This second Draft 2007 Comp Plan includes changes which respond to public comments on the February 20, 2007 Draft Plan, Planning Commission comments on draft Policies during their June 19 and July 10, 2007 meetings, and Planning Commission and Affordable Housing Commission comments on the Housing Element Policies during their July 17, 2007 joint meeting.

As requested by the Planning Commission, this Draft indicates the 1995 CBJ Comprehensive Plan Policies and Implementing Actions that are being carried over into the 2007 Draft. The 1995 Plan Policy and Implementing Action (IA) numbers are shown [in brackets] after the corresponding 2007 Policy, Standard Operating Procedure, Development Guideline, Implementing Action, or Subarea Guideline; those items without the bracketed 1995 numbers are new. Please note that the 2007 draft version of any carried-over 1995 Policy or IA has been updated to reflect current values and objectives.
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CHAPTER 1. INTRODUCTION AND BACKGROUND

Situated between the sea and steep glacial peaks, 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. Small, but metropolitan, the City and Borough of Juneau's labor force of 17,600 people stands out as one of the most highly educated in the country. Once a summer fish camp for the nearby village of Auk Nu, the CBJ's origins endure today in its substantial Tlingit population, in ongoing contributions of Native corporations and tribal organizations to the local economy, and in the prevalence of Native art and culture throughout the area. Of the CBJ's 31,000 residents, nearly 38%, including over 3,500 Alaska Natives, have lived here since birth.

Juneauites seem to share one thing in common: we 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. For the most part, 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 2007 City and Borough of Juneau (CBJ) Comprehensive Plan (Comp Plan) is a long-range blueprint designed to guide the growth, development, and conservation of valued resources within our community over the next 13 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 will be 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.

The Comp Plan sets policies to achieve the following objectives: Sustainability; community form; housing construction and preservation; economic development; energy conservation and production of non-fossil fuels for power use; protection of natural resources and fish and wildlife habitat; development of convenient and safe transportation systems, parks, trails and recreation facilities; suitable land uses; public and private utilities; community services and quality public education; provision of cultural arts and humanities; preservation of historic and cultural resources; and appropriate community development activities. The Plan also includes specific
guidelines for the conservation and protection of resources within the various CBJ neighborhoods, through the "Subarea Plans" of Chapter 11. As each neighborhood matures, its respective Subarea Plan guidelines and recommended actions are reviewed and updated to reflect the changing character of the neighborhood and/or the values of its population.

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 exceedence of 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.

This document, then, comprises the Comprehensive Plan for the CBJ and provides a logical, consistent and purposeful approach to managing community growth and development. Once adopted, 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. For some, it is a means of reinforcing the CBJ’s importance as the State Capital, to others an opportunity to create access to the CBJ’s waterfront, or to develop a variety of housing choices. To most, it is a means to preserve a high level of environmental quality and diverse yet cohesive social interaction. In implementing the Plan, care must be taken to protect natural amenities and develop carefully, or not at all, on land which contains hazards or important natural resources. To make most efficient use of the land and current infrastructure, the intensity or “density” of use of the land within the Urban Service Area must be increased to take advantage of the capacity of its roads, municipal water and sewer services, schools and other community services, rather than extending new such services and facilities into new, more remote areas. New policies, ordinances and procedures recommended herein will provide the governing bodies a reasonable and workable means to implement the details of the Plan.

The Plan addresses the current critical issues that face the community and provides leadership and direction in addressing these problems, as well as those anticipated to affect us in the foreseeable future.

What has changed since the last Plan Update? There is a crisis in housing affordability with many households paying more than 30 percent if their income for housing and home heating.
Employers state that they cannot attract or retain employees because they cannot pay high enough wages to enable their employees to purchase a home. Parents lose touch with their children as they leave town to purchase a home and start a family elsewhere. This Plan Update effort analyzed the barriers to producing affordable housing and proposes strategies and solutions to facilitate its development throughout the Plan’s chapters and, particularly in Chapters 3, 4, 8 and 10.

In addition to the affordable housing crisis, there are other problems facing the community and new critical issues approaching, particularly related to the “end of cheap oil”. Scarcity of marine, aircraft and motor vehicle fossil fuels could cause substantial price increases that could result in a severe downturn in the local economy, as we are currently dependent on the import of goods by air and water. Additionally, most households heat their homes with fossil fuel. The effects of climate change could pose dangers to our fish and wildlife habitat that local residents and visitors greatly enjoy, and upon which our economy greatly relies. This Update identifies and addresses community problems and potential threats and seeks to strengthen our assets and opportunities that include the following:

Our strengths and assets include, among others, the following:

- Diverse community development forms including urban, suburban, rural and remote
- An educated and charitable citizenry involved in civic affairs
- A varied economy with diverse employment opportunities
- Presence of the State Capitol, Courts and the University
- Natural beauty and near and distant views of the mountains, waters and lush rainforests
- Public ownership of, and access to, shorelines, waterbodies and fish and wildlife habitat
- Public transit
- Hydroelectric power
- Deep water ports
- International airport
- Healthy fisheries
- Clean air and water

Our weaknesses include, but are not limited to:

- High costs to import goods and services by air and water transport
- Lack of affordable housing
- Dependence on costly fossil fuel to power vehicles, vessels and home heat
- High school drop-out rate
- Substance abuse
- Homelessness

Potential threats include, but are not limited to:

- Scarcity and resulting higher costs of fossil fuels before we can convert systems to hydroelectric and other local renewable power sources such as solar, wind, tidal or biomass
- Climate change affecting native species which become vulnerable to invasive species and can result in forest fires
• Capital move or “creep” to the Interior resulting in loss of jobs
• Slow melt of Icefield snow diminishing water sources for hydroelectric power
• Reduced groundwater serving private and public potable water wells
• Fire danger in Downtown historic districts

Our opportunities include, but are not limited to:

• Protection and enhancement of all the above-mentioned Strengths
• Establishment of a convenient Bus Rapid Transit system
• Construction of affordable housing along express bus routes
• Clean water through protection of watersheds and tributaries
• Healthy waterbodies and habitat that sustain commercial fisheries, eco-tourism and local subsistence and recreational use
• Expansion of hydro-electric power and development of other power sources
• Introduction of environmentally-safe local food production, distribution and marketing systems
• Capture and reservation of fresh water from melting glaciers and the icefield in a way that does not harm anadromous streams or marine life
• Expansion of manufactured and/or artisan goods for export
• Improvements to local educational systems and expansion of the University
• A new Cultural Arts “campus” and Capitol Complex in Downtown Juneau
• Expansion of eco-tourism
• Environmentally-safe mineral extraction and other resource harvesting

Based on a review of our strengths and weaknesses, threats and opportunities, and current community values, the following Vision Statement and Guiding Principles guided the development of the Policies and their implementing actions and guidelines in this Plan

2007 Comprehensive Plan Vision and Guiding Principles

POLICY 1. IT IS THE POLICY OF THE CBJ TO ACHIEVE AND SUSTAIN A COMMUNITY THAT REFLECTS THE FOLLOWING VISION STATEMENT: 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 (Map A). 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 (Map B). 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 ice caps (Icefields) located within the boundaries of the Tongass National Forest. While this remote area is more difficult to use and develop, it is still important to the well-being of the CBJ and some effort has been made to address it in this Plan. Most of the focus is more naturally aimed at the [data to be provided in next draft] square mile “roaded area” where human settlements are located.

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 Tlingit klan of the Auk and Taku 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. Since the year 2000, the population has grown by 13 percent and housing units have 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 and along the east and north 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 (SOP), 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 discussion of findings that form the foundation and planning rationale for the policy. 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 “wants”, needs or desired actions such as: Maintain a safe place to raise a family; provide quality education from preschool 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.
It is important to recognize that the Plan is a long-range document that lays out the blueprint for guiding development and conservation actions over its 13 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 Development Guideline, and/or an Implementing Action that are the practical means of putting each policy into effect. The Guidelines express directions, standards or values about a particular community resource, either for its development or conservation. The Guidelines 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, a Guideline would inform a property owner that a petroglyph (native rock art) or an anadromous stream corridor should be protected during development of a property. Where provided, 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 5.6 seeks to designate sufficient land for commercial and industrial development as part of an overall economic development program. The associated SOP advises staff and decision-makers to consult and consider the location criteria of each industry when allocating land to that use. The Implementing Actions (IAs) describe how the Policy should be implemented and would include such actions as recommended ordinance changes, map revisions, studies and financing mechanisms. The IA for Policy 5.6 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.

Chapter 2, Sustainability describes strategies for insuring a livable community for humans, flora and fauna for generations to come.

