboratories; light manufacturing processes; metal fabrication; warehousing, trucking; animal kennels; crematoria; indoor and outdoor storage; and repair and maintenance activities. Residential units should be limited to caretaker units where the occupant works directly for or owns the business for which the occupant is caretaking.

Industrial (IND). Land to be developed for heavy industrial uses such as large scale food production and/or processing; large-scale or industrial-related repair activities; metal fabrication; wholesale trade; manufacturing processes; warehousing; outdoor storage; trucking; animal kennels; crematoria; repair and maintenance uses; resource extraction and processing such as gravel pits, rock crushing facilities, cement batch plants, asphalt plants, fuel tanks, stump dumps, salvage yards, landfill sites; aircraft facilities; and other similar large-scale or noisy and/or noxious industrial activities. Some recreational uses should be permitted, including sport vehicle, all terrain vehicle (ATV) or snowmobile motor-course facilities, shooting ranges, and other similar noise-generating uses. Residential, office, retail, and personal service uses are not to be allowed.

Waterfront Commercial (WC). Land to be used for water-dependent commercial uses such as marinas/boat harbors, marine vessel and equipment sales and repair services, convenience goods and services for commercial and sport fishing, marine recreation and marine eco-tourism activities such as food and beverage services, toilet and bathing facilities, bait and ice shops, small-scale fish processing facilities, hotels and motels, and similar goods and services to support mariners and their guests. Float homes, house boats, and live-aboards would be residential uses to be allowed within a WC district, if adequate services (such as sewer) are provided to the moorage slips. Residences at a density of up to 18 units per acre would be allowed on upland properties in the WC district only if they are above water-dependent ground-floor uses in the same structure.

Waterfront Commercial/Industrial (WCI). Land to be used for water-dependent heavy commercial and industrial uses such as marine transportation terminals, large or small boat marinas, boat repair, shipyards, marine freight handling areas, fish buying and processing plants, ice plants, marine hatcheries, and marine parks. Residential uses would not be allowed in Waterfront Commercial/Industrial Districts, with the exception of caretaker units.

Subarea Maps and Subarea Guidelines and Considerations

The Subarea Maps section describes subarea land use on maps and with text. It lists the particular guidelines and considerations that should influence land use decisions for the Subareas. Resources and hazards are shown for each subarea and are intended to be informational. For each subarea there is also a discussion of factors that will influence the future direction of the subarea. Finally, guidelines for future subarea planning, including capital improvements and permit review considerations that have emerged from this Comprehensive Plan Update process, are listed.

The nine subareas are shown on the Land Use Map Index.

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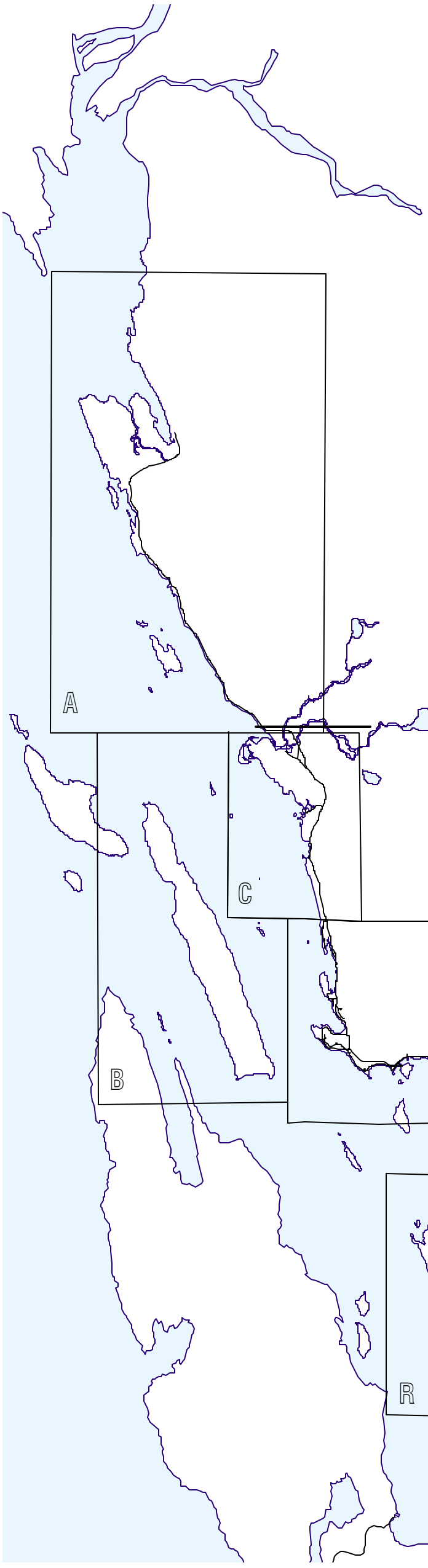
COMPREHENSIVE PLAN

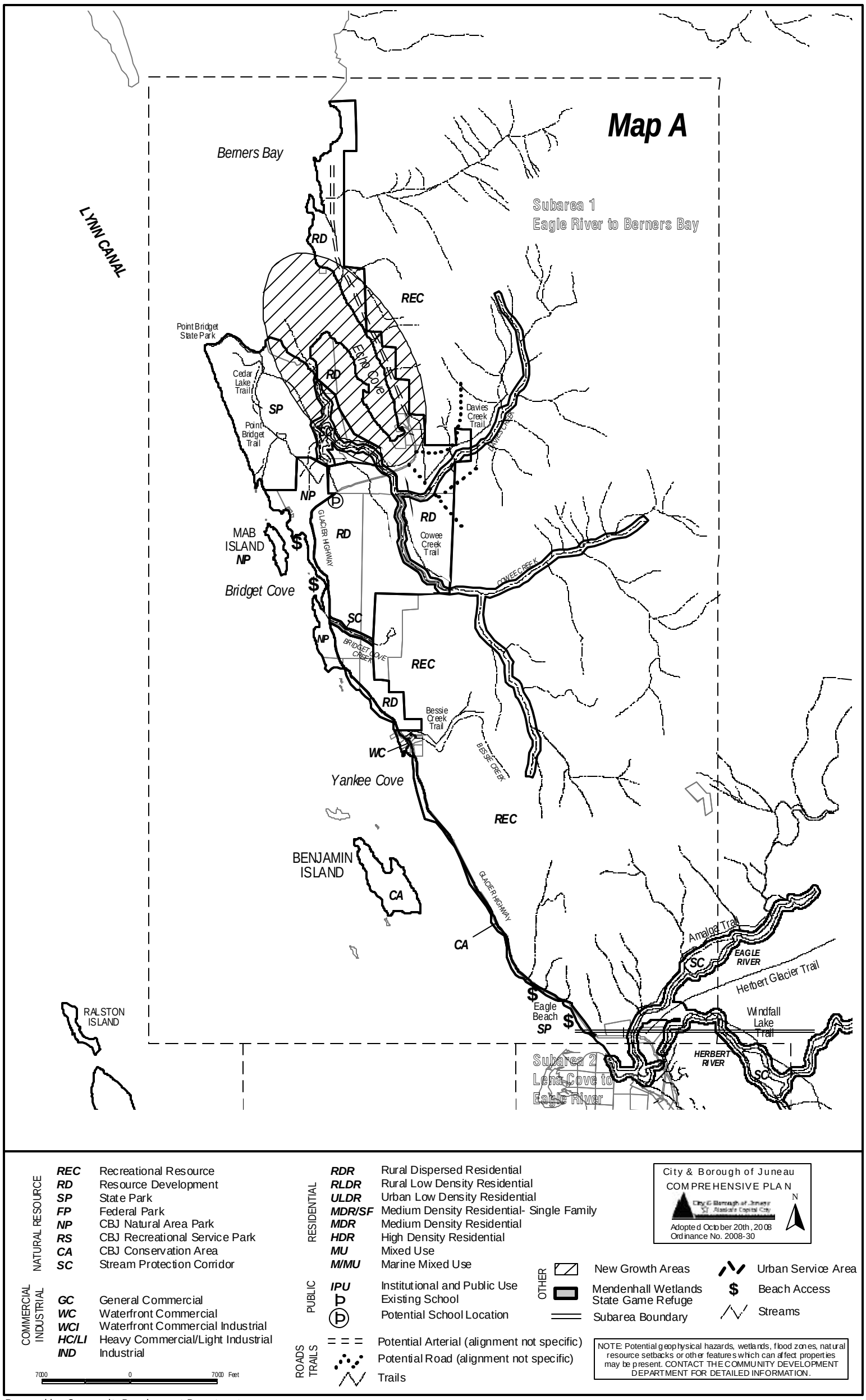
Land Use Map Index

City & Borough of Juneau, Alaska



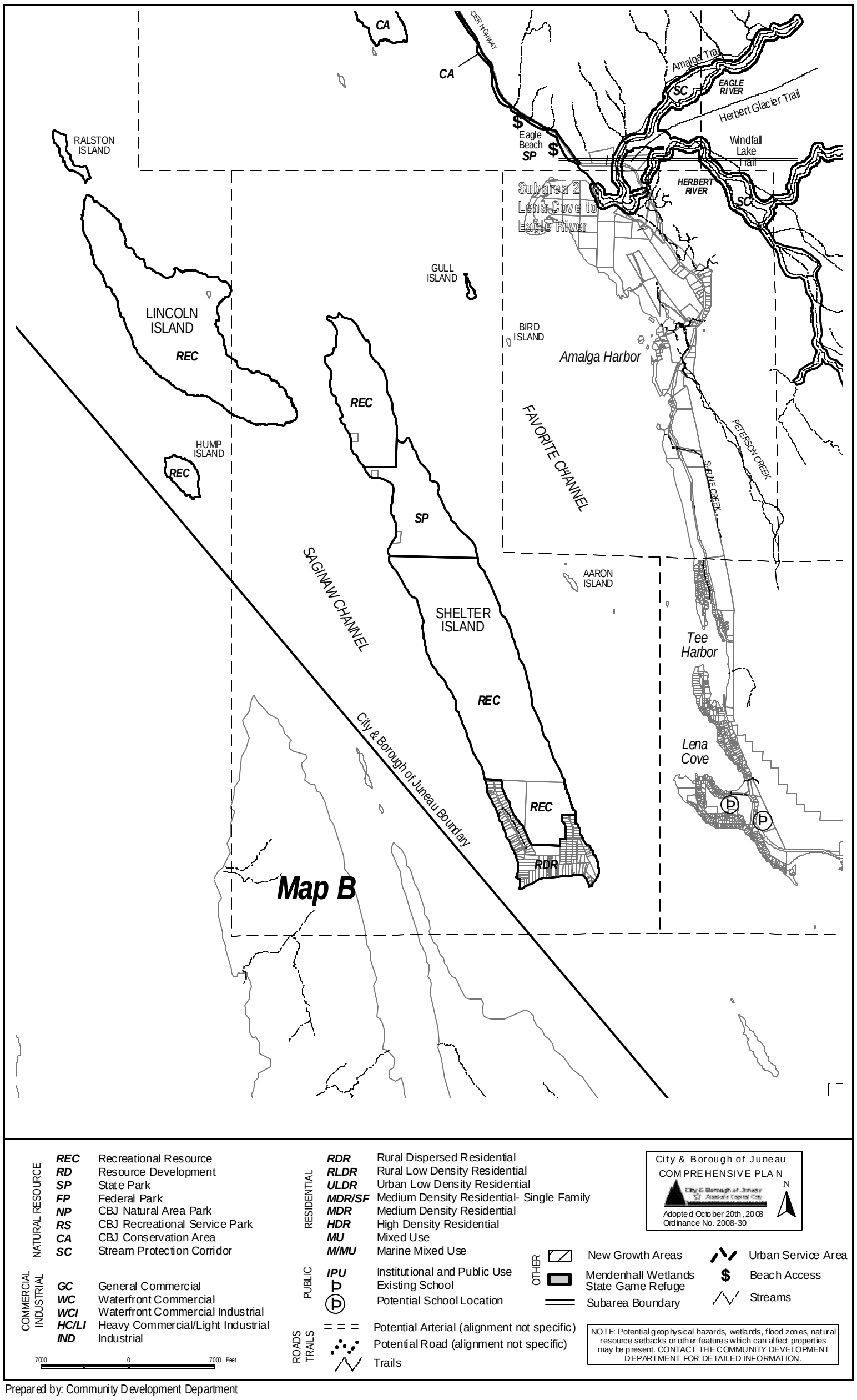
Subarea 1: Map A
Subarea 2: Maps B, C, D
Subarea 3: Maps E, F, G
Subarea 4: Maps F, G
Subarea 5: Maps G, H, K
Subarea 6: Maps K, M, N
Subarea 7: Map Q
Subarea 8: Maps I, R, S, T, Q, J, K, L
Subarea 9: Maps M, O, P

2008



Prepared by: Community Development Department

Map A



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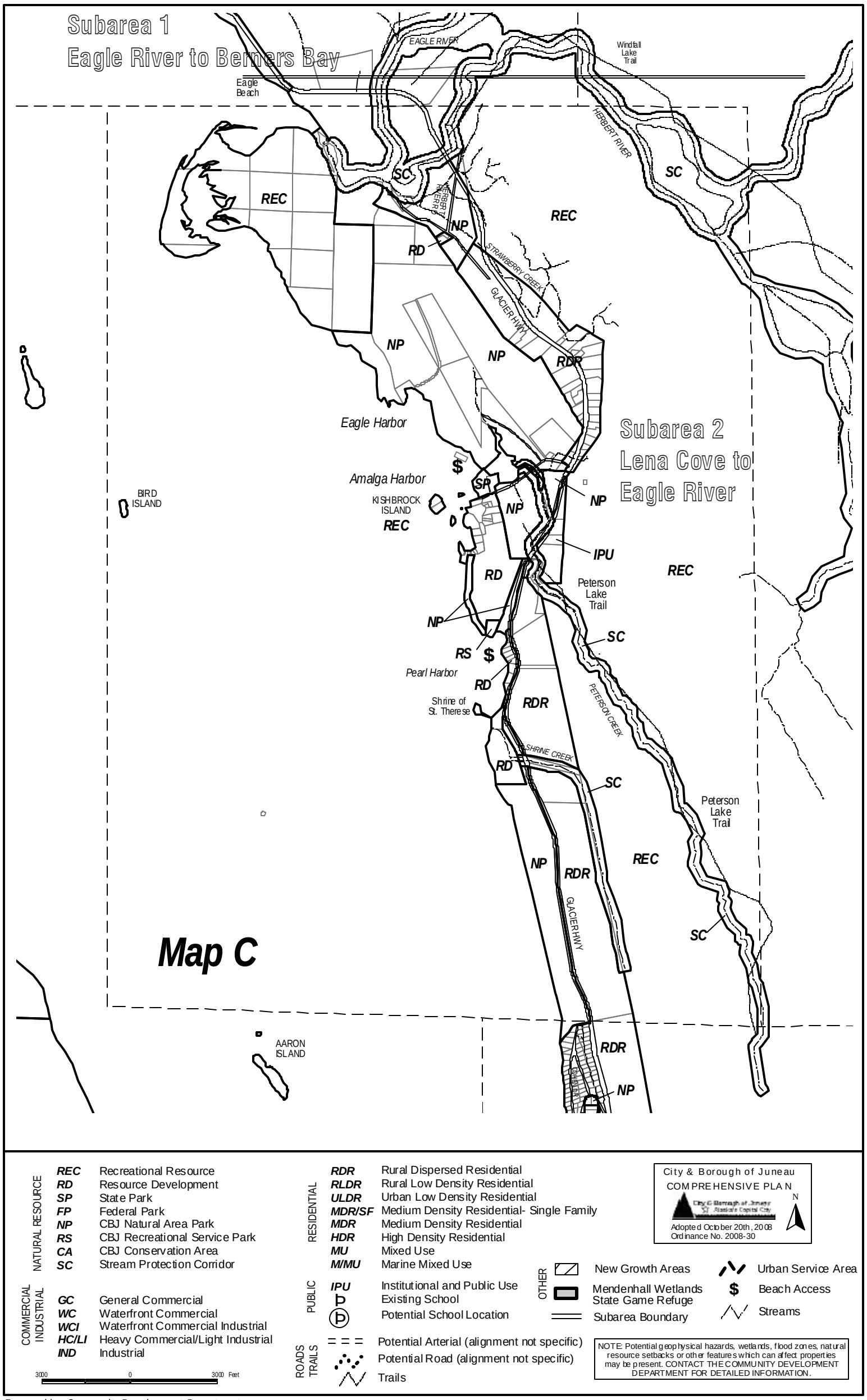
Map B



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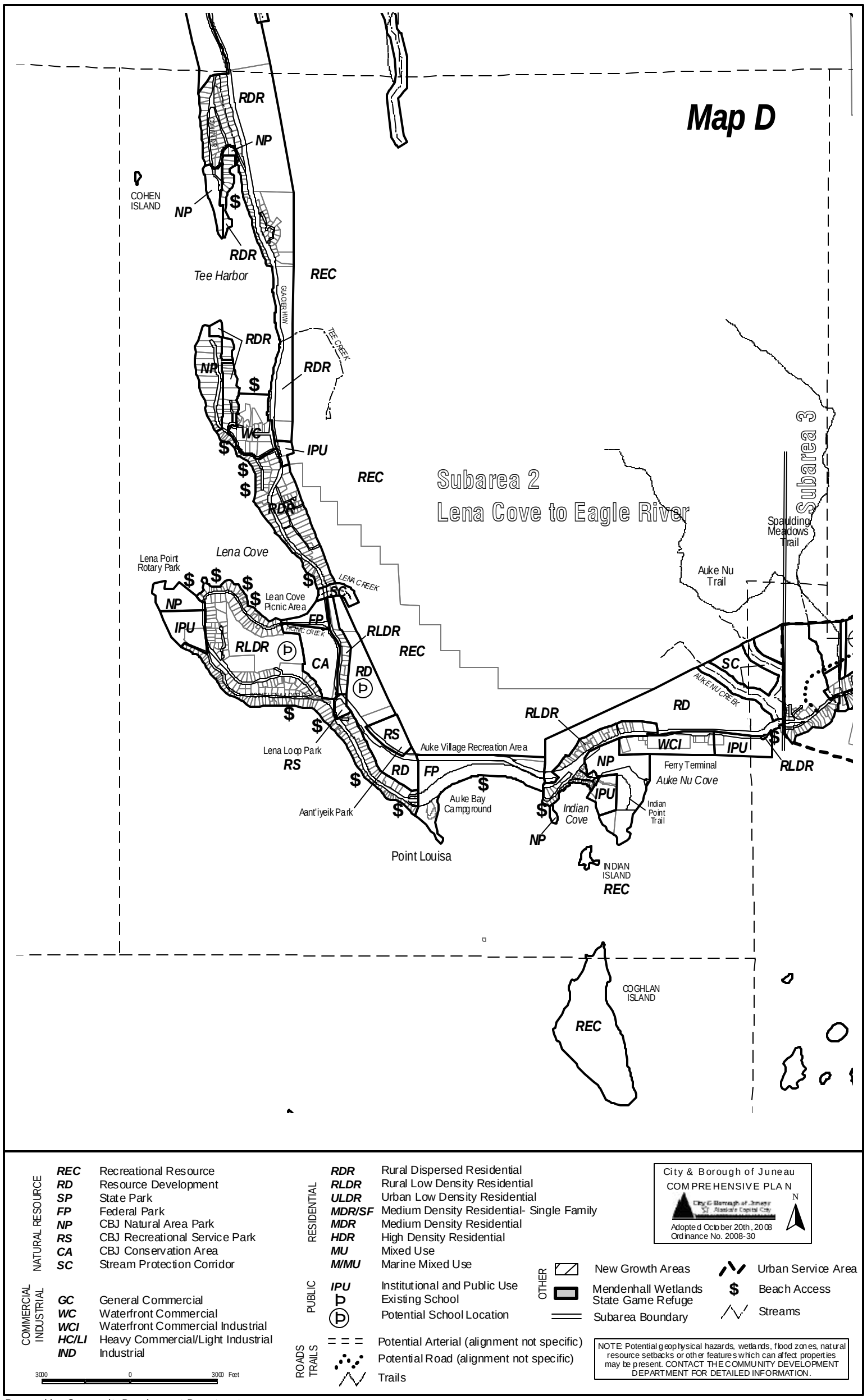
Map C



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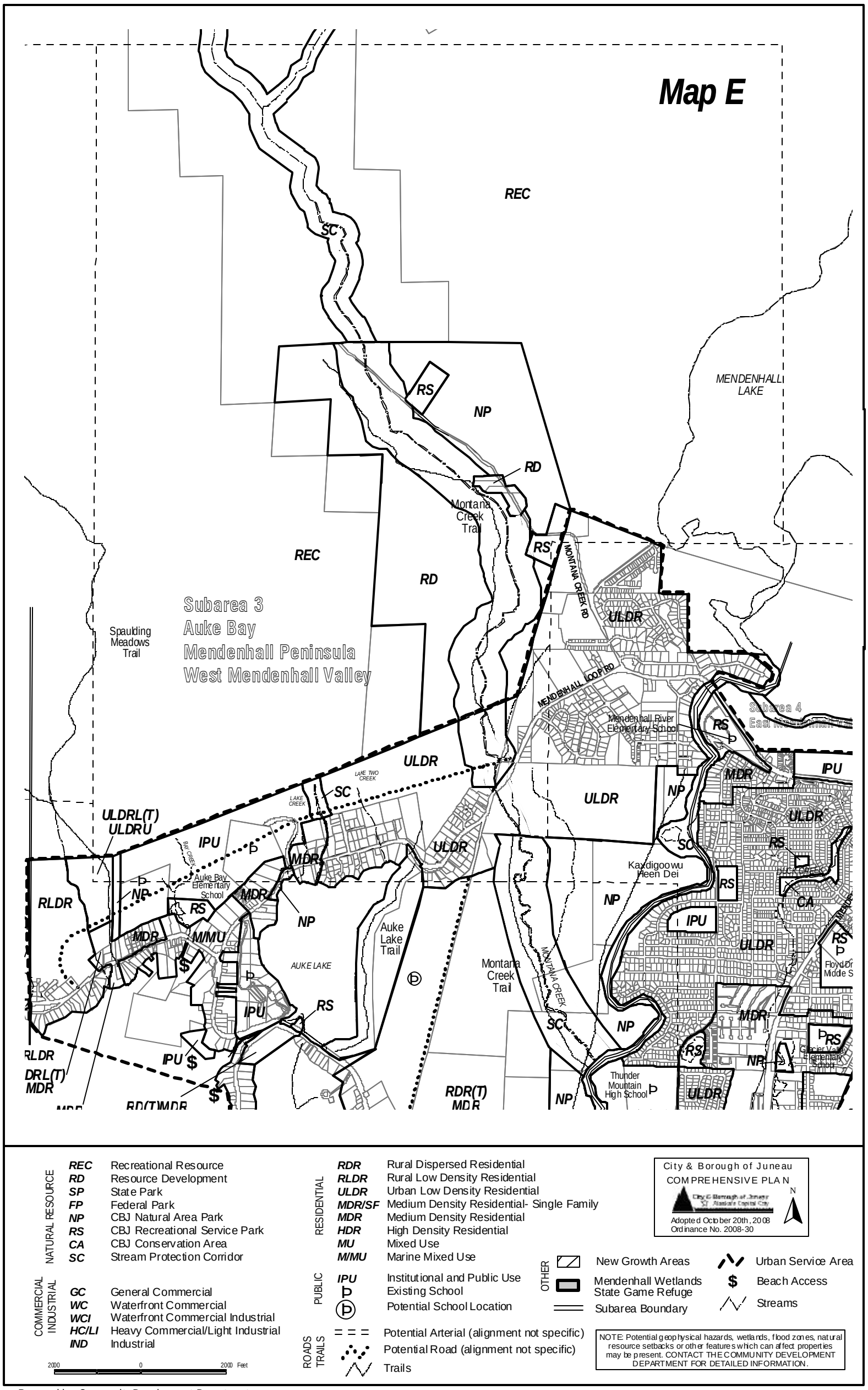
Map D



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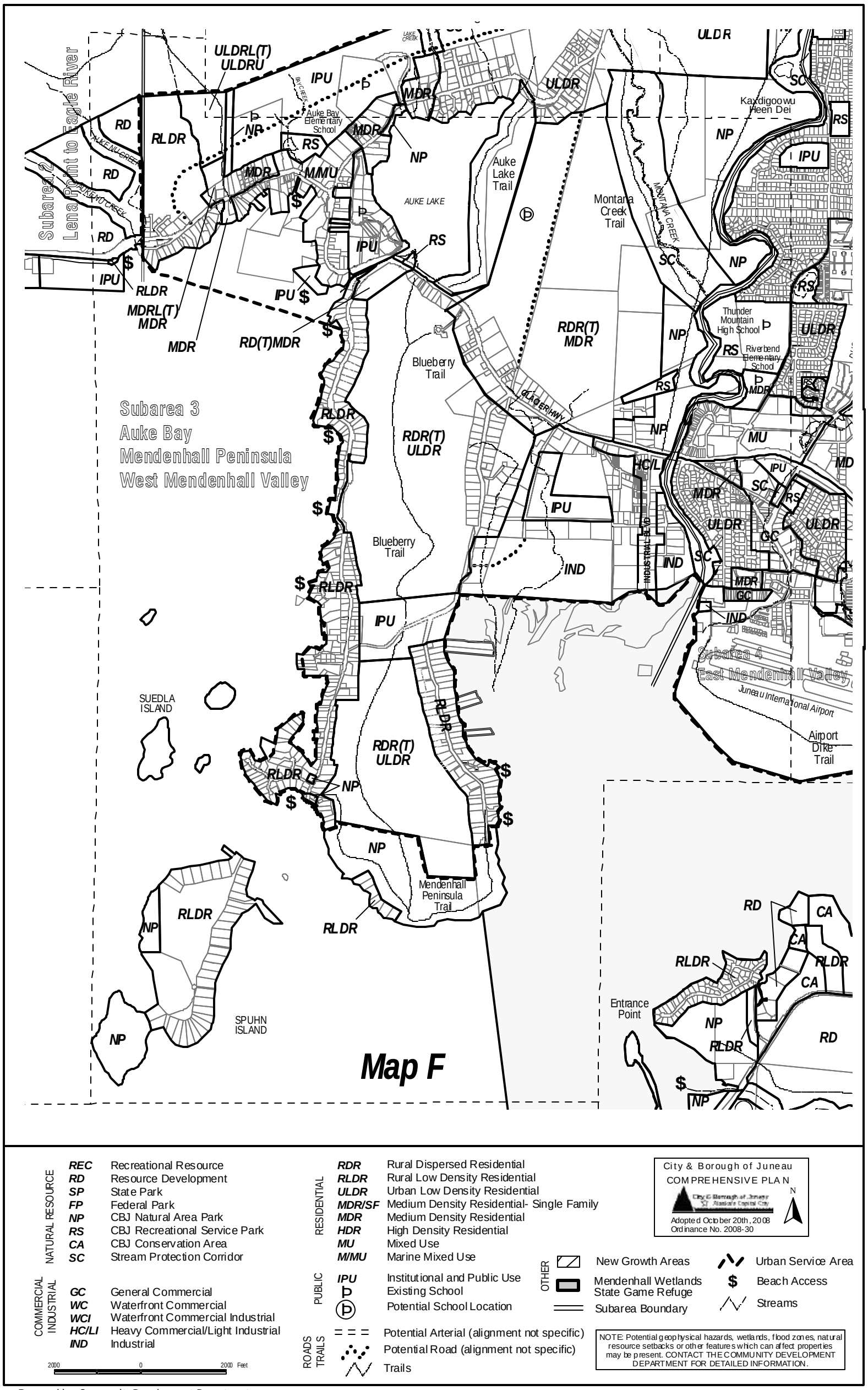
Map E



NATURAL RESOURCE
- REC Recreational Resource
- RD Resource Development
- SP State Park
- FP Federal Park
- NP CBJ Natural Area Park
- RS CBJ Recreational Service Park
- CA CBJ Conservation Area
- SC Stream Protection Corridor

COMMERCIAL INDUSTRIAL
- GC General Commercial
- WC Waterfront Commercial
- WCI Waterfront Commercial Industrial
- HC/LI Heavy Commercial/Light Industrial
- IND Industrial

2000 0 2000 Feet

RESIDENTIAL
- RDR Rural Dispersed Residential
- RLDR Rural Low Density Residential
- ULDR Urban Low Density Residential
- MDR/SF Medium Density Residential- Single Family
- MDR Medium Density Residential
- HDR High Density Residential
- MU Mixed Use
- M/MU Marine Mixed Use

PUBLIC
- IPU Institutional and Public Use
- Þ Existing School
- Þ Potential School Location

ROADS TRAILS
- Potential Arterial (alignment not specific)
- Potential Road (alignment not specific)
- Trails

OTHER
- New Growth Areas
- Mendenhall Wetlands State Game Refuge
- Subarea Boundary
- Urban Service Area
- $ Beach Access
- Streams

City & Borough of Juneau
COMPREHENSIVE PLAN
Adopted October 20th, 2008
Ordinance No. 2008-30

NOTE: Potential geophysical hazards, wetlands, flood zones, natural resource setbacks or other features which can affect properties may be present. CONTACT THE COMMUNITY DEVELOPMENT DEPARTMENT FOR DETAILED INFORMATION.