Chapter 3, Community Form, describes the character of the built and natural environment of the CBJ’s existing neighborhoods and describes conservation strategies as well as potential development opportunities and standards. Chapter 4 constitutes the CBJ’s Housing Element and describes the housing stock, needs, demands, opportunity sites and policies and strategies for preserving and facilitating the construction of new housing within the Urban Service Area, while respecting the character of existing neighborhoods.
Chapter 5 describes the CBJ’s economic sectors and presents policies and strategies for strengthening the economy and developing a balanced economy that can provide “jobs for generations” and a livable wage for year-round residents. Chapter 6 describes strategies for achieving Energy Conservation.

Chapter 7, Natural Resources and Hazards, describes the natural resources of the CBJ and presents Policies and strategies for conservation of those resources while accommodating future development. Chapter 8 describes policies and strategies for developing and maintaining a comprehensive, convenient and affordable multi-modal transportation system and presents policies and strategies for making more efficient use of public transit services. Chapter 9 presents policies and implementing actions towards protecting and strengthening and enhancing Parks, Recreation, Trails and Natural Area resources. Chapter 10 identifies Land Use policies, development guidelines and implementing actions as strategies for the efficient and appropriate use of land; the accompanying Chapter 11 presents the Comprehensive Land Use Plan Maps that translate the preceding policies into specific land use designations for residential, commercial, industrial, land conservation, and other land uses on maps for 10 subareas of the CBJ. Area-specific guidelines and considerations for future land use planning are also included in the discussion of each subarea.

Chapter 12 presents policies and strategies for developing and maintaining Public and Private Utilities and Facilities. Chapter 13 describes Community Services policies and implementing actions. Chapters 14, 15 and 16, respectively, present policies and strategies for strengthening Community Education, Cultural Arts and Historic Resources. Chapter 17 presents policies for managing CBJ lands and development processes. Finally, policies for the general implementation and administration of the Plan are presented in Chapter 18. Appendix A presents a glossary of terms used in the Plan and Appendix B presents a glossary of acronyms and abbreviations used in the Plan.

**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. For example, the size and location of a new housing development is influenced not only by community needs but also by the availability of buildable (flat, dry) land, basic water, sewer, utilities services, roadway and intersection capacities, access to transit, shopping, employment and recreational facilities, as well as the absence of natural hazards. The interrelationships of these factors were carefully weighed in identifying where various land uses are to be located, what infrastructure and public services are needed to serve those uses, and when they are to be provided to those areas.

The future of the CBJ is intertwined 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.

Modest growth in non-government economic sectors is anticipated over the 13 year planning period or "horizon" of this Plan. Modest growth is expected in commercial fisheries, mining, construction trades, eco-tourism, regional trade, regional health care, and local retail activity.

**CHAPTER 2. SUSTAINABILITY**

The premise on which sustainability is based is embodied in the following generally accepted definition: "Sustainability is meeting our needs without compromising the ability of future generations to meet their needs." A sustainable community will maintain its ecological, economic, social, and governmental systems, while protecting associated ecosystems and natural resources, into perpetuity. The concept of sustainability describes a condition in which human use of natural resources, required for the continuation of life, is in balance with Nature's ability to replenish them. Common aspects of sustainability are:

1. very long-term planning of holistic systems with short-term actions and allocation of human and capital resources leading to incremental and cumulative progress toward the long-term solutions;
2. dedication to the vitality and integrity of local and global systems; and
3. recognition that the built and natural environment need to be managed to sustain a balance, now and in perpetuity.

The axiom "Think Globally, Act Locally" is appropriate for addressing the sustainability of the CBJ as a whole, and of individual residents' actions to achieve sustainability. First looking globally, we need to accept the fact that the United States, as a country, and each U.S. resident, individually, consumes more resources than our land and natural resources can support; we are living in an ecological deficit. We need to measure the resources we use and the resources needed to sustain us over time, that is, our bio-diversity and bio-productivity, so that we may manage our resources properly. A tool that allows us to measure what we use and what we need to achieve sustainability
The Ecological Footprint (EF) [please refer to the Ecological Footprint discussion in the Glossary section of this Plan]. Our EF can be used to establish baselines, set targets, and monitor success or failure of sustainability strategies.

This Plan presents strategies for reducing our ecological debt, both as individuals and as a community. The Plan is infused throughout its chapters with strategies which address both short-term and long-term sustainability of a stable population, quality education and health care, a balanced economy, protection of land and water resources and wildlife habitat, efficient use of our natural environment and productive lands, increasing energy efficiency, reducing waste, expanding use of renewable energy sources, and strengthening our cultural and social fabric and our overall well-being as healthy, productive stewards of our environment. The Vision Statement and Guiding Principles of the Plan stated in Chapter 1 can be viewed as sustainability indicators with which we can guide and measure the viability and adequacy of all Plan Policies, SOPs, Guidelines and Implementing Actions.

Examples of indicators the community could measure at regular intervals and, over time, to gauge how well we are doing in assuring our sustainability include, but are not limited to:

- Assured quantity and quality of potable water supplies [see Policy 7.7];
- Diversity of fish and wildlife habitat [Policy 7.10];
- Scenic, environmental and economically-valuable natural resources [Policy 7];
- Jobs for all residents [Policy 5];
- Land, suitably located for community needs [Policy 3];
- Compact urban development [Policy 3.1];
- Provide safe, sanitary, affordable housing for all residents [Policy 4];
- Transportation alternatives to private vehicles [Policy 8];
- Safe, affordable and sustainable use of energy [Policy 6];
- Supply of hydroelectric power [Policy 12.2];
- Solid waste reduction, reuse and recycling [Policy 12.3];
- A quality public education system [Policy 14];
- Arts throughout of the community [Policy 15]; and
- Resident involvement in land use planning [Policy 18.2].

The following short- and medium-term Standard Operating Procedures (SOPs), Development Guidelines (DGs) and Implementing Actions (IAs) cited throughout the Plan are just a few examples of our commitment to action, rather than rhetoric, regarding sustainability:

- Un-fragmented fish and wildlife corridors from uplands to the sea along anadromous streams [IA 7.10.3 and 7.10.4];
• Trees in new developments to maximize positive air quality effects to reduce global warming [DG 7.2];
• Prevention and eradication of invasive species [IA 7.11.1];
• Curbside pick-up of recyclable solid waste materials [IA 12.3.3];
• Installation of electrical power stations at public and commercial parking garages and lots for electric-powered vehicles [IA 6.8.3];
• Preferential parking locations for alternate-fueled vehicles [IA 6.8.3];
• Converting public and privately-owned and operated buses from fossil-fuel power to hydroelectric power [IA 6.3.2, 6.8.2 and 7.8.2];
• Appropriate stream corridor setbacks [IA 7.2.5];
• Hatcheries to sustain fish and wildlife, commercial fisheries and eco-tourism industries [SOP 5.9.1]; and
• Local food production, distribution and marketing systems using renewable energy sources [IA 5.4.5].

**POLICY 2. IT IS THE POLICY OF THE CBJ TO BUILD A SUSTAINABLE LOCAL COMMUNITY WHICH PERSISTS OVER GENERATIONS AND IS SUFFICIENTLY FAR-SEEING, FLEXIBLE, AND WISE TO MAINTAIN ITS ECONOMIC, SOCIAL, ECOLOGICAL, AND GOVERNMENTAL SUPPORT SYSTEMS WITHIN THE CONTEXT OF A SUSTAINABLE GLOBAL COMMUNITY.** [1995 Policy 2.1]

**Implementing Actions**

2.1. Complete the selection of Sustainability Indicators and Measures and set a report interval for each measure. Periodically, review the indicators and measures to confirm their currency and relevance and to track the CBJ’s trends. Incorporate the adopted sustainability indicators into the process of reviewing and approving proposed CBJ Capital Improvement Programs, CBJ policies and investments. [1995 IA 2.1.1 through 2.1.5]

2.2. Begin conducting the resource inventory and use analysis, often called an “Ecological Footprint” or similar analysis of the CBJ and of prototypical household types within the CBJ to identify potential strategies for reducing ecological debt and achieving local sustainability.

2.3. Prepare the community as a whole, and educate individual residents and households on how to prepare for future scarcity of fossil fuels and the inevitable high costs of importing fossil fuel to the CBJ. Local responses could include establishment of alternate energy and power sources; conservation of fossil fuels, including, if necessary, rationing of non-essential uses of limited supplies; assurance of pedestrian and bicycle paths throughout the community and linking all neighborhoods; conversion of public transit vehicles to electric power or batteries that can be recharged by electric power; development or redevelopment of high-density housing and mixed use...
developments along bus routes; a heavy rail system linking the CBJ to the interior; establishment of small-scale energy production systems for commercial and residential structures such as windmills, solar panels and hydropower systems; and community gardens using native species and pest control measures (no invasive species, pesticides or fertilizers).

2.4. On the Comprehensive Plan Land Use Maps, identify adequate and appropriate lands for local food production, for local food processing, and for local food distribution, all of which should be powered by renewable energy sources. This would include land for food and fiber production, in greenhouses, on land outdoors and in the sea, and using native and non-native, non-invasive species as well as natural and non-polluting fertilizers and pest control measures. Local, Alaskan Native people can lead the way in adapting age-old subsistence food production methods to modern, community-scale efforts.

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 slow pace over this Plan’s planning horizon of 13 years. This is based on state revenue projections and projected employment in the CBJ’s basic economic sectors of government, tourism and food processing. However, with the slow rate of housing production over the past few years, relative to the increase in population (see the Table on page 42), there is a need for new residential development in areas that are sewered and “roaded”. 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 which 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. High residential densities of 20, 30 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, 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 singlefamily, 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 ??[data to be provided in next Draft]-acre parcels. 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 than is characteristically “rural” should result 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 distant 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 ??[data to be provided in next Draft] 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, cost-effective and convenient for their users. There are over 100 vacant parcels within the Urban Service Area boundary (USAB) of which about 30 are 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. Due to the paucity of buildable land within the USAB, it is recommended by the policies in this Plan that those few buildable lands 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 lower 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, which contain natural resources in need of protection from development, or which are 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 which 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 have their own 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 represent 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:** This is land located within the Urban Service Area which is not yet provided public sewer service and, when provided this 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 “C”), the land 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 lands” 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 much buildable lands that are 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, representing about 80 buildable acres, could accommodate about 800 small "bungalow" houses, 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 13 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 insuring 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 vacant 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 paucity 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 service. A designation in a transition area specifies the lower density classification that can be accommodated by well and/or septic service and it specifies a higher density classification which would go into effect with the provision of public 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 and 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 on the Comprehensive Plan Land Use Maps within with the USAB. The CBJ would allow owners of vacant residentially- or mixed use zoned land within the USAB to apply for a rezoning to an Affordable Housing Overlay District which would, as a condition of the zoning map amendment, specify land uses, densities, building heights and scale, site plans, open space/natural areas, recreation and conservation areas, development standards and affordability requirements. 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 D or worse are unacceptable levels when considering adding new traffic-generating uses to these affected roads. Until roads and intersections are improved to LOS “C” or better, 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 800 acres of land, which 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 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 1996 Capital Transit Plan proposes an express bus service from the Valley to Downtown Juneau. Vacant lands within walking distance of a new “Bus Rapid Transit (BRT)” system can be designated for high-density residential or mixed use Transit Oriented Development District within this Plan (see the Land Use Maps of Chapter 11 of this Plan).
Transit Oriented Development (TOD) creates dynamic, livable developments and/or neighborhoods focusing on compact, walkable communities centered around 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 TOD:

- 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;

- Lesser parking provided on one or two levels with entries from a side street or the rear of the building. Typically, the parking is reduced to one space per 4 dwelling units;

- A mix of pedestrian-oriented 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-powered vehicles (covered, secure bicycle storage, parking spaces with electric, metered 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 shopping, recreation, entertainment, transportation and employment within convenient access. 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 support 24-hour, frequent transit service, convenience shops and services, affordability, and 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 reuse 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 power 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 arterial 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 which 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 which could be 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 natural habitat; mitigate to eliminate or minimize noise, fumes and other air quality impacts, provide facilities to support non-fossil fuel-powered vehicles and buildings; provide convenient facilities to encourage
recycling of solid waste materials; and encourage the reduction of the use of package 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. 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. [1995 Policy 2.2]

Standard Operating Procedures

3.1. 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.

3.2. Develop Capital Improvement Plans and budgets for public facilities and services which 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. [1995 IA 2.2.6]

Development Guidelines

3.4. 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 D.G. 10.6.3].

3.5. 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- to high-density residential units which would 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

3.6. 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-1 (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 “C” or better prior to its occupancy.

Suburban and Urban Development Patterns

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 3.1. 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. [1995 Policy 2.3]

Standard Operating Procedures

3.1.1. As part of an orderly update of the Comprehensive Plan, the CBJ reviews and maintains an Urban Service Area boundary which 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. [1995 IA 2.3.2]

3.1.2. Adopt a Capital Improvement Program (CIP) which schedules community sewer, water, storm drainage, transportation improvements and recreational facilities for all areas within the Urban Service Area. [1995 IA 2.3.4]

3.1.3. 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. [1995 2.3.5.]

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 3.2. OUTSIDE OF THE URBAN SERVICE AREA, IT IS THE POLICY OF THE CBJ TO PERMIT APPROPRIATE LOW-INTENSITY, LOW-IMPACT DEVELOPMENT WHICH 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. [1995 Policy 2.4]
Standard Operating Procedure

3.2.1. Coordinate all planning and development decisions in the rural area with State and Federal agencies with the applicable jurisdiction. [1995 IA 2.4.1]

3.2.2. 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 waterbodies; (c) access to water and high recreational value; and (d) potential natural hazards, consistent with the Natural Resources Policies and Guidelines of Chapter 7. [1995 IA 2.4.2]

Development Guidelines

3.2.3. 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 streams extending from the icefields and uplands to the sea.

3.2.4. 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 bathrooms, boat launch and/or picnic facilities.

New Growth Areas

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 which 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 which are permitted by the underlying zoning district designation until the infrastructure needed to safely and effectively access these remote areas are 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 which 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 3.3. 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. [1995 Policy 2.7]**

**Development Guidelines**

3.3.1. New Growth Areas are to be remote, self-contained communities which 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.

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

   A. Use of energy-efficient siting, design, and construction techniques;

   B. Efficient provision of sanitary sewer, water, stormwater 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 which combine residential and resource extraction, processing and transport uses. [1995 IA 2.7.13]

3.3.3. 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. [1995 IA 2.7.10]

3.3.4. 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. [1995 IA 2.7.4]

3.3.5. Identify and require assurances of adequate road corridors and potential mass-transit service for New Growth Areas prior to permitting development. [1995 IA 2.7.4]

3.3.6. Allow for phasing of the development which permits construction in reasonable increments within an overall master plan or planned unit development design concept. [1995 2.7.6]

3.3.7. 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. [1995 2.7.7]

**Implementing Actions**

3.3.8. 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 “C” or better. [1995 2.7.1]

3.3.9. 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 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 urban/suburban density of ten dwelling units per gross acre. 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. [1995 IA 2.7.4]

3.3.10. 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 Chapter 53.09). [1995 IA 2.7.8]
CHAPTER 4. HOUSING ELEMENT: CONSERVATION AND DEVELOPMENT

Housing Element of the Comprehensive Plan

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 power, 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 power 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 over-crowded conditions, that is, living in a unit with more than 1 person per room, excluding kitchen and bathroom;
- 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 which 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 reentering 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 fourplex 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 “stable” of 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 which 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 [data from the CDD 2006 Housing Situation Report available on the CBJ website www.juneau.org/comprehensive plan update].
The Existing Housing Stock

The distribution of the 2006 CBJ housing stock, by type of structure or unit, is summarized in Table 1 on page 35.

Housing Condition.

Age. According to 2000 Census data, 83% of the total Year 2000 housing units were built from 1960 to March 2000 and were less than 40 years of age. 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; some are new and some are much older. 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, if owned, the average price valuation of those units range 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, built in the 1960’s, 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 “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.

**Existing Assisted Housing Inventory**

The CBJ is fortunate to have a number of talented and successful non-profit housing development corporations. By 2006, these organizations have 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 “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” 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 5 percent 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.

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

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 13 year planning horizon, to the year 2020.
Table 2: CBJ Housing and Population Growth Trends, 1970 to 2000, U.S. Census data

<table>
<thead>
<tr>
<th>Census Year</th>
<th>Population</th>
<th># change</th>
<th>% change from previous decade</th>
<th>Housing Units</th>
<th># change</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>13,556</td>
<td></td>
<td></td>
<td>4,529</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>19,528</td>
<td>5,972</td>
<td>44%</td>
<td>7,656</td>
<td>3,127</td>
<td>69%</td>
</tr>
<tr>
<td>1990</td>
<td>26,751</td>
<td>7,223</td>
<td>37%</td>
<td>10,638</td>
<td>2,982</td>
<td>39%</td>
</tr>
<tr>
<td>2000</td>
<td>30,711</td>
<td>3,960</td>
<td>15%</td>
<td>11,543</td>
<td>905</td>
<td>8%</td>
</tr>
</tbody>
</table>

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. 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. The current 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 could be as high as 3,500 units, as represented by 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)

Achieving a 5% vacancy rate in the year 2006 would require 645 new dwelling units, which pales in comparison to the 3,600 unit deficit or unmet demand for affordable housing. 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.
brought in to build that housing, as well as the new high school, the Wal-Mart and Home Depot stores, the extension of Highway 7, the Kensington mine operations, and other major construction projects, would create its own housing demand. 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 timeframe, 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 this 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 13 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 a “buildable site” 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 which 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 which were the subject on 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 USA and will need roads and utilities extended to and through the property; some of the infrastructure will require bridges which 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 which 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 planned express public transit (Bus Rapid Transit) which can assist in reducing the parking requirements and resulting costs of development.