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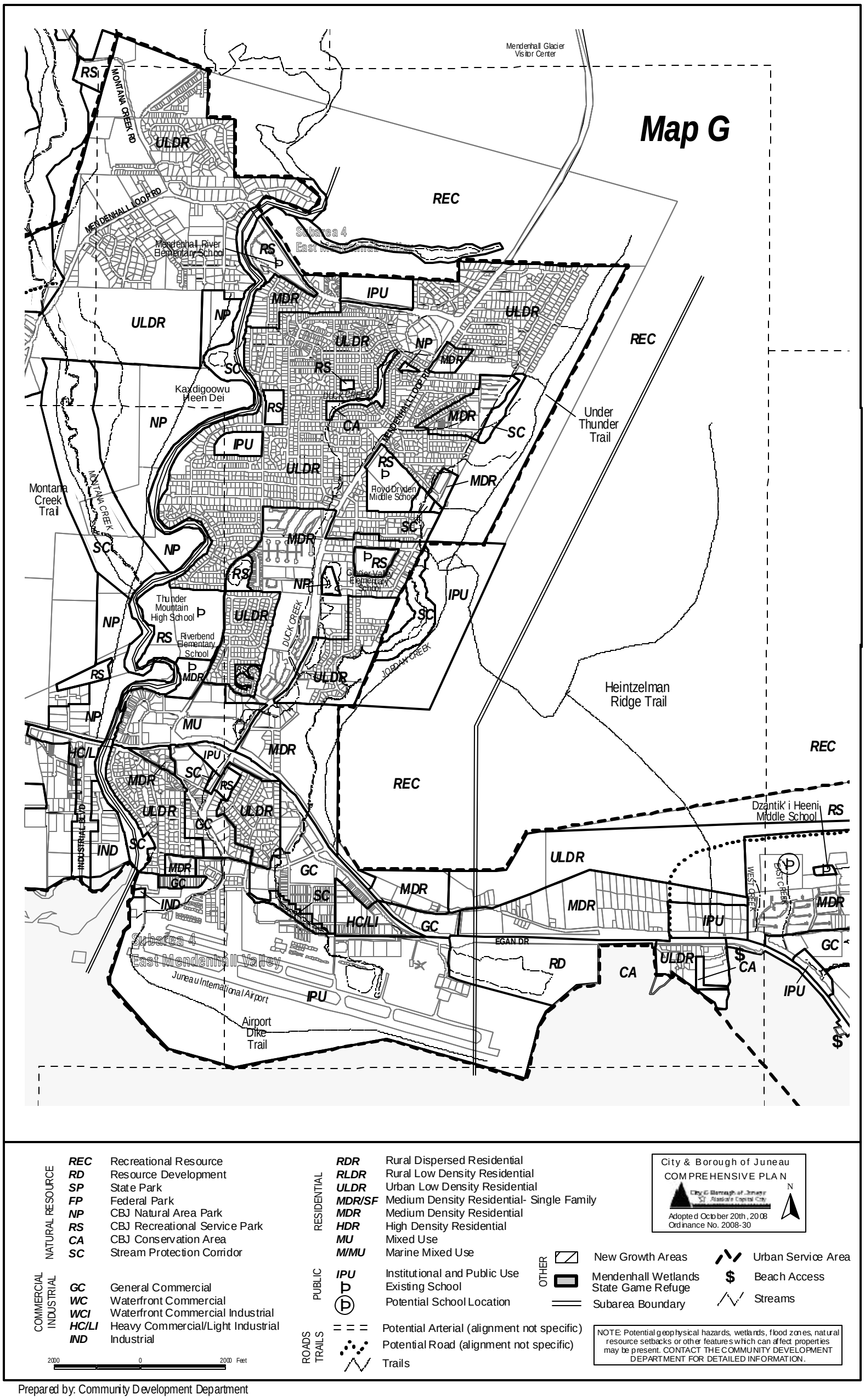
Map F



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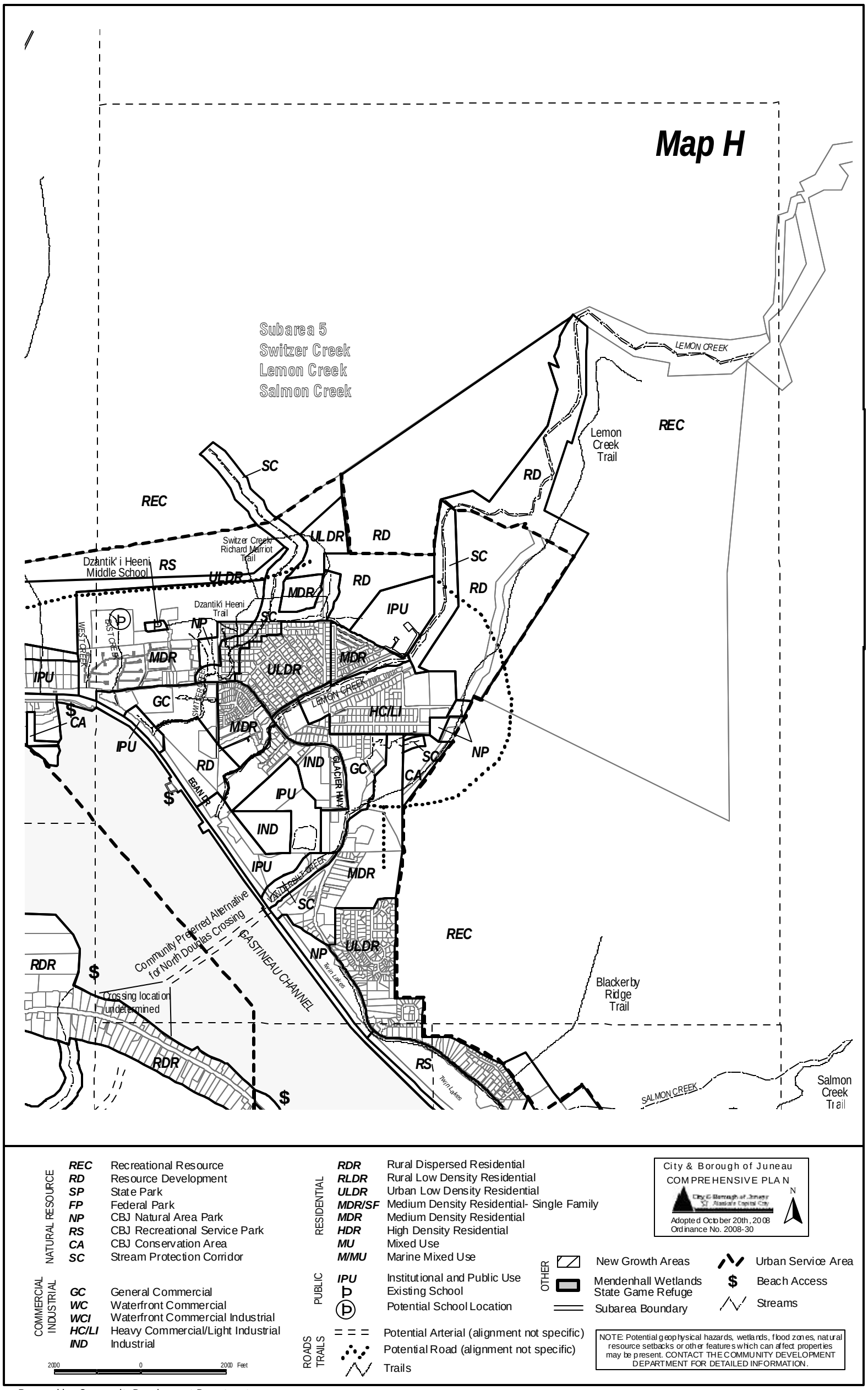
Map G



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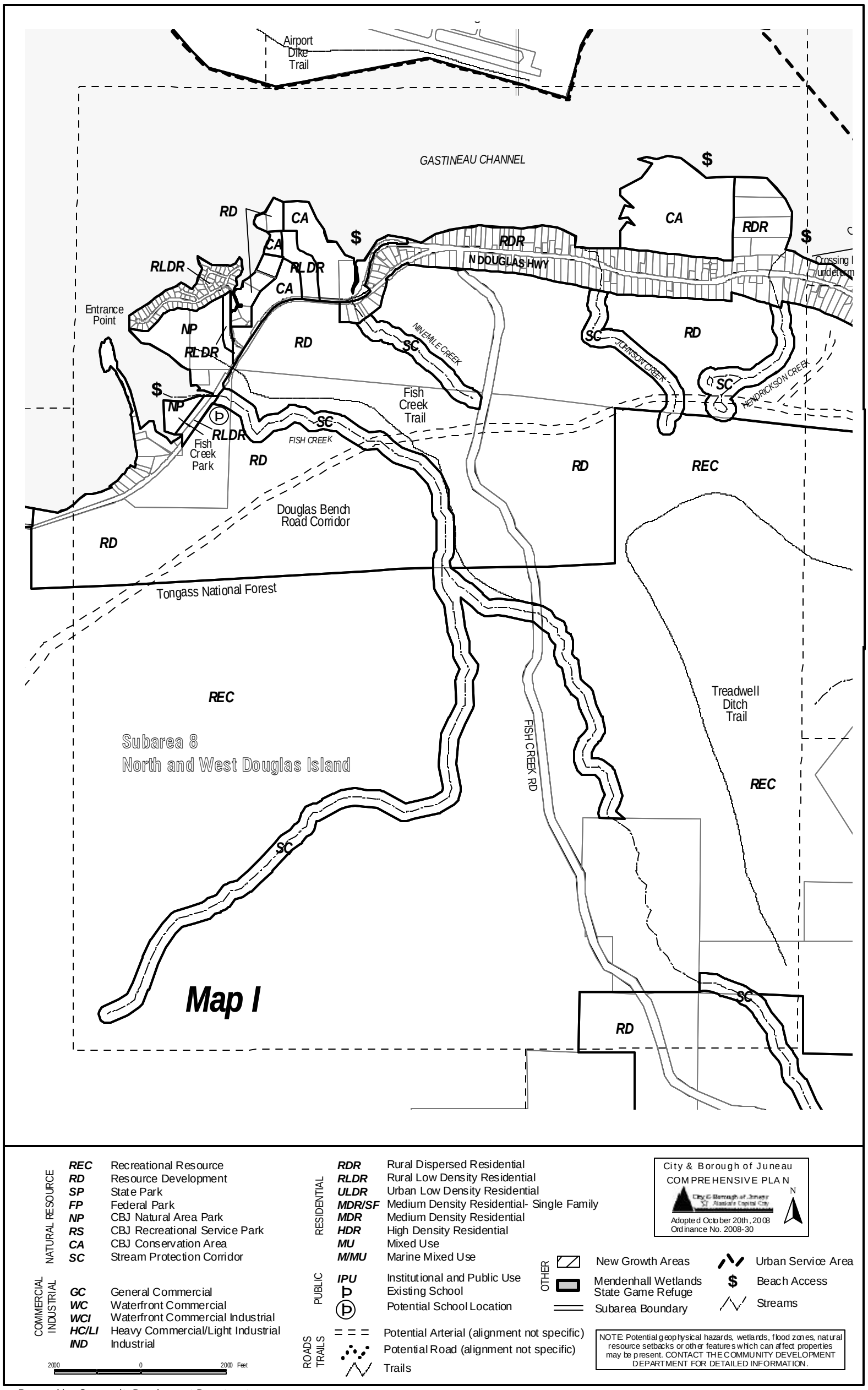
Map H



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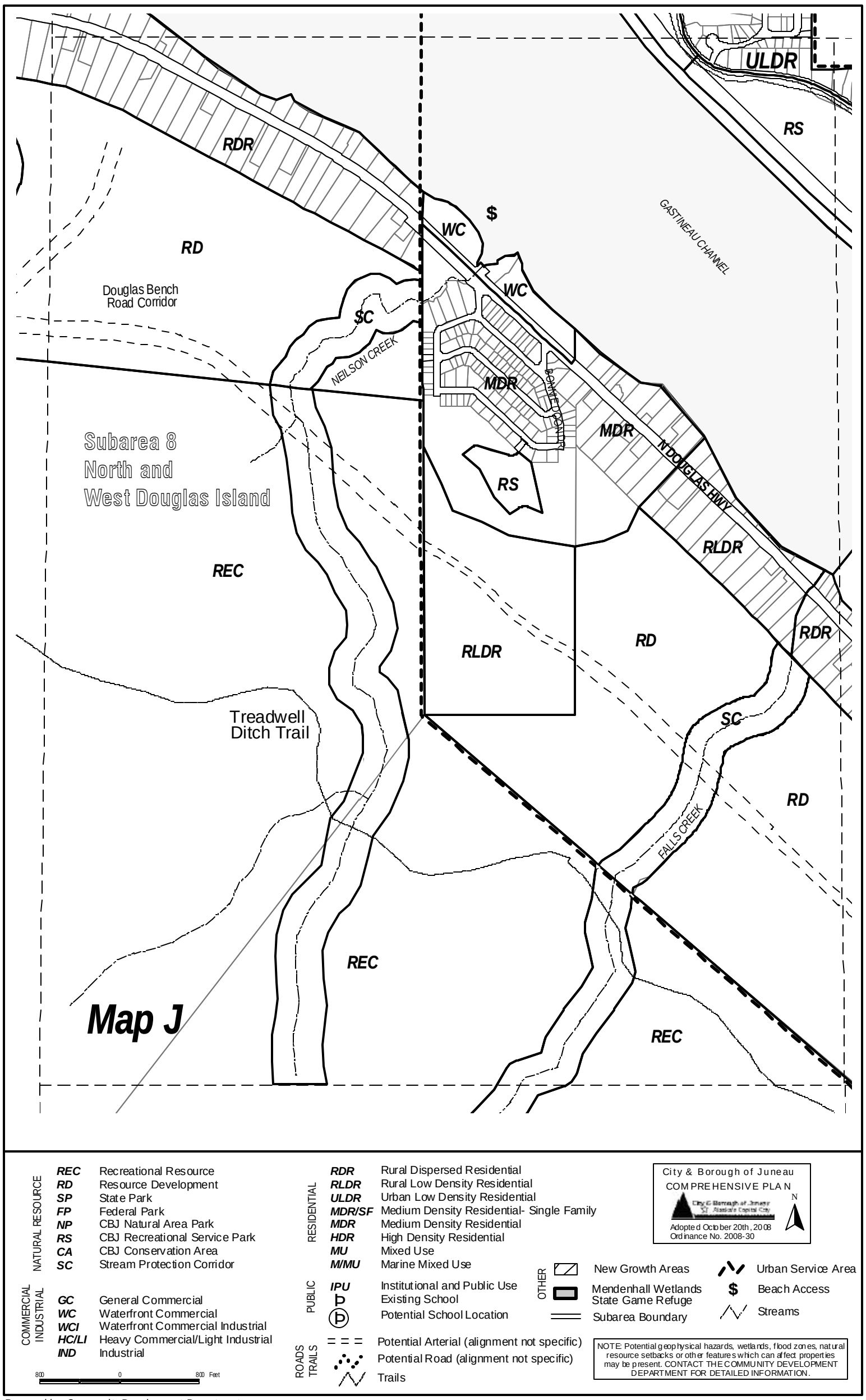
Map I



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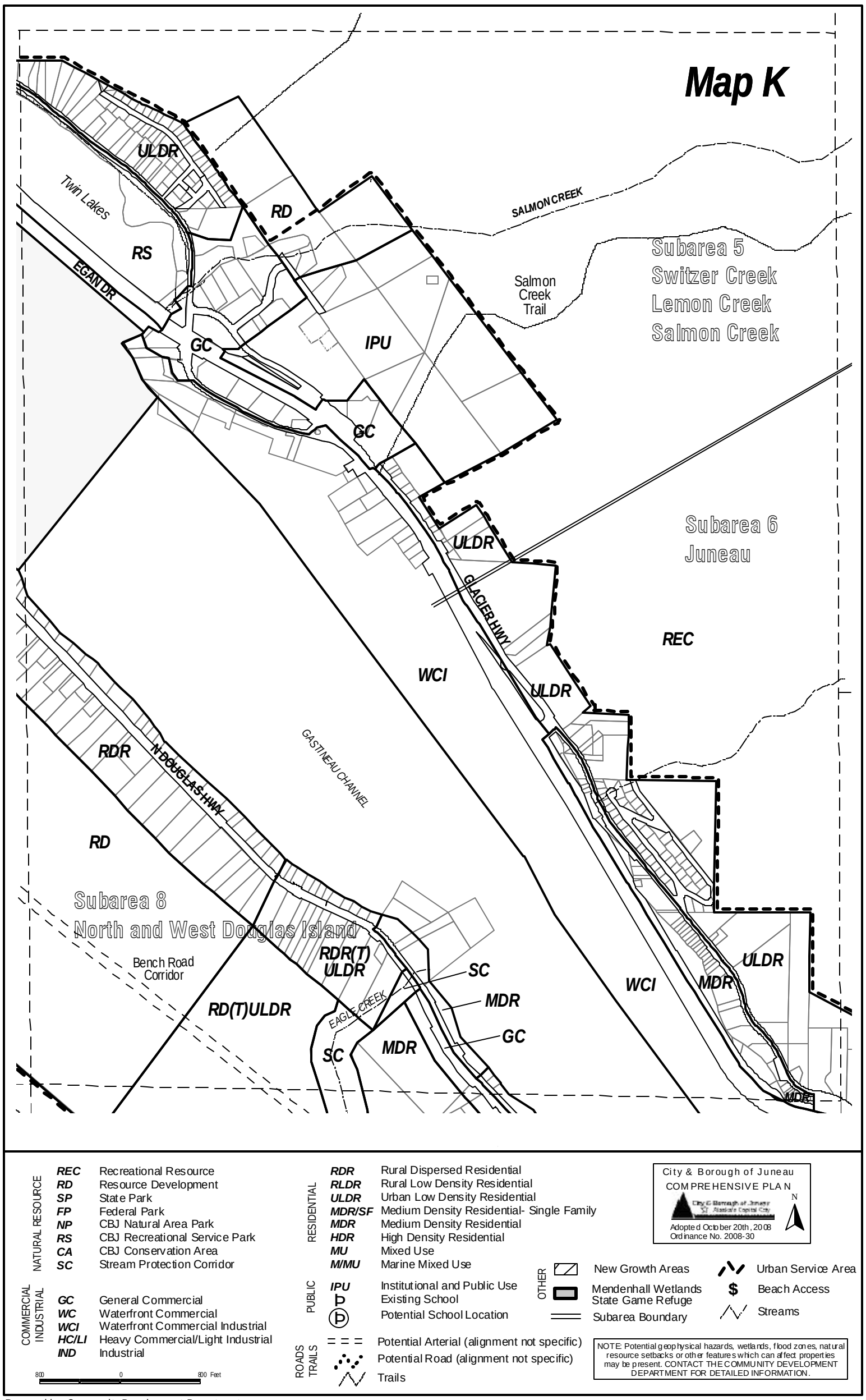
Map J



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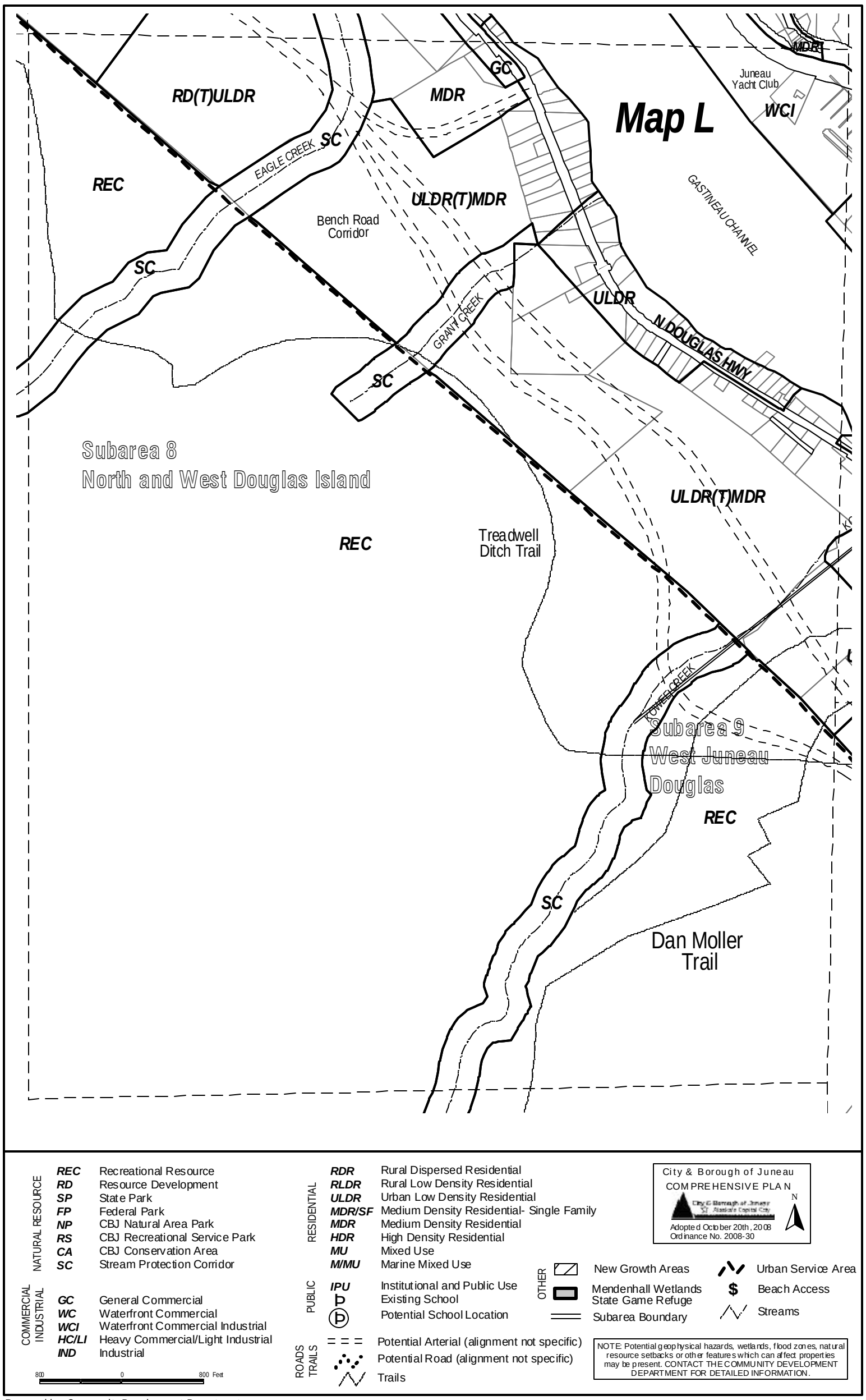
Map K



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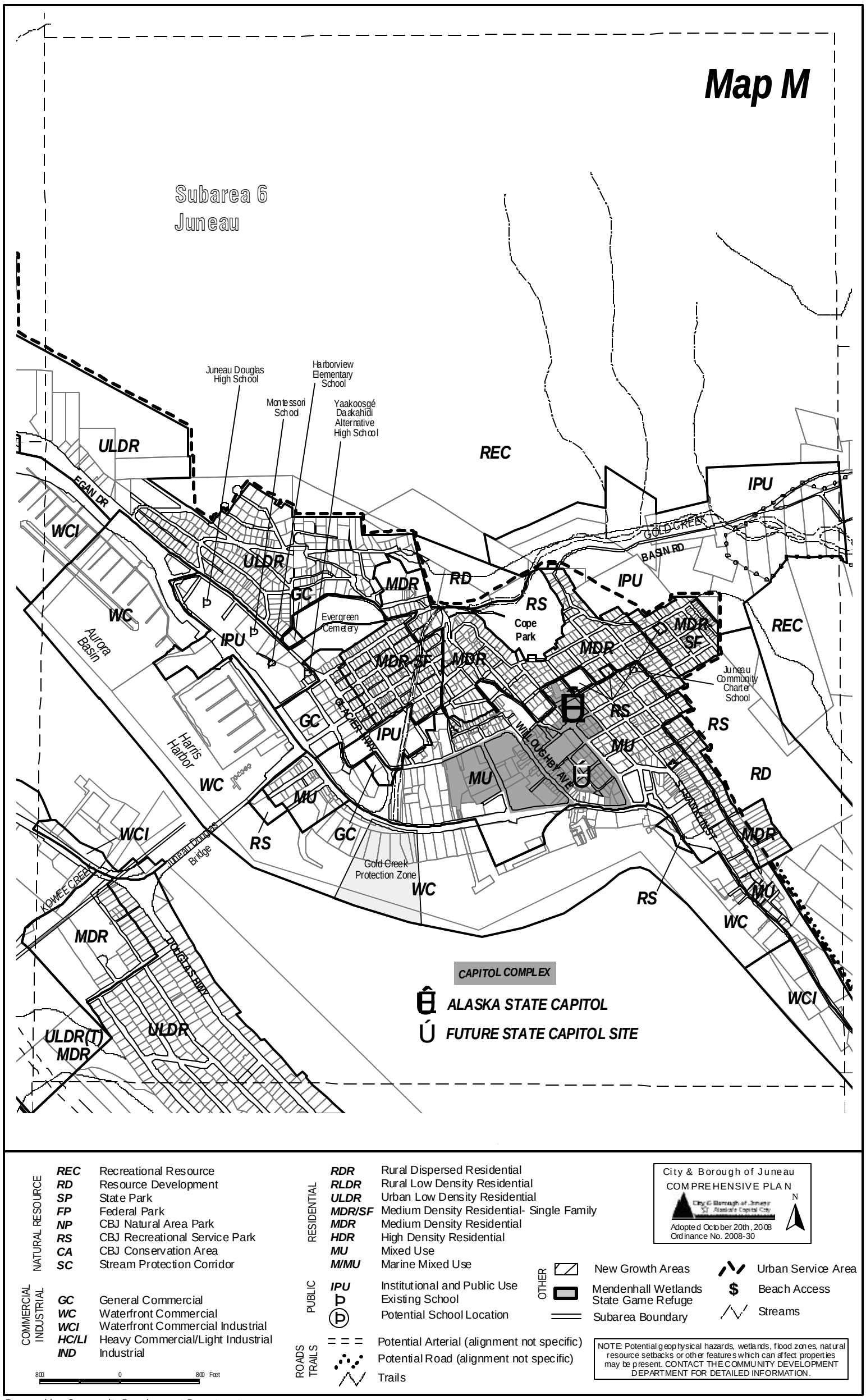
Map L



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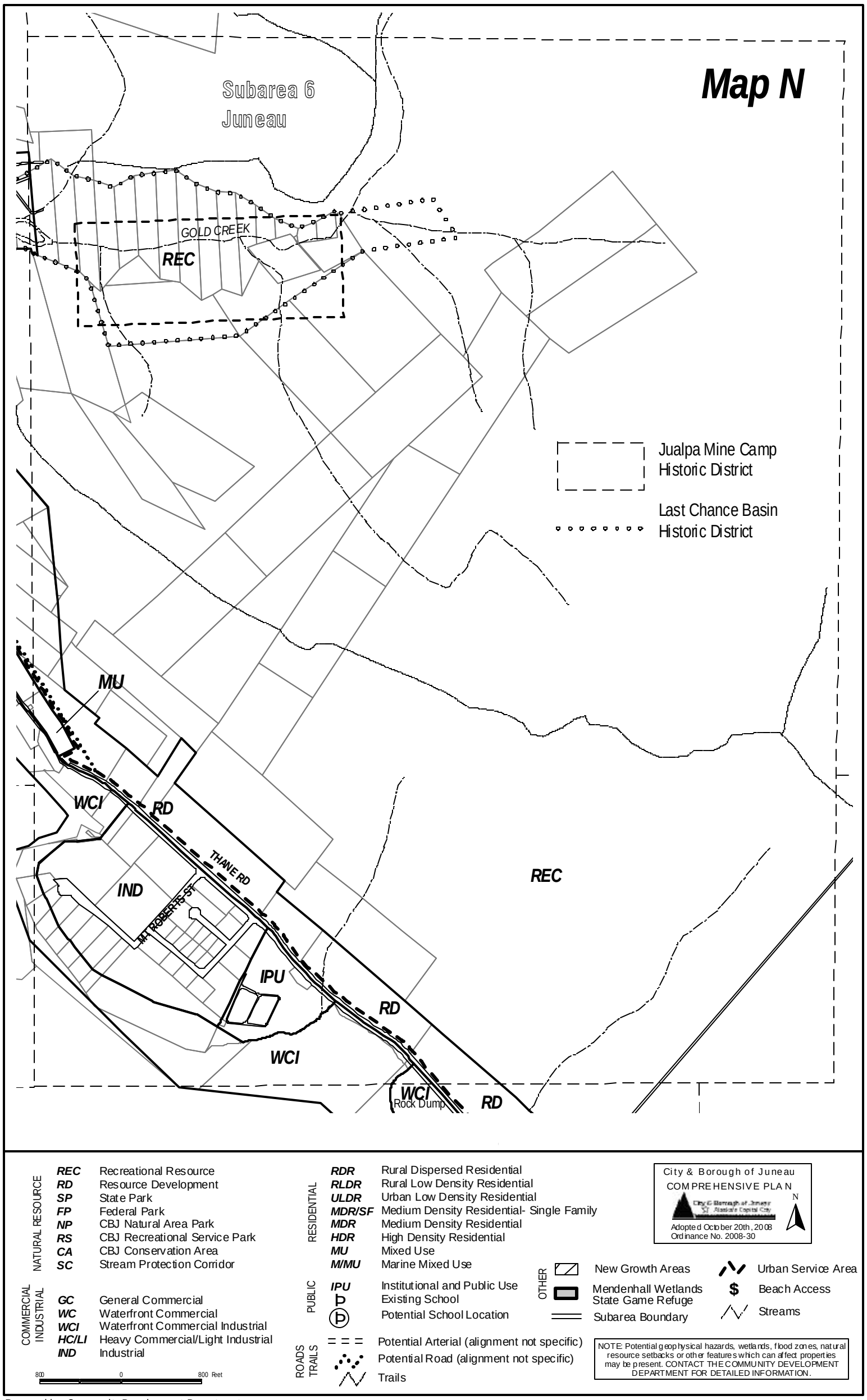
Map M



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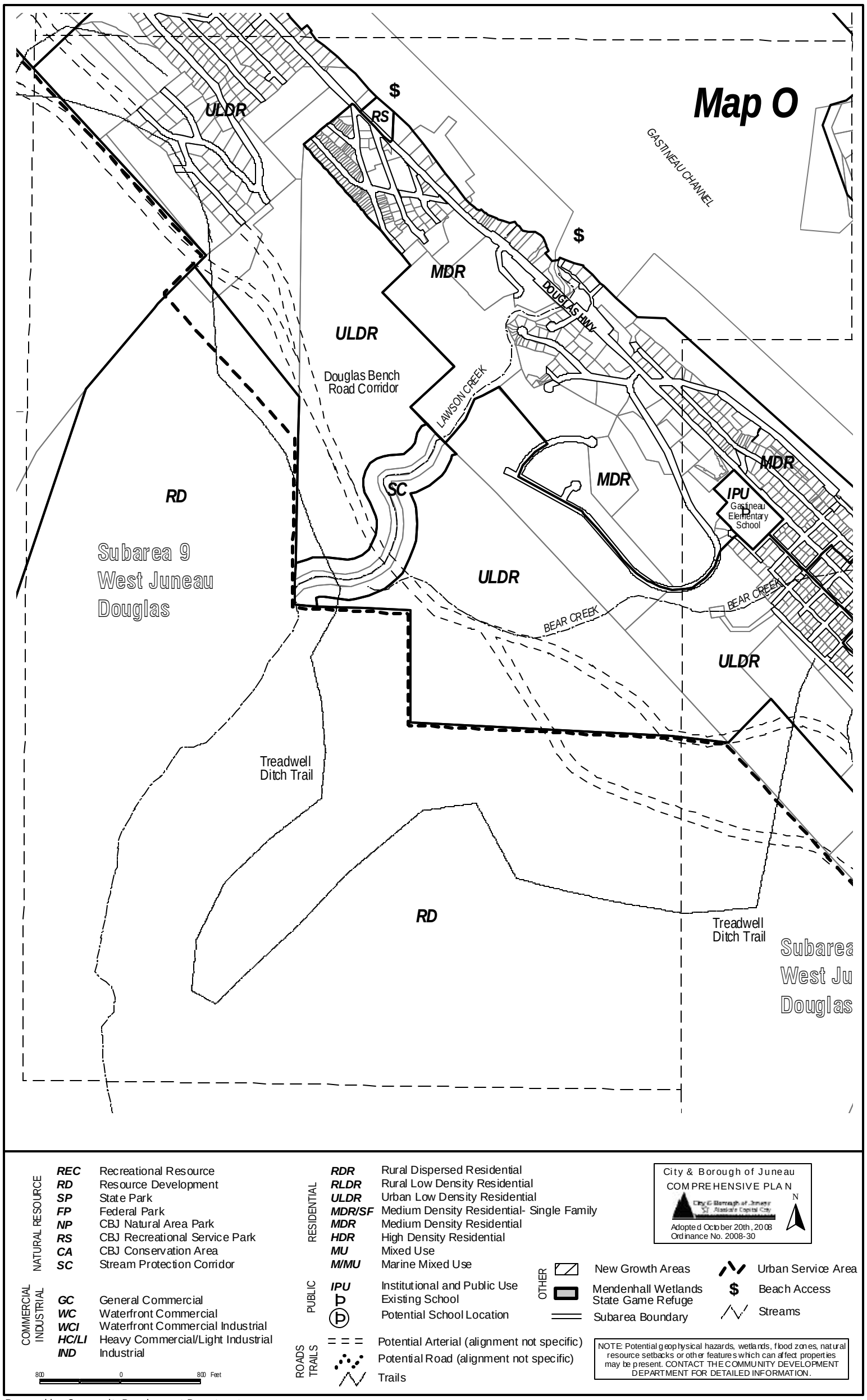
Map N



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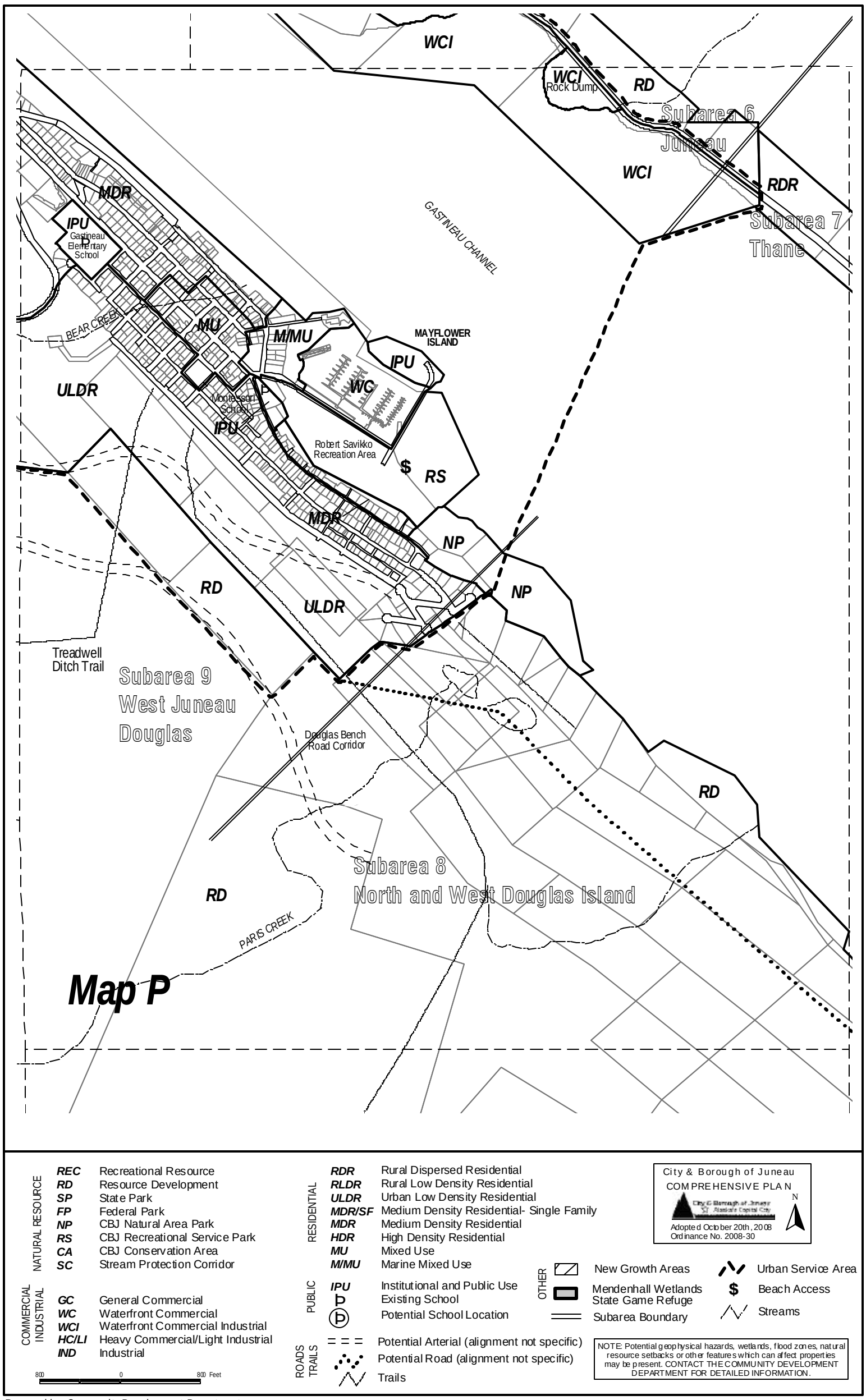
Map O