There are about 30 privately-owned vacant parcels within the USA B and within walking distance of rapid public transit service for which greater attention should be placed 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 wholly-residential “transit oriented developments” (TODs).

The 2006 CBJ Housing Situation Report, published by the Community Development Department, details these aforementioned statistics and profiles the community’s housing stock and needs and is hereby incorporated by reference; that report is available on the CBJ’s website at www.juneau.org/ComprehensivePlanUpdate.

Housing Policies

The purpose of this section is to recommend policies which 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. 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. 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**

4.2. 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.

4.3. Update the CBJ Housing Situation Report every two years and monitor change in housing conditions and assess whether policies, programs, guidelines and other mechanisms are achieving their objectives.

4.4. Provide support to the CBJ Affordable Housing Commission whose mission is to develop, implement and monitor an affordable housing strategic plan to increase the stock of safe, sanitary and affordable housing for all CBJ residents.

4.5. 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.

4.6. Immediately prepare and adopt a Ten Year Plan to End Homelessness in the CBJ.

4.7. Assist in the establishment and maintenance of an effective integrated client assessment and referral system for homeless and near-homeless residents which links all housing, medical and social service providers to develop greater efficiencies, client tracking and program funding and evaluation tools.
POLICY 4.1. 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

4.1.1. 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.

4.1.2. Vacancy rates for all types of CBJ housing units should not fall below 5 percent. 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 this threshold. [1995 IA 2.8.1]

4.1.3. Once a 5 percent vacancy rate, per housing type, is established, 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 this 5 percent vacancy rate objective. [1995 IA 2.8.2]

Implementing Actions

4.1.4. 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. [1995 2.8.9]

4.1.5. 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. [1995 IA 2.8.6]

4.1.6. 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. [1995 IA 2.8.11]

4.1.7. Support the preservation of rental housing by discouraging or prohibiting the conversion of rental housing to transient housing or non-residential uses.

4.1.8. 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.

4.1.9. Support increasing the supply of low-income affordable rental housing by providing land at discount prices to non-profit housing developers as well as needed infrastructure (water, sewer, roads), higher densities and, where appropriate, higher building heights.
4.1.10. Facilitate the development of accessible housing with appropriate supportive services for residents with special needs throughout all neighborhoods within the Urban Service Area.

4.1.11. 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 which responds to Universal Design and Visitability principles. Exceptions to such a policy would be housing on parcels where terrain would not permit wheelchair accessibility.

POLICY 4.2. 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

4.2.1. Continue to 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 transit corridors is recommended to produce affordable housing and to make efficient use of transit services therein. [1995 IA 2.8.3]

Implementing Actions

4.2.2. 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. The rezoning request should be accompanied by a conceptual development plan that outlines access routes, internal circulation, connections to adjacent subdivisions or neighborhoods, building sites, densities, buffer zones, recreation and open space/natural areas facilities, if appropriate, and parking areas. The conceptual plan should provide assurances for adequate privacy and buffers to mitigate any potential project-specific noise, light and glare, or privacy concern that may affect an adjacent residential neighborhood(s). The Applicant should also provide assurances that the development would not exacerbate Levels of Service (LOS) at intersections serving the proposed project where, at the time of application, the LOS is “C” or worse.

4.2.3. Amend the Land Use Code to provide for an Affordable Housing Overlay District (AHOD) as a zoning map amendment which could lie upon any parcel located within the Urban Service Area. The AHOD would allow higher densities on vacant or underutilized residentially- or mixed-use-zoned properties. This overlay district would allow higher densities than the underlying
zoning designation and would relax development standards for projects which include a minimum of ten (10) percent low-income affordable housing. The Applicant should also provide assurances that the development, with mitigation measures, would not exacerbate Levels of Service (LOS) at intersections serving the proposed project where, at the time of application, the LOS is “C” or worse. [1995 IA 2.8.15]

4.2.4. Designate suitable land within one-quarter mile distance from express bus routes from Auke Bay to Downtown Juneau to designate as a Transit-Oriented Development zoning district within which medium-to high-density housing in wholly residential or mixed use developments and with lesser parking requirements would be allowed. Such lands may qualify for higher building heights by the Planning Department and Assembly pursuant to a zoning map amendment, provided that the results of a view corridor analysis of the proposed building height does not reveal obstruction of a valued public vista, such as views of the shoreline and water from a public roadway.

4.2.5. Encourage high-density Transit Oriented Developments and/ or Mixed Use Developments in existing or new shopping centers and office parks. [1995 IA 2.8.15]

POLICY 4.3. 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

4.3.1. Publish a bi-annual inventory and analysis of the CBJ rental housing stock and assessment of need for rental housing by CBJ residents.

4.3.2. Adopt building and fire code standards for housing rehabilitation which are low cost and continue to meet acceptable levels of public health and safety. [1995 IA 2.8.5]

4.3.3. Adopt local building codes to encourage use of low cost energy efficient construction techniques, materials and equipment that are consistent with acceptable health and safety standards and cognizant of local climatic conditions.

4.3.4. Conduct an inventory of dwelling units that are owned by seasonal tourist-oriented businesses and are kept off the year-round rental market. The CBJ should investigate incentives and/or punitive measures to urge those property owners to rent those units year-round, particularly units suitable for seasonal students or workers.

4.3.5. The CBJ should investigate ways to discourage the conversion of habitable rental dwelling units to non-residential use. This may include the requirement of Applicants to cover tenants' costs to find alternate affordable housing, relocation costs to a comparable unit, or a fee representing the cost to replace a comparable size unit which would be paid to a CBJ designated Housing Trust Fund.

4.3.6. 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. [1995 IA 2.9.2]
4.3.7. Enact an ordinance requiring owners of mobile home or manufactured home parks to advise tenants and the CBJ of plans six months in advance of their plans to close or convert mobile home spaces to other uses. Owners of affected parks should be required to provide relocation assistance to tenants, such as paying the costs of the tenant finding comparable space within another park, and paying their relocation expenses.

4.3.8. 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.

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

4.3.10. Continue to subsidize residential rehabilitation through State and Federal funds to conserve existing housing stock in established neighborhoods. When rehabilitating these units, seek to ensure that they adhere to Universal Design/Visitability principles such as 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.

4.3.11. Advocate for the use of federal Community Development Block Grant monies to be used to provide low interest housing rehabilitation loans. [1995 IA 2.9.1]

POLICY 4.4. 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

4.4.1. Establish mechanisms for assuring affordability for inclusionary or otherwise designated affordable housing units over the term of the restriction, such as a Community Land Trust model.

POLICY 4.5. IT IS THE POLICY OF THE CBJ TO FACILITATE AND ASSIST IN THE DEVELOPMENT OF AFFORDABLE HOUSING.

Development Guideline

4.5.1. When designing a new affordable dwelling unit, take into consideration “life cycle” cost savings which 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**

4.5.2. 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 which would provide low- and moderate-income affordable housing. Offer these lands at a negotiated value for a specific development project and requiring a specific percentage of long-term affordable units of specific types and locations within the development. Ensure the timely completion of the development. [1995 IA 2.8.10]

4.5.3. When feasible, provide property tax relief for housing developments which 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.