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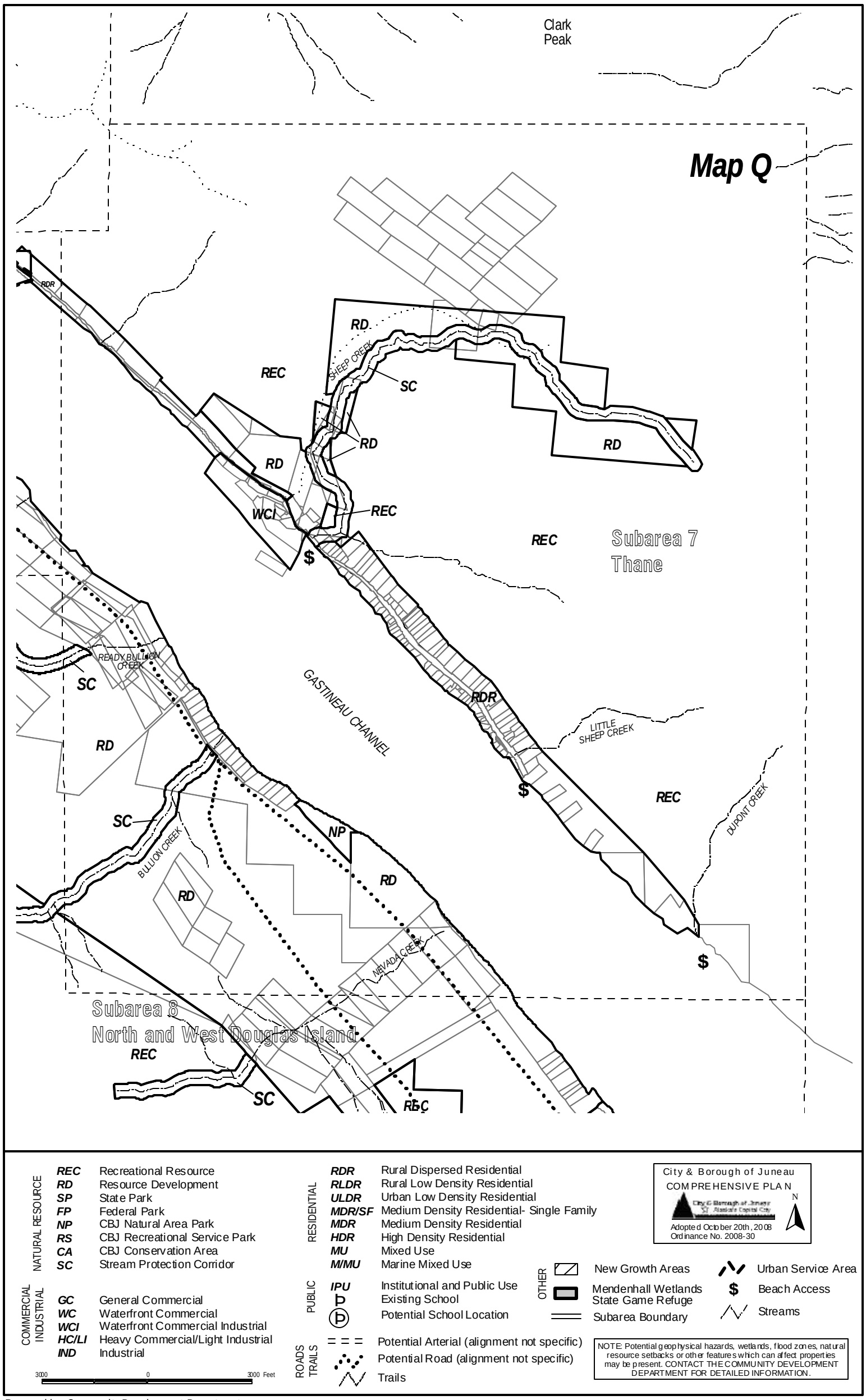
Map P



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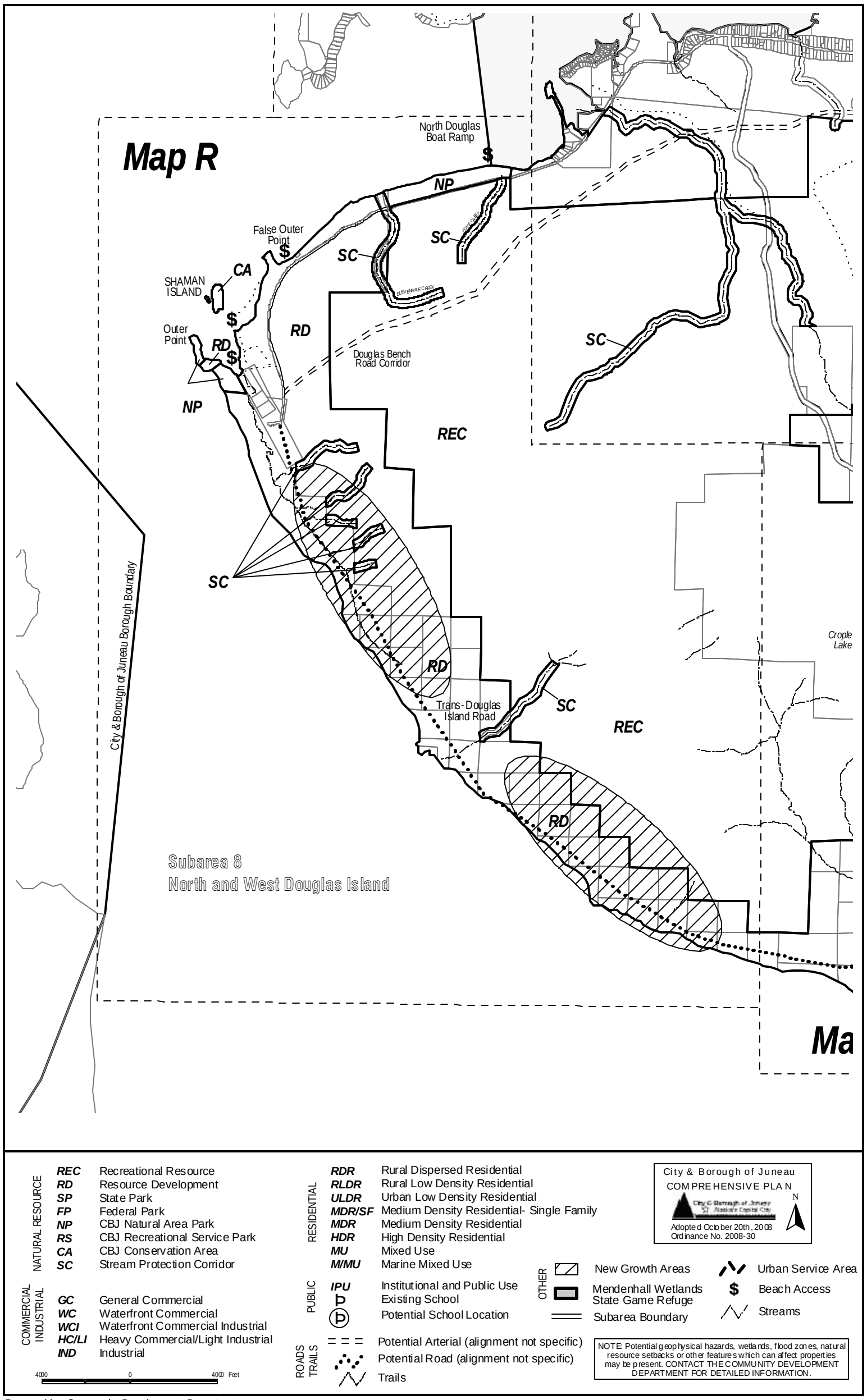
Map Q



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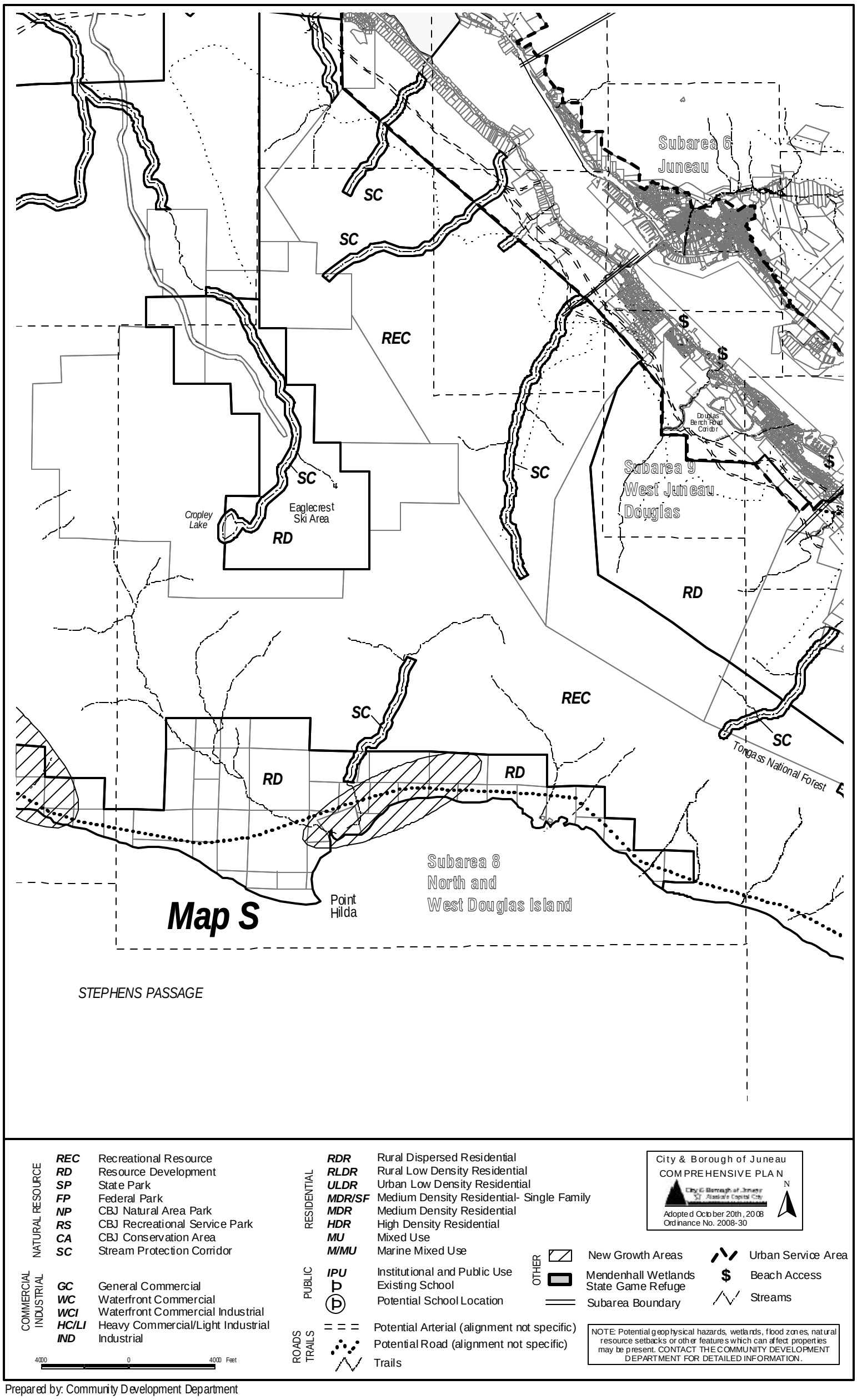
Map R



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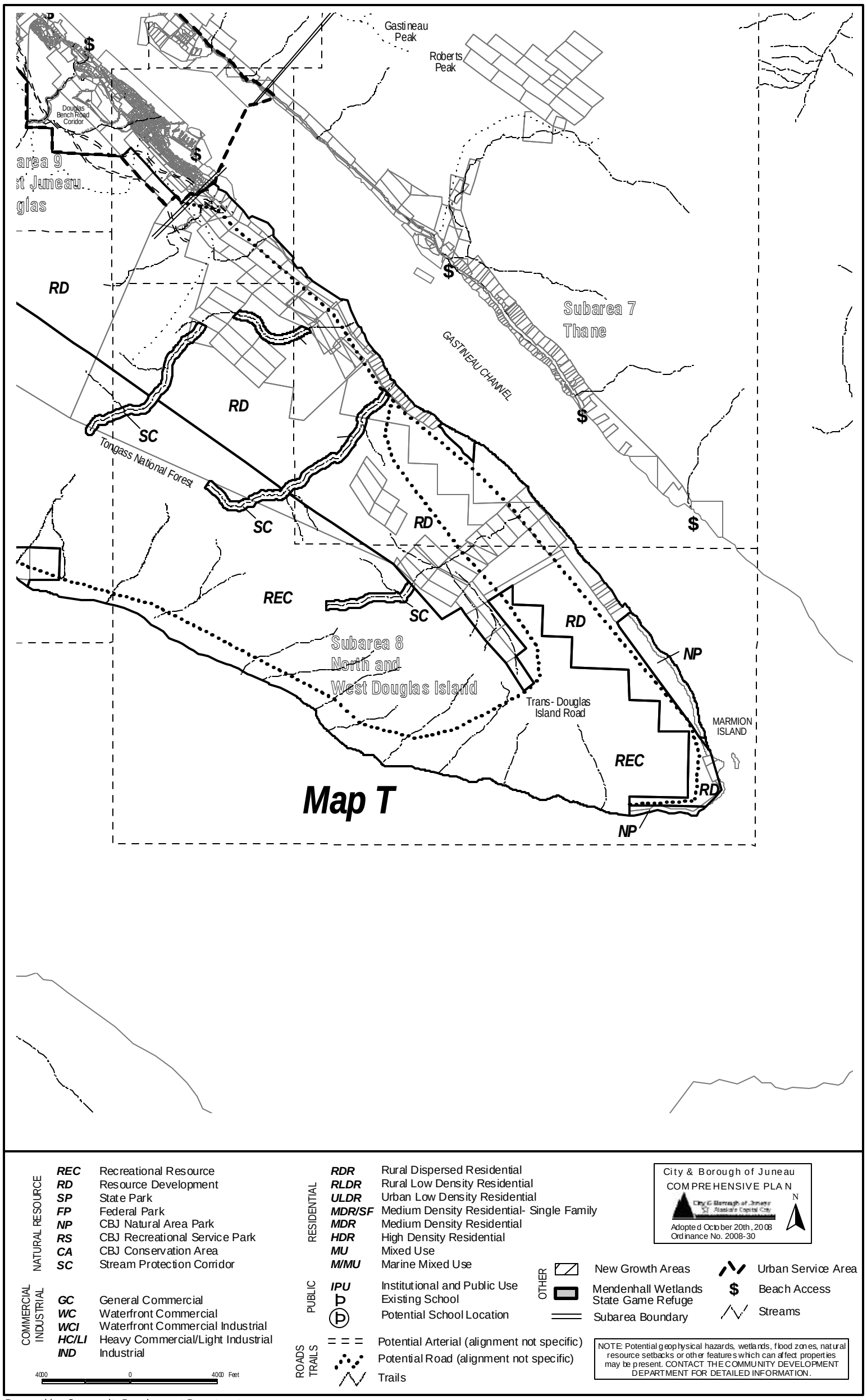
Map S



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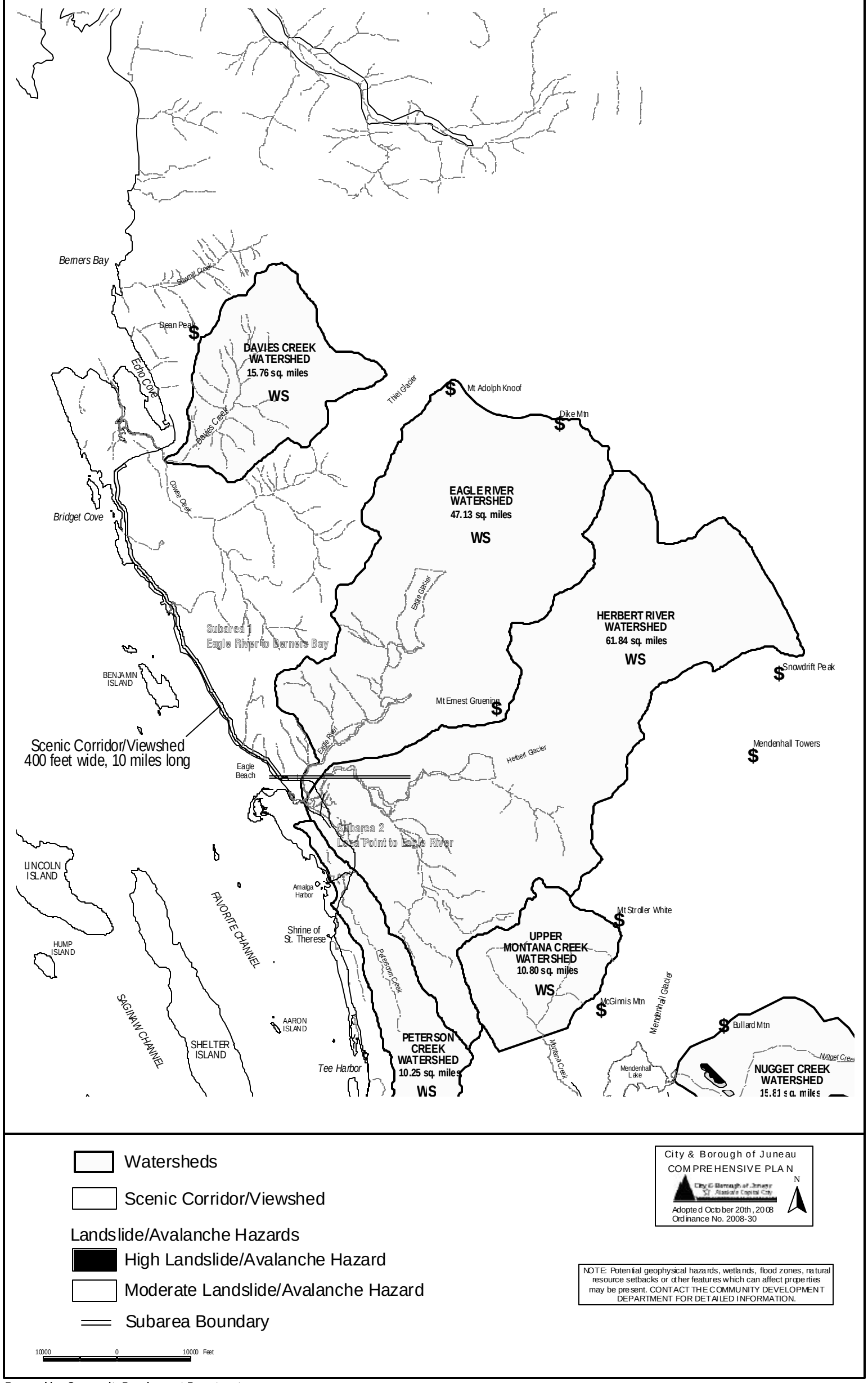
Map T



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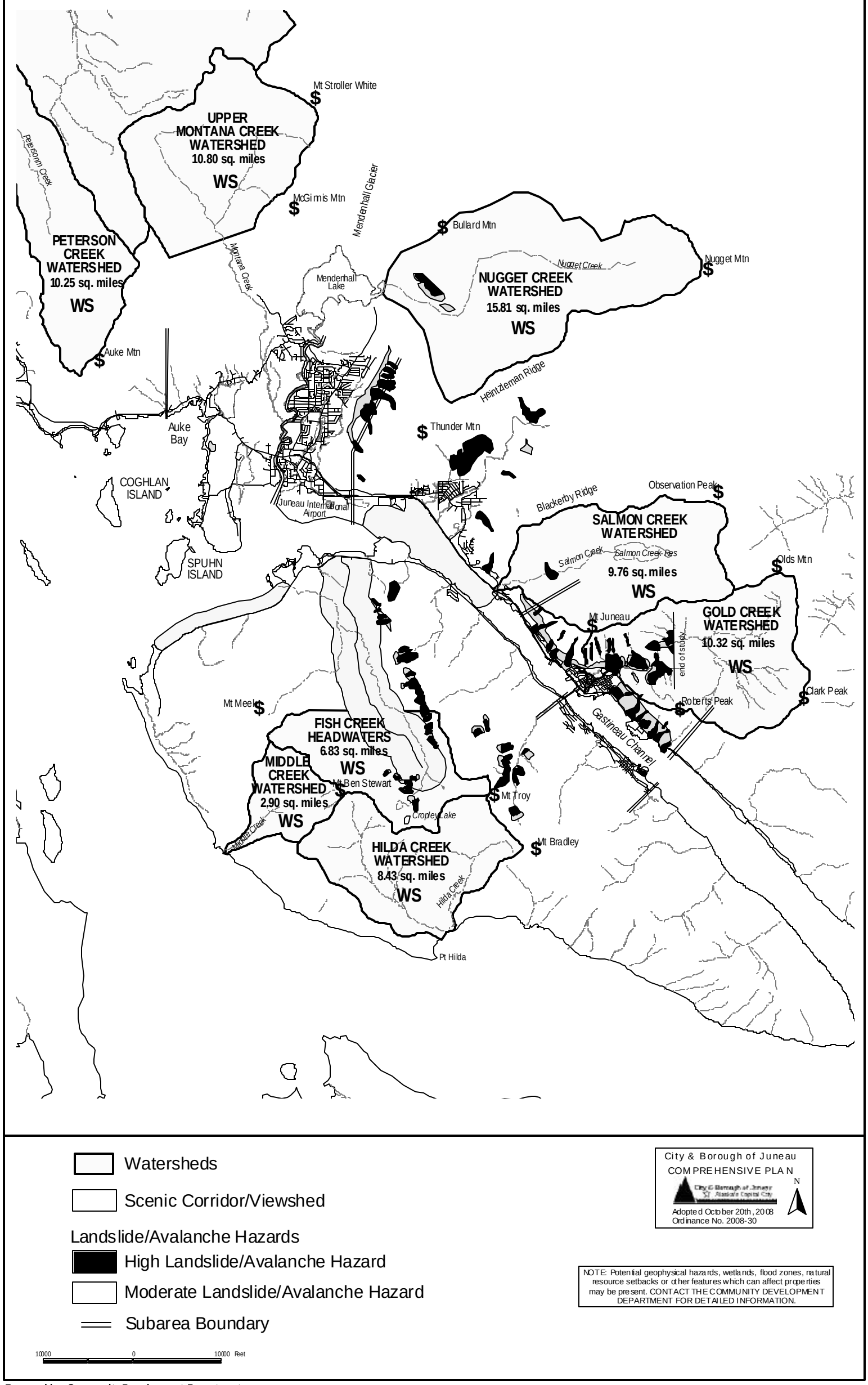
Watershed, Scenic Corridor/Viewshed, and Hazard Map 1 of 2



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Watershed, Scenic Corridor/Viewshed, and Hazard Map 2 of 2

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Subarea 1: Eagle River to Berners Bay (Map A)

Community Form: Rural, with a New Growth Area

Natural Resources and Hazards:

Type	General Location
Wildlife (Eagles Nests, Sea Lion Haul Out & Rookery, Herring Spawning areas)	Echo Cove, Lynn Canal Shorelines, Bridget Cove, North Island, Mab Island, Benjamin Island
Stream and Lakeshore Corridors	Cowee, Davies, Peterson, and unnamed Creeks; Eagle and Herbert Rivers
Watersheds	Herbert River, Davies Creek & Eagle River
Gravel and Mineral Resources	Gravel in the Eagle and Herbert River corridors, delta/estuary area; Juneau Gold Belt with mining claims and the Kensington Mine on the northwest shore of Berners Bay
Wetlands/Tidelands	Eagle/Herbert River estuary, Echo Cove, Bridget Cove, Point Bridget, Yankee Cove
Hazards	Flooding: Cowee and Davies Creeks, Eagle River, Herbert River, Peterson Creek, and coastal areas
Scenic Corridor/Viewshed	On CBJ-owned lands upland of Glacier Highway from Bridget Cove to Eagle Beach (approximately 10 miles), a 400-foot-wide area
Historic and Cultural Resources	Subarea-wide, Sentinel Island Lighthouse, petroglyphs in Berners Bay

Guidelines and Consideration for Subarea 1:

1. Preserve valuable publicly-owned lands, including Lynn Canal shorelines areas, as public open space/natural areas, recreation areas, fish and wildlife habitat and scenic corridors with public access.

2. Recognize that Pacific herring are an important indicator and keystone species, and that commercial harvest of this species could be an economic boon to the CBJ if herring

populations recover to a level capable of supporting commercial fisheries. Further, as a keystone species upon which other species depend, a healthy and abundant herring population will have an economic ripple effect on other commercial fisheries and tourism. There is, therefore, special concern for the conservation and protection of herring spawning areas located along the east shoreline of Lynn Canal, especially near Bridget Point, Echo Cove, and in Berners Bay.

1. Recognize that there is a special concern for the conservation and protection of Stellar Sea Lion habitat around Benjamin Island, pursuant to the National Marine Fishery Service *Stellar Sea Lion Recovery Plan*. It is recommended that only research scientist teams visit land on Benjamin Island and that no tourist vessel or recreational vessel approaches the island closer than 1000 yards, per the Recovery Plan.

4. Support the New Growth Area development, including a mixture of residential, recreational and water-related uses, in Echo Cove.

5. With the exception of the Echo Cove New Growth Area, limit residential and non-residential development to very low densities and rural-character development within the subarea to protect sensitive habitat therein.

6. Recognize Berners Bay and the river systems that feed it as important fish and wildlife habitat, recreation and scenic areas that experience significant local and visitor use. Identify and adequately protect a series of un-fragmented fish and wildlife corridors along anadromous streams from the uplands to Lynn Canal. If a high traffic road and/or rail facility is proposed within this subarea, provide an adequate wildlife crossing to assure safe passage of wildlife from the uplands to the sea along each anadromous stream crossed by the road or railway.

7. Develop a comprehensive, interagency plan for Tee Harbor to Berners Bay that recognizes, protects and enhances fish and wildlife habitat as well as the multiple recreational, educational and scenic resources found in that area.

8. The Parks and Recreation Comprehensive Plan, Chapter 8, recommends a number of parks, trail, community garden and stream corridor improvements. Those recommendations include: (a) enhance the Auke Recreation Area Dive Park; (b) enhance Aantiyeik Park to include a community garden, play structures, restrooms, landscaping, picnic shelters and, in addition to the disc golf course, a BMX trail should be considered; (c) develop cooperative recreation agreements with the Boy Scouts organization for greater public access; (d) develop Sunshine Cove and Bridget Cove for overnight recreation use; (e) plan for recreation in the Echo Cove area and beyond the proposed New Growth Area; (f) connect trails or create loop hiking experiences; (g) encourage the U.S. Forest Service to repair Cowee and Davies trails; (h) protect stream corridors and establish a 200 foot stream buffer on CBJ-owned lands that are not designated for disposal in the *1999 CBJ Land*

Management Plan on each side of the following creeks: Bridget, Cowee, Davies and any newly-accessible creeks resulting from a new public road; (i) designate a 400-foot fish and wildlife habitat and view shed protection buffer east (upland) of the road on CBJ-owned lands, as indicated on the Subarea Map; (j) evaluate development of an integrated hiking trail between Point Bridget and Point Bishop and provide historical trail and site information to the public; (k) develop a management plan for CBJ lands at Bridget Cove to complement recreational opportunities on the state holdings at Bridget State Park; (l) develop and widely distribute "leave no trace" Best Management Practices (BMPs) brochures or pamphlets to independent users as well as commercial eco-tourism and recreational tourism users of public lands to ensure that users adhere to the BMPs and respect fish and wildlife habitat and, particularly, to ensure water quality of anadromous streams and their riparian habitat.

9. Ensure that any extension of Glacier Highway to a Ferry Terminal located at or near the mouth of the Katzehin River, or beyond, for access to the Kensington Mine or points north is designed to provide year-round, energy-efficient safe passage.

10. Identify historic and cultural resources within the subarea. Projects that may impact historic resources identified within this subarea are to be reviewed by the Historic Resources Advisory Committee (HRAC) prior to issuance of a permit. Where new historic or cultural resources are discovered or identified, the Juneau-Douglas City Museum should be contacted immediately for documentation and technical assistance toward preservation and/or curating of the resource. The demolition or removal of historic resources should be avoided and should only occur when no other option for its preservation or relocation to a suitable site exists.

11. Identify, develop and protect public access places to view the aurora borealis. Establish "dark sky" outdoor lighting codes for the rural and remote areas of the CBJ to protect views of the stars from nighttime glare.

Subarea 2: Lena Cove to Eagle River, Including Shelter Island (Maps B, C, & D)

Community Form: Rural

The Rural Dispersed Residential (1 dwelling per acre) and Rural Low Density Residential (l to 3 dwellings per acre) designations predominate in this Subarea, primarily due to the absence of both public water and public sewer in the area; there are no plans to provide or extend sewer service to this area; nor are there plans to extend water service north of Cohen Drive. The lands in the Auke Nu/Point Lena area were designated Rural Low Density Residential (l to3 dwellings per acre) primarily because of the established development pattern therein.

Natural Resources and Hazards:

Type	General Description
Wildlife (Eagle nests, Herring spawning areas)	Lena Cove, Tee Harbor, Shelter Island, Amalga Harbor, Shrine of St. Therese
Stream and Lakeshore Corridors	Peterson Creek, Shrine Creek, Lena Creek, Tee Creek
Watersheds	Peterson Creek, Herbert River
Gravel and Mineral Resources	Herbert River
Hazards	Flooding: Peterson Creek, Strawberry Creek, all coastal areas
Cultural and Historic Resources	Subarea-wide, Shrine of St. Therese, Auk Rec and Indian Point areas

Guidelines and Considerations for Subarea 2:

1. Preserve shoreline areas in public ownership as fish and wildlife habitat and public open space/natural areas with public access to the water.

2. Identify and protect a series of un-fragmented fish and wildlife habitat corridors along anadromous streams from the uplands to the Lynn Canal.

3. Where appropriate, continue rural residential development.

4. Encourage development of boat launch facilities at South Tee Harbor.

5. The Parks and Recreation Comprehensive Plan, Chapter 8, recommends a number of parks, trail, community garden and stream corridor improvements for this subarea. Those

recommendations are listed in Subarea 1 and include: (a) enhance the Lena Loop Park as a neighborhood park with play areas, dog parks, restrooms and additional parking; (b) enhance Lena Point Park with trail parking, trail improvements, benches and interpretive signs; (c) Continue Tee Harbor to Berner's Bay cooperative management; (d) implement the Master Plan for Amalga Meadows area; and (e) protect stream corridors and establish a 200 foot stream buffer on CBJ-owned lands that are not designated for disposal in the *1999 CBJ Land Management Plan* on each side of Peterson Creek and Shrine Creek.

6. The subarea is not served by the public sewer system, and is outside of the Urban Service Area boundary. There is little likelihood of public sewer reaching the subarea.

7. Identify historic and cultural resources within the subarea. Projects that may impact historic resources identified within this subarea are to be reviewed by the Historic Resources Advisory Committee (HRAC) prior to issuance of a permit. Where new historic or cultural resources are discovered or identified, the Juneau-Douglas City Museum should be contacted immediately for documentation and technical assistance toward preservation and/or curating of the resource. The demolition or removal of historic resources should be avoided and should only occur when no other option for its preservation or relocation to a suitable site exists.

8. Investigate the potential costs and benefits of constructing an access road to existing private properties and disposing of some CBJ-owned properties on Pt. Stephens.

Subarea 3: Auke Bay, Mendenhall Peninsula, & West Mendenhall Valley (Maps E, F, & G)

Community Form: Urban for Auke Bay.
Suburban portions of the West Mendenhall Valley that are serviced by both sewer and water.
Transition from rural to urban in the remainder of the West Mendenhall Valley.
Rural on the Mendenhall Peninsula.

Land use designations on the Subarea map range from open space/natural areas to industrial. Transition (T) designations predominate, indicating that higher density development will be considered once public sewer is available and intersections are improved to LOS D or better. Greenbelts are shown for Mendenhall River, Montana Creek, and Auke Lake.

Natural Resources and Hazards:

Type	General Location
Wildlife (Eagle nests, Herring spawning areas)	Auke Bay, Auk Nu Cove, Mendenhall Peninsula, Mendenhall Wetlands State Game Refuge
Stream and Lakeshore Corridors	Auke Nu Creek, Weydelich Creek, Bay Creek, Lake Creeks, Montana Creek, Mendenhall River, Auke Lake, Jordan Creek, Duck Creek
Impaired Water Body	Pederson Hill Creek (aka Casa Del Sol Creek)
Wetlands/Tidelands	West Mendenhall Valley, Spuhn Island, Mendenhall Peninsula, Mendenhall Wetlands State Game Refuge, Montana Creek, Auke Nu Cove
Gravel and Mineral Resources	Montana Creek basin, Mendenhall River corridor, North side of Auke Lake
Hazards	Flooding: Montana Creek, West Mendenhall Valley, all coastal areas. Airport Airspace: see FAA 7460 Contours Map and Airport Airspace Drawing (FAR 77 Surfaces), pages 129-130.
Watershed	Montana Creek(above the roaded area)
Historic and Cultural Resources	Subarea-wide

Guidelines and Considerations for Subarea 3:

1. Conduct an area plan or neighborhood plan for the Auke Bay area that would address residential and non-residential uses in the vicinity of the cove, harbor and University with the goal of creating a Marine Mixed Use, transit and pedestrian-oriented village in Auke Bay. Marine Mixed Use land uses could include: Water-related recreation, eco-tourism, commercial fisheries, sport fisheries, marine-related research and aquaculture, and other private and public use of the waters; shoreline and inland areas of Auke Bay including the University of Alaska Southeast (UAS) campus, student and faculty housing, neighborhood-commercial needs, transportation systems, habitat protection, educational facilities, careful urban design, and viewscape protection measures. This study should address the needs of and should include the participation of all stakeholders including property owners, residents, business operators, University administration, student and faculty, the Alaska Department of Transportation and Public Facilities, all relevant CBJ Departments and Divisions, NOAA staff and researchers and residents of neighborhoods who regularly traverse the Auke Bay area.