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

4.5.5. Streamline the residential development permit review process and maintain a staff person in CDD to coordinate the review of residential subdivisions and affordable housing projects by all affected CBJ departments and divisions. [1995 IA 2.8.4]

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

4.5.7. 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, and DOT. [1995 IA 2.8.16]

4.2.8. Investigate potential new financing strategies for new affordable housing development.

**POLICY 4.6. 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.**

**Standard Operating Procedures**

4.6.1. 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. [1995 IA 2.8.14 & 2.13.2]

4.6.2. 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. [1995 IA 2.13.1]

**Implementing Action**

4.6.3. 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. In developing new zoning or development standards in areas with concentrations of historic structures, ensure that more 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. [1995 IA 2.9.3]

**POLICY 4.7. 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**

4.7.1. When reviewing rezoning applications for vacant or underutilized parcels within the Urban Service Area, higher densities than are found on adjacent or surrounding properties should not be deemed inconsistent or “un-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 Policy 10.5 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 and 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 operation of the Greens Creek Mine; construction of the Dorothy Lake Hydropower Plant for the Greens Creek Mine; construction for the reopening the Kensington Mine; the opening of Costco, Home
Depot and Walmart stores and expansion of the Fred Meyers store; expansion of seafood processing plants; and a tremendous increase in cruise ship-related tourism, and modest increase in independent traveler tourism. Public efforts include the consolidation of the National Oceanic & Atmospheric Administration (NOAA) and University of Alaska fisheries facilities to a larger building; continued program development by the Juneau Economic Development Council; 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 and population of the CBJ developed originally to support mining activities in the area. Since Juneau became the territorial capital in 1906, there has been increasing reliance on government as the major support for the CBJ’s economy. The CBJ’s growth in population, 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 source of revenue has declined and will continue to decline as the amount of oil extraction declines. Natural gas extraction in that same area of the State bodes well for future revenues, although the revenue stream from this source would be years away.

Employment in the CBJ can be categorized as “basic” and “support.” Basic jobs are those bringing outside income into the area. Typically, these are represented by businesses that manufacture or process raw materials into finished goods for export. However, the CBJ’s basic sector employment is dominated by State and Federal government employment and, to a lesser degree, by summer season tourism, mining, food and beverage processing, local manufacturing of durable goods, and commercial and sport fishing. In 2004, the CBJ had a total of 17,644 jobs, of which 6,400 were “basic sector” jobs, including 5,250 State and Federal government positions. State, local and federal government employment generates approximately 42 percent of all CBJ jobs. Tourism, mining, commercial fishing, local manufacture of durable goods provide the balance of basic sector jobs. An important caveat in consideration of both basic and support jobs is that many are of a seasonal nature. Seasonal employers include tourism, construction, fishing, and retail/wholesale businesses.

Support jobs are generated by the exchange of dollars within the community. The support sector accounted for a total of 11,245 jobs in 2004, representing 64 percent of all CBJ jobs. The major components of the support sector jobs are retail and wholesale trade, construction, air, water and truck transportation, telecommunications, financial activities, real estate, government to serve the local population, educational and health services, food and beverage services, arts and entertainment and membership organizations.

Opportunities for expanding the economic base have increased due to modest growth potential in mining, fishing and seafood processing and tourism. State government is not expected to grow in the CBJ due to reductions in State spending that are anticipated to the year 2020. This Plan anticipates a “slow growth” scenario, assuming an annual population and economic (year-round job) growth rate of one (1) percent over the next 13 years.
POLICY 5. IT IS THE POLICY OF THE CBJ TO DEVELOP AND SUSTAIN A DIVERSE ECONOMY, PROVIDING OPPORTUNITIES FOR EMPLOYMENT FOR ALL RESIDENTS.

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 5.1. 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. [1995 Policy 2.10]

Standard Operating Procedures

5.1.1. Continue to 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.

5.1.2. Continue to support efforts to promote leadership and participation in legislative affairs by supporting affordable accessibility to the Capital for all State residents.

Implementing Actions

5.1.3. Initiate joint planning, with representatives of the State Legislature and appropriate State agencies, for the Downtown Capitol Complex. The following issues should be discussed when siting and designing this complex:
A. Defining the physical boundaries of the State Capitol planning area consisting of the Capitol site and its surrounding sphere of influence;

B. Formulating a facilities plan which identifies the nature, timing, cost, and local/state 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. [1995 IA 2.10.1]

5.1.4. Request Federal agencies to coordinate their plans for expansion or modification of Federal facilities in the downtown area with CBJ and State plans for the Capitol complex. [1995 IA 2.10.2]

5.1.5. 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 Implementing Action 8.11). [1995 IA 2.10.5]

5.1.6. 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. [1995 IA 2.10.6]

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 5.2. 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. [1995 Policy 2.11]

Standard Operating Procedures

5.2.1. 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.

5.2.2. Work with local arts councils, boards, committees and organizations to develop year-round cultural arts venues, resources and events in Downtown Juneau.

5.2.3. Coordinate, and possibly combine, planning for the Downtown with any development effort for the Capitol Complex. [1995 IA 2.11.3]
Development Guidelines

5.2.4. 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.

5.2.5. Consider the policies, guidelines and development recommendations of 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

5.2.6. 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.

5.2.7. Develop a comprehensive multi-modal (pedestrian, bicycle, bus, vessel, vehicle) transportation plan for the Downtown area which 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 Bus Rapid Transit (BRT) system connecting the Ferry Terminal to the 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.

5.2.8. Facilitate the pedestrian usage of Downtown including:

1. Development which improves year-round safe, convenient and dry pedestrian facilities;
2. Extension the waterfront seawalk;
3. Repair and widen sidewalks and provide a network of canopies throughout the Downtown;
4. Separate pedestrian ways from vehicular traffic, where practical;
5. Encourage development of dry, secure bicycle storage throughout the Downtown; and
6. Amend the CBJ ordinance that prohibits wheeled, non-motorized vehicles (such as skateboards and skates) in the Downtown to exclude bicycles [1995 IA 2.11.4]
5.2.9. Work with the State of Alaska to determine the feasibility of reconstructing the State Office Building parking garage 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.

5.2.10. 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;

D. Study the feasibility of a winter Ferry Terminal facility located in the Downtown waterfront to accommodate passenger and vehicle transport from Southeast communities to the CBJ;

E. Promote cultural and historic preservation within the CBJ’s historic districts and neighborhoods; and

F. Promote heritage tourism by continued support of Downtown historic interpretive signage. [1995 IA 2.11.5]

5.2.11. 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 blighting appearance and effects of summer-season storefronts closed from October to May each year.

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

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-nighting independent, and group travelers, along with private yacht and small cruise ship users. Longrange planning efforts should focus on strategies to promote and accommodate each type of use, while mitigating any associated adverse on- and off-site impacts. A CBJ Assembly Resolution 2170
adopted in August 2002 outlines seventeen tourism management policies for the CBJ which are incorporated by reference herein as Implementing Actions of the following Policy 5.3.

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 which 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, shoreside infrastructure and continued market demand. The scarcity of “cheap oil” to fuel aircraft and marine vessels could also reduce visitor traffic within the 13 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 of the year-round visitor traffic in the CBJ. As a 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 travel 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 Overnighting 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. Overnighting 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 buildings, the parking areas, and the ski trails, 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, as is the environment, 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 5.3. 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. [1995 Policy 2.12]

Standard Operating Procedures
5.3.1. Strengthen the local economy by enhancing and marketing the CBJ as a year-round visitor destination.

5.3.2. 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. [1995 IA 2.12.3]

5.3.3. Focus primary marketing efforts on cultivating over-nighting leisure and convention visitors. [1995 IA 2.12.7]

5.3.4. Support Eaglecrest as a year-round local and regional recreation and tourist facility. [1995 IA 2.12.9]
5.3.5. Work with the tourism industry to create and market “shoulder” season (October through May) activities and recreational opportunities CBJ-wide. [1995 IA 2.12.10]

**Development Guideline**

5.3.6. 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 of these areas. [1995 IA 2.12.4]

5.3.7. 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, or, in the absence of an adopted Tourism Plan, by the policies described within CBJ Assembly Resolution 2170.

**Implementing Actions**

5.3.8. 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. [1995 IA 2.12.2]

5.3.9. 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. [1995 IA 2.12.6]

5.3.10. 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. [1995 IA 2.12.6]
5.3.11. Establish a covered walkway network throughout the Downtown.

5.3.12. Conduct frequent appraisals of public and private transportation facilities to ensure they meet local and tour-related uses and demands. [1995 2.12.11]

**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 5.4. 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.** [1995 Policy 2.13]

**Standard Operating Procedures**

5.4.1. Work with representatives of the UAS to determine the needs of the university for expansion and development. [1995 IA 2.13.1]

5.4.2. 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. [1995 IA 2.13.3]

**Implementing Actions**

5.4.3. 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.

5.4.4. Support the provision of affordable housing for the University of Alaska Southeast (UAS) students and faculty on or near the campus. [1995 IA 2.13.2]
5.4.5. Encourage the UAS to provide educational programs and research facilities and projects leading to successful local food production, distribution and marketing systems which use renewable and sustainable energy sources and non-invasive flora and fauna species.

**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 east of the airport 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 “drive-on” tourists during the summer season. From time to time, Auke Bay is also frequented by ore ships serving Skagway and Greens Creek.

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 which 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 5.5. IT IS THE POLICY OF THE CBJ TO FACILITATE AVAILABILITY OF SUFFICIENT AND SUITABLE WATER-BASED FACILITIES AND LAND-BASED ACREAGE FOR COMMERCIAL FISHERIES, GOVERNMENT VESSELS, ECO-TOURISM VESSELS, CRUISE SHIPS AND OTHER MARINE-RELATED FACILITIES, 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.** [1995 Policy 2.14]

**Standard Operating Procedures**

5.5.1. Maintain an entity to carry out port planning, development and management functions. [1995 IA 2.14.1]

5.5.2. Protect from land use conflict and/or displacement, potential new or expanded port and water-dependent industrial, commercial, governmental, and recreational facilities. [1995 2.14.7]

5.5.3. Encourage the expanded use of 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. [1995 IA 2.14.8]

5.5.4. Evaluate the effect of changes in State and Federal environmental 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. [1995 IA 2.14.9]

**Development Guidelines**

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

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

**Implementing Actions**

5.5.7. Encourage the development of a publicly-subsidized commercial fisheries ice plant in the Auke Bay area.
5.7.8. Assure provision of adequate port, docks and harbor facilities and support land side facilities and services when formulating an Auke Bay neighborhood plan and marine mixed use zoning district [see Guideline 1 in Chapter 11, Subarea 3]. [1995 IA 2.14.4 & 2.14.12]

5.7.9. 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. [1995 IA 2.14.10]

Commercial and Industrial Development

An important characteristic of the CBJ economy has been the relatively low level of retail sales activity in comparison to other Alaskan cities, even though the CBJ serves as a regional shopping hub for nearby Southeast towns and villages. 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 WalMart. 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 space 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 which has 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 Assembly for the West Douglas New Growth Area which identifies a 50 to 70 acre “Development Area 2” which 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 5.6. 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.** [1995 Policy 2.15]
Standard Operating Procedures

5.6.1. Follow the specific land use policies of this Plan which establish criteria for designation of commercial and industrial lands, including those cited in Chapters 3, Community Form and 10, Land Use. [1995 IA 2.15.1]

5.6.2. 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. [1995 IA 2.15.2]

POLICY 5.7. IT IS THE POLICY OF THE CBJ TO ENCOURAGE THE LOCATION AND GROWTH OF LOCALLY-BASED BASIC SECTOR INDUSTRIES WHICH PROVIDE YEAR-ROUND, FULL-TIME EMPLOYMENT AND PROVIDE TAX REVENUES WHICH SUPPORT PUBLIC SERVICES.

Development Guidelines

5.7.1. 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.

5.7.2. When allocating public lands, infrastructure, tax benefits or other public benefits for new commercial or industrial activities, the CBJ should favor locally-based basic sector industries that provide year-round, full-time employment with medical benefits over non-local candidate businesses that do not provide those benefits.

Implementing Actions

5.7.3. 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 which current Industrial zoning district or other suitable area(s) 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].

5.7.4. 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 which meet the location criteria for office and retail use and which 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 which 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 5.8. 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.** [1995 Policy 2.16]

**Development Guidelines**

5.8.1. Continue to 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. [1995 IA 2.16.1]

5.8.2. Encourage the mining entity to develop the necessary roads, ports, worker housing and other infrastructure and facilities needed to adequately service the mining operation. [1995 IA 2.16.3]

5.8.3. Encourage mining operators to build, or 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 which 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. [1995 IA 2.16.2]

5.8.4. 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. [1995 IA 2.16.4]

5.8.5. 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 development.

**Implementing Action**

5.8.6. 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. Of particular interest is the identification of land suitable for manufactured home parks (rentals, cooperatives or subdivisions) offering long-term affordable land for manufactured or modular homes.

**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. In the past few years, however, commercial fishing fleets and their repair and maintenance business services have left the CBJ for other regional harbors resulting in a loss of services, jobs and fish-tax revenue for the CBJ. 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 5.9. IT IS THE POLICY OF THE CBJ TO SUPPORT THE DEVELOPMENT AND EXPANSION OF THE SEAFOOD INDUSTRY AND OF SERVICES AND FACILITIES WHICH BENEFIT COMMERCIAL FISHING ACTIVITY AND TO ATTRACT AND RETAIN HARVESTERS, PROCESSORS, AND SUSTAINABLE AQUACULTURE AND MARICULTURE ACTIVITIES TO JUNEAU. [1995 Policy 2.17]**

**Standard Operating Procedure**

5.9.1. Continue to encourage the location and expansion, as necessary, of hatcheries and remote release projects in the CBJ to support the local fishing industry. [1995 IA 2.17.2]
Implementing Actions

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

5.9.3. Assist in the development of a large-capacity, cold storage facility and ice plant in the Auke Bay area. [1995 IA 2.17.1]

5.9.4. Assist in the location of suitable sites for seafood processing activities. [1995 IA 2.17.3]

5.9.5. Investigate the environmental impacts of expanding aquaculture and mariculture on fish, 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. [1995 IA 2.17.4]

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, power 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 5.10. 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. [1995 Policy 2.18]

Standard Operating Procedures

5.10.1. Maintain a current Overall Economic Development Plan related to both local and regional economic development. [1995 IA 2.18.2]

5.10.2. Encourage regional marketing for locally-made goods, and locally-provided services and encourage partnerships in producing and marketing regionally-made goods and services. [1995 IA 2.18.3]

5.10.3. Encourage development of attractive travel packages for regional shoppers. [1995 IA 2.18.4]

5.10.4. Continue to participate in regional planning processes. [1995 IA 2.18.5]

5.10.5. 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. [1995 IA 2.18.6]

5.10.6. Encourage economic development, in particular, industries that represent regional economic strengths and which support production and distribution of renewable energy sources. [1995 IA 2.18.7]

5.10.7. Strengthen and expand the partnership between communities in Southeast Alaska, using the Southeast Conference and other means. [1995 IA 2.18.8]

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 short-term goals of private enterprise, such as resource development and petroleum distribution
companies, with the long-term benefits of renewable energy, environmental quality and long-term sustainable development practices.

Access to affordable, secure supplies of energy is required for almost every activity of government, business and private residents. The overall goal of an energy policy should be to assure and enhance the near-term and long-term quality of life for all current and future residents of the CBJ at the lowest cost to energy users and the 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 which is sustainable, locally and globally. Energy policies can play a crucial role in the development of a local energy system which can help assure the long-term economic viability of the CBJ.

Further development of renewable power sources will be needed to support efforts to convert power systems from fossil fuels for both local and regional use. The CBJ is blessed with the Icefield and alpine lakes as well as tidal energy sources, all of which should be elements of a comprehensive non-fossil-fuel power 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. 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

Understanding where energy is used in the CBJ, its sources, and the financial and social implications of our energy use is fundamental to establishing a sound policy for energy 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.


Implementing Actions

6.1. The CBJ should fund an analysis of the entire energy system in our community and determine near-term and long-term needs and opportunities and seek to comply with LEEDs (Leadership in Energy and Environmental Design) objectives. This analysis should catalog the CBJ’s current energy budget: sources and uses, in energy units (gallons, KWH and dollars). The analysis should incorporate life-cycle costs. [1995 2.21.1]
6.2. Establish and implement a CBJ energy plan which addresses both private-sector and CBJ energy conservation and management goals, objectives, and an action plan. [1995 2.21.3]

6.3. The CBJ should host research projects that identify power/energy sources that use renewable resources such as hydroelectric, tidal, solar, wind power and energy from organic waste (e.g. cellulosic ethanol) that can be used by households, businesses and the public sector.

Support State Capital Functions

As the Capital City, 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 of State Capital affairs. As the price of fuel increases due to scarcity of fossil fuels throughout the State and world, it will be increasingly important to identify energy-efficient means of assuring cost-effective electronic and physical access to the Capital.

6.1. 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

6.1.1. Continue to invest in energy-efficient technologies and equipment that provide affordable access to State legislative, courts and other governmental affairs for Alaskan residents.

Energy Efficient CBJ Buildings and Projects

In 1995 there was no established protocol nor were there effective guidelines for managing energy use within the CBJ government. Given the $2.5 million annual expense associated with this energy use, and the potential savings and enhancement of long-term viability by better managing this energy use, mechanisms need to be established to efficiently and effectively manage energy use by the CBJ government. 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 6.2. 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. [1995 2.22]
Standard Operating Procedure

6.2.1. Replace inefficient street lighting and lighting in CBJ buildings and facilities upon replacement cycle. [1995 IA 2.22.7]

Implementing Actions

6.2.2. Establish and fund a revolving energy conservation investment fund, to invest in energy-saving public projects that meet CBJ return-on-investment criteria. [1995 IA 2.22.1]

6.2.3. The CBJ should invest in necessary metering equipment to produce monthly project energy reports. [1995 IA 2.22.5]

6.2.3. Establish energy management goals for targeted CBJ buildings. [1995 IA 2.22.3]

6.2.4. Develop and implement a system for rewarding CBJ employee initiative and responsibility in good energy management. [1995 IA 2.22.2]

6.2.5. Incorporate LEED principles and standards when designing public structures and facilities. The LEED 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.