2. Protect and provide for continued water-dependent development at the Ferry Terminal and in Auke Bay. Identify suitable areas for float homes, boat houses, and/or live-aboards as affordable housing options; this may include dedicated portions of the harbor for these residences. Adopt design guidelines and development standards for the proposed Auke Bay neighborhood plan and Marine Mixed Use District.

3. Encourage high-density, transit-oriented residential and/or mixed use developments in the Auke Bay "village" area and around the University, particularly for student and faculty affordable housing.

4. Preserve valuable public tidelands, shorelines, creek and stream corridors as fish and wildlife habitat and public open space/natural areas. Acquire land for greenbelts along the Mendenhall River and Montana Creek stream corridors. Identify and protect a series of un-fragmented fish and wildlife habitat corridors along anadromous streams from the uplands to the sea.

5. Protect CBJ-owned lands located within 500 feet of each side of the ordinary high water line of Montana Creek from its juncture with the Mendenhall River to its headwaters, in accordance with the scientific analysis of the special functions of Montana Creek's values conducted by the Juneau Chapter of Trout Unlimited and published in November of 2006.

6. When removing trees for development, care should be taken to consider downwind effects and to mitigate against off-site blow down of trees on down-wind properties.

7. Encourage UAS and private property owners to dedicate new public rights-of-way to create an interconnected Auke Bay neighborhood street system.

8. Provide for additional medium- to high- density residential development on CBJ lands within the Mendenhall Peninsula when served with utilities, roads, and other infrastructure and urban services, where high-value wetlands, steep slopes or hazard areas are not present, and where incompatible uses are not present such as within the flight-safety zone of the airport. All prospective tenants and owners of new dwelling units therein should be advised of the aircraft noise associated with the nearby airport operations.

9. Encourage in-fill, small house development in the West Mendenhall Valley. However, in doing so in the West Valley, continue to protect wetlands, avoid flood hazards and provide buffer vegetation and open space/natural areas for privacy and to maintain the rural character of the West Valley community. Encourage clustering of the small cottage and bungalow houses on larger parcels to maximize the land left in a natural state to assure privacy and provide a visual and sound buffer from existing adjacent lower density residential development. New in-fill development should: (1) Preserve as much of existing wooded areas as is practical; (2) design new building forms to mimic adjacent rural development in scale and massing while increasing density; (3) place parking out of view of the street; and (4) incorporate other appropriate building siting, orientation and design techniques to maintain the rural character of the West Valley. In new subdivisions on large parcels, encourage mixed density developments, such as duplex, accessory dwellings and multi-family units interspersed in suitable locations within the development.

10. Prohibit new residential development on CBJ-owned property abutting the outdoor shooting range. Identify the noise contours for the outdoor shooting range and establish a Noise Notification Overlay District encompassing that area and within which any new development must disclose to potential tenants or buyers the locations, hours of operation and types of noise emanating from the shooting ranges.

11. Provide for expansion of the UAS campus, including student and faculty housing and athletic facilities.

12. Allow development of in-fill residential development, such as apartments, condominiums, efficiency or Single-Room-Occupancy (SRO) units, and loft-style housing within new and existing shopping centers.

13. The Parks and Recreation Comprehensive Plan, Chapter 8, recommends a number of parks, trail, community garden and stream corridor improvements for this subarea. Those recommendations include: (a) develop a cultural park at Auke Cape/Indian Point that would include trails, interpretative panels and other low-impact structures; (b) Plan for the future non-motorized use of the Montana Creek area from its juncture with the Mendenhall River to its upper reaches; (c) pursue a location and funding for a second Mendenhall River pedestrian bridge; (d) reserve trail corridors allowing for loop trails

between Montana Creek and the Mendenhall Greenbelt; (e) reserve stream and trail corridors on CBJ-owned land behind Windfall Avenue; (f) reserve trail corridors recommended in the West Mendenhall Greenbelt Plan; (g) develop a Master Plan for the Auke Lake area; (h) develop a master plan for trail connections around Auke Lake; (i) develop a trail from Auke Bay Elementary School to Spaulding Meadows Trail; (j) provide direct and safe access to the Auke Bay park and shelter across from Auke Bay School; (k) reserve a trail corridor on the Mendenhall Peninsula; (l) define and improve the non-motorized trail from the end of the private driveway at Smugglers Cove to the end of Engineer's Cutoff, creating a trail around the end of the Mendenhall Peninsula; (m) review river bank modification projects upstream of West Mendenhall Valley Greenbelt and Brotherhood Park; (n) review connection routes with DOT at Brotherhood Bridge; (o) light the trail at Kaxdigoowu Heen Trail for year-round use; (p) create a neighborhood park for the subarea; (q) investigate the feasibility of creating cross-country running and skiing loops on CBJ land; (r) identify and protect fish and wildlife habitat and game travel corridors; (s) continue to acquire Greenbelt properties along Montana Creek and the Mendenhall River; (t) retain trail access to Spaulding Meadows and to beaches; and (u) acquire high-value University of Alaska Southeast (UAS) wetlands and designate as Open space/natural areas.

14. The sewer system should be expanded to include the industrial area in the southerly part of the West Valley. It should also be extended to the Pederson Hill area and other areas around the University to accommodate higher density, affordable student and faculty housing. Extend municipal water and sewer service to all properties within the Urban Service Area boundary.

15. Pederson Hill Creek (aka Casa Del Sol Creek) is listed as an impaired water body by the Alaska Department of Environmental Conservation (DEC) and, therefore, careful review of future development proposals that could affect the volume, velocity, cleanliness, and overall water quality of this creek and its watershed and tributaries is warranted.

16. Consider the transportation improvements recommended in Chapter 8 of this Plan. Investigate the feasibility of a roadway extending from Glacier Highway and running east of Auke Lake through the Pederson Hill area to the Mendenhall Back Loop Road; this may be designed as a collector street serving development of the Pederson Hill area and could also be considered as a possible bypass of the Auke Bay area.

17. Encourage beautification and buffering along major roadways.

18. Identify scenic view corridors as seen from public vista points and preserve them through building height restrictions, building massing and orientation restrictions as conditions of a rezoning, subdivision easements and careful building spacing requirements.

19. Identify historic and cultural resources within the subarea. Projects that may impact historic resources identified within this subarea are to be reviewed by the Historic

Resources Advisory Committee (HRAC) prior to issuance of a permit. Where new historic or cultural resources are discovered or identified, the Juneau-Douglas City Museum should be contacted immediately for documentation and technical assistance toward preservation and/or curating of the resource. The demolition or removal of historic resources should be avoided and should only occur when no other option for its preservation or relocation to a suitable site exists.

20. Work with DOT to provide sidewalks, bicycle paths, and/or trails separated from the road travelway along existing and newly-constructed arterial and collector roadways to provide safe and efficient access and to reduce pedestrian and bicycle/motor vehicle conflicts.

Subarea 4: East Mendenhall Valley & Airport (Maps F & G)

Community Form: Suburban/Urban

Natural Resources and Hazards:

Type	General Location
Wildlife (Eagle Nests)	Airport vicinity, Mendenhall Wetlands State Game Refuge
Stream and Lakeshore Corridors	Mendenhall River, Duck and Jordan Creeks
Wetlands/Tidelands	Nugget Creek, Mendenhall Wetlands State Game Refuge
Gravel and Mineral Resources	Mendenhall River corridor, upper part of valley
Impaired Water Bodies	Duck Creek, Jordan Creek
Hazards	Flooding: Mendenhall River, Duck Creek, Jordan Creek, all coastal areas. Avalanches and Landslides: Thunder Mountain. Airport Airspace: see FAA 7460 Contours Map and Airport Airspace Drawing (FAR 77 Surfaces), pages 129-130.
Watershed	Nugget Creek with a potential hydroelectric source at Nugget Falls
Cultural and Historic Resources	Subarea-wide

Guidelines and Considerations for Subarea 4:

1. Maintain the density of existing neighborhoods while encouraging in-fill development of low- to moderate-income affordable housing.

2. Provide for increased community commercial development close to existing commercial areas in the lower valley.

3. Encourage airport expansion in the area designated in the Airport Master Plan. Maintain adjacent publicly owned wetlands and tidelands for public open space/natural areas or resource protection, unless required for aviation or public safety purposes. The CBJ should facilitate Airport Management Plans to meet FAA regulations regarding Runway Safety Areas (RSA) and other similar safety measures.

4. Utilize CBJ-selected lands for high-density residential development, recognizing constraints of sensitive areas.

5. Maintain public access to the Mendenhall Wetlands State Game Refuge (MWSGR) along the airport dike.

6. Duck Creek and Jordan Creek are listed as impaired water bodies by the Alaska Department of Environmental Conservation (DEC) and, therefore, careful review of future development proposals that could affect the volume, velocity, cleanliness, and overall water quality of these creeks and their watersheds and tributaries is warranted. The CBJ should support community efforts to educate and, perhaps, regulate snow removal and storage practices as described in 7.7.DG1 in Chapter 7 of this Plan.

7. Seek new industrial zoning districts to compensate for the encroachment of existing industrial districts by retail, office and other non-industrial commercial uses. Designate the industrial districts that have visual connection from and vehicular access to major thoroughfares and that have already been encroached upon by retail and office uses as heavy commercial/light industrial districts within which industry may remain and non-industrial commercial uses can expand. In other industrial districts, prohibit retail, office, residential and other non-industrial or non-Public uses.

8. Expand the Mixed Use District in the Mendenhall Mall vicinity that would incorporate general commercial uses, high density residential use and public transit services. Make the most efficient use of parking by incorporating housing over a garage with retail shops wrapping around the ground floor. Student or senior housing within the Mall or over the garage should not be required to provide parking spaces.

9. Consider the transportation improvements for this subarea discussed in Chapter 8 of this Plan and provide for pedestrian and bicycle access to schools, parks and shopping areas.

   The CBJ Area Wide Transportation Plan identifies ten priority improvements for the Mendenhall Valley/Nugget Mall and Airport area, none of which have been included in the 2006 to 2008 State Transportation Improvement Plan (STIP) funding. As such, local support for improved capacity of the transportation system will be needed to accommodate new development. Such new development should focus on medium-to-high density residential, commercial and employment centers that can be largely serviced by public transit. A Transit Oriented Corridor with transfer stations at the Malls and/or the Airport should be able to accommodate this new, compact in-fill development.

10. The East Mendenhall Valley is entirely serviced by public sewer and water systems. Future replacement of aging utilities will be required.

11. Drainage problems exist in the central East Mendenhall Valley. Incremental additions to a storm drain system are being made or are in the planning stages. Therefore, adopt a set of overall guidelines that address the treatment and placement of runoff.

12. The Parks and Recreation Comprehensive Plan, Chapter 8, recommends a number of parks, trail, community garden and stream corridor improvements. Those recommendations include: (a) Continued development of the Under Thunder trail corridor at the base of Thunder Mountain; (b) completion of Dimond Park; (c) development of a Mendenhall Valley swimming pool; (d) a pedestrian/bicycle trail from Dimond Park to the Airport Dike trail; (e) assured access to the Airport Dike Trail and a connector trail from the airport to that trail; (f) acquisition of parcels along Duck Creek; (g) establishment of a stream corridor along Duck Creek just south of Berner's Avenue; (h) establishment of a 200 foot wide greenbelt along Jordan Creek where it traverses CBJ owned property, with the exception of that portion of the creek lying within the Juneau International Airport's property, for which the setback should be determined on a case-by-case basis, consistent with 7.3.DG2 and the Airport Manager's recommendation; (i) acquisition of Smith/Honsinger parcel outside of the pond area for natural area and scenic corridor conservation; (j) develop a community garden site; and (k) review the area for suitability for mini-parks. Work with the FAA to ensure that these projects do not negatively affect flight safety due to impacts on bird habitat.

13. Identify historic and cultural resources within the subarea. Projects that may impact historic resources identified within this subarea are to be reviewed by the Historic Resources Advisory Committee (HRAC) prior to issuance of a permit. Where new historic or cultural resources are discovered or identified, the Juneau-Douglas City Museum should be contacted immediately for documentation and technical assistance toward preservation and/or curating of the resource. The demolition or removal of historic resources should be avoided and should only occur when no other option for its preservation or relocation to a suitable site exists.

14. Protect historic trails and sites at the Mendenhall Glacier area.

15. Coordinate all development within the sphere of influence of Duck and Jordan Creeks with the Alaska Department of Environmental Conservation (DEC) to ensure that development meets the guidelines of the creek restoration plan, called the TMDL Document.

16. Study geophysical hazards in this subarea and adopt an amended Hazard Area overlay map following the completion of that study.

Subarea 5: Switzer Creek, Lemon Creek, & Salmon Creek (Maps G, H, & K)

Community Form: Suburban/Urban

Natural Resources and Hazards:

Type	General Location
Wildlife (Eagle Nests)	Vanderbilt Hill, Lemon Creek and Switzer Creek
Stream and Lakeshore Corridors	Lemon, Switzer, and Vanderbilt, Salmon, and unnamed Creeks
Wetlands/Tidelands	Mendenhall Flats, Lower Lemon Creek, Switzer Creek, Vanderbilt Creek
Gravel and Mineral Resources	Lemon Creek, Hidden Valley
Impaired Water Bodies	Jordan Creek, Lemon Creek, Vanderbilt Creek
Flooding	Lower Lemon Creek/Switzer Creek, all coastal areas
Hazard Area	Flooding: Salmon Creek Dam Inundation Area. Landslide and Avalanche: Thunder Mountain, Upper Lemon Creek Valley
Watershed	Upper Salmon Creek
Cultural and Historic Resources	Subarea-wide

Guidelines and Considerations for Subarea 5:

1. Conduct a neighborhood plan for the Lemon Creek and Switzer Creek areas to (1) address livability concerns for residential areas, (2) accommodate the land use and transportation needs of commercial and industrial uses, (3) address recreational and natural/conservation area needs, (4) identify transportation improvements, especially pedestrian- and bicyclist-related safety improvements, and (5) reduce incompatible uses and minimize or mitigate adverse impacts of such incompatible uses related to air quality (noise, dust, fumes, odors), public safety and natural resource protection.

2. Provide for additional medium- to high density residential development in areas with access to arterial roadways from collector streets. Encourage the efficient use of land by allowing non-family housing, such as for students, single-adults or seniors, in mixed use districts within shopping centers or malls. Increase building height limits and decease or eliminate parking requirements for such residential developments where adequately served by public transit.

3. Restrict residential development in areas where off-site impacts of sand and gravel extraction operations, such as noise, dust, heavy truck traffic, would adversely affect residents unless it were assured that residents of the proposed housing would not be so adversely affected, such as for transition or temporary housing.

4. Provide a safe pedestrian and bicycle circulation system in the Lemon Creek and Switzer Creek areas, per the CBJ Area Wide Transportation Plan and Chapter 8 Transportation Chapter of this Plan.

5. Protect access to Lemon Creek Trail, Salmon Creek historic Trail and Heintzleman Ridge Trail.

6. Encourage the construction and/or retention of a buffer and initiation of a beautification effort along all major roads.

7. Reserve wetlands and tidelands in public ownership for fish and wildlife habitat and open space/natural areas.

8. Designate CBJ-owned areas outside the Salmon Creek Dam inundation hazard area for Bartlett Regional Hospital expansion hospital and related medical facilities.

9. Allow for expansion of State office complex facilities adjacent to existing offices within public/institutional land use designation areas west of Switzer Creek but not along shoreline areas.

10. Identify sufficient land to accommodate commercial and industrial uses. Adjust the boundary between commercial and industrial lands in the Vanderbilt-to-Lemon Creek area to account for current conditions and market demands. Provide additional buildable land for heavy industry and prohibit higher intensity uses, such as retail, office and residential uses, within the heavy industrial areas.

11. Renninger Road serves a CBJ school and water reservoir and an affordable rental housing development and could further be used to access other CBJ lands suitable for development of affordable housing.

12. Jordan Creek, Lemon Creek and Vanderbilt Creek are listed as impaired water bodies by the Alaska Department of Environmental Conservation (DEC) and, therefore, careful review of all future development proposals that could affect the volume, velocity, cleanliness, and overall water quality of these creeks and their watersheds and tributaries is warranted. Coordinate all development within the sphere of influence of Jordan, Lemon and Vanderbilt Creeks with DEC to ensure that development meets the guidelines of the creeks' restoration plans, called the TMDL Document.

13. The Parks and Recreation Comprehensive Plan, Chapter 8, recommends a number of parks, trail, community garden and stream corridor improvements. Those recommendations include: (a) construction of a coastal trail along Egan Drive or along the "inside" or north side of Egan Drive, connecting Sunny Point to neighborhoods to the east and west; (b) Upgrade the Dzantik'i Heeni (DZ) Middle School and the Switzer Creek/Richard Marriott trail; (c) construct a covered basketball court/play area at Dzantik'i Heeni Middle School; (d) reserve a stream corridor on Switzer Creek; (e) resolve Lemon Creek Trail issues; (f) develop an All-Terrain-Vehicle (ATV) or Off-Highway Vehicle (OHV) course in the Upper Lemon Creek area; (g) develop a trail from the Sunny Point intersection to the Pioneer's Home intersection and along the Pioneer's Home marsh with an accessible viewing platform for bird watchers; (h) protect access to the Heintzleman Ridge trail; (i) review the area for suitability for mini-parks; (k) establish a community garden area; (l) study the Lemon Creek area for suitable park sites; and, (m) continue ADA improvements at Twin Lakes.

14. Identify historic and cultural resources within the subarea. Projects that may impact historic resources identified within this subarea are to be reviewed by the Historic Resources Advisory Committee (HRAC) prior to issuance of a permit. Where new historic or cultural resources are discovered or identified, the Juneau-Douglas City Museum should be contacted immediately for documentation and technical assistance toward preservation and/or curating of the resource. The demolition or removal of historic resources should be avoided and should only occur when no other option for its preservation or relocation to a suitable site exists.

15. Since views of the water are a highly-rated value by residents, buildings in the (WCI)-designated areas should be situated or oriented to retain views of the water between buildings.

Subarea 6: Juneau (Maps K, M, & N)

Community Form: Urban

The Juneau Subarea is a mixed use community with land use designations in the core Downtown area ranging from the rural Resource Development (RD), to Recreation Resource (REC) on the steep northern edges of the core area and tiering down the slopes to the Channel with the more urban Medium Density Residential (MDR), Medium Density Residential/Single Family (MDR/SF), Urban Low Density Residential (ULDR), Mixed Use (MU), General Commercial (GC), Institutional and Public Use (IPU) and Waterfront Commercial (WC) districts. A Transit Corridor extends about one-quarter mile from Egan Drive with express bus service connecting Auke Bay and the Downtown.

East of the core area toward Thane are Mixed Use (MU), Resource Development (RD), Industrial (I), Waterfront Commercial, Waterfront Commercial/Industrial (WCI), Institutional and Public Use (IPU), and Rural Dispersed Residential (RDR) districts. The Downtown area includes special overlay districts, including parking districts, an historic district, a Waterfront District that is the subject of the adopted Long Range Waterfront Master Plan, along with Landslide and Avalanche Hazard Zone designations.

Natural Resources and Hazards:

Type	General Location
Wildlife (Eagles and bears)	Six eagle nests around Downtown Juneau (2006)
Stream and Lakeshore Corridors	Gold Creek upstream from Cope Park
Wetlands/Tidelands	Gold Creek Tidelands
Hazards	Flooding: Gold Creek, all coastal areas. Landslide/Avalanche: Mt. Juneau, Mt. Roberts, Gold Creek Basin, Last Chance Basin
Watershed	Gold Creek/Last Chance Basin
Historic and Cultural Resources	Subarea-wide

Guidelines and Considerations for Subarea 6:

1. Preserve the scale and densities of the older single family neighborhoods in the Downtown area, including the Casey-Shattuck "flats" and Star Hill historic districts, Chicken Ridge, Basin Road, Mt. Maria, the Highlands, and the higher density apartments and homes in the vicinity of the Federal Building.

2. Encourage the retention of existing dwelling units in or near the older residential neighborhoods to avoid exacerbating traffic and parking congestion and to preserve the privacy and quiet of those neighborhoods.

3. Strengthen and enhance the Capitol Complex in the Downtown Juneau area. Provide for orderly expansion of state government facilities in the vicinity of the State Capitol and the State Office Building.

4. Develop a cooperative agreement with owners and tenants of Downtown buildings, as well as their lenders, insurance, legal, design, and construction professionals, for continuing, incremental improvements to those buildings, such as installation of sprinklers, to lessening the threat of structural fires in and near the Downtown historic area.

   Many of the buildings in this area are built with virtually no fire resistant materials, are built too close to their property lines to allow a fire break or room for fire fighters to stop the spread of fire and have openings such as doors, windows and vents in their side walls that would allow fire to spread very quickly to adjacent buildings. Many are built on pilings, leaving a common crawl space that cannot be protected by fire fighters.

   Loss of the downtown historic district in a fire would have significant negative impact to the aesthetics and economy of the CBJ, as one of its key tourist attractions is the historic character of the Downtown. A fire could spread through these wooden buildings very quickly and, despite the best efforts of fire fighters, probably could not be controlled.

5. Limit development in landslide/avalanche hazard areas; rezone publicly-owned land in those hazard areas as Resource Protection zones.

6. Preserve view corridors of the compact, historic Downtown, as viewed from the Channel toward the historic districts and their mountain backdrop, and preserve views of the Channel, as viewed from public streets in the Downtown, through height restrictions and building orientation and spacing guidelines along the downtown waterfront.

7. Preserve public access to the shoreline and waterfront areas. Provide for public access, open space/natural areas and water-dependent and water-related uses on the Downtown waterfront via the seawalk with connections to the existing pedestrian system.

8. Support the establishment of a Cultural Campus anchored by the Alaska State Museum, the Alaska State Library in the State Office Building, the Convention Center and a new Performing Arts Center at the former National Guard Armory site, inclusive of the area bordered by Gold Creek, Willoughby Avenue, Main Street, and Egan Drive. With Centennial Hall serving as the visitor and convention center and two hotels located within these boundaries, the area is readily accessible both to residents and visitors, and has some stature as the heart of our State's culture. Adding a performing arts center to this

"campus" would solidify its' position, drawing more people to the area and reinforcing the year-round health of the adjacent business district.

9. Protect and facilitate access to Mt. Juneau and Mt. Roberts trails.

10. Promote mixed uses downtown. Encourage small-scale neighborhood-serving retail and personal service businesses and increased multifamily development within the urban center. Encourage housing over ground-floor retail space, Single-Room-Occupancy (SRO) dwellings and/or loft-style housing in the Downtown.

11. Encourage use of the downtown waterfront area as a mixed use waterfront serving residential, recreational, tourist, and maritime uses as identified in the CBJ-adopted Long Range Waterfront Plan. Such development should avoid view blockage of the Downtown historic districts as viewed from the Channel.

12. Develop design guidelines for buildings in the Downtown that create a year-round design aesthetic that is attractive and respects the historic and contemporary urban character of the district, particularly for display window treatments, signage and outdoor lighting of Downtown commercial buildings.

13. Provide additional parking and fast, mass transit opportunities, per the Downtown subarea guidelines and implementation actions identified in the Transportation Chapter 8 of this Plan. Develop a parking management component of a Downtown Juneau Transportation Management Program that could include the following elements:

    A. Establish a covered walkway network throughout the Downtown.

    B. Establish a parking policy that will guide planners in determining the amount of parking that should be provided for specific uses Downtown.

       The CBJ should re-examine the parking requirement for development of residential units and for tourist-oriented uses in the Downtown.

       In addition to the Fee-In-Lieu-of-Parking program, the CBJ should provide alternatives, such as participation in a coordinated Downtown Transportation Management Program, for Downtown developers whose proposals do not meet on-site parking requirements. Provisions should be added to accommodate use of parking structures, shuttles, and other means to meet the parking need. However, ensure that these programs do not induce property owners to demolish historic structures to make way for higher intensity uses or taller structures.

C. Modifications in the current management of the existing parking supply, such as shared daytime and nighttime and week-day and week-end parking, should be made to make parking more accessible to patrons of area cultural arts or commercial businesses and for area residents.

D. Development of additional parking supply: construction of centralized parking structures should be phased in and reevaluated on a case-by-case basis. Surface lots can be established on a temporary basis to act as place-holders for potential future structures and provide additional parking while a centralized structure is being developed and the initial use of the structure evaluated.

E. Management of downtown parking should be centralized, though still coordinated with other CBJ Departments, to coordinate all aspects of the parking program. The parking program should be continually-monitored to determine how programs are working. Developing a program is an on-going process that will need continuous review and revision. The CBJ needs to involve the State and Federal governments in shared development of solutions, since parking demand created by State and Federal offices are a major factor in Downtown parking shortfalls.

F. The CBJ should continue its efforts to develop a convenient transportation terminal near the Downtown. The terminal should provide a transfer station for mass and rapid public transit where commuter busses, and possibly a light rail system would connect to shuttle busses for localized distribution. Commuters may park their automobiles at the terminal, and catch a shuttle to the downtown core.

G. Other methods suggested to ease the parking problem downtown include construction of a light rail or similar system between the valley and town, supplemented with fast, efficient, localized shuttles; and development of high-density mixed use, but predominantly residential, areas that would provide the opportunity for people to live near their work, shopping and recreation needs, thereby significantly reducing or eliminating the need for a private vehicle altogether.

H. Another suggestion related to parking is to eliminate the parking requirement for certain affordable high-density dwelling units in the downtown core area, such as the small, Single Room Occupancy (SRO) units, other student housing, senior housing and/or seasonal worker housing whose occupants are likely not to own vehicles. This would facilitate the development of affordable housing downtown that, in turn, would create a more dynamic, 24-hour downtown and would free up rental housing elsewhere in the CBJ. This concept may not work for all types of dwelling units developed in the Downtown, such as loft housing, family-size housing or artist housing whose occupants are more likely to own vehicles; those developments may participate in the Downtown Fee-in-Lieu of Parking program established in 2006.

14. The Parks and Recreation Comprehensive Plan, Chapter 8, recommends a number of parks, trail, community garden and stream corridor improvements. Those recommendations include: (a) advertise and schedule public use of the Terry Miller Legislative Affairs Building that is consistent with the office use therein; (c) implement the Cope Park Master Plan; (d) retain the Last Chance Basin in its undeveloped condition and allow for year-round recreation use where there are no avalanche hazards; (e) assist with the stabilization of historic buildings in Last Chance Basin; (f) support construction of a bicycle and pedestrian lane along Thane Road; and (g) designate a downtown community garden site on CBJ property.

15. Consider establishment of an alternative local roadway from Egan Drive in Downtown Juneau to the industrial barge terminal and Thane Road that by-passes the South Franklin/Cruise Ship Terminal area.

16. Consider mechanisms to encourage and allow vehicle-less residential development on Gastineau Avenue; that is, uses whose occupants or visitors would travel by walking, bicycling or by public transit.

17. Identify historic and cultural resources within the subarea. Projects that may impact historic resources identified within this subarea are to be reviewed by the Historic Resources Advisory Committee (HRAC) prior to issuance of a permit. Where new historic or cultural resources are discovered or identified, the Juneau-Douglas City Museum should be contacted immediately for documentation and technical assistance toward preservation and/or curating of the resource. The demolition or removal of historic resources should be avoided and should only occur when no other option for its preservation or relocation to a suitable site exists.

18. Assure a Gold Creek Protection Zone, as shown on Map M, and within which no structures or activities shall be allowed except as needed by the U.S. Coast Guard for its purposes or as allowed by the Alaska Department of Fish and Game for habitat maintenance and enhancement.

19. When considering applications for building permits for commercial uses within the Downtown Juneau area, consider the potential noise impacts of mechanical equipment or patrons on adjacent residential uses. It may be appropriate to establish a noise ordinance for the Downtown Juneau subarea where case-by-case analysis, conditions of permits and enforcement activities are not practical to solve noise problems.

Subarea 7: Thane (Maps P & Q)

Community Form: Rural

Designations on the Subarea map are primarily Rural Dispersed Residential--RDR (one dwelling unit per acre) along Thane Road, and Recreation Resource–REC inland of the RDR corridor. There is a Waterfront Commercial/Industrial area west of the Sheep Creek beach area.

Natural Resources and Hazards:

Type	General Location
Wildlife (Eagle Nests)	9 eagle nests along shoreline (in 2006)
Stream Corridors	Sheep Creek, DuPont Creek
Habitat	Sheep Creek Valley
Gravel Resource	Sheep Creek
Hazards	Flooding: Lower Sheep Creek, all coastal areas. Avalanche/Lanslide: Numerous chutes along Thane Road
Cultural and Historic Resources	Alaska-Juneau and Alaska-Gastineau Mines

Guidelines and Considerations for Subarea 7:

1. Allow for continued Rural Dispersed Residential development along the existing Thane Road corridor, provided that, in new developments, sanitary septic systems can be adequately monitored by the property owner and assurances provided to the CBJ that these systems will remain in adequate working condition for the useful life of the permitted use on the property. Failed septic systems should not be "bailed out" by extension of municipal sewer service unless residential densities of at least ten (10) units per gross acre are provided to the subject property. Lands to which sewer service is to be provided must be included within the Urban Service Area boundary.

2. Recognizing the growth potential of Thane and areas south of Thane, it is important to also recognize the limitations of Thane Road. When reviewing development permit applications, consider that the Thane Neighborhood Association (TNA) describes Thane Road as "in terrible condition: humped in the middle, falling off the cliff on the channel side in several places, full of pot holes and dips, narrow, with no shoulders. Drivers tend to crowd the middle of the road, which can be quite dangerous if the vehicle is a wide-bodied, slow-moving tour bus with extended side view mirrors that encroach even further

into the opposite lane. This dangerous condition is compounded by the popularity of Thane Road as a jogging/walking/biking route."

Any substantial increase in traffic to the area, either associated with new residential development or increased commercial recreational/tourism use of the area, should be accompanied by the provision of a separated pedestrian and bicycle pathway or widened shoulder. Furthermore, school buses should be provided pull-outs or other facilities to allow buses to pull out of the travel lane to allow other vehicles to pass after children have safely crossed the street.

Thane Road is a State ROW, the CBJ has no authority to upgrade this road; the CBJ should work with DOT to address these safety concerns.

3. Thane Road has become an important transportation corridor with development of the Rock Dump area and tourist destinations around Sheep Creek. Therefore, the CBJ should encourage DOT to make reconstruction of Thane Road a high priority and, at the least, the development of separated pedestrian and bicycle paths along Thane Road from Mt. Roberts Street to Sheep Creek beach is essential. However, such a separated pathway may need to take the form of a shoreline trail, boardwalk or pathway, due to limitations in rights-of-way easements along the road and steep terrain thereon.

4. Maintain non-motorized recreational access to the Sheep Creek basin, creek and beach areas while minimizing impacts to the existing recreational and fish and wildlife habitat values of the area. Install, maintain and enforce motorized vehicle barriers to access points to area trails and beaches.

5. Identify historic and cultural resources within the subarea. Projects that may impact historic resources identified within this subarea are to be reviewed by the Historic Resources Advisory Committee (HRAC) prior to issuance of a permit. Where new historic or cultural resources are discovered or identified, the Juneau-Douglas City Museum should be contacted immediately for documentation and technical assistance toward preservation and/or curating of the resource. The demolition or removal of historic resources should be avoided and should only occur when no other option for its preservation or relocation to a suitable site exists.

Subarea 8: North & West Douglas Island (Maps I, J, K, L, Q, R, S, & T)

Community Form: Predominantly Rural.
Urban near the Douglas Bridge.
Two New Growth Areas in West Douglas.

Natural Resources and Hazards:

Type	General Location
Wildlife (Eagles Nests)	25 eagle nests along North Douglas shoreline and 60 along West Douglas shoreline (2006 data)
Stream and Lakeshore Corridors	Eagle, Peterson, Fish, Grant, Falls, Neilsen, Hendrickson, Johnson, Ninemile, and Hilda Creeks
Wetlands/Tidelands	Shoreline between Fritz Cove and Kowee Creek (including the Mendenhall Wetlands State Game Refuge), along and above North Douglas Highway
Gravel and Mineral Resource	Small area on lower Fish Creek, area near Juneau-Douglas Bridge, Eagle Creek area
Hazards	Flooding: Lower Fish Creek, Lower Peterson Creek, all coastal areas. Landslide/Avalanche: Hendrickson Creek, Upper Fish Creek, and various hillside areas, including the vicinity of Eaglecrest Ski Area
Watershed	Upper Fish and Hilda Creeks
Cultural and Historic Resources	Treadwell ditch, Cropley Lake, 3rd Cabin area (Dan Moller trail/Kowee Creek)
Scenic Corridor/Viewshed	One-quarter mile each side of Fish Creek Rd.; Water side of North Douglas Highway from Fish Creek Park to False Outer Point Beach Access
Adopted Subarea Plans	West Douglas Concept Plan, Land Use Chapter 6

Recognizing the growth potential of both North and West Douglas, it is important to also recognize the limitations of North Douglas Highway. North Douglas Highway is a two-lane, paved minor arterial roadway with no sidewalk, separated pedestrian pathway or bicycle lane, operated and maintained by the State Department of Transportation/Public Facilities (DOT). It is also a local access residential street with over 500 private driveways accessing directly to the

road. This creates dangers to the local users and those passing through to recreation destinations. Any substantial increase in traffic to the area, either associated with new residential development or increased commercial recreational/tourism use of the area, should be accompanied by the provision of separated pedestrian and bicycle pathways on each side of the road. Furthermore, school buses should be provided pull-outs or other facilities to allow buses to pull out of the travel lane to allow other vehicles to pass after children have safely crossed the street.