Maximize Use of Local Energy Resources

The CBJ’s 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. In addition, most of the money used to purchase fossil fuels leaves the CBJ. We can have a much healthier local economy if we develop and encourage the use of our own energy resources.

POLICY 6.3. IT IS THE POLICY OF THE CBJ TO MAXIMIZE THE USE OF LOCAL ENERGY RESOURCES TO REDUCE COSTS AND TO ASSURE SUPPLY. [1995 Policy 2.23]

Standard Operating Procedure

6.3.1. Encourage energy conservation to reduce the amount of money leaving the community to pay for fuels. [1995 IA 2.23.3]

Implementing Action

6.3.2. Seek federal and state funding to convert the CBJ fleet and, particularly, public transit vehicles, to hydroelectric-powered vehicles (e.g. battery-powered vehicles). [1995 IA 2.23.2]
6.3.3. Where practicable in large industrial operations, the CBJ should encourage co-generation processes to transform waste heat to electrical power for use by the operation and adjacent uses or for transmission to a nearby power grid.

6.3.4. Where practicable and where there are no adverse impacts to marine life, the CBJ should encourage the use of tidal action to generate energy for adjacent uses or for transmission to the power grid.

6.3.5. Encourage fuel switching and dual fuel systems which are cost effective for buildings. [1995 IA 2.23.1]

**Maximize Use of Renewable Energy Resources**

We do not have a recent analysis of CBJ use of fossil fuels, but 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 6.4. IT IS THE POLICY OF THE CBJ TO MAXIMIZE THE USE OF RENEWABLE ENERGY RESOURCES.** [1995 Policy 2.25]

**Implementing Actions**

6.4.1. Coordinate efforts with the University of Alaska and other research organizations and companies to identify potential renewable energy sources to power vehicles, vessels, aircraft, structures and utilities and to heat structures. These efforts should analyze both the short-term and long-term costs and environmental impacts of power production and distribution systems and should give preference to dependable, cost-competitive, renewable sources that does not adversely affect natural resources and wildlife habitat when choosing a source of energy.

6.4.2. When designing new facilities or major renovation of CBJ facilities, the CBJ should analyze lifecycle costs of energy applications with consideration of renewable sources given priority. [1995 IA 2.25.2]

**Full-Cost Analysis**

The very real environmental and social costs, now and to future generations, of relying so completely on fossil fuels are not included in, and are thus external to, the prices we pay for fossil fuel-based power. 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 sources. 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 and affect the quality of our lives.

**POLICY 6.5. IT IS THE POLICY OF THE CBJ TO INCLUDE THE INDIRECT, OR EXTERNAL, COSTS OF ENERGY USE IN ITS ECONOMIC ANALYSES.** [1995 Policy 2.24]

**Standard Operating Procedure**

6.5.1. Encourage energy regulators and providers to expand the cost-of-service definition to include quantifiable external and indirect costs in establishing the cost of energy to be used in the life-cycle cost analyses of CBJ facilities, projects, and operations. [1995 IA 2.24.1]

**Minimize Utility Investment**

The peak rate of energy use (peak load) determines the size of generators, transformers, wires, backup generators, etc. 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 6.6. IT IS THE POLICY OF THE CBJ TO ENCOURAGE ELECTRICAL ENERGY USE PATTERNS WHICH MINIMIZE UTILITY INVESTMENT.** [1995 Policy 2.26]

**Implementing Actions**

6.6.1. When additional sources of energy are required for the community, the Assembly should require an analysis of the cost effectiveness of aggressive energy conservation programs and load-leveling mechanisms before the construction of new energy facilities. [1995 IA 2.26.1]

6.6.2. When designing CBJ facilities, the CBJ should encourage lowering peak loads by shifting to off-peak periods and should encourage interruptible loads. [1995 IA 2.26.4 & 2.26.5]

6.6.3. These implementing actions should apply to both public and private sector developments. [1995 IA 2.26.6]

**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. Energy, worldwide, will likely cost more and may be less dependable in supply in the future. The CBJ’s favorable electric energy assets include a current hydroelectric supply with a
back-up system which uses diesel fuel. Alpine lakes, rivers, streams and/or creeks (fed from the Icefield), such as Lake Dorothy or Nugget Falls, which are suitable as hydroelectric power sources, should be protected to add to the CBJ’s power grid.

**POLICY 6.7. IT IS THE POLICY OF THE CBJ TO TAKE ADVANTAGE OF JUNEAU’S FAVORABLE ELECTRICAL ENERGY ASSETS TO ADD QUALITY JOB OPPORTUNITIES.** [1995 Policy 2.27]

**Implementing Actions**

6.7.1. The Juneau Economic Development Council (JEDC) should explain the CBJ’s favorable energy assets to potential employers. [1995 IA 2.27.1]

6.7.2. Along with implementation of an aggressive water and energy conservation program, the CBJ should immediately plan for the next increment of hydroelectric power to be brought on-line in the CBJ, particularly to accommodate conversions of home heat and vehicle fuels from fossil fuels to hydroelectric power. [1995 IA 2.27.2]

**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 which could make private auto ownership unnecessary for many people. It is prudent to convert or transform our dependence upon the private vehicle for transportation to that of public transit and to ensure that public transit offers a safe, convenient and affordable means of travel.

**POLICY 6.8. IT IS THE POLICY OF THE CBJ TO ENCOURAGE THE TRANSPORTATION OF CBJ RESIDENTS, VISITORS, FREIGHT AND MAIL POWERED BY RENEWABLE ENERGY ON BOTH PRIVATE AND PUBLIC TRANSPORTATION.** [1995 Policy 2.28]

**Implementing Actions**

6.8.1. Capital Transit should use a mix of vehicle sizes and fuels for public transport to promote fuel and cost efficiency, and to keep frequency of service such that it will encourage use of public transportation systems. [1995 IA 2.28.1]

6.8.2. The Assembly should seek to convert fossil-fuel powered buses, both public and private, to hydroelectric-powered vehicles.
6.8.3. The CBJ should provide electric power sources at parking lots and garages to re-charge electric private automobiles and give preferential parking spaces for those vehicles.

6.8.4. 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 lifecycle costs of design, construction, environmental mitigation and monitoring, as well as operation and maintenance costs.

Creation of 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 6.9. IT IS THE POLICY OF THE CBJ TO ENCOURAGE COST EFFECTIVE ENERGY EFFICIENT BUILDING AND REMODELING PRACTICES. [1995 Policy 2.29]

Implementing Actions

6.9.1. The CBJ Community Development Department (CDD) should encourage the installation of renewable sources of electrical energy/heating systems in new construction. [1995 IA 2.29.1]

6.9.2. The Assembly should 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. [1995 IA 2.29.4]

6.9.3. The Assembly should establish energy efficient standards for new and existing multifamily housing and commercial buildings. [1995 IA 2.29.5]

6.9.4. Encourage the conversion of existing heating systems from fossil fuel to renewable sources of electrical energy. [1995 IA 2.29.2]

6.9.5. The Assembly should immediately enact water conservation ordinances. Water conservation measures would lead to significant energy savings to the CBJ in pumping water and in treating wastewater. Conservation measures might include such things as metering of water wells and single-family homes, mandatory installation of low flow plumbing fixtures, installation of on-demand electric water heaters, or other incentives to save water. A municipal bond measure
should be considered to assist homeowners in paying for the installation of water meters [1995 IA 2.29.7]

**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 which produce large amounts of waste heat, 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 6.10. 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. [1995 Policy 2.30]**

**Implementing Actions**

6.10.1. Discourage energy intensive projects from compromising CBJ energy policy. [1995 IA 2.30.3]

6.10.2. Assist those proposing energy intensive projects, such as mining, in understanding, at the earliest point in their projects, the CBJ energy policy. [1995 IA 2.30.4]

6.10.3. Require the use of renewable and environmentally-sensitive energy sources for energy intensive projects, where cost effective. [1995 IA 2.30.5]

6.10.4. Encourage the development of co-generated electrical power at avoided cost. [1005 IA 2.30.9]

6.10.5. Encourage appropriate land use patterns of development close to potential location of surplus waste heat. [1995 IA 2.30.10]

**Waste Reduction, Reuse and Recycling**
It is in the long-term interest of all people in the CBJ, and worldwide, 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.