Portions of West Douglas Island are designated as New Growth Areas and can accommodate over 2,000 new residential units along with commercial, industrial and recreational facilities. All utilities and services would need to be provided and self-contained within these New Growth Areas once road access is assured. These New Growth Areas are intended for phased development in accordance with the West Douglas Concept Plan, Chapter 6.

North Douglas Highway is accessed solely by the Juneau-Douglas Bridge. Vehicle traffic at the intersection of the bridge landing at 10th Street and Egan Drive exceeds its design capacity in the morning commute peak period of from around 7:30 AM to 8:30 AM (snow conditions extend this peak period to from around 7:00 AM to 8:30 AM). A new roundabout/traffic circle was installed at the Island terminus of the Juneau-Douglas Bridge that has increased the traffic flow of that intersection to a level of service (LOS) C or better; however the mainline terminus of the bridge at 10th Street and Egan Drive is at a LOS E or F in the morning peak period during the 7 to 9 AM commute. In 2006, about half the motorists traveled straight across Egan Drive or turned right, indicating that they work in Downtown Juneau. It is likely that residents of new housing on Douglas Island will have the same employment and commute patterns. Even if all the new residents commute by public transit, the current capacity of the Juneau-Douglas Bridge terminus at 10th Street and Egan Drive cannot accommodate these additional vehicle trips and the traffic volume capacity must be expanded and/or staggered work hours for Downtown Juneau government workers must be mandated and enforced.

A December 2002 DOT report recommended several options for expanding capacity and improving the LOS on the Juneau-Douglas Bridge. The existing roundabout at the Douglas Island terminus was recommended and implemented. The CBJ-accepted improvements to the mainland terminus at 10th Street and Egan Drive have not been funded by DOT. Further analysis of potential improvements to the mainland terminus of the bridge may be needed, along with community understanding of the need for the improvements, and community cooperation to fund and build them.

Along with the Juneau-Douglas Bridge improvements, a North Douglas crossing of Gastineau Channel is needed to accommodate new development in the West Douglas New Growth Area. Douglas Island has the most buildable land in the CBJ (more flat and dry than is available on the mainland) and it is essential to provide a second bridge to Douglas Island in order to ease the CBJ's critical housing crisis. Careful analysis of the location and configuration of the North Douglas terminus, or "landing," of this new bridge is needed, along with a careful analysis of the ways in which traffic to and from West Douglas is conveyed. The conveyance of traffic to new development in North Douglas or West Douglas may be accomplished in the long-term by road and light rail or heavy rail facilities and, therefore, the right-of-way for transport should be wide enough to accommodate fixed-guideway, motorized and non-motorized transport. The analysis

of transport systems to North and West Douglas from a new bridge landing should be conducted in conjunction with a neighborhood planning effort for North Douglas. See also the transportation discussion for Douglas Island in Chapter 8 of this Plan, and the Community-Preferred Alternative location for the North Douglas Crossing identified in the 2007 *North Douglas Crossing Public Involvement Project* and Resolution 2415(am), Vanderbilt Hill.

Guidelines and Considerations for Subarea 8:

1. In the near term, conduct a neighborhood plan for North Douglas to address current and anticipated neighborhood issues such as traffic, transit, pedestrian and bicycle safety, residential uses, densities and utilities, parks, open space, access to water bodies, community gardens, neighborhood-serving commercial uses, and recreational uses for local and CBJ residents as well as regional and international visitors. This plan should incorporate engineering, costs and environmental assessments and findings of a North Douglas bridge landing. This transportation analysis of the bridge and West Douglas traffic conveyance should be combined with the comprehensive North Douglas subarea planning effort that should addresses transportation, utilities, in-fill housing, recreation and open space/natural areas, and public safety issues in a community-wide, holistic approach. A new bridge landing in North Douglas should be carefully designed to avoid a physical separation of the North Douglas community, while preserving its rural character.

2. In its current condition, the northwest, west and southern areas of Douglas Island are in a natural, undeveloped state. Portions of the northwest island provide a recreational resource for the whole community. In addition to Eaglecrest, there are miles of shoreline and many acres of unimproved park area. A unique feature is a mile-long stretch of waterfront roadway from the North Douglas boat launch facility to False Outer Point. This corridor offers a world class vista of the Mendenhall Glacier, Mendenhall Peninsula and small islands. This area should be designated a scenic corridor both locally and with the State DOT. No obtrusive structures should be built on the water-side of the road and any development within this view corridor should assure the preservation of these views and should enhance the open space/natural areas, public access and non-motorized pathways along the corridor. With the exception of boat launch facilities at the boat harbor, no permanent structures associated with commercial activities should be permitted along the shore side of the road from Cove Creek to False Outer Point.

3. The un-roaded shoreline on the west side of Douglas Island has development potential, both for urban residential use and for port development. The westerly shoreline is owned almost entirely by the Goldbelt Corporation and the land immediately upland is owned by the CBJ. Goldbelt has considered any number of development scenarios. A West Douglas Conceptual Plan was published in May 1997 and Chapter 6 of that Plan was adopted as an element of the CBJ Comprehensive Plan in 2007. This Plan encourages and facilitates the development of a New Growth Area in West Douglas when water, sewer and road infrastructure are available and adequate to serve the new development. New development

should preserve shoreline and streamside areas in public ownership as open space/natural areas with public access points.

4. Unless and until municipal water and sewer services are provided to the North Douglas area, continue to allow for rural residential densities along the North Douglas Highway corridor and maintain the Resource Development land use designation for upland areas. Where municipal water and sewer service are provided, more efficient use of this land should be encouraged. Residential densities should be increased when, and where, roads, terrain, transit and other public services would provide the carrying-capacity for the additional residential population. However, the areas designated RD(T)MDR and provided municipal sewer service should remain RD until driveway access, roadway capacity and intersection capacities and facilities serving that property meet the livability standard of a Level of Service D or better.

5. The Parks and Recreation Comprehensive Plan, Chapter 8, recommends a number of parks, trail, community garden, and stream corridor improvements. Those recommendations include: (a) implement the 2002 Fish Creek Park Master Plan; (b) develop a master plan for recreation lands from Fish Creek to Point Hilda in North and West Douglas; (c) support construction of separated bicycle and pedestrian pathways along North Douglas Highway; (d) work with the North Douglas golf course developer to allow for cross country ski and walking use of the course with lighted trails for winter use; (e) develop a community park on West Douglas; (f) develop a neighborhood park in North Douglas that includes both passive and active recreation areas; (g) develop a community garden in the North Douglas area; (h) retain a trail corridor on CBJ lands beyond North Douglas; (i) consider acquisition of private land at Outer Point for public recreation use; and (j) coordinate recreational and maintenance activities at Eaglecrest.

6. Protect access to the Treadwell Ditch Trail and beach trails and support improvements to trails as recommended by Trail Mix.

7. Retain an easement for a bench road and trail corridor on CBJ lands around the perimeter of the Island (a trans-island road and trail system). As development proceeds near Peterson Creek, the CBJ should actively pursue development of a trail corridor that begins at the current end of the North Douglas Highway to the new development.

8. Prevent development within the Fish Creek Road scenic corridor, which is represented by a one-quarter mile distance from the Fish Creek Road right-of-way on each side of the road. No structures, other than utilities, shall be permitted therein. Minimize to the greatest extent practicable, intersecting driveways and other vehicular access points on Fish Creek Road from North Douglas Highway to Eaglecrest Lodge.

9. Retain Fish Creek Park as designated recreational open space/natural areas and restrict any development adjacent to the park, other than non-motorized access trails or bridges, which would adversely impact the valuable estuarine habitat and recreational use of the area.

10. On CBJ-owned lands, maintain a 200 foot stream buffer on each side of Fish Creek.

    On CBJ-owned lands that are not designated for disposal in the *1999 CBJ Land Management Plan*, maintain 200 foot stream buffers on each side of the following waterbodies: Peterson Creek, Eleven Mile Creek, Middle Creek, and Hilda Creek. This buffer zone or setback may be adjusted or altered, on a case-by-case basis, when a scientific analysis of the specific function(s) of the particular creek's value(s) finds that the setback should be more, based on its functional value(s). The setback from Peterson Creek as it passes through the land included within the CBJ Totem Creek Golf Course Lease Agreement, as outlined in existing permits, may be less than suggested here, provided that the water quality of the creek is not impaired by non-native pesticides or fertilizers, sediments or other materials, and the riparian habitat of the creek is not impaired by invasive species.

11. As much as is practical and efficient, coordinate recreational and maintenance activities and shared use of facilities and equipment and coordinate management activities with the Eaglecrest Facility and programs. Many of the facilities at Eaglecrest can serve both skiers and non-skiers and both winter and off-season recreational activities and events. Shared use and year-round use of the Eaglecrest facilities and lands should be encouraged and facilitated.

13. Identify historic and cultural resources within the subarea. Projects that may impact historic resources identified within this subarea are to be reviewed by the Historic Resources Advisory Committee (HRAC) prior to issuance of a permit. Where new historic or cultural resources are discovered or identified, the Juneau-Douglas City Museum should be contacted immediately for documentation and technical assistance toward preservation and/or curating of the resource. The demolition or removal of historic resources should be avoided and should only occur when no other option for its preservation or relocation to a suitable site exists.

14. When reviewing development proposals for Douglas Island, ensure that the site layout and circulation system configuration proposed minimizes direct vehicular access onto North Douglas Highway and does not obstruct or harm potential roadway access to an upland bench road to West Douglas or non-motorized access to a trans-island trail system, including the Treadwell Ditch Trail.

15. The West Douglas Concept Plan, Chapter 6, Land Use section has been adopted as an element of the CBJ Comprehensive Plan. Development within these New Growth Areas is subject to a master development plan to be adopted by the Assembly. Each subarea in these New Growth Areas may be planned in phases, consistent with the general guidelines in Chapter 6 of the West Douglas Concept Plan.

16. Conduct an area plan or neighborhood plan for the Downtown Douglas area that would address residential and non-residential uses in the vicinity of the harbor and town center with the goal of creating a Marine Mixed Use, transit and pedestrian-oriented community. Marine Mixed Use land uses could include: Water-related recreation, eco-tourism, commercial fisheries, sport fisheries, marine-related research and aquaculture, and other private and public use of the waters and shoreline; inland areas of housing, neighborhood-commercial needs, transportation systems, habitat protection, educational facilities, careful urban design, and viewscape protection measures. This study should address the needs of and should include the participation of all stakeholders including property owners, residents, business operators, the Alaska Department of Transportation and Public Facilities, and all relevant CBJ Departments and Divisions.

Subarea 9: Douglas & West Juneau (Maps M, O, & P)

Community Form: Urban in Downtown Douglas and West Juneau
Rural south of Downtown Douglas

Natural Resources and Hazards:

Type	General Location
Wildlife (Eagles Nests)	8 eagle nests in Douglas and South Douglas (2006 data)
Stream and Lakeshore Corridors	Kowee, Bear, Lawson, Bullion, Ready Bullion, and Nevada Creeks
Wetlands/Tidelands	Mouth of Kowee and Lawson creeks, along the shoreline south of downtown Douglas, and on the bench above Douglas Highway.
Cultural and Historic Resources	Downtown Douglas, Treadwell mine complex, Douglas cemeteries

Guidelines and Considerations for Subarea 9:

1. Provide for additional medium- to high- density residential development in areas with access to arterials and served by municipal sewer and water and adequate road and intersection capacity (to Level of Service D or better).

2. Maintain the requirement for a bridge to the transition area on upper Cowee Creek as a condition of zoning transition, to divert traffic away from Cordova Street. Work with property owners on both sides of the creek to finance and construct the appropriate bridge design, through a Local Improvement District or other similar financial mechanism.

3. The Parks and Recreation Comprehensive Plan, Chapter 8, recommends a number of parks, trail, community garden and stream corridor improvements. Those recommendations include: (a) develop a plan for the interpretation of the Treadwell Mine area from the parking lot to the cave-in; (b) complete a Master Plan for Savikko Park; (c) retain neighborhood access to Mt. Bradley trail; (d) reserve the meadows behind Crow Hill for cross country skiing; (e) develop Homestead Park as a beach access site; (f) develop the Treadwell Ditch Trail for a variety of uses.

4. Preserve publicly-owned, undeveloped shoreline areas for public open space/natural areas.

5. Assure public access to Treadwell Ditch, Dan Moller and Mt. Jumbo trails and, where appropriate, to area beaches.

6. A Marine Mixed Use District designation is shown for a portion of Downtown Douglas. This designation reflects the current pattern of commercial development and will allow higher density residential development. The zoning for this area should reflect this land use designation.

   The commercial core of Downtown Douglas includes an auto repair shop, gas/convenience store, bars, restaurants and personal service shops. Major public buildings include the Post Office, Douglas Fire Station/Library, Gastineau Elementary School, Mt. Jumbo Gym/service center, and the historic Mayflower School. The Perseverance Theater is a significant and unique cultural facility.

7. There are several parcels of private land that could be further developed into multifamily structures as well as some CBJ-owned parcels above Crow Hill that should be developed into medium-to-high density, low- to moderate- income affordable housing when sewer and roadway capacities can adequately (LOS D or better) serve the new development.

8. Future development in North Douglas, West Juneau or Downtown Douglas will require improvements to the 10th Street and Egan Drive intersection and may require additional traffic capacity on the Juneau-Douglas Bridge. These two congestion points limit additional residential development on Douglas Island and impede the CBJ's progress in promoting and facilitating the construction of affordable housing.

   The Cordova Street and Douglas Highway intersection has been the subject of many studies. These studies have documented the obvious: A problem currently exists during the weekday morning peak travel period for motorists seeking to turn left onto Douglas Highway from Cordova Street. The traffic problem is likely to get worse as West Juneau is further developed. The Juneau-Douglas Bridge has limited capacity for a number of reasons. A traffic circle was installed at the North Douglas Highway terminus of the Juneau-Douglas Bridge; this increased the capacity and lessened congestion from Cordova Street and southbound traffic from north of the Bridge area, however, the design capacity at the 10th Street and Egan Drive intersection continues to function at unacceptable congested Levels of Service E and F in the peak week day morning periods. The CBJ should work with DOT to upgrade the 10th Street and Egan Drive intersection as a top priority.

9. Identify historic and cultural resources within the subarea. Projects that may impact historic resources identified within this subarea are to be reviewed by the Historic Resources Advisory Committee (HRAC) prior to issuance of a permit. Where new historic or cultural resources are discovered or identified, the Juneau-Douglas City Museum should be contacted immediately for documentation and technical assistance toward preservation and/or curating of the resource. The demolition or removal of historic resources should

be avoided and should only occur when no other option for its preservation or relocation to a suitable site exists.

10. The Treadwell historic area and trail, although a significant local resource for heritage tourism, should be protected from overuse.

Watersheds (Watershed, Scenic Corridor/Viewshed, & Hazard Area Maps 1 & 2)

Community Form: Predominantly Rural, with some Scenic Corridors/Viewsheds and Hazards Areas in Urban and Suburban areas.

Guidelines and Considerations for Watersheds:

1. Protect watershed areas to assure an adequate supply of clean, safe drinking water.

2. Identify and protect historic resources.

3. Maintain the *Watershed Control and Wellhead Protection Program–Gold Creek Source* (1994) as well as the 1994 *Last Chance Basin Land Management Plan* (LCBLMP).

4. The Gold Creek watershed is one of two water sources supplying the CBJ's drinking water. The protection of the water supply in the watershed is the highest priority. Therefore, only those activities that can demonstrate compliance with watershed protection objectives should be allowed in the Basin. Any permits issued for use of CBJ land above the wellheads should contain conditions to assure protection of the watershed.

5. The 1994 update of the LCBLMP, a component of the Comprehensive Plan, contains the following objectives for land use activities in the Last Chance Basin:

    A. Protect the high quality of the municipal water supply obtained from Last Chance Basin's vital water resource;
    B. Encourage and enhance resident and visitor appreciation of Last Chance Basin's rich historical heritage;

    C. Maintain the wild, natural, and scenic qualities of Last Chance Basin; and

    D. Encourage and enhance resident and visitor enjoyment of casual recreational opportunities in Last Chance Basin. Consider the objectives of the Plan when reviewing capital improvements or permit applications affecting the watershed.

6. There is increasing pressure to operate tourist related services in Last Chance Basin and the Gold Creek watershed. The CBJ must work toward controlling tourist-related services in the Last Chance Basin to protect the watershed, transportation facilities and the quiet and privacy of the abutting residential neighborhoods. Therefore, the CBJ should:

    A. Monitor the impacts of tourism to the area. The impacts to water quality and of the increased traffic on Basin Road should be analyzed in determining the carrying capacity of the area;

B. Use a permit and fee system for tourist use of CBJ property that would support required maintenance of road, trails and historic resources and enforcement activities;

C. Allow small-scale commercial activity on a case-by-case basis under a permit and fee structure, provided that no permanent structures or physical facilities are provided.

7. The historic buildings in Last Chance Basin are a valuable resource and offer a glimpse into the past development of the community. Therefore the CBJ should (a) maintain an awareness that significant historic buildings and artifacts in the Basin will further deteriorate unless they are maintained; (b) devise an acceptable form of access so that a historic interpretive center may be developed; motor vehicle access should avoid the use of Basin Road; (c) encourage and assist, if possible, interim efforts of the Gastineau Channel Historical Society to maintain and stabilize historic structures and artifacts; and (d) restore vehicular access for emergency access to the site of the historic mining buildings at the Compressor Building level for the purpose of maintaining and preserving these historic facilities while ensuring the protection of the watershed from vehicular-related pollutants to the soil or groundwater.

8. The existing Gold Panning operation is allowed to operate under the provisions of the LCBLMP. The operator should, however, be encouraged to ultimately relocate this operation out of the Gold Creek wellhead recharge area.

9. Vandalism and illegal dumping has increasingly become a problem in Last Chance Basin. In the winter, a severe avalanche hazard exists. Therefore, prohibit vehicular access to the Basin between midnight and 7am in the summer, and prevent vehicular access altogether in the winter. Signs should be posted informing people of the hours of access and that the gate will be locked during certain hours.

10. The Parks and Recreation Comprehensive Plan, Chapter 8, recommends a number of parks, trail, community garden and stream corridor improvements. Those recommendations include: (a) retain the Last Chance Basin in its undeveloped condition and allow for year-round recreation use where avalanche hazards are not present; and (b) assist with the stabilization of historic buildings in Last Chance Basin.

11. Identify historic and cultural resources within the subarea. Projects that may impact historic resources identified within this subarea are to be reviewed by the Historic Resources Advisory Committee (HRAC) prior to issuance of a permit. Where new historic or cultural resources are discovered or identified, the Juneau-Douglas City Museum should be contacted immediately for documentation and technical assistance toward preservation and/or curating of the resource. The demolition or removal of historic resources should be avoided and should only occur when no other option for its preservation or relocation to a suitable site exists.

CHAPTER 12. PUBLIC AND PRIVATE UTILITIES AND FACILITIES

Public facilities--public buildings, water service, sanitary sewer services, earth retention structures, waste reduction, recycling and disposal efforts, and storm drainage systems--are not only important to the health, safety and economic well-being of the CBJ, but they also strongly influence future growth patterns. The development envisioned in this Comprehensive Plan, particularly for new affordable housing and export industries, cannot be realized without the availability of public facilities and services on a timely and efficient basis.

There was rapid growth during the 1982-86 period, largely in the Mendenhall Valley but also in the North Douglas and Lemon Creek areas. In 1987, growth virtually stopped due to a dramatic contraction of the State budget. However, since the late 1980's growth has continued, gathering momentum each year so that by 1995, residential and commercial construction was again robust. Despite flattening of the State budget, this level of construction activity continued through the 1990s due to the presence of the State Capital in Juneau, mining activity and the expansion of tourism. A six-year Capital Improvement Program (CIP) has been a major tool in determining the priority, timing and funding of needed facilities. The CIP is an important tool in funding projects that implement the recommendations in the Comprehensive Plan.

Provision of Public Utilities and Facilities

The CBJ generally funds improvements to the infrastructure through user fees, special assessment districts such as the Local Improvement Districts (LIDS) created to fund sewer service extensions, and sales tax initiatives passed by the voters. The community also receives grants from the State of Alaska and the Federal government, but these latter sources continue to diminish and cannot be relied upon to fund major infrastructure projects. This reinforces the need for careful planning and creative "layering" of financial resources to support the construction, operation and maintenance of public facilities and infrastructure. Public/private partnerships, such as the LIDs, development impact fees, "turnkey" developments (private sector builds a facility and CBJ enters into a long-term lease-to-own agreement) and joint ventures can provide needed and desired public improvements and facilities.

Together with the transportation network and private utility and communications systems, public services and facilities provide the community's "urban glue" and require efficient and timely provision. A full complement of services and facilities to promote the public's health, safety and quality of life is needed to provide adequately for the density and intensity of land uses envisioned in the Urban Service Area and proposed New Growth Areas; this is deemed an adequate "carrying capacity" for these services, and neighborhoods should not be developed beyond the carrying capacity of public infrastructure, utilities and services. This level of service is not necessary in rural areas nor can it be provided there in an economically efficient manner.

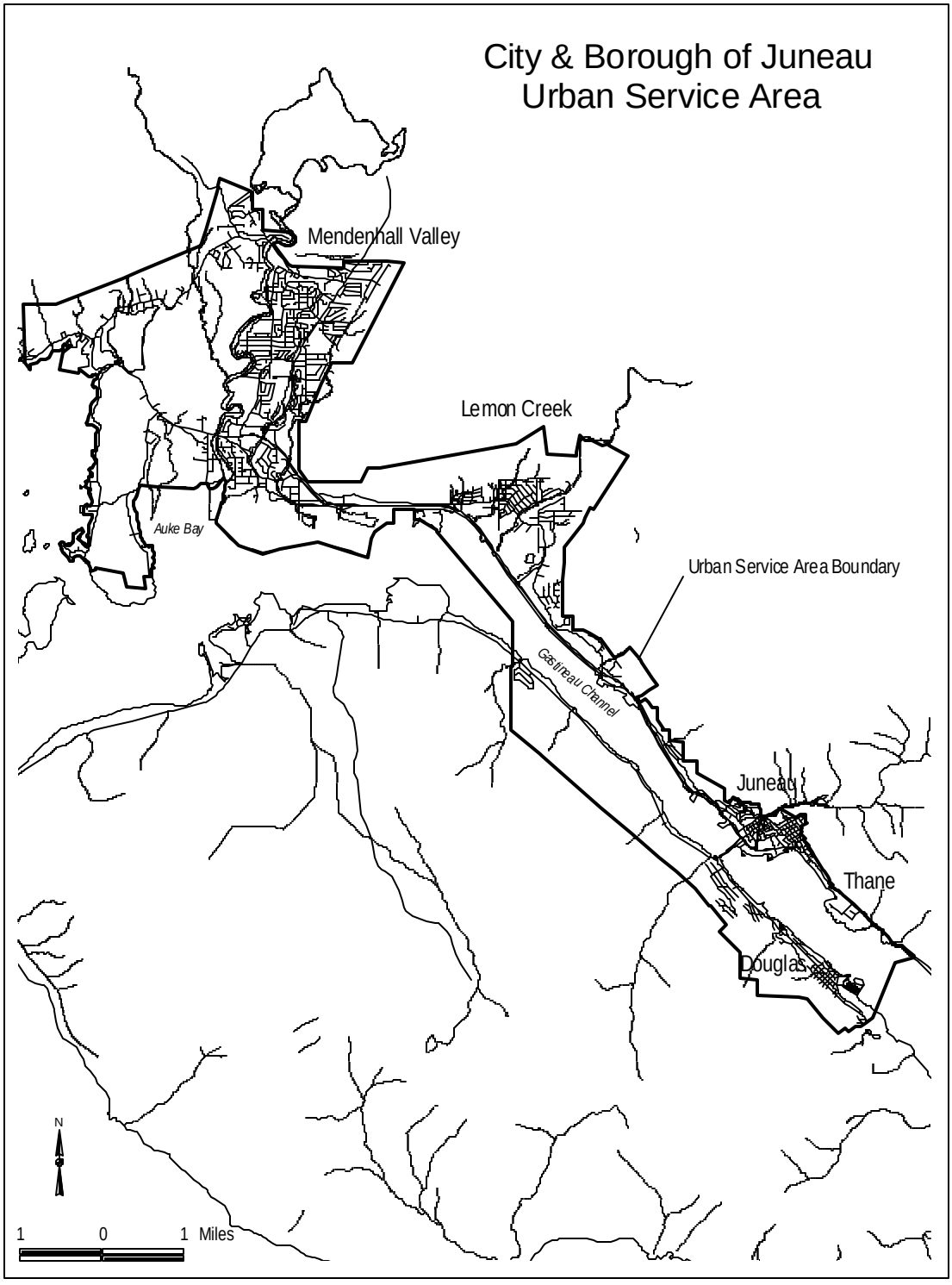
To allocate its scarce resources efficiently, the CBJ must make public investments that meet the greatest need and serve the greatest number of residents; this requires compact development.

POLICY 12.1 IT IS THE POLICY OF THE CBJ TO PLAN FOR THE TIMELY AND EFFICIENT PROVISION OF AN APPROPRIATE LEVEL OF PUBLIC FACILITIES AND SERVICES IN ALL DEVELOPED AND DEVELOPING AREAS WITHIN THE URBAN SERVICE AREA.

Standard Operating Procedures

12.1.SOP1 Maintain an Urban Service Area boundary that defines the limits within which the full range of urban services, such as municipal water and sewer, will be provided. Such municipal services are not to be provided elsewhere. The Urban Service Area boundary is delineated in the Land Use Maps of the Comprehensive Plan.

12.1.SOP2 Utilize the six-year Capital Improvement Program (CIP) that includes a list of projects to be funded during the coming fiscal year as well as those recommended for consideration during the subsequent five years. Annually review all previously unfunded projects and new projects for relevance and consistency with this Plan and extend the CIP an additional year.



CBJ Urban Service Area Boundary Map

PUBLIC WATER, SEWER, STORM DRAINAGE, AND RETAINING WALLS

To support the nature and density of development envisioned in the Urban Service Area, enhance the quality of life, promote public health, and protect the environment, the CBJ should provide adequate water, sewer, storm drainage, roads and earth retention facilities therein.

Water

Fresh, potable water is in short supply elsewhere in the world. On our planet, 97% of all water is salt water. Drinking water supply is shrinking worldwide, distribution facilities are aging and, in many places, are failing, and the price of potable water will increase over time in the global market. In some communities, potable water is more valuable than gold or oil. Juneau's position at the foot of an immense icefield and in the middle of a rain forest is fortunate, a blessing. Our neighbor city, Sitka, has found a way to market its high quality fresh water and share it with the world. We, as a community, should take great care of our resource, should capture and store it before it flows into the sea without harming riparian or marine habitat, should preserve it for future generations, and, perhaps, can even share it with other communities who are not located so fortuitously near fresh, clean water.

Our CBJ water capture, storage and distribution system is a valued utility and we should take great care in managing our clean, high quality water resource and conserve this resource whenever possible.

In addition to long established municipal water systems in Downtown Juneau and Douglas, the area-wide water system serves the Mendenhall Valley, Lemon Creek, Auke Bay to Indian Point, and Douglas Island from the community of Douglas to the Forest Service Boundary near Fish Creek. The system also serves the entire east Mendenhall Valley, Auke Bay, and extends out Glacier Highway to serve the Lena Loop residential area. The water system as designed and installed is not intended to support large demand industrial users. The water supply is not adequate and the distribution system is not adequate for these types of users without substantial additional investment. Those types of industrial uses, such as fish and food processing, are encouraged and should be urged to maximize water conservation and reuse in their operations.
The water system as installed provides sufficient water flows and reservoir capacities in the majority of the community to qualify the community for an IS0 rating of five; the best possible rating is a Class 1, the worst is a Class 10 (unprotected). Prior to these improvements in the system, only Juneau and West Juneau could qualify for this rating. The CBJ area-wide water system receives its water from two sources, the Gold Creek Basin/Last Chance Basin and Salmon Creek Reservoir. This Plan places land use protections on watersheds that could serve the Echo Cove and North Douglas New Growth Areas as well as future potable water supplies for the Mendenhall Valley.

Extension of public water to remote locations with correspondingly lower residential density becomes extremely expensive on a per-service basis and should not be pursued.

Sewer

Due to slope and soil conditions, many areas not served by sewer are marginally suitable for on-site septic systems. Due to a lack of resources, the Alaska Department of Environmental Conservation (DEC), which is responsible for local enforcement, does not adequately monitor the installation and maintenance of septic systems.

To prevent potentially serious health problems, sewer service should be available in all new urban development areas. In areas within the Urban Service Area, extension of the existing municipal system is the most economically and technically feasible alternative. In New Growth Areas, located some distance from municipal systems, a packaged or community-wide sewage treatment system would be appropriate. In the early 90's, and at great expense to the CBJ, sewer was extended to the upper west Mendenhall Valley to serve several hundred residences that had been using on-lot disposal with high rates of failure; this was repeated in North Douglas when septic systems failed and soiled the shoreline. Even with homeowners paying into a Local Improvement District, taxpayer subsidies to extend sewer service to outlying areas can represent 80 percent of the costs of sewer line extensions and connections; this should not be repeated.

The Mendenhall Valley Wastewater Treatment Plant was substantially expanded in the 1980's and now has the capacity to treat wastewater from the entire valley area, east and west, as well as the area between the valley and the service area of the Juneau-Douglas Wastewater Treatment Plant located on the Rock Dump. In the early 1990's, a sewage sludge incinerator was completed. This facility reduces sludge from both of the main treatment plants to inert ash that is easily disposed of and eliminates the need to place the much higher volume of unburned hazardous sludge in landfills.

All potential New Growth Areas, as identified in this Plan, may be most feasibly served through the use of self-contained water, sewer and storm drainage facilities. To help decide whether these should be publicly or privately owned and maintained, the CBJ should first determine its future obligation with regard to the development of these areas through the specific New Growth Area Master Planning process and adoption of a specific development plan and timeline.

The Urban Service Area boundary (USAB) indicates the extent to which urban services are to be extended and is shown on the Comprehensive Plan Land Use Maps. The CBJ water system actually extends far beyond the boundary in North Douglas and out Glacier Highway at Auke Nu Cove. As noted above, this was the result of an electoral commitment and represents a deviation from the USAB concept. As the cost of providing these services continues to increase with both inflation and lower service density, it is more important than ever to commit firmly to the USAB concept and resist extension of urban services beyond the boundary.

POLICY 12.2 IT IS THE POLICY OF THE CBJ TO EXTEND PUBLIC WATER, SEWER, STORM DRAINAGE, AND EARTH RETENTION FACILITIES TO ALL AREAS WITHIN THE URBAN SERVICE AREA.

Standard Operating Procedure

12.2.SOP1 Coordinate the provision of public services and facilities to all developed lands within the USAB. Assist private developers outside the USAB to identify State and private sources of sanitary sewer technical information and funding, particularly for New Growth Areas.

Implementing Actions

12.2.IA1 Amend the Land Use Code to specify that no permanent urban service infrastructure, specifically sewer and storm drainage, shall be provided by the CBJ in any location beyond the USAB, and that the CBJ water system will not be extended beyond its 2008 configuration except to serve lands within the USAB. Extensions should only be considered after a decision has been made to expand the Urban Service Area boundary as a Comprehensive Plan Land Use Map amendment.

12.2.IA2 Consider the connection of the Mendenhall and Auke Bay wastewater treatment plants as a top priority, together with extending sewer service to developed lands within the USAB not presently serviced by CBJ sewer.

12.2.IA3 Urge the Alaska Department of Environmental Conservation (DEC) to adequately monitor on-site sewage disposal systems in the CBJ. Provide assistance to the DEC program to identify and monitor existing septic systems or to transfer this function to the CBJ with sufficient resources to enable an adequate transition.

12.2.IA4 Develop plans for overall storm drainage systems, including public provision of a central drainage system within the USAB, and storm/sanitary sewer separation.

12.2.IA5 Develop a water conservation plan for CBJ utility customers.

Electrical Generation and Distribution

With the scarcity of non-renewable fossil fuel, particularly "cheap oil," the CBJ must plan for the production of energy locally. The community is well-situated to expand its hydroelectric generating system, as well as investigating potential other renewable energy sources such as wind, tidal and biomass. A detailed discussion of energy use, conservation and management can be found in Chapter 6 of this Plan. This section is specifically aimed at the electrical system for the CBJ and is included in this subject section because the system is essential for modern life. Nearly all of the CBJ's electricity is generated at hydro-electric plants by the private-investor-owned Alaska Electric Light and Power Company (AEL&P). Eighty percent of the electricity is provided from the federally-constructed Snettisham Hydroelectric Facility located 28 air miles southeast of Juneau at the Speel Arm fjord and Crater and Long alpine lakes. AEL&P also generates electricity from hydro-facilities on Salmon Creek, Annex Creek and Gold Creek and is developing a hydro-plant at Lake Dorothy. AEL&P also maintains diesel generators and jet turbine generators as back-up facilities.

POLICY 12.3 IT IS THE POLICY OF THE CBJ TO ENCOURAGE THE PROVISION OF AN ADEQUATE SUPPLY OF HYDROELECTRIC ENERGY AND OTHER RENEWABLE ENERGY SOURCES TO PROVIDE FOR THE CONTINUED GROWTH AND DEVELOPMENT OF THE COMMUNITY.

Standard Operating Procedure

12.3.SOP1 Encourage the continued development of clean, efficient hydro- and other renewable-source electrical generating facilities to provide for future community needs and to reduce dependence upon the use of fossil fuels for energy.

Development Guideline

12.3.DG1 In reviewing permits for businesses that use heavy energy loads, seek implementation of Best Management Practices that conserve and/or re-use energy loads, minimize the use of fossil fuels, and maximize renewable energy sources in its operations.

Implementing Action

12.3.IA1 Seek to convert CBJ transport vehicles and stationary motors from fossil fuel systems to renewable energy systems.

12.3.IA2 Amend the Title 49 Land Use Code to allow as-of-right the installation of renewable-source electrical generating facilities to residential and commercial structures, provided that they do not obstruct sunlight to adjacent properties or generate unacceptable noise.

12.3.IA3 Consider creation of an ordinance prohibiting covenants and restrictions on private developments that infringe on the ability of property owners to install renewable energy source infrastructure that is appropriately scaled for the development.

Waste

Management of solid and hazardous liquid waste is an essential community service. Assurance that waste management, including disposal, occurs in an aesthetic, safe, convenient, cost-effective, and environmentally sound manner is critical. Local government typically provides solid waste management services, directly with its own personnel, indirectly with one or more contractors, or through a combination of both public and private service provision. In the CBJ, curbside pickup of solid waste as well as landfill operations are conducted entirely by the private sector, while recycling, household hazardous waste disposal, and junked vehicle disposal are conducted by private firms under contract to the CBJ.

Heightened concern about the negative environmental impacts of solid waste landfills have resulted in more stringent federal standards for siting, operating, closing, remediating, and monitoring of landfills. This has resulted in greater care and costs in managing existing landfills and constructing new ones. Nationwide, there is an emphasis on developing integrated waste

management systems in which waste reduction, reuse and recycling are preferred over traditional waste disposal options of incineration and land filling. This is the approach pursued by the CBJ in the preparation of the *Final Solid Waste Management Strategy for the City and Borough of Juneau* in 2007. Of particular concern by the public are programs that address waste stream reduction and curbside pick-up of recyclable material.

POLICY 12.4 IT IS THE POLICY OF THE CBJ TO FACILITATE THE REDUCTION OF WASTE MATERIALS GENERATED AND DISPOSED BY HOUSEHOLDS AND BUSINESSES THROUGH PROMOTION OF AN AGGRESSIVE SOLID WASTE DIVERSION PROGRAM INCLUDING ACTIVITIES FACILITATING WASTE PREVENTION, REUSE AND RECYCLING.

Development Guideline

12.4.DG1 When reviewing building or use permits for major residential and non-residential developments, ensure that the design of the project incorporates adequate space and facilities in appropriate locations to facilitate separation of recyclable waste materials and access for the pick-up and transfer of those materials to appropriate recycling centers.

Implementing Actions

12.4.IA1 Implement the *Final Solid Waste Management Strategy for the City and Borough of Juneau*, as adopted on November 29, 2007 and amended January 7, 2008.

12.4.IA2 Require companies that do business with the CBJ to implement waste reduction and recycling Best Management Practices (BMPs); these BMPs should be required as qualifications for CBJ purchasing procedures.

12.4.IA3 Create incentives for businesses that implement a waste reduction plan.

12.4.IA4 Consider community service programs, including halfway house correctional programs, as potential human resources for recycling and waste reduction efforts, such as for the sorting of recyclables at a recycling center.

12.4.IA5 Facilitate identification and permitting of a "stump dump" landfill site for near-term use by residential and non-residential builders.

POLICY 12.5 IT IS THE POLICY OF THE CBJ TO PROMOTE EFFICIENT, SAFE, CONVENIENT, COST–EFFECTIVE AND ENVIRONMENTALLY–SOUND METHODS FOR THE DISPOSAL OF SOLID AND HAZARDOUS WASTE.

Development Guideline

12.5.DG1 When reviewing building or use permits for the areas around the candidate landfill sites identified in the October 1993 *Technical Reconnaissance Study for New Landfill Site Selection*, be

cognizant of the on- and off-site impacts that could be generated by landfill operations at those sites.

Implementation Actions

12.5.IA1 Implement the *Final Solid Waste Management Strategy for the City and Borough of Juneau*, as adopted on November 29, 2007 and amended January 7, 2008.

12.5.IA2 Identify on the Comprehensive Plan Land Use Maps new locations suitable for burial of human and animal remains in a way that does not consume large land areas. Such new sites may include crematoria and publicly-accessible places to honor loved ones with plaques and similar features, rather than the location of buried remains or stored ashes.

12.5.IA3 Work with regional organizations to develop a regional solid waste authority to deal with solid waste issues region-wide.

CHAPTER 13. COMMUNITY SERVICES

Police Protection

The CBJ Police Department provides full police protection for the CBJ. State Troopers are responsible for search and rescue operations and for response to complaints or offenses that occur at the Lemon Creek Correctional Institute. Violations and complaints related to State of Alaska or Federal fish and game statutes are the responsibility of the Alaska Department of Public Safety.

POLICY 13.1 IT IS THE POLICY OF THE CBJ TO PROVIDE ADEQUATE AND EFFICIENT POLICE PROTECTION FOR THE COMMUNITY.

Standard Operating Procedures

13.1.SOP1 Encourage and support coordination of services between State, Federal, and Local police.

13.1.SOP2 Maintain strategic locations of police and fire facilities to reduce emergency response times to incident locations.

13.1.SOP3 Maintain centralized dispatch of all emergency and essential services.

13.1.SOP4 Improve computerized integration of JPD and CDD and other CBJ departments.

Fire Protection and Emergency Services

Fire protection is a fundamental and basic community service that is one of the first services usually provided in a community and has often been the seed from which other community services have grown. The communities that form the CBJ have a long history of volunteerism in providing fire suppression, rescue services and emergency medical care for its residents; this tradition continues to modern times.

The CBJ Capital City Fire/Rescue (CCFR) department is responsible for the prevention and extinguishment of fire, the protection of life and property against fire, the removal of fire hazards, and the provision of field emergency medical services.

CCFR has five fire stations that have all been constructed since 1979. Each station has different amounts and types of fire apparatus based upon its responsibilities. The Glacier District has the additional responsibility of airport rescue and fire fighting. CCFR is also charged with enforcement of the Fire Code and does so in a review of building permit applications and inspection of construction coordinated with the Community Development Department. The CBJ

contracts with the U.S. Forest Service to suppress grass fires. The Insurance Services Office granted the CBJ Fire Department a protection rating of 5 with an overall Fire Department and combined dispatch capabilities rating of Class 4 for the CBJ.

CCFR provides emergency medical services at the advance life support level. Medical units are stationed at the Juneau and Glacier stations. Paid staff are trained at the paramedic advanced cardiac life support level; volunteer Emergency Medical Technicians (EMTs) are also utilized as an important part of the emergency medical system. Rescue squads are staffed by career and volunteer members. CBJ staff from various departments are trained to form a CBJ Crisis Management Team (CMT). The role of the CMT is to manage a major incident that exceeds the capabilities of the Fire Department and coordinate command and control. The team functions within the scope of the Incident Command System.

POLICY 13.2 IT IS THE POLICY OF THE CBJ TO PROVIDE ADEQUATE AND EFFICIENT FIRE PROTECTION AND FIELD EMERGENCY MEDICAL CARE FOR ALL. IT IS FURTHER THE POLICY OF THE CBJ TO MAINTAIN AN INCIDENT RESPONSE ORGANIZATION TO EFFECTIVELY RESPOND TO LARGE-SCALE EVENTS AND DISASTERS.

Standard Operating Procedures

13.2.SOP1 Provide standardized training, procedures, equipment and response to all fire stations. Enhance training and provide equipment for volunteer teams.

13.2.SOP2 Determine adequate and efficient fire protection by conducting fire hazard analyses, fire flow requirement analyses, and resource requirements.

13.2.SOP3 Review and, when appropriate, recommend changes in the Fire Code to reduce fire hazards and to properly store and dispose of hazardous materials to reduce life and property loss.

13.2.SOP4 Improve and implement a hazardous materials safe storage and disposal, mitigation and response plan.

13.2.SOP5 Coordinate with the CBJ Emergency Services Manager to plan for prevention of and, when necessary, adequate response to disasters and major incidents.

13.2.SOP6 Implement a public fire education program to reduce life and property loss, including a “Firewise” educational outreach effort.

Implementing Actions

13.2.IA1 Develop a plan for the Southeast Regional Fire Training Center to provide extended training programs to the CBJ and the southeast region.

13.2.IA2 Complete preparation of a plan, team formation and equipment acquisition for emergency response to a hazardous materials incident, per the federal Community Right to Know Act.

13.2.IA3 Develop a plan to sprinkle critical government or public buildings.

Medical and Social Services

The CBJ is a caring community and through skilled professionals and volunteers provides high-quality medical and social services to local and regional residents and visitors. As part of the municipally-owned Bartlett Regional Hospital, the CBJ provides critical care, specialty-medical care, and mental health and chemical dependency treatment centers. Bartlett Regional Hospital, although municipally-owned, is operated by an independent management firm. The Hospital's "Project 2005" capital improvement program will enhance its capabilities in serving the medical needs of northern Southeast Alaska.

The CBJ also provides funding for an array of non-profit social service agencies. These programs target youth in crisis, adults in crisis, the elderly, and other persons needing special care. The CBJ has appointed a Social Services Advisory Board (SSAB) as a way to maintain existing social services through the expertise of a network of non-profit agencies and programs. The SSAB provides funding to agency providers for various priority care activities. The 2007 SSAB priority care activities include programs for (a) children and youth; (b) employment and training; (c) elderly and/or physically or mentally disabled persons; (d) prevention and treatment of the abuse of alcohol or drugs; (e) affordable housing and homelessness; and (f) poverty and the working poor. Continued provision of quality services is an important goal of the CBJ.

POLICY 13.3 IT IS THE POLICY OF THE CBJ TO PROMOTE QUALITY MEDICAL AND SOCIAL SERVICES IN THE CBJ TO ENSURE THE SAFETY, HEALTH, WELL-BEING AND SELF-SUFFICIENCY OF ITS RESIDENTS.

Standard Operating Procedures

13.3.SOP1 Provide public funds for programs for the indigent and for high risk groups such as youth, the elderly, disabled persons, and homeless persons and families.

13.3.SOP2 Support voluntary Commissions such as the Americans with Disabilities Act (ADA) Committee, the Juneau Commission on Aging, the Juneau Human Rights Commission, the Social Services Advisory Board, the Youth Activities Board and the Juneau Coalition for Youth. Encourage these groups to communicate, coordinate and cooperate among themselves and to provide a common and united voice in administrative, legislative, judicial, and general matters that

may affect the professional practices of health care and social service providers and the services received by their constituents.

Implementing Actions

13.3.IA1 Designate adequate CBJ-owned land adjacent to Bartlett Regional Hospital and outside the Salmon Creek Dam hazardous inundation area to accommodate expansion of hospital/support medical facilities.

13.3.IA2 Establish and maintain an integrated near-homeless and homeless client assessment and referral system linking all housing, medical and social service providers, to develop greater efficiencies, client tracking and program funding and evaluation tools.

13.3.IA3 Provide transportation assistance to homeless clients, including high school students, to support transport for job search efforts, to shelter, and for medical and social service care.

13.3.IA4 Establish and maintain a coordinated substance abuse prevention program, and comprehensive treatment, rehabilitation, and recovery programs for Juneau residents.

CHAPTER 14. COMMUNITY EDUCATION AND SERVICES

Schools

Schools are among the most important public services society provides for its residents. Not only are they the centers of learning for our children, they are also important focal points for neighborhood activities. The health and vitality of the community's schools is invariably a clear indicator of the health and vitality of the community itself. In a community values survey conducted for this Plan Update, providing a "quality education from pre-school to University" was ranked second in value, behind "keeping Juneau a safe place to raise a family" and above "maintaining a strong economy with good paying jobs."

In 2006, the Juneau School District (JSD) served 5,300 students in a senior high, one alternative high school, two middle schools, six elementary schools, a K-6 Charter School, and a district-wide K-12 correspondence program. A second high school is scheduled to open in the fall of 2008 and will serve 800 plus students in the Mendenhall Valley area.

At its Auke Bay campus, the University of Alaska Southeast (UAS) grants undergraduate and graduate degrees in a variety of fields. Proposed expansion to accommodate a projected 30 percent increase in full-time students will create pressure in the area for additional support services such as affordable housing, restaurants, stores and public transportation.

One of the most important factors influencing the quality of life in a community is a good elementary, secondary, and university educational system. In addition to its role as an important source of jobs and revenue, the University of Alaska Southeast (UAS) offers educational and technical training to the CBJ's population. The University of Alaska Fairbanks (UAF) also offers programs and classes in Juneau. Collectively, UAS and UAF are referred to in this Plan as the University of Alaska (UA), although the University of Alaska Anchorage is part of the UA system and does not offer courses in Juneau.

POLICY 14.1 IT IS THE POLICY OF THE CBJ TO PROVIDE A STRONG SYSTEM OF HIGH QUALITY PUBLIC EDUCATION TO ENABLE ALL STUDENTS TO BECOME WELL EDUCATED, INFORMED RESIDENTS WHO UNDERSTAND AND APPRECIATE DIVERSE CULTURES AND WHO ARE EQUIPPED TO PURSUE FURTHER EDUCATION AND COMPETE SUCCESSFULLY IN THE WORK FORCE.

Standard Operating Procedures

14.1.SOP1 Encourage the Juneau School District to establish high standards for curriculum content and other factors and facilities contributing to a high quality of education for all of the CBJ's students.

14.1.SOP2 Work closely with the staff of UAS in neighborhood planning efforts for the Auke Bay area that considers the on- and off-site impacts and requirements associated with UAS expansion. This should include impacts on housing and on transit, vehicle, pedestrian and bicycle transportation systems.

14.1.SOP3 Coordinate and cooperate with UAS and UAF (UA) in the development of UA infrastructure, housing, vehicular and pedestrian access, trails, educational and recreational facilities and to the protection and conservation of natural habitat in and around UA facilities that contributes to a successful learning environment.

14.1.SOP4 Incorporate Planning Commission review in the siting of public, parochial and private schools to assure land use compatibility and to encourage the shared use of outdoor play areas and parking resources with nearby residential, cultural or institutional uses.

Development Guidelines

14.1.DG1 Recognize student needs for pedestrian safety and a quiet environment conducive to learning when making land use and transportation decisions. Proposed developments should be reviewed for potential impacts on school capacities and the extent to which the development will create a need for additional school facilities.

14.1.DG2 Ensure that new UAS facilities and educational programs are planned, sited and designed to enhance their availability to the residents of the CBJ. Of particular concern are facilities and educational programs that facilitate CBJ sustainability objectives and long-term economic development goals.

Implementing Actions

14.1.IA1 Continue and strengthen efforts to reduce the drop-out rate of high school students.

14.1.IA2 Work with the Juneau School District and University to ensure that the schools provide basic safety and knowledge education in subject matters that sustain local culture and recreational values such as marine ecology, boat safety, fishing, hunting education and safety, subsistence agriculture and harvesting and similar subjects that facilitate local production or harvesting and consumption of food and fiber.

IA 14.1.IA3 Work with the Alaska Department of Fish and Game, University Extension, United States Soils Conservation Agencies, and local organizations such as Trout Unlimited, 4H, Community Gardens and other relevant groups and agencies to promote community education regarding hunting and fishing skills and ethics, animal husbandry, crop-raising, marketing and bartering systems, home recycling, composting, non-fossil fuel energy systems, water conservation and other energy- and food-independence skills and knowledge.

14.1.IA4 Evaluate existing school facilities for possible expansion if they are determined to need additional outdoor space for physical education. Of particular concern are expansion of covered playgrounds and other recreation facilities to ensure all-weather outdoor physical exercise and play.

Libraries

The CBJ Public Libraries provide materials and services to help community residents of all ages obtain information to meet their personal, educational, and professional needs. Libraries are a vital component of the community, providing information to businesses, agencies, visitors, and individuals seeking personal and professional growth. The CBJ operates a main library in Downtown Juneau and branches in Downtown Douglas and the Mendenhall Valley.

A 17,000-square-foot main library was opened in December 1988, on the newly-constructed fifth floor of the Marine Park Garage on the Downtown Juneau waterfront. Six thousand additional square feet is available for expansion on that site. This central location is convenient for use of library materials, internet facilities and meeting rooms for Downtown residents, workers and over a million cruise ship guests and crew members.

The Douglas Public Library is located in a combined library/fire station that opened in 1987. Approximately 6,000 square feet is dedicated to the Library and a public meeting room. The Mendenhall Valley Public Library is located in a 7,250 square-foot leased storefront in the Mendenhall Mall. Space and electronic needs in the next ten years will require construction of a new building in the Mendenhall Valley to serve these needs.

The three public libraries are part of the Capital City Libraries cooperative, which includes the Alaska State Library, the University of Alaska Southeast (the Egan Library), and the Juneau-Douglas High School Library. These libraries share an automated circulation and on-line public catalog system. The public is free to use any of the Capital City Libraries with one library card. The Capital City Libraries cooperate in the provision of print and electronic resources to avoid unnecessary duplication and broaden the scope of information available within the community.

Optimum use of on-line networks and cooperative systems is essential in this new electronic age of international connectivity through the Internet. The Juneau Public Libraries provide public access to the Internet, guide users in finding its unique resources, and maintain the on-line information presence that makes the CBJ, as Alaska's Capital City, a destination for Internet users worldwide.

POLICY 14.2 IT IS THE POLICY OF THE CBJ TO FOSTER LITERACY AND TO PROVIDE FREE ACCESS TO LIBRARY FACILITIES AND SERVICES.

Standard Operating Procedures

14.2.SOP1 Identify and pursue local, State and Federal funding sources for library services.

14.2.SOP2 Provide support to the Library such that each library facility provides consistent and reasonable public service hours.

14.2.SOP3 Continue resource-sharing and electronic networking efforts to provide for the most efficient, far-reaching and cost effective library services for the CBJ.

Implementing Action

14.2.IA1 Provide a joint library and community center at a convenient location in the Mendenhall Valley.

CHAPTER 15. CULTURAL ARTS AND HUMANITIES

Residents of the CBJ have shown longstanding support and appreciation of the arts and humanities and the cultural opportunities they provide. As a small city separated from other urban centers, Juneauites have relied upon local resources to promote the arts. The municipality has achieved state and national recognition for the important role played by the arts in community life.

Recognizing that the arts, history and cultural diversity are central to the well-being of its residents, The CBJ has done much to encourage the development of these activities in and around the community. As a State Capital, however, more needs to be done to provide venues that are readily accessible to all, whether local, regional, state, national or international in scope, and in a setting that is befitting a Capital City.

Anchored by the Alaska State Museum, Andrew Hope Hall, the Alaska State Library in the State Office Building, and Capital Community Broadcasting, Inc, the area bordered by Gold Creek, Willoughby Avenue, Main Street, and Egan Drive is developing as a center for cultural activities. With Centennial Hall serving as the visitor and convention center and two hotels located within these boundaries, the area is readily accessible both to locals and visitors. A transit center will be located within walking distance of this area. Adding a performing arts center to this "cultural campus" would solidify its position, drawing more people to the area and reinforcing the year-round health of the adjacent business district as befits a State Capital.

The current level of cultural activity exceeds the capacity of existing facilities to provide appropriate places for expression. As the community grows, and as the desire and need for a diversity of cultural and artistic activities and events increases, the need for adequate facilities will become more pressing. Adequate facilities would encourage growth in the arts and humanities as a potentially significant economic as well as cultural element in the Capital City.

The arts industry plays a significant role in the CBJ economy, and with adequate facilities, can play an even greater role. Aside from the potential for direct economic benefits, improvements in the cultural environment would support and enhance the general quality of life for residents and provide additional opportunities for visitors as well.

Another important aspect of the quality of life in the community is the design and aesthetics of the community's built environment. New construction is an inherent component of a vital and growing community. New structures, both public and private, are almost always significant additions to the visual landscape, and architecture is a significant part of a community's culture and public identity. Particularly as the Capital City, the CBJ's built environment should be a positive part of this culture, contributing in its own way, as does the natural environment, to the positive image of our city. To this end, the architectural character of the built environment should be strengthened and enhanced. In the Downtown Historic District, emphasis is well placed on respecting the historic character of the area. In other visible areas, architecture, urban

design, terrain and vegetation should enhance the visual character of the site and environs [related policies are found in the Policy 10.6 section of this Plan pertaining to design review].

POLICY 15.1 IT IS THE POLICY OF THE CBJ TO SUPPORT THE ARTS AS A VITAL ELEMENT OF COMMUNITY LIFE AND TO RECOGNIZE THE IMPORTANT ROLE THAT THE ARTS PLAY IN THE CULTURAL, SOCIAL, AND ECONOMIC WELL-BEING OF THE COMMUNITY. IT IS FURTHER THE POLICY OF THE CBJ TO STRENGTHEN ITS ROLE AS A REGIONAL CULTURAL RESOURCE TO THE COMMUNITIES OF SOUTHEAST ALASKA.

Standard Operating Procedures

15.1.SOP1 Require that at least one percent of the construction, remodeling or renovation costs of a public facility be reserved for public art. Promote the purchase of durable art for the CBJ.

15.1.SOP2 Maintain and further develop the municipal art bank as a collection of art and artifacts that depict the history of the CBJ, its people, fish and wildlife and natural setting. The CBJ should secure a stable source of funding for maintenance and repair of the public art collection in the art bank.

15.1.SOP3 Through the CBJ's designated arts agency, the Juneau Arts and Humanities Council: make funds available to individual artists and arts organizations; sponsor summer weekly concerts in Marine Park; and provide the community with technical assistance, reference and resource material, and rental equipment.

15.1.SOP4 Officially welcome participants, and otherwise encourage large regional artistic, social, and other cultural events such as the biennial Tlingit, Haida and Tsimshian Celebration and the folk, classical, and jazz music festivals.

Implementing Actions

15.1.IA1 Through the Capital Improvement Program, promote the expansion of facilities for a wide variety of cultural activities, including performing and visual arts and neighborhood cultural centers.

15.1.IA2 Promote the development of a Juneau Performing Arts Center in Downtown Juneau to provide venues for live performances, visual arts, receptions, public meetings, and convention-related presentations.

15.1.IA3 Support the concentration of arts, entertainment, dining, museum and cultural activities and venues as a cultural campus that integrates such things as artists workshops, housing, and joint-use parking in the area of Downtown Juneau near the Capitol Complex.

15.1.IA4 Strengthen the CBJ's urban design policies, guidelines, standards and procedures to protect and enhance the CBJ's visual environment, particularly as it relates to and complements the beauty, scale and terrain of the natural environment. Increased public review and scrutiny should be provided for projects having or likely to have a significant visual impact. View corridors should be identified and standards adopted to protect them.

15.1.IA5 Support facilities, institutions, organizations and individual artists that enable the CBJ to maintain its role and stature as the Capital City.

CHAPTER 16. HISTORIC AND CULTURAL RESOURCES

The CBJ has a rich and unique history, dating back thousands of years to the ancestors of the Tlingit Indians who fished, hunted, trapped, and traded throughout the area. Long before the city was founded by Richard Harris and Joe Juneau, the Tlingit Aak'w Kwáan (Small Lake Tribe) arrived near Auke Bay from the Stikine River area, trading with early Russian, American, and English ships. With the discovery of gold and the city's founding in 1880, hundreds of miners, merchants, and laborers flocked to Juneau from all over the world, contributing to both the culture and architecture of the CBJ, much of which still exists today.

The CBJ possesses a wealth of historic resources, and it is in the best interest of the community to identify and preserve these artifacts, structures, and sites that contribute to the historic and cultural diversity of the CBJ. Current (2006) documentation lists 479 buildings that were built before or during the first quarter of the last century. Countless numbers of additional sites and structures await documentation. These resources are part of the community's heritage, and their identification and preservation are paramount in maintaining the CBJ's sense of place in the new millennium.

Over the past twenty five years, the CBJ has been one of the most active communities in Alaska in its historic preservation efforts. As the State Capital, it is appropriate for the CBJ to set an example to the rest of the state in responsible planning, urban design, and the preservation of its heritage and historic and cultural resources.

The existing policy on historic preservation, although a basic good start toward recognizing and protecting valuable historic resources, no longer provides the complete protections necessary given the dramatic rise of cruise ship tourism and the resulting pressure on historic resources from the heritage tourism trade. Although heritage tourism has been shown to be an economic asset, and has been identified in a recent local tourism survey as an area of interest and expansion, the CBJ should develop and adopt a Historic and Cultural Preservation Plan, as well as evaluate and update the existing historic district design standards and design review process, in order to better integrate preservation activities into broader community and land use planning efforts. Both serve to foster heritage tourism in the CBJ while helping to protect the fragile resources from the dynamic seasonal tourism market.

While the greatest density of historic resources is found in the Juneau Downtown Historic District, valuable historic artifacts, buildings, and sites are located throughout the CBJ. The general character of the CBJ as a whole is enhanced by the very existence of these historic neighborhoods, cultural sites, and other resources. Owners of historic buildings should be educated, encouraged, and assisted in the preservation of these important features of the community. In addition, the CBJ should be a role model to the local community by appropriately preserving and maintaining public historic buildings and facilities with care.

Furthermore, the Juneau-Douglas City Museum should be promoted as an important community resource in the preservation, education, and exhibition of community heritage.

POLICY 16.1 IT IS THE POLICY OF THE CBJ TO IDENTIFY, PRESERVE AND PROTECT JUNEAU'S DIVERSE HISTORIC AND CULTURAL RESOURCES, AND TO PROMOTE HISTORIC PRESERVATION AND ACCURATELY REPRESENT JUNEAU'S UNIQUE HERITAGE THROUGH PUBLICATIONS, OUTREACH, AND HERITAGE TOURISM.

POLICY 16.2 IT IS THE POLICY OF THE CBJ TO IDENTIFY HISTORIC RESOURCES WITHIN THE CBJ AND TO TAKE APPROPRIATE MEASURES TO DOCUMENT AND PRESERVE THESE RESOURCES.

Standard Operating Procedures

16.2.SOP1 Inventory historic resources within the identified historic neighborhoods, as well as other areas listed in the Historic and Cultural Preservation Plan.

16.2.SOP2 Encourage and provide incentives to owners of significant historic properties to maintain them in their original character.

16.2.SOP3 Create a local landmarks designation for identified historic resources with significance to local culture or heritage.

16.2.SOP4 Identify appropriate regulatory measures to protect identified historic resources, including but not limited to demolition protection and the issuance of Certificates of Appropriateness for exterior alterations to designated historic structures.

16.2.SOP5 Develop additional local incentives for historic preservation, including tax incentives, low interest loans, and technical assistance.

Implementation Action

16.2.IA1 Publish strengthened design guidelines that will assist historic building owners in planning alterations or new construction within historic neighborhoods and districts while preventing degradation of historic resources.

POLICY 16.3 IT IS THE POLICY OF THE CBJ TO INCREASE PUBLIC AWARENESS OF THE VALUE AND IMPORTANCE OF JUNEAU'S ARCHAEOLOGICAL AND HISTORIC RESOURCES, AND TO EDUCATE, ENCOURAGE, AND ASSIST THE GENERAL PUBLIC IN PRESERVING HERITAGE AND RECOGNIZING THE VALUE OF HISTORIC PRESERVATION.

Standard Operating Procedure

16.3.SOP1 Support and enhance the Juneau-Douglas City Museum as a repository for heritage materials and information held in public trust.

Implementing Action

16.3.IA1 Adopt the draft Historic Preservation Plan as an element of the CBJ Comprehensive Plan that sets forth goals and objectives for organizing preservation activities and integrating preservation into broader community and land use planning efforts.

POLICY 16.4 IT IS THE POLICY OF THE CBJ TO PRESERVE AND PROTECT THE UNIQUE CULTURE OF JUNEAU'S NATIVE PEOPLES, INCLUDING BUILDINGS, SITES, ARTIFACTS, TRADITIONS, LIFESTYLES, LANGUAGES AND HISTORIES.

Standard Operating Procedures

16.4.SOP1 Implement programs to educate local residents and visitors to the community about the CBJ's indigenous peoples, through publications, museum outreach, interpretive exhibits, and other measures.

16.4.SOP2 Work with local native groups to build partnerships to identify and preserve significant cultural resources and sites.

POLICY 16.5 IT IS THE POLICY OF THE CBJ TO PROMOTE RESPONSIBLE HERITAGE TOURISM THAT ACCURATELY REPRESENTS JUNEAU'S UNIQUE HISTORY, WHILE PROTECTING THE RESOURCES FROM OVERUSE OR HARM.

Implementing Actions

16.5.IA1 Develop interpretive materials for placement throughout the community that inform locals and visitors about the CBJ's history.

16.5.IA2 Develop training workshops for seasonal tourism providers to encourage the accurate depiction of the CBJ's unique history and diverse ethnic cultural heritage.

CHAPTER 17. COMMUNITY DEVELOPMENT

In addition to providing basic water, sewer and road facilities, the CBJ provides a number of community facilities including schools, libraries, recreational facilities, low and moderate income housing, parking facilities, transit, fire stations, hospital facilities, docks, harbors, roads and seawalks. Current and planned future development projects include construction of a new high school in the Mendenhall Valley, expansion of the seawalk, improved port and marina facilities, roads, trails and recreation facilities, new Downtown Juneau transit facilities combined with a new parking garage, land for affordable housing projects on selected lands, and joint planning and development of a Capitol Complex with the State. However, current and planned activities are considered complementary to private development. Joint public/private partnerships may facilitate new desired community facilities such as a Downtown Juneau performing arts center and an ATV/snowmobile course.

Planning and Development Responsibilities

The development of CBJ lands and resources requires specialized knowledge and experience in real estate, management, financial analysis, and public administration; this function is coordinated and managed in the City Manager's Office pursuant to State Law and the CBJ Charter.

POLICY 17.1 IT IS THE POLICY OF THE CBJ TO COORDINATE DEVELOPMENT ACTIVITIES OF THE PRIVATE AND PUBLIC SECTORS FOR PROJECTS THAT ARE CONSISTENT WITH THE COMPREHENSIVE PLAN AND MEET IMPORTANT PUBLIC NEEDS.

CBJ and Selected Lands

In 1959, at the time of statehood, Alaska was granted over 100 million acres of land from the federal government. The state, in turn, transferred thousands of acres to municipalities to provide opportunities for community expansion. This was accomplished through the Municipal Entitlement Act of 1978. The CBJ owns and manages approximately 26,600 acres of land. Over 19,500 of those acres were part of the CBJ's municipal land entitlement from the State of Alaska. Most of this land is remote and contains high-value wetlands and very steep and rough terrain. About 6,150 acres lie within the USAB and, of this, about 3,560 acres are vacant due primarily to the presence of steep slopes, wetlands, the absence of access roads and utilities and, in some cases, the presence of avalanche and landslide hazards. Due to these constraints, only about 350 acres, on five sites of CBJ-owned land within the Urban Service Area boundary (USAB), can be considered "buildable" within the 12 year planning horizon of this Plan. That short- to medium-term time period is contingent upon receiving State and/or Federal funding to build roads to those sites as well as to improve existing congested intersections that would serve those sites' new residents. Notwithstanding those constraints and hurdles to development, the CBJ intends to make as much of its buildable land as is possible available to private for-profit and/or non-profit residential builders for construction of new low- to moderate-income affordable housing.

The CBJ will also continue to seek lands for industry to facilitate the retention and expansion of full-time, year-round employment opportunities that pay a living wage with benefits. Careful evaluation of development potential and market demand for CBJ lands is being undertaken in planning for their efficient and appropriate use.

Other sections of the Comprehensive Plan address community development issues more specifically; these are found in Chapters 4 (Housing Element), 10 (Land Use), 11 (Land Use Maps and Subarea Guidelines) and 18 (Plan Implementation).

POLICY 17.2 IT IS THE POLICY OF THE CBJ TO HOLD CERTAIN LANDS IN THE PUBLIC TRUST, AND TO DISPOSE OF CERTAIN LANDS FOR PRIVATE USE WHEN DISPOSAL SERVES THE PUBLIC INTEREST.

Standard Operating Procedures

17.2.SOP1 Evaluate the use and development potential of all CBJ lands and incorporate appropriate plans for those lands into the CBJ Land Management Plan and Land Disposal Program, which is to be consistent with the Comprehensive Plan. The Land Management Plan serves as the major means of implementing policies and guiding management, development and disposition of selected CBJ lands.

17.2.SOP2 Evaluate the opportunities for joint development of CBJ lands with state and private landholders.

17.2.SOP3 Classify CBJ lands for residential, commercial, industrial, recreation or resource uses, or natural areas, based on the policies, guidelines and land use designations of this Plan.

17.2.SOP4 Base decisions regarding disposal of CBJ lands on demonstrated market demand and evidence that disposal will be in the public interest and, particularly, for projects that would provide affordable housing or that would create jobs that pay a living wage. Coordinate activities with an orderly system for extending and constructing the public facilities and services called for in the transportation/public facilities and services element of the Plan.

17.2.SOP5 Evaluate land not scheduled for immediate disposal for possible interim uses prior to private development.

17.2.SOP6 Enact a general application ordinance that specifies that any use of CBJ lands for commercial gain, other than the passage of commercial vehicles over public streets, must occur under a permit from the CBJ and with payment of a fee.

Development Guideline

17.2.DG1 To the greatest extent practicable, retain shoreline and riparian lands in public ownership. However, where disposal of such lands is deemed by the Assembly to be appropriate,

ensure the provision of public access to the shoreline and water including provision of adequate trail head or boat launch areas, and retention of a public access easement along beaches.

Implementing Action

17.2.IA1 Seek to acquire lands located in hazardous areas for open space/natural areas land use designations as well as lands located along riparian habitat for stream protection and greenbelt purposes.

CHAPTER 18. IMPLEMENTATION AND ADMINISTRATION

The policies in this Comprehensive Plan concern the natural and human factors that will influence the CBJ's future growth. They reflect the expressed desire of the residents to build upon the best characteristics of their community and mitigate problems that may arise from uncontrolled development. This Plan and its components are adopted by the Assembly as official and binding policy for actions taken by any CBJ Department, Commission or Board. The key to assuring successful use of the Plan in day-to-day civic affairs is making sure the Plan is available and accessible to those who need to be aware of the policies it contains. Administratively, this is one of the duties of the Community Development Department, which needs to consult the Plan on a regular basis when it carries out its other duties and in the course of working with other CBJ departments and deliberative bodies.

Proper implementation and administration of the Plan depends on a number of other activities as well, not the least of which is to be aware of where the Plan is inadequate to address an issue or where the Plan has unintended consequences. In these cases, the CBJ must consider amending the Plan in the face of new information or unexpected or changed circumstances. For both assuring that actions are consistent with the Plan, and for assuring the Plan is responsive to public needs and changing conditions, the CBJ must:

- Monitor changes in land use, social, economic and environmental conditions and periodically review and update the Plan to reflect these factors;
- Maintain and use procedures to amend the plan to address needs of individual property owners;
- Provide for ongoing resident involvement in the land use decision making process; and
- Coordinate municipal activities with State and Federal agencies with regard to decisions of mutual concern.

The Comprehensive Plan as a Guiding Planning Document

A comprehensive plan provides a rational and consistent policy basis for guiding all future CBJ growth and development decisions. This requires that each land use decision, from the most minor variance to the development of a New Growth Area, be evaluated for its compliance with the policies, guidelines, standards and criteria established in the plan. To ensure this, procedures must be followed to require that routine consultation of the Plan is an integral part of the land use decision making process.

The Plan contains over 100 Policies, each of which may have an associated "Standard Operating Procedure," "Development Guideline," and/or "Implementing Action," which are directives for

how to carry out the policy. As a preliminary matter, the reviewer must determine which Policies are relevant to the subject at hand. Of course, the writers of the Plan cannot envision every sort of proposal that might one day be conceived and analyzed against the Policies. In that vein, such analyses are not conducted on an absolute basis. That is, failure of a proposal to conform to one particular Policy in the Plan does not automatically mean that it is inappropriate if conformance is shown with other policies of the Plan. Thus, the analysis is one of balancing the many relevant policies and looking holistically at the particular situation, site and environs.

POLICY 18.1 IT IS THE POLICY OF THE CBJ TO ESTABLISH THIS COMPREHENSIVE PLAN AS THE PRIMARY POLICY DOCUMENT WITH WHICH TO GUIDE RESOURCE CONSERVATION AND FUTURE GROWTH AND DEVELOPMENT AND TO MANAGE THE PHYSICAL ENVIRONMENT.

Standard Operating Procedure

18.1.SOP1 Evaluate all ordinances, plans, capital improvements and public programs to ensure their consistency with the Comprehensive Plan. For specific land use or permit applications, require the Applicant, whether a public agency or private property owner, to demonstrate compliance to each applicable policy or provide evidence why an exception to a policy is warranted. Incorporate statements regarding compliance/non-compliance with Policies into findings of fact that provide the legal basis for determining approval or disapproval of a development application.

Implementing Actions

18.1.IA1 Base Community Development Department annual budgets on Plan implementation needs and priorities, including the development of GIS-based planning tools; assess staff capacity to prepare Plan implementing actions on a timely basis.

18.1.IA2 Revise, as necessary, zoning, subdivision and other land development ordinances to ensure consistency with the Plan's provisions. Amend the Land Use Code Maps (zoning designation maps), considering them to be the official application of the Comprehensive Plan Maps, to ensure that the zoning designations of specific sites within the CBJ are consistent with the Land Use Map designations of this Plan.

18.1.IA3 Support residents' advisory committees to advise the Planning Commission and CBJ Assembly in related planning matters.

Amendment and Updating

A comprehensive plan is an effective policy instrument only if it is periodically updated to reflect current conditions and needs. The general policy below, which calls for review of the Plan every budget cycle, or two years, will provide the CBJ with opportunities to make important mid-course corrections that respond to identified deficiencies and problems and/or accommodate changing social, economic, and environmental conditions. It is important to highlight the distinction between the Planning Commission's "review" of the Plan, their entertaining a specific

"amendment" to the Plan, and "updating" the Plan. At their discretion, or at the suggestion of CBJ staff or members of the public, the Planning Commission may seek to review and give consideration to an amendment to a land use map designation, or may seek to review a particular Policy, Standard Operating Procedure or Development Guideline for currency, or the Commission may seek to delete or add an Implementing Action to a Policy section. This type of review or amendment should be simply a matter of arranging for one or more public sessions of discussion and examination of the particular specific review or amendment to the Plan. The conclusion of a review session might be that the Plan is holding up well and does not need any change. If an amendment is deemed warranted by the Commission, they would recommend such to the CBJ Assembly for their consideration for adoption.

An update is considered to involve a wholesale review of all preamble text, Policies, SOPs, Development Guidelines, Implementing Actions and Land Use Map Designations, such as occurred in this 2008 update.

POLICY 18.2 IT IS THE POLICY OF THE CBJ FOR THE PLANNING COMMISSION TO UNDERTAKE A GENERAL REVIEW OF THE COMPREHENSIVE PLAN ONCE EVERY TWO YEARS, AND TO MAKE RECOMMENDATIONS TO THE ASSEMBLY TO AMEND IT AS NECESSARY TO REFLECT CHANGING CONDITIONS AND NEEDS AND TO CONSIDER AND ENACT AMENDMENTS TO THE PLAN AND LAND USE MAPS, INCLUDING AMENDMENTS TO THE URBAN SERVICE AREA BOUNDARY, AT ANY TIME THE PLANNING COMMISSION AND ASSEMBLY DETERMINE THAT AMENDMENTS ARE NEEDED.

Implementing Actions

18.2.IA1 Develop procedures to monitor changing conditions and update the CBJ land database as necessary. This may require establishing a data collection system.

18.2.IA2 Prepare a biennial report that:

A. Indicates public and private development activity in the past period;

B. Identifies problems and deficiencies in implementing the Plan; and

C. Describes environmental, economic, social, demographic and other conditions that may necessitate changes and/or amendments to the Plan.

18.2.IA3 Identify all general and site-specific changes, issues and concerns that should be addressed in the biennial review process, after soliciting comments from public officials, State and Federal agencies, property owners, neighborhood and business organizations, and other special interest groups.

18.2.IA4 Establish procedures governing the Comprehensive Plan review process including roles and responsibilities of staff and public officials, nature and extent of resident involvement, and public notice and hearing requirements.

18.2.IA5 Adopt procedures for considering amendments to the Plan initiated by property owners or residents between major updates, providing that one or more of the following factors can be demonstrated that:

A. The original decision was in error because important information available at the time was not adequately considered;

B. Changing conditions and/or new information renders the original decision inappropriate; and/or

C. The proposed change is consistent with other applicable policies of the Comprehensive Plan, other CBJ adopted Plans, and any specific subarea plans that apply to the site/area.

POLICY 18.3 IT IS THE POLICY OF THE CBJ FOR THE PLANNING COMMISSION TO UNDERTAKE A FULL UPDATE OF THE COMPREHENSIVE PLAN AT LEAST ONCE EVERY TEN YEARS AND TO MAKE RECOMMENDATION TO THE ASSEMBLY TO AMEND IT AS NECESSARY.

Implementing Action

18.3.IA1 When the Planning Commission finds, during its general review of the Comprehensive Plan, that the Plan warrants a major update, initiate a major update to the Plan.

Resident Involvement

Efforts to involve residents in the formulation and periodic updating of this Plan ensure that a wide range of community attitudes and interests are reflected in the final product. The process also helps develop an understanding of and support for land use planning. The CBJ should continue to provide residents with a timely and efficient means of receiving information about local land use proposals and participating in a decision making process in a manner appropriate to the level, type and importance of the activity or decision.

POLICY 18.4 IT IS THE POLICY OF THE CBJ TO MAINTAIN AN ONGOING RESIDENT INVOLVEMENT PROGRAM IN RELATION TO LAND USE PLANNING.

Standard Operating Procedures

18.4.SOP1 Encourage media coverage of land use activities; provide ample public notification of public meetings and hearings, allowing residents adequate time to respond to new proposals.

18.4.SOP2 Encourage and facilitate the formation of CBJ-sanctioned neighborhood organizations in areas that lack such representation in order to advise the CBJ of neighborhood and community-wide opinions in land use matters.

A. Establish procedures for neighborhood organizations including recognition provisions, meeting and notification requirements, and other factors;

B. Notify neighborhood organizations of proposed land use actions that affect them directly;

C. Submit texts of proposed ordinances and plans to affected neighborhood associations and allow for timely review and comment;

D. Provide timely technical assistance to neighborhood associations, including analysis of land use issues, and other appropriate activities; and

E. Include representatives of neighborhood organizations in the review of capital improvement programs and CBJ budgeting processes.

18.4.SOP3 Sponsor public outreach meetings, workshops, resident advisory committees, and/or resident task forces to advise the CBJ on major issues of community-wide concern such as solid waste disposal, New Growth Area development and Downtown Juneau planning.

18.4.SOP4 Support alternative methods for increasing public participation in the CBJ's decision-making and planning process.

Intergovernmental Coordination

There is a continuing need for coordination between the CBJ and State and Federal agencies, as the latter governments control nearly 80 percent of the CBJ's land area and have major responsibilities for managing/developing coastal and other natural resources. This Plan is an effective guide for future growth and development in the CBJ only with the cooperation of these entities.

POLICY 18.5 IT IS THE POLICY OF THE CBJ TO FACILITATE INTER-GOVERNMENTAL COORDINATION SO THAT DECISIONS AFFECTING LOCAL PLANNING AND DEVELOPMENT ARE RENDERED IN AN EFFICIENT AND CONSISTENT MANNER.

Standard Operating Procedure

18.5.SOP1 Notify appropriate State and Federal agencies of local actions that affect matters within their jurisdiction.

Implementing Actions

18.5.IA1 Establish and maintain intergovernmental agreements with those State and Federal agencies that have local management/development responsibilities: Alaska Departments of Transportation/Public Facilities (DOT) and Environmental Conservation (DEC); the U.S. Forest Service, Bureau of Land Management, and others. Utilize agreements to ensure that these agencies undertake local programs that are consistent with the Comprehensive Plan and Coastal Management Program and that the CBJ is informed of activities in a timely manner.

18.5.IA2 Assign appropriate CBJ personnel as liaisons with these agencies.

The CIP Planning Function

A recurring need in any municipality is planning for the execution of capital improvement projects. The work includes gathering the needs and expectations of operating departments into a unified document that sets priorities and is adopted by the Assembly at the same time as the annual operating budget. In the CBJ's case, the primary document is the Six-Year Capital Improvement Program (CIP), which is republished every year with a new year added at the "outer end" and the past year dropped off. The CIP contains a basic project list, organized by department, which shows each project that has been identified by the operating agency, a scope and estimated cost. Other sections of CIP re-list the projects by type and priority. A given project may change over the years as it advances from low priority status to higher status. This is because increasingly more planning and design consideration is given to a project which the sponsoring department has kept on the list year after year until it is finally carried out.

POLICY 18.6 IT IS THE POLICY OF THE CBJ TO DEVELOP A SIX-YEAR CAPITAL IMPROVEMENT PROGRAM TO IMPLEMENT THE COMPREHENSIVE PLAN BY COORDINATING URBAN SERVICES, LAND USE DECISIONS, AND FINANCIAL RESOURCES AND TO PROVIDE ADEQUATE FUNDING FOR CAPITAL IMPROVEMENTS TO ENSURE THE POLICIES, STANDARD OPERATING PROCEDURES, DEVELOPMENT GUIDELINES, IMPLEMENTING ACTIONS AND SUBAREA GUIDELINES OF THE COMPREHENSIVE PLAN ARE IMPLEMENTED.

Standard Operating Procedures

18.6.SOP1 Prepare an annual Six-Year Capital Improvement Program (CIP). Request that CBJ departments, the public, and policy bodies nominate potential capital improvement projects from a variety of sources including the Comprehensive Plan and suggestions of resident and special interest groups, CBJ officials, advisory commissions, and others.

18.6.SOP2 CDD staff will analyze each CIP project list for conformity with the Comprehensive Plan.

18.6.SOP3 The CIP sponsoring agency should prepare and make public related subsidiary CIP studies, reports and documents.

18.6.SOP4 Maintain active involvement with other governmental sponsors of capital improvements and public works in general to assure that the efforts of those sponsors are compatible with local needs, conditions, and the policies of the Comprehensive Plan.

APPENDIX A: Glossary of Terms Used in the Plan

ACCESS: A way or means of approach to provide physical entrance to a property.

AFFORDABLE HOUSING: Dwelling units of all types that are affordable to residents whose income is below the median household income level established annually for the CBJ region by the U.S. Department of Housing and Urban Development (HUD) per household size. The generally accepted governmental standard for determining whether a person or household can afford housing is whether they are spending no more than 30 percent of their gross monthly income on housing costs, including essential utilities such as water, sanitary sewer service, garbage and home heating.

AFFORDABLE HOUSING OVERLAY DISTRICT (AHOD): A land use zoning district which would be placed on a specific property as a zoning map amendment and which would supersede the development standards, guidelines and requirements of the underlying zoning district designation for that property. Such overlay district designations are used to encourage and facilitate the development of affordable housing on select commercial, multifamily residential, mixed use and/or public properties which meet the criteria established by the overlay district.

AGRICULTURE: For the purposes of a land use category within the CBJ and pursuant to this Plan, agriculture includes the breeding, raising, pasturing, grazing of livestock for the production of food and fiber; the breeding and raising of bees, fish, poultry, and other fowl; and the planting, raising, harvesting and producing of agricultural, aquacultural, horticultural, and forestry crops.

SMALL-SCALE AGRICULTURE is conducted on individual parcels of property, or combinations of parcels when area residents work the site, where the parcels are of a similar size to those in the surrounding neighborhood.

MEDIUM-SCALE AGRICULTURE is a commercial operation serving the community at large.

LARGE-SCALE AGRICULTURE is a commercial operation exporting products to areas outside the CBJ.

AMENITIES: A feature that increases attractiveness or value. Assets and resources of a particular development, neighborhood or community which make the locale a desirable place in which to live, work, shop and/or visit and includes such features as convenient location and proximity to employment, transit and services or parks; near and/or distant views of water bodies, mountains and forested areas; natural areas and active play areas; protection from severe winds and weather; light, air and privacy from neighbors; quiet ambient noise levels, and the like.

ANADROMOUS FISH: A fish or fish species that spends portions of its life cycle in both fresh and salt waters, entering fresh water from the sea to spawn.

ANADROMOUS STREAM, RIVER, OR LAKE: A body of fresh water supporting one or more portions of an anadromous fish's life-cycle.

AQUACULTURE: The raising and harvesting of aquatic organisms for human use, including shellfish, mollusks, crustaceans, seaweed, kelp, algae, fish, and other aquatic life.

ATV COURSE: An open air area that legally allows off-road-vehicles, all-terrain-vehicles and/or snowmobiles in a contained arena or track and as a series of trails.

AVOIDED COST: A term used in the electrical generation industry to refer to the lowest cost of electric energy that the utility might avoid by purchasing electric energy from another source.

BASIC SECTOR INDUSTRY: A basic sector industry is one that brings in revenue from outside the community.

BELOW-MARKET-RATE (BMR) HOUSING: Housing that has a legal restriction for a specific period of time to be sold or rented at a price that is below the prevailing rate for equivalent housing units within the community. For example, dwelling units which are deemed as "affordable" by an inclusionary affordable housing requirement as a condition of a rezoning approval.

BEST MANAGEMENT PRACTICES (BMPs): Officially established (by the regulating agency or relevant industry standards) operating procedures and management practices of a business or other entity that reduce adverse impacts to the environment and environs.

BUFFER ZONE: A land area, typically a strip of land, identified in the zoning ordinance, a subdivision plat or a development plan, which protects one type of land use or density or intensity of use from another, potentially incompatible land use. The buffer land area provides a separation of the adjacent uses for visual screening, noise abatement, or light, air and privacy purposes.

BUILDABLE SITE: In Chapter 4 of this plan, "buildable sites" are pieces of land one-quarter acre or more in size located within the Urban Service Area that are vacant or have an improvement, such as a structure, that is valued at less than $50,000 by the CBJ Assessor and upon which large portions of the land do not contain slopes greater than 18 percent or class A or B wetlands. Buildable sites considered in Chapter 4 are located near municipal water and sewer service, roads, utilities and other public services.

BUNGALOW HOUSE: A small single-family detached house as defined by Title 49, the Land Use Code.

CAPITAL IMPROVEMENT: Any public acquisition of real property, major construction, renovation or rehabilitation of a structure, or purchase of expensive equipment with a lifetime of more than one year.

CAPITAL IMPROVEMENT PROGRAM (CIP): Proposed timetable or schedule of all future capital improvements to be carried out during a specific period; each item is listed in order of priority, accompanied by a cost estimate and anticipated financing. The CIP is reviewed annually for conformance with this Comprehensive Plan.

CAPITOL COMPLEX: An area in Downtown Juneau which could contain legislative hearing rooms, offices, meeting rooms, pedestrian-friendly circulation systems, parking, transit services, seasonal and short-term accommodations, food and beverage services, cultural and entertainment activities, and other facilities which support the legislative activities of the State Capital in Juneau. This area is shown on the land use maps for Subarea 6, particularly Map M, and is centered on Telephone Hill, the proposed site of a new State Capitol building.

CARRYING CAPACITY: The number of individuals who can be supported without degrading the natural, cultural and social environment; that is, without reducing the ability of the environment to sustain the desired quality of life over the long term. A neighborhood's carrying capacity is measured by a number of elements including water, sanitary sewer service, stormwater conveyance systems, road and intersection capacity, school enrollment capacity, police, fire and emergency medical service capacity, and the like.

CENSUS: The official decennial (every ten years) inventory of population, housing units and household characteristics conducted by the United States Department of Commerce.

CENTRAL BUSINESS DISTRICT (CBD): That area bounded by 4th Street, Franklin Street, Main Street and the Downtown Library.

COASTAL MANAGEMENT: Planning process which guides the preservation, development, use and restoration of coastal resources in Alaska, pursuant to the provisions of the State Coastal Management Act.

COMMERCIAL USE: Economic activity, including retail sales, personal and business services, and private and public offices.

COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG): The Federal CDBG program provides annual grants on a formula basis to local governments and States. In Alaska, the CDBG program is administered by the Department of Commerce, Community, and Economic Development's Division of Community and Regional Affairs. Grants are made to local governments and area awarded based on criteria such as project readiness, adherence to state funding priorities, and community need.

COMPACT DEVELOPMENT: A strategy to encourage the most efficient use of existing municipal water, sewer, roads and other public services such as police, fire and emergency medical care, as well as to make the most efficient use of private utilities and services such as power, communication systems and garbage collection. Compact development encourages higher density development as in-fill development on parcels within a designated Urban Service Area. See also *IN-FILL DEVELOPMENT*

COMPREHENSIVE PLAN: A document containing a set of public policy actions regarding how the land, air and water resources of an area will be developed or conserved. It incorporates the plans and programs of various governmental units into a single document to be used as the basis for ongoing decisions and actions by these governmental agencies.

CONDOMINIUM: A form of residential or non-residential ownership of real property. In legal terms it is a development where undivided interest in common in a portion of real property is coupled with a separate interest in space called a unit, the boundaries of which are described on a recorded final map, parcel map, or condominium plan. The area within the boundaries may be filled with air, earth, or water, or any combination, and need not be physically attached to any land except by easements for access and, if necessary, support.

CONSERVE: To manage and utilize resources in a manner which avoids waste or destruction now and in the future.

COTTAGE HOUSING: A type of development of small, single-family homes surrounding common open space/natural areas, as defined by the Title 49 Land Use Code of the CBJ.

CULTURAL CAMPUS: An area of Downtown Juneau, near the Capitol Complex, that provides a cluster of arts, crafts and performance venues, cultural and entertainment venues, arts-related workshops, studios, galleries, retail outlets, and culinary arts-related food and beverage services, along with artist housing. Typically, this would be characterized as an Arts District and would feature performances and arts attractive to local, regional and international students and residents. There would be a central or nearby parking facility that is shared with daytime users, such as the State Office parking garage and available for arts patrons in the evenings and week-ends. A performing arts building would be a central feature of the cultural campus whose performance spaces could also be used as meeting venues by State legislators as part of the Capitol Complex and by the Convention and Visitors Bureau for special events.

CUMULATIVE EFFECTS: Effects on the environment that result from separate, individual actions that, collectively, become significant over time and with increasing individual contribution. For example, several small parcels are developed and the vehicular traffic from each would not contribute to a reduction in the service level of a particular road or intersection but, taken together, the traffic would cause congestion of the roadway(s) or intersection(s) that serves those developments.

DAM INUNDATION AREA: An area of potential flooding from dam rupture in the event of a failure of the dam.

DECIBEL (dBa, dBA, dBc and/or dBC): A unit used to express the relative intensity of sound as it is heard by the human ear. dBA is the "A-weighted" scale for measuring sound in decibels that weights or reduces the effects of low and high frequencies in order to simulate human hearing. dBC is the "C-weighted" scale, and is used more typically to measure the sounds typically associated with the "bass" line of music. Each increase of 10 dBA or dBC intensifies the noise tenfold and doubles the perceived loudness. dBa and dBA are equivalent to each other, as are dBc and dBC.

DENSITY (Residential): The number of housing units allowed per unit of land, such as one dwelling per acre or twenty units per acre. Gross density refers to all the land area under consideration; net density is the area remaining after elimination of land for streets, parks and other public or non-residential uses.

DEVELOP: To bring about growth or availability; construct or alter a structure; make a physical change in the use or appearance of land.

DEVELOPMENT: A project or effort that results in the alteration of land, water or other natural resource, including, but not limited to the following: Placement or construction of any solid material or structure on land or water; construction of roadways and other infrastructure; discharge or disposal of dredged material or any other waste materials on land or water; grading, dredging or mining activities; subdivision or change in the density or intensity of use of specific land(s); construction on or change in the intensity of use of water; construction, reconstruction, demolition, or alteration to the size of any structure, public or private; removal or harvesting of vegetation for other than household, family, or clan subsistence use, excluding routine repair and maintenance activities.

DEVELOPMENT RIGHTS: The right to develop land by a landowner who maintains fee-simple ownership over the land or by a party other than the owner who has obtained specific rights to develop the land. Such rights are usually expressed in terms of density, building height, lot coverage and access to a public road. In legal terms, land is seen as encompassing these "bundle" of rights which can be separated and sold individually or as a whole, such as air-rights, mineral rights, development rights, etc.

EASEMENT: Right given by the owner of land to another party for a specific limited use; commonly used for utility easements either above or below ground, or access for pedestrian or automobile traffic. A conservation easement would, typically, limit the development of the land and would protect and conserve the natural resources on the land in perpetuity while allowing the owner to retain the opportunity to hunt, fish, or travel on the land and, perhaps, retain water rights for personal consumption. A scenic easement would limit development of land for which such development would obstruct a public vista or landscaping.

ESTUARY: The lower course of a river, stream or creek where tidal influence is noticeable. The mixing zone of fresh and salt waters near the mouth of a water body. A body of water semi-enclosed by land and connected with the open ocean within which salt water usually is diluted by fresh water derived from the land. An estuary includes: (a) estuarine water; (b) tidelands; (c) tidal marshes; and (d) submerged lands.

FILL: Placement of sand, sediment, or other material to raise the elevation of land.

FIREWISE: A fire prevention education program, sponsored by a consortium of government fire protection organizations, to aide the general public and, particularly, property owners in fire prevention design and operating procedures for structures and landscapes [see www.firewise.org].

FLOOD INSURANCE RATE MAP (FIRM): For each community, the official map on which the Federal Emergency Management Agency (FEMA) has delineated areas of special flood hazard and the risk premium zones that are applicable to those zones.

FISHERIES: Harvest of populations or stocks of particular fish species.

FIXED-GUIDEWAY: Any transit service that uses exclusive or controlled rights-of-way or rails, entirely or in part. The term includes heavy rail, commuter rail, light rail, monorail, trolleybus, aerial

tramway, inclined plane, cable car, automated guideway transit, ferryboats, that portion of motor bus service operated on exclusive or controlled rights-of-way, and high-occupancy-vehicle (HOV) lanes.

FLOAT HOME: A vessel that may be capable of movement or that is permanently moored, and which is designed to be used primarily as a residence.

FLOOR TO AREA RATIO (FAR): The ratio of a building's total floor area to the land (site) area. Typically used in land use regulations to set maximum and/or minimum building mass and scale.

GIS OR GEOGRAPHIC INFORMATION SYSTEM: A system of computer hardware, software and procedures designed to support the capture, management, manipulation, analysis, modeling, and display of spatially-related data for planning and resource management purposes. Geographic Information System (GIS) is a digital mapping system linked with various databases of geographic information such as roads, parcels, trails, streams, terrain, watercourses and the like. The data can be called upon to show each geographical feature or can call upon multiple layers of data to show numerous geographical features. Aerial photos, parcel lines, road systems, trails, topographic contours can be viewed.

HIGH OCCUPANCY VEHICLE: The term high-occupancy vehicle (HOV) can describe any motor vehicle that has two or more persons although, typically, it refers to a carpool, van, or bus.

HISTORICAL RESOURCES: Areas, sites, buildings, structures, and artifacts that have a relationship to events or conditions of the past.

HOMELESS: Persons and families who lack a fixed, regular, safe and sanitary night-time residence or shelter. The homeless include: Persons or families staying in temporary or emergency shelters; those who are accommodated with friends or other persons with the understanding that shelter is being provided as a last resort; and/or persons who are living outdoors.

HOUSE BOAT: A vessel capable of movement under its own power that is designed primarily to be used as a residence.

HOUSEHOLD: Households are comprised as one or more persons living within a dwelling unit or equivalent. A householder can be a single-person living with one or more un-related persons within a single dwelling unit.

HOUSEHOLD INCOME: Household income is the combined gross income reported to the U.S. Internal Revenue Service (IRS) by all members of the household, over the age of 18, within a 12 month period.

HOUSING ELEMENT: A chapter of this Comprehensive Plan which meets HUD standards for identifying community-wide housing need, the condition of the community's housing stock, any impediments to satisfying the housing needs of all sectors of the community. It includes goals, policies and implementation programs for the preservation, improvement and development of housing.

HOUSING TRUST: A legal mechanism to facilitate the development or rehabilitation of affordable housing. Typically, the trust holds the land on which the affordable housing lies such that the housing costs exclude the price of the land.

HUD: The United States Department of Housing and Urban Development, the Federal agency which sets forth policies for housing and community development; administers federal grants and tax credits; and sets minimum safety standards for manufactured homes and other federally-funded housing developments.

HYDROLOGIC: Relating to the occurrence and properties of water. Hydrologic hazards include flooding, which is associated with the rise of water, as well as with its movement.

IMPAIRED WATER BODY: An impaired water body is a creek, stream, river or lake that has a level of pollution that impairs the health and well-being of animal and plant aquatic life within the waterbody and along its banks (riparian habitat), as determined by the Alaska Department of Environmental Conservation (DEC). As described in the Water Quality section of Chapter 7 of this Plan, pollution could be soil sediment, hydrocarbons, fecal bacteria, heavy metals and debris.

INDICATOR: Indicators provide relevant, easy to understand, and reliable information based on accessible data that reflect the status of larger systems. An indicator is a measurement that reflects the causal relationship between two or more elements of a holistic system, where changes in one element affects the status of another.

INDICATOR SPECIES: An indicator species is a species whose presence, absence, or relative well-being in a given environment is indicative of the health of its ecosystem as a whole.

INDUSTRIAL USE: The manufacture, fabrication, processing, or reduction of any article, substance, or commodity or any other treatment thereof in such a manner as to change the form, character or appearance thereof. In addition, trucking facilities, warehousing, storage facilities, businesses serving primarily industry, and similar enterprises.

IN-FILL DEVELOPMENT: Development on a vacant parcel or substantially underdeveloped property located within an existing neighborhood, typically near public transit, within the Urban Service Area.

INFRASTRUCTURE: Facilities and services needed to sustain urban development, including but not limited to water, sewer, and storm drainage systems, streets, communications, utilities, fire stations, parks, and schools.

INTENSITY: In planning, the degree to which land is used; usually refers to levels of concentration or activities of use. A low intensity use is a very discrete activity in which very little traffic is generated or very few or low-scale structures are built. A high-intensity use is one in which high volumes of traffic, noise, congestion, 24-hour activity and/or tall structures are present.

INTERTIDAL: Between the levels of mean lower low tide (MLLT) and mean higher high tide (MHHT). Lands located in such an area are referred to as tidelands.

INVASIVE SPECIES: A species that is non-native to the local ecosystem, and whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

LAND TRUST: See *HOUSING TRUST*

LAND USE CODE: Title 49 of the CBJ Municipal Code which regulates the use of land within the CBJ.

LAND USE CONTROLS: The use of a community's police powers to guide land use and development, usually manifested in zoning, subdivision regulations and official land use maps.

LEED (Leadership in Energy & Environmental Design): A system developed by the United States Green Building Council that defines standards for what constitutes a "green" or environmentally preferable structure. The certification system is designed for rating new and renovated commercial, institutional and residential buildings and evaluates the entire building over the building's life cycle. LEED certificates are awarded at various levels (certified, silver, gold and platinum) according to a scoring system.

LEVEL OF SERVICE (LOS): Levels of service is a qualitative measure by which transportation planners describe the efficiency of a traffic stream and the way in which such conditions are perceived by persons traveling the traffic stream. Level of Service (LOS) measurements describe conditions such as speed, travel time, freedom to maneuver, traffic interruptions, traveler comfort and convenience and safety. The LOS system uses the letters A through F to characterize the level of congestion of a feature, with A being the best or least congested and F being the worst or most congested condition.

LIFE CYCLE COSTS: The total cost of creation, delivery, and ownership of an asset over the life of the asset.

LIGHT RAIL TRANSIT: Trolley buses or trains that typically operate in mixed traffic and in non-exclusive, at-grade rights-of-way. Vehicles are self-propelled by electricity or other power and usually operate in one or two-car trains. See also *FIXED-GUIDEWAY*

LIVABLE WAGE: This refers to a salary or wage for a resident which would enable the employee to pay for rent on a dwelling unit which is sized to adequately accommodate his or her self and dependent household members while paying no more than thirty percent (30%) of his or her gross monthly income for rent and essential utilities such as water, sanitary sewer, garbage disposal and home heating.

LIVABILITY: A standard which describes how people respond to the built, social and natural environments in which they live, shop and work and includes human perceptions of how well the structures, roads, vegetation, pedestrian circulation systems, and the like within that environment provide safety, light, air and privacy, open space/natural areas, convenience, affordability and a general sense of well-being.

LIVE-A-BOARD: A vessel capable of movement that serves as a residence, although it was not designed primarily for residential use.

MANUFACTURED HOME: A dwelling unit constructed entirely in a factory (off the site of its occupancy) and constructed on a chassis to facilitate its movement to a permanent or temporary site and designed to meet HUD safety standards.

MASS AND SCALE OF DEVELOPMENT: The bulk of a building or group of buildings, defined by the building height, façade length, and depth. Mass and scale are typically measured by Floor to Area Ratio (FAR).

MEAN HIGH WATER MARK: A tidal datum used in referring to tidelands or the tidally affected portion of the stream that is equal to the average of all high tides over a 19-year Metonic cycle, as established by the National Ocean Service of the National Oceanic and Atmospheric Administration.

MEAN LOWER LOW WATER (MLLW): A tidal datum used in referring to tidelands or the tidally affected portion of the stream, that is equal to the average of the lower of the two low tides of each day over a 19-year Metonic cycle, as established by the National Ocean Service of the National Oceanic and Atmospheric Administration.

MEDIAN HOUSEHOLD INCOME: The sum of money income received in the previous calendar year by all household members 15 years old and over, including household members not related to the householder, people living alone, and others in nonfamily households. Median income is the mid-point income in an ordered distribution of all household income levels.

MITIGATION MEASURE: An action or series of actions designed to avoid, reduce, or compensate for the adverse impact or effect of a development on the site or surrounding environs or neighborhood.

MIXED USE DEVELOPMENT: A mixed use development is one that provides space for two or more land use activities, typically for residential and non-residential uses. Typically a mixed use development will have vertical mixing of the uses with ground floor retail space, a second or more floors of office space and housing above. A horizontal mixed use development could have multiple structures with each structure devoted to a particular land use, such as a church with a school or day care center.

MOBILE HOME: A dwelling unit manufactured off-site before 1976 and constructed on a chassis to facilitate its movement to its permanent site, but not designed and built to HUD safety standards or the specifications of the Uniform Building Code for conventional structures. Typically, mobile homes have aluminum electrical wiring rather than copper electrical wiring; do not have fire-proof insulation around the furnace and water heater; do not have double exits; and do not have windows large enough to escape through in the bedrooms in the event of a fire. The term mobile home does not include a manufactured home, modular or panelized home, “kit” home or Recreational Vehicle-type trailers.

MODULAR HOMES: Modular homes, panelized homes or kit homes are homes in which sections of the dwelling are manufactured off-site and are packaged and delivered to a home site and assembled at

the site. Some modular homes are fully assembled in a factory and are simply installed on-site; they differentiate from manufactured homes in that they are not built on chassis.

MODE SPLIT: The percentage share of total trips for each mode or method of transportation, such as drive along, carpool, public transit, bicycle or walk to reach a destination. An "18 percent transit share" means that transit is used for 18 out of 100 trips from home to work.

MULTI-MODAL TRANSPORTATION SYSTEM: Multi-modal means more than one means of travel or transport. For example, a multi-modal transportation system might have sidewalks and trails for pedestrians, bicycle paths separated from vehicle traffic, public transportation facilities such as buses, carpool vehicles and high-occupancy-vehicle lanes for carpool travel and parking, and parking facilities for all motorized and non-motorized vehicles, as well as marine and air components.

NATURAL AREAS: Land areas that have not been disturbed by alteration of the terrain or vegetation and not developed with structures or roads, other than those needed to maintain the lands or for non-motorized trails.

NEW GROWTH AREA: Sites in rural and remote areas quite distant from the Urban Service Area and potentially suitable for urban/suburban development as a self-contained community. New Growth Areas shall be developed according to a master plan or master development plan recommended by the Planning Commission and adopted by the CBJ Assembly. These remote communities are characterized by compact development of urban densities and a full complement of services and facilities, including water and sewer, recreational, educational and neighborhood commercial services provided therein. Non-residential primary uses such as dock and port facilities or resource-related industrial development, e.g. a lumber mill or fish processing plant, may also be appropriate.

NOISE: A sound that is perceived by the human ear and is deemed by the receptor as undesirable because it interferes with speech, hearing or sleep, or that is intense enough to damage hearing, or is of a duration or frequency that is annoying. See also *NOISE*

NON-PROFIT HOUSING DEVELOPMENT CORPORATION: A tax-exempt corporation formed for the purpose of building housing, typically, for low- and moderate-income households. The corporation builds the units and would operate and maintain rental units and would sell ownership units to qualifying low- or moderate-income households.

OHV COURSE: See *ATV COURSE*

ORDINARY HIGH WATER (OHW):

(1) in the non-tidal portion of a river, lake or stream; the portion of the bed(s) and banks up to which the presence and action of the non-tidal water is so common and usual, and so long continued in all ordinary years, as to leave a natural line or "mark" impressed on the bank or shore and indicated by erosion, shelving, changes in soil characteristics, destruction of terrestrial vegetation, or other distinctive physical characteristics;

(2) in a braided river, lake or stream; the area delimited by the natural line or "mark," as defined in part 1 above, impressed on the bank or shore of the outside margin of the most distant channels; or

(3) In a tidally influenced portion of a river, lake or stream, setbacks shall be taken from mean high water elevation or from the ordinary high water mark, whichever offers greater protection to the water body.

OVERCROWDING: A condition relation to the number of residents in a dwelling, defined by HUD, and measured by researchers in a variety of ways.

OVERLAY DISTRICT: Zoning requirements imposed in addition to or in place of those of the underlying zoning district's development standards and procedures.

PEAK HOUR/PEAK PERIOD: When referring to vehicle travel, the daily period during which traffic volume is highest on a roadway, usually in the morning and evening commute periods.

PERFORMANCE STANDARD: Minimum requirement or maximum allowable limit on the effects or characteristics of a use, based on how the project is to be designed and/or operated.

PLANNED UNIT DEVELOPMENT (PUD): A form of housing development usually characterized by a unified site design and approval. A PUD may include clustered buildings, common natural and/or yard areas, increased density development, and a combination of building types and land uses. Planned unit development facilitates overall project planning and allows for the calculation of density for the entire development rather than on a lot-by-lot basis required under conventional land use regulations.

PLANNING AREA: In the context of this Comprehensive Plan, the air, land, and water resources within the CBJ. A Neighborhood Plan or Subarea Plan Study Area is of a smaller discrete planning area.

PLANNING PROCESS: Procedure related to land use by which a community sets goals, collects information, reviews alternatives, and approves a strategy, plan and implementation process to achieve those goals.

PREFABRICATED OR PANELIZED HOME: Factory-manufactured dwelling unit constructed to HUD safety standards and uniform building code specifications which is transported to a site and assembled on a permanent foundation. These do not include mobile homes, which are pre-1976 manufactured homes which do not meet HUD safety standards.

PUBLIC FACILITIES AND SERVICES: Projects, activities and facilities which a governmental jurisdiction determines to be necessary for the public health, safety and welfare, including but is not limited to water, sewage treatment and storm drainage systems; solid waste disposal; schools, libraries, and recreational facilities; police and fire protection; transit service; and medical and social services.

PUBLIC TRANSIT: Public transit refers to a public transit authority, or a non-profit organization that may contract with a public entity to provide transportation services to the public. In the CBJ, Capital Transit is the public transit provider and operates fixed route bus service. Care-A-Van provides the ADA-required complimentary public transport for qualifying mobility-impaired persons.

RECREATION FACILITIES, PUBLIC: Land in public ownership or subject to publicly-held easements or dedications which are permanently retained and managed for active recreation purposes such as playgrounds and playfields, marine vessel launch facilities, swimming pools, ice rinks, shooting ranges, and the like.

REMOTE AREAS: Lands located outside the Urban Service Area boundary and distant from a public road. Remote areas may be used for subsistence hunting and harvesting and for homestead homes or cabins but, generally, contain natural resources in need of protection from development.

RENEWABLE ENERGY: Energy generated from naturally renewable sources such as the sun, wind, water and the earth's heat.

RESIDENTIAL LAND: Zoned for dwelling units of all structural and ownership types, including single-family detached homes with or without accessory apartments, structures with attached dwelling units such as duplexes or apartments or condominiums, housing with shared kitchens such as the co-housing type or the Single Room Occupancy (SRO) type, manufactured home parks, float homes, and the like.

RIGHT-OF-WAY (ROW): A strip of land occupied or intended to be occupied by public utilities and/or transportation facilities, such as roadways, bicycle lanes, sidewalks, pathways, railways and utility lines.

RIPARIAN HABITAT: The ecosystem(s) near or situated on the bank of a river, stream, creek or other body of water. A riparian zone is the interface between land and a flowing surface water body. Plants along the water body margins are called riparian vegetation and these areas provide food and shelter for many aquatic animals, and their predators.

RURAL AREAS: Land located outside the Urban Service Area boundary accessible by a public road and which contain natural resources in need of protection from development, or areas unsuitable or not needed for urban development. In the CBJ, the Comprehensive Plan provides that urban services are not to be planned or extended to these areas.

RURAL DEVELOPMENT: Natural resource management and conservation activities and extremely low density residential uses, such as homestead cabins served by water wells and septic sanitary sewer systems and characterized by few public facilities and services and limited police, fire protection and emergency medical services.

SCALE AND MASSING: See *MASS AND SCALE OF DEVELOPMENT*

SCENIC CORRIDOR/ VIEWSHED: Areas of land and/or waters within the CBJ from which views of off-site locations and features are offered and where these off-site features are deemed by the general public as an important or spectacular view which provide a sense of identity for the viewer.

SENSITIVE AREA: Areas with significant natural resource value, natural hazards, and/or scenic views that are designated for special management.

SENSITIVE HABITATS: Land or water area where sustaining the natural resource characteristics is important or essential to the production and maintenance of flora or fauna.

SENSITIVE RECEPTOR: A person or group of persons who are highly susceptible to the adverse effects of a negative effect of development, such air pollution, including noise.

SEPTIC SYSTEM: An on-site sanitary sewage disposal system consisting of a septic tank and a soil infiltration leach field or other approved disposal facility.

SHORELINE: Boundary between a body of water and the land, measured on tidal waters at mean higher high water and on non-tidal waterways at the ordinary high water mark. It includes intertidal areas and adjacent uplands.

SINGLE OCCUPANCY VEHICLE: A single occupancy vehicle (SOV) is a car, truck or similar motor vehicle that is occupied by one person, typically a commuter traveling to and from work.

SINGLE ROOM OCCUPANCY (SRO) DWELLING UNIT: A small dwelling unit of less than 400 net square feet which may or may not share a bathroom or kitchen with one or more adjoining similar unit(s), also referred to as a Compact Living Unit.

SNOWMOBILE COURSE: See *ATV COURSE*

SPECIAL NEEDS POPULATION: With respect to the provision of social services or affordable housing, Special Needs Populations include persons who are physically, mentally, and/or developmentally disabled; victims of domestic violence; homeless persons or those at-risk of becoming homeless, including youth; the elderly; single-parent households; chronic substance abusers; individuals exiting from institutional settings; chronically ill persons; persons disabled by HIV/AIDS or mental illness; and displaced teenaged parents (or expectant teenage parents), among others.

SPRAWL: Low-density, land-consumptive, auto-oriented development typically located on the outer fringes of the city or town center, such as the suburbs and more rural neighborhoods. This type of development requires costly extensions of roads, water, sewer, utilities and other infrastructure as well as the extension of community services such as garbage collection, police, fire suppression, emergency medical services and school and public transport services.

STREAM CORRIDOR: On CBJ-owned and other publicly-owned lands, and except on heavily modified streams, a baseline 200-foot-wide corridor on either side of an anadromous stream in which

development is carefully controlled or, if necessary, prohibited to protect valuable habitat, scenic and/or recreational values.

SUBDIVISION: The act of legally dividing land into two or more lots.

SUBDIVISION REGULATION: Local ordinance which regulates the splitting of land into multiple lots, including requirements for streets, utilities, site design, and procedures for dedicating land for open space/natural areas or for public purposes and prescribing procedures for review.

SUBTIDAL: Below the level of mean lower low tide (MLLT).

SUBURBAN DEVELOPMENT: Residential, commercial, industrial, recreational and public uses which require a full complement of public utilities, infrastructure, services and facilities and for which the carrying capacity of those public utilities and services is adequate to serve the new development. See also *SPRAWL*

TIDAL MARSH: Wetlands from lower high water (LHW) inland to the line of non-aquatic vegetation.

TIDELAND: Generally un-vegetated areas which are alternately exposed and covered by the falling and rising of the tide.

TITLE 49: See *LAND USE CODE*

TRANSIT-ORIENTED CORRIDOR: A land use or zoning designation which allows a mixed, predominantly residential, development located within a five to ten-minute walking distance of public transit service. Typically, residential densities are high, neighborhood-serving commercial uses are provided at ground floor level of the development, and a parking requirement is greatly reduced or waived. Building heights on upland areas along bus routes may be taller to accommodate higher residential densities and affordable housing.

TRANSIT-ORIENTED DEVELOPMENT: A land use or zoning designation which allows a mixed, predominantly residential, development located within a five to ten-minute walking distance of public transit service. Typically, residential densities are high, neighborhood-serving commercial uses are provided at ground floor level of the development, and a parking requirement is greatly reduced or waived. Dwelling units are, typically, small and are suitable for single adults or couples, rather than families, due to the lack of active recreational space within the development. Building heights on upland areas along bus routes may be taller to accommodate higher residential densities and affordable housing.

TRANSPORTATION CORRIDOR: Land used for transit systems, classified as

> ARTERIAL: Street intended to carry large volume of traffic at steady speeds with minimum interruptions to traffic flow. Private driveways should not access arterial roadways.

COLLECTOR: Street which forms the boundary of a major block of land and is intended primarily for inter-neighborhood traffic; can function as a feeder road to commercial areas or for shared access between subdivisions. Private driveways should not access arterial roadways.

LOCAL: Neighborhood-scale streets designed to provide vehicular access (driveways) to abutting properties.

PUBLIC/MASS TRANSIT: Land used for public common carrier passenger transportation service that is available to any person who pays a prescribed fare and which operates on established schedules along designated routes with specific stops (bus, light rail, rapid transit).

TRANSPORTATION DEMAND MANAGEMENT (TDM) PROGRAM: A program to reduce the demand on the road system by reducing the number of vehicles using the roadways and by increasing the number of persons per vehicle trip. The TDM reduces the number of persons who drive alone during the commute period and increases the number in carpools, vanpools, buses, walking and biking. A TDM program can include flexible work hours for staggered peak travel times, discounted bus fares during commute to work trips or within specific travel zones (say, from the Valley to Downtown Juneau and back), increased parking rates for day-long parking in the Downtown, preferential parking for High Occupancy Vehicles (carpools, vanpools) and bicycles, along with parking restrictions for commuters in nearby residential neighborhoods.

UNIVERSAL DESIGN: Universal design consists of design and operating principles for buildings and spaces that meet the needs of all people, young and old, able and disabled by creating comfortable surroundings that suit a lifetime of changing needs for the occupants. Universal design features are generally standard building products or features that have been installed differently, selected carefully, or modified to allow ease of use by a larger population including children, elders, and people with disabilities. Some examples of universal building design include eliminating steps at building entrances, designing wider doorways and hallways, using lever or loop-type handle designs for doors and drawers that require no gripping or twisting to operate, placing light switches lower and electrical receptacles higher than usual above the floor.

URBAN DEVELOPMENT: Residential, commercial, industrial, recreational and public uses which require a full complement of public utilities, infrastructure, services and facilities and for which the carrying capacity of those public utilities and services is adequate to serve the new development.

URBAN SERVICE AREA or URBAN SERVICE AREA BOUNDARY (USAB): In the CBJ, an area within the municipality that represents a legal, orderly expansion of urban development patterns where municipal services, particularly water and sewer service, is provided. Lands located within the CBJ Urban Service Area boundary designated on the Land Use Maps of the Comprehensive Plan are deemed suitable for urban and suburban-scale development, for which municipal and private utilities, roads, water systems, sewer systems, schools, police, fire, emergency medical care and other similar services are provided or are to be provided in the near future.

URBAN SPRAWL: See *SPRAWL*

VACANCY RATE: The percentage of housing units that are vacant at a given time.

VIEWSHED: See *SCENIC CORRIDOR/VIEWSHED*

VISITABILITY: See *UNIVERSAL DESIGN*

WATER-DEPENDENT USE: Use or activity which can be carried out only on, in or adjacent to water areas because the use requires access to the body of water. For example, a commercial fisheries ice plant, a barge landing for a drayage company, and eco-tourism marine tour vessels would require waterfront commercial or industrial lands. However, a bait shop, marine repair service or seafood processing may not require location along the waterfront. With the exception of houseboats, live-aboards, and float homes, residential uses do not require location along the waterfront and are, therefore, not deemed a water-dependent use.

WATER-RELATED USE: A use or activity which is not directly dependent upon access to a water body but which provides goods or services that are directly associated with water-dependence and which, if not located adjacent to water, would result in a public loss of quality in the goods or services offered. Such uses or activities could include kayak rental agencies, bait shops, marine equipment retail shops and other marine suppliers.

WATERSHED: The total area above a given point on a watercourse that contributes water to the flow of the particular watercourse; the entire region drains to that particular watercourse. It is also a land area that delineates the area which contributes to the drainage system of a particular water body, from its beginning or "headwaters" to its end or "mouth" or its juncture with another water body.

WETLANDS: Land areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (also known as fresh and salt water marshes or estuaries).

ZONING: Regulation of the use of land and the improvements on it for the protection of the public health, welfare and safety and which implement the land use policies and maps of this Comprehensive Plan. Zoning regulations establish standards for development and create different zoning districts or classification of land. In the CBJ, zoning regulations are adopted within Title 49, the Land Use Code.

ZONING MAPS: Zoning Maps are the official maps of the CBJ that identify the specific zoning districts located in the CBJ, and are adopted within Title 49, the Land Use Code.

APPENDIX B: Creeks, Rivers & Lakes with Anadromous Fishery Resources in the CBJ

Stream or Lake Name	Approximate Location	ADF&G Catalog Number
Unnamed Creek	Herbert River Trib.	110-50-10070-2004-3002-4017
Unnamed Creek	Herbert River Trib.	110-50-10070-2004-3002-4017-5004
Unnamed Creek	Herbert River Trib.	110-50-10070-2004-3002-4017-5008
Unnamed Creek	Herbert River Trib.	110-50-10070-2004-3002-4017-5008-6011
Unnamed Creek	Herbert River Trib.	110-50-10070-2004-3002-4021
Unnamed Creek	Herbert River Trib.	110-50-10070-2004-3002-4021-5004
Mendenhall Lake	Upper Mendenhall Valley	111-10500-0020
Unnamed Creek	Tracy Arm	111-21-10040
Prospect Creek	Port Snettisham	111-22-10100
Taku Lake Creek	Taku Harbor	111-31-10050
Taku Lake	Unnamed Creek Trib.	111-31-10050-0010
Carlson Creek	Taku Inlet	111-32-10130
Taku River	Taku Inlet	111-32-10320
Unnamed Creek	Taku River Trib.	111-32-10320-2004
Unnamed Creek	Twin Glacier Lake	111-32-10320-2010-0010-2006
Sockeye Creek	Taku River Trib.	111-32-10320-2013
Unnamed Creek	Sockeye Creek Trib.	111-32-10320-2013-3004
Johnson Creek	Taku River Trib.	111-32-10320-2016
Unnamed Creek	Johnson Creek Trib.	111-32-10320-2016-3005
Twin Glacier Creek	Taku River Trib.	111-32-10320-2019
Twin Glacier Lake	Unnamed Creek	111-32-10320-2019-0010
Unnamed Creek	Taku River Trib.	111-32-10320-2019-3006
Moose Creek .	Taku River Trib	111-32-10320-2021
Unnamed Creek	Moose Creek Trib.	111-32-10320-2021-3008
Unnamed Creek	Moose Creek Trib.	111-32-10320-2021-3008-4004
Unnamed Creek	Moose Creek Trib.	111-32-10320-2021-3012
Yehring Creek	Taku River Trib.	111-32-10320-2024
Unnamed Creek	Taku River Trib.	111-32-10320-2024-3004
Wright River	Taku River Trib.	111-32-10320-2032
Fish Creek	Taku River Trib.	111-32-10320-2052
Davidson Creek	Taku Inlet	111-32-10780
Unnamed Creek	Davidson Creek	111-32-10780-2010
Turner Creek	Taku Inlet	111-32-10800
Unnamed Creek	Slocum Inlet	111-32-10990
Unnamed Creek	Unnamed Creek Trib.	111-32-10990-2005
Unnamed Creek	Taku River	111-33-10080
Prospect Creek	Taku River	111-33-10100

Stream or Lake Name	Approximate Location	ADF&G Catalog Number
Speel River	Tracy Arm	111-33-10300
Unnamed Creek	Speel River Trib.	111-33-10300-0010
Unnamed Creek	Speel River Trib.	111-33-10300-2014
Unnamed Creek	Port Snettisham	111-34-10200
Unnamed Creek	Port Snettisham	111-34-10220
Unnamed Creek	Port Snettisham	111-34-10240
Unnamed Creek	Port Snettisham	111-34-10280
Whiting River	Port Snettisham	111-35-10050
Unnamed Creek	Whiting River	111-35-10050-2032
Unnamed Lake	Whiting River	111-35-10050-2032-0010
Unnamed Creek	Port Snettisham	111-35-10050-2035
Crescent Lake	Whiting River	111-35-10050-2035-0010
Unnamed Lake	Crescent Lake	111-35-10050-2035-0020
Unnamed Creek	Whiting River Trib.	111-35-10050-2035-3007
Unnamed Creek	Whiting River Trib.	111-35-10050-2035-3013
Unnamed Creek (West Creek)	Gastineau Channel, NE	111-40-10050
Unnamed Creek (West Creek)	Gastineau Channel, NE	111-40-10060
Switzer Creek	Gastineau Channel, NE	111-40-10070
Unnamed Creek	Switzer Creek Trib.	111-40-10070-2001
Unnamed Creek	Switzer Creek Trib.	111-40-10070-2003
Unnamed Creek	Switzer Creek Trib.	111-40-10070-2006
Unnamed Creek	Switzer Creek Trib.	111-40-10070-2013
Lemon Creek	Gastineau Channel, NE	111-40-10100
Unnamed Creek	Lemon Creek Trib.	111-40-10100-2029
Vanderbilt Creek	Gastineau Channel, NE	111-40-10125
Salmon Creek	Gastineau Channel, NE	111-40-10150
Gold Creek	Gastineau Channel, East	111-40-10200
Sheep Creek	Gastineau Channel, East	111-40-10280
Middle Creek	Douglas Island, West	111-40-10600
Unnamed Creek	Douglas Island, West	111-40-10690
Hilda Creek	Douglas Island, West	111-40-10700
Bullion Creek	Douglas Island, West	111-40-10850
Ready Bullion Creek	Douglas Island, West	111-40-10860
Lawson Creek	Douglas Island, East	111-40-10890
Kowee Creek	Douglas Island, East	111-40-10900
Grant Creek	Douglas Island, East	111-40-10910
Eagle Creek	Douglas Island, East	111-40-10920
Falls Creek	Douglas Island, East	111-40-10940
Neilson Creek	Douglas Island, NE	111-40-10960
Hendrickson Creek	Douglas Island, NE	111-40-10980
Eagle River	Lynn Canal	111-50-10070
Herbert River	Lynn Canal	111-50-10070-2004
Unnamed Lake	Herbert River	111-50-10070-2004-0010
Unnamed Creek	Amalga Harbor	111-50-10070-2004-3002
Unnamed Creek	Herbert River Trib.	111-50-10070-2004-3002-4007
Unnamed Creek	Herbert River Trib.	111-50-10070-2004-3002-4007-5004

Stream or Lake Name	Approximate Location	ADF&G Catalog Number
Unnamed Creek	Herbert River Trib.	111-50-10070-2004-3002-4007-5010
Unnamed Creek	Herbert River Trib.	111-50-10070-2004-3002-4007-5010-6003
Unnamed Creek	Herbert River Trib.	111-50-10070-2004-3002-4007-5010-6009
Unnamed Creek	Herbert River Trib.	111-50-10070-2004-3002-4007-5010-6009-7003
Windfall Creek	Herbert River Trib.	111-50-10070-2004-3006
Windfall Lake	Windfall Creek	111-50-10070-2004-3006-0010
Windfall Creek	Herbert River Trib.	111-50-10070-2004-3006-4003
Unnamed Creek	Herbert River Trib.	111-50-10070-2004-3006-4006
Boulder Creek	Eagle River Trib.	111-50-10070-2009
Unnamed Trib.	Eagle River Trib.	111-50-10070-2012
Unnamed Creek	Eagle River Trib.	111-50-10070-2018
Peterson Creek	Amalga Harbor	111-50-10100
Unnamed Creek	Salt Chuck Trib.	111-50-10110
Shrine Creek	Near Shrine Island	111-50-10140
North Tee	North Tee Harbor	111-50-10200
Lena Creek	Lena Beach	111-50-10300
Unnamed Creek	Lena Beach Rec. Area	111-50-10310
Auke Nu Creek	Auke Bay	111-50-10350
Waydelich Creek	Auke Bay	111-50-10370
Bay Creek	Auke Bay, Inner	111-50-10390
Auke Creek	Auke Bay, Inner	111-50-10420
Auke Lake	Auke Bay Vicinity	111-50-10420-0010
Unnamed Creeks	Auke Lake	111-50-10420-2002
Unnamed Creeks	Auke Lake	111-50-10420-2006
Lake II Creek	Auke Lake	111-50-10420-2008
Lake Creek	Auke Lake	111-50-10420-2010
Unnamed Creek	Auke Lake	111-50-10420-2013
Unnamed Creek	Auke Lake	111-50-10420-2013-3003
Unnamed Creek	Auke Lake	111-50-10420-2015
Unnamed Creek (Pederson Hill/Casa del Sol Creek)	Mendenhall Peninsula	111-50-10490-2013
Unnamed Creek (Pederson Hill/Casa del Sol Creek)	Mendenhall Peninsula	111-50-10490-2020
Unnamed Creek	Mendenhall Peninsula	111-50-10490-2020-3005
Mendenhall River	North Gastineau Channel	111-50-10500
Nugget Creek	Mendenhall Lake	111-50-10500-0020-2010
Duck Creek	Lower Mendenhall Valley	111-50-10500-2002
Unnamed Creek	Duck Creek Trib.	111-50-10500-2002-3014
Unnamed Creek	Duck Creek Trib.	111-50-10500-2002-3030
Montana Creek	Mendenhall River, North	111-50-10500-2003
Unnamed Creek	Montana Creek Trib.	111-50-10500-2003-3014
Unnamed Creek	Montana Creek Trib.	111-50-10500-2003-3018
Unnamed Creek	Montana Creek Trib.	111-50-10500-2003-3024

Stream or Lake Name	Approximate Location	ADF&G Catalog Number
Unnamed Creek	Montana Creek Trib.	111-50-10500-2003-3042
Unnamed Creek	Montana Creek Trib.	111-50-10500-2003-3054
McGinnis Creek	Montana Creek	111-50-10500-2003-3060
Unnamed Creek	Montana Creek	111-50-10500-2003-3060-4011
Dredge Lake Creek	Upper Mendenhall Valley	111-50-10500-2004
Unnamed Creek	Dredge Lake Area	111-50-10500-2004
Unnamed Creek	Dredge Lake Area	111-50-10500-2004-3011
Unnamed Creek	Dredge Lake Area	111-50-10500-2004-3011-4003
Unnamed Creek	Dredge Lake Area	111-50-10500-2004-3011-4003-5002
Unnamed Creek	Dredge Lake Area	111-50-10500-2004-3011-4007
Unnamed Creek	Dredge Lake Area	111-50-10500-2004-3011-4013
Unnamed Creek	Dredge Lake Area	111-50-10500-2004-3020
Steep Creek	Mendenhall Lake	111-50-10500-2006
Unnamed Creek	Lynn Canal	111-50-10600
Jordan Creek	Lower Mendenhall Valley	111-50-10620
Johnson Creek	Douglas Island, NE	111-50-10660
Nine-mile Creek	Douglas Island, North	111-50-10670
Fish Creek	Douglas Island, North	111-50-10690
Peterson Creek (Outer Point Creek)	Douglas Island, NW	111-50-10750
Unnamed Creek	Douglas Island, NW	111-50-10750-2027
Unnamed Creek	Peterson Creek Trib.	111-50-10750-2033
Unnamed Creek	Peterson Creek Trib.	111-50-10750-2035
Unnamed Creek	Peterson Creek Trib.	111-50-10750-2039
Unnamed Creek	Peterson Creek Trib.	111-50-10750-2042
Limestone Creek	Limestone Inlet	111-90-10050
Unnamed Creek	Limestone Inlet Creek Trib.	111-90-10050-2005
Bridget Cove Trib.	Bridget Cove	115-10-10230
Bessie Creek	Lynn Canal	115-10-10250
Johnson Creek	Berners Bay	115-20-10070
Berners River	Berners Bay	115-20-10100
Unnamed Creek	Berner's River Trib.	115-20-10100-2006
Unnamed Creek	Berner's River Trib.	115-20-10100-2006-0010
Unnamed Creek	Berner's River Trib.	115-20-10100-2009
Unnamed Creek	Berner's River Trib.	115-20-10100-2015
Lace River	Berners Bay	115-20-10200
Unnamed Creek	Lace River Trib.	115-20-10200-2016
Antler River	Berners Bay	115-20-10300
Gilkey River	Antler River Trib.	115-20-10300-2004
Sawmill Creek	Berners Bay, East	115-20-10520
Unnamed Creek	Echo Cove	115-20-10590
Cowee Creek	Echo Cove, West	115-20-10620
Davies Creek	Cowee Creek Trib.	115-20-10620-2003
Cowee Creek, S. Fork	Cowee Creek Trib.	115-20-10620-2006
Unnamed Creek	Lynn Canal, North	115-31-10300
Sherman Creek	Lynn Canal, North	115-31-10330
Sweeny Creek	Lynn Canal, North	115-31-10350

APPENDIX C: Acronyms and Abbreviations Used in the Plan

Acronym or Abbreviation	Full name
ADA	Americans with Disabilities Act federal law
AEL&P	Alaska Electric Light and Power Company
ADF&G	Alaska Department of Fish and Game
AHFC	Alaska Housing Finance Corporation
ANCSA	Alaska Native Claims Settlement Act
ATV	All Terrain Vehicle
AWARE	Aiding Women in Abuse and Rape Emergencies (a local shelter and advocacy group)
AWTP	The adopted CBJ Area Wide Transportation Plan
BMPs	Best Management Practices
BMX	A type of off-road bicycle
BRT	Bus Rapid Transit system
CA	Conservation Area land use map designation
CBD	Central Business District
CBJ	City & Borough of Juneau: Depending on context of use, this may mean the CBJ government or the CBJ as the geographic area subject to this Plan
CCF/R	Capital City Fire/Rescue (Fire Department)
CDBG	Community Development Block Grant
CDD	The CBJ Community Development Department
CIP	The CBJ Capital Improvement Program
CMT	Crisis Management Team in CCF/R
DEC	The Alaska Department of Environmental Conservation
DG	The Comp Plan Policy Development Guideline
DOT	Alaska Department of Transportation/Public Facilities
EMT or EMTs	Emergency Medical Technicians
EPA	The United States Environmental Protection Agency
FAA	The United States Federal Aviation Administration
FAR	Floor to Area Ratio; or, Federal Aviation Regulations (depending on context)
FEMA	The United States Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
GC	General Commercial land use map designation
GIS	Geographic Information System of mapping community resources
GPS	Global Positioning System

HA	Hazard Area land use map designation
HC/LI	Heavy Commercial/Light Industrial land use map designation
HDR	High Density Residential land use map designation
HOV	High Occupancy Vehicle
HRAC	The CBJ Historic Resources Advisory Committee
HUD	The United States Department of Housing and Urban Development
IA	The Comp Plan Policy Implementing Action
IND	Industrial land use map designation
IPU	Institutional Public Use land use map designation
JWMP	Juneau Wetlands Management Plan
JEDC	Juneau Economic Development Council
JPD	Juneau Police Department
JNU	Juneau International Airport
LCBLMP	Last Chance Basin Land Management Plan
LEED	Leadership in Energy and Environmental Design standards
LID	Local Improvement District
LOS	Level of Service
LRWP	The CBJ adopted *Long Range Waterfront Plan*
MDR	Medium Density Residential land use map designation
MDR/SF	Medium Density Residential/Single Family land use map designation
MLLT	Mean Lower Low Tide level
MU & MMU	Mixed Use and Marine Mixed Use land use map designations
NOAA	National Oceanic & Atmospheric Administration
NP	Natural Area Park land use map designation
NPIAS	National Plan of Integrated Airport Systems
OHV	Off-Highway Vehicle
OHWM	Ordinary High Water Mark of waterbodies
OS	Open Space land use map designation
P	Public land use map designation
PRK	Park land use map designation
P&RD	The CBJ Parks and Recreation Department
PUD	Planned Unit Development
RAC	Residential Units per Acre/number of dwelling units allowed per increment of land as a density descriptor
RD	Resource Development land use map designation
RDR	Rural Dispersed Residential land use map designation
REC	Recreation Resource land use map designation
RLDR	Rural Low Density Residential land use map designation
RNP	Required Navigational Performance for the airport
RS	Recreational Service Park land use map designation
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (a piece of Federal transportation legislation)
SC	Stream Protection Corridor land use map designation

SCV	Scenic Corridor / Viewshed land use map designation
SOP	The Comp Plan Policy Standard Operating Procedure
SOV	Single-occupancy vehicle
SRO	Single Room Occupancy type of residential unit or development
STIP	Alaska State Transportation Improvement Program
(T)	Used to designate a Transitional land use category
TMDL	Total Maximum Daily Load of pollutants in a water body
TOC	Transit Oriented Corridor
TOD	Transit Oriented Development
TSA	Transportation Security Administration
UA	University of Alaska; in this Plan, UA refers to UAF and UAS, which have facilities in Juneau, not UAA, which has no facilities in Juneau
UAF	University of Alaska Fairbanks
UAS	University of Alaska Southeast
ULDR	Urban Low Density Residential land use map designation
USAB	Urban Service Area boundary
WC	Waterfront Commercial land use map designation
WCI	Waterfront Commercial/Industrial land use map designation
WRB	The CBJ Wetlands Review Board
WS	Watershed land use map designation