POLICY 6.11. IT IS THE POLICY OF THE CBJ TO ENCOURAGE WASTE REDUCTION, REUSE AND RECYCLING ACTIVITIES WHICH HAVE POSITIVE ECONOMIC AND/OR ENVIRONMENTAL BENEFITS. [1995 Policy 2.31]

Implementing Actions

6.11.1. Complete the 2007 Long Range Solid Waste Management Strategy and Alternatives Analysis Project and coordinate/cooperate with villages, towns, municipalities, private companies and non-profit organizations within the region on solid waste management programs.

6.11.2. The CBJ should consider adopting a mandatory program for the curbside pick-up of recyclable materials by solid waste collection companies throughout the area of the CBJ where garbage pick-up is currently offered and the transfer of that material to appropriate recycling centers. This program may be implemented by franchise or permit approval.

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.

Implementing Actions

6.12.1. The Juneau School District should improve energy education in K-12 public school educational curriculum, including:

- energy as a fundamental human need;
- historical perspective of energy;
- understanding our local energy system, and how it fits within the 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;
- a multi-disciplinary approach to energy; and
- working with the CBJ Sustainability Commission on energy curriculum. [1995 IA 2.32.2]

6.12.2. The CBJ should conduct a public education program to explain the benefits of conservation of energy during the periods in which AEL&P is using diesel fuel instead of hydropower. [1995 IA 2.32.3]

6.12.3. The CBJ should conduct public meetings to explain and discuss the Energy Chapter of this Plan. [1995 IA 2.32.4]

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 which 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 which 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 which 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. 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. [1995 Policy 2.5]

Standard Operating Procedure

7.1. 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. [1995 IA 2.5.1]
**Development Guideline**

7.2. 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**

7.3. The Assembly should 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.

7.4. 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.

7.5. 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.

7.6. The CBJ should 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.

**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 which are particularly subject to intense development pressures, such as Downtown Juneau, Auke Bay, North Douglas Island and Echo Cove, merit special attention.

**POLICY 7.1. IT IS THE POLICY OF THE CBJ TO PLACE THE HIGHEST PRIORITY ON IDENTIFYING AND PRESERVING AND PROTECTING 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. [1995 Policy 2.6]**

**Implementing Actions**

7.1.1. 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.

7.1.2. 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 which 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 which 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 waterbodies and habitats. Further efforts are required to protect those and other stream corridors and to coordinate the various management and enhancement activities.

POLICY 7.2 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. [1995 Policy 3.1]

Development Guidelines

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

7.2.2. On publicly-owned lands, designate on the Land Use Code Maps as not appropriate for development an area extending 300 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 Fish and Game (AK F&G) inventory of anadromous streams. This 300 feet setback is to be considered a basic or minimum setback for the waterbody and its riparian habitat unless and until a biological functional analysis of the specific water body and adjacent habitat is conducted which identifies a greater or lesser setback distance appropriate to the functional value of the particular waterbody and associated riparian habitat. [1995 IA 3.1.1]

7.2.3. On privately-owned lands, continue to 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 AK F&G inventory of anadromous streams. This 50 feet setback is to be considered a basic or minimum setback for the waterbody and its riparian habitat unless and until a biological functional analysis of the water body and adjacent habitat is conducted which identifies a specific greater or lesser setback distance appropriate to the functional value of the particular waterbody and associated riparian habitat. [1995 IA 3.1.3]

7.2.4: CBJ Community Development Department (CDD) staff will continue to determine the Ordinary High Water Mark (OHWM) on properties subject to development permits. OHWM determinations will be based on habitat and biological considerations.

Implementing Actions

7.2.5. The CBJ Assembly should 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.

7.2.6 The Assembly should include in the Fiscal Year 2008 to 2009 CDD work program and budget, or as soon as is possible, 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.

7.2.7. The Assembly should include in the Fiscal Year 2008-2009 CDD work program and budget, or as soon as is possible, an effort to update the CBJ Wetlands Management Plan and Implementation Program to (1) clarify and strengthen the regulations for high value wetlands; (2) 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 (3) 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.

7.2.8. The Assembly should amend the Land Use Code to update the definition of Ordinary High Water Mark.
7.2.9. CDD staff should 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.

7.2.10. CDD staff should 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.

7.2.11. The Assembly should give high priority to public acquisition of open space/natural areas and/or public recreation easements to the stream corridor of Pederson Hill Creek to add to the recent public acquisition of stream corridors of Montana Creek and the west side of the Mendenhall River. [1995 IA 3.1.7]

7.2.12. Where development or other causes have led to serious streambank erosion, the CBJ should 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. [1995 IA 3.1.8]

7.2.13: The Assembly should 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. [1995 IA 3.2.15]

7.2.14: Amend the Land Use Code to establish the Wetlands Review Board (WRB) as an advisory board to 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.

POLICY 7.3. 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. [1995 IA 3.1.2]

Implementing Actions

7.3.1. The Assembly should 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.
7.3.2. Following the adoption of the ADF&G annual or biennial inventory of CBJ anadromous streams, the Assembly should revise Section 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.”

7.3.3. The Assembly should revise the Title 49 Land Use Code to pull together in one section, or crossreference, all of the requirements for stream and lake shoreline management which are now under Habitat and Wetlands Management and should map waterbodies 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 waterbody, 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 area 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 entitled, “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 7.4. 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 THE CBJ’S WETLANDS. [1995 Policy 3.2]

Standard Operating Procedures

7.4.1. Continue to seek acquisition of Category A and EP (enhancement potential) wetlands to CBJ ownership for protection, and for use as wetland mitigation projects, respectively. [1995 IA 3.2.1]

7.4.2. Continue to 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. [1995 IA 3.2.4]

7.4.3. 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. [1995 IA 3.2.6]
7.4.4. 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. [1995 IA 3.2.17]

**Development Guidelines**

7.4.5. CBJ staff should 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. [1995 IA 3.2.15]

7.4.6. 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. [1995 IA 3.2.18]

**Implementing Actions**

7.4.7. Include funds in the Fiscal Year 2008-2009 CDD work program and budget to support staff to establish and maintain a Wetlands Mitigation Bank program. This program should provide for (1) wetlands protection, (2) public education, and (3) wetlands restoration, enhancement, and creation. [1995 IA 3.2.11 & 3.2.16]

7.4.8. 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. [1995 IA 3.2.5]

7.4.9. Provide mechanisms to facilitate protection of high value privately-owned wetlands, such as through conservation easements and tax reductions. [1995 IA 3.2.7]

7.4.10. Take appropriate administrative actions to protect high-value wetlands on public lands, such as formally designating greenbelts along selected anadromous fish streams and vacating unneded CBJ rightsof-way. [1995 IA 3.2.8]

7.4.11. 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. [1995 IA 3.2.3]

7.4.12. 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. [1995 IA 3.2.9]
7.4.13. 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. [1995 IA 3.2.12]

7.4.14. Ensure 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. [1995 IA 3.2.18]

POLICY 7.5. 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. [1995 IA 3.2.2]

Implementing Action

7.5.1. Identify select degraded wetlands on CBJ lands or on private property with portions of impaired anadromous streams as “receiving” or target restoration lands, waterbodies and resources for Mitigation Bank purposes.

Water Quality

In the CBJ, a significant source of adverse impacts to water quality are “non-point sources” of pollution to surface and groundwater resources. Non-point sources refer to 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 streambank 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 which are traceable to distinct operations or activities that include manufacturing, industrial activities, 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 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 homesites, 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) must identify, rank and assess waterbodies 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 would determine 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 which exceed 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.
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, which 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

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

<table>
<thead>
<tr>
<th>Water Body</th>
<th>Impaired Category</th>
<th>Pollutants</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duck Creek</td>
<td>4a</td>
<td>Dissolved oxygen, debris, metals, fecal coliform, habitat modification, turbidity</td>
<td>Urban runoff, landfill, road runoff, land development</td>
</tr>
<tr>
<td>Jordan Creek</td>
<td>4a</td>
<td>Residues</td>
<td>Urban runoff</td>
</tr>
<tr>
<td>Lemon Creek</td>
<td>4a</td>
<td>Turbidity, sediment, habitat modification debris</td>
<td>Urban runoff, gravel mining</td>
</tr>
<tr>
<td>Pederson Hill Crk</td>
<td>5</td>
<td>Turbidity, fecal coliform, petroleum products, habitat modification, sediment</td>
<td>Urban runoff</td>
</tr>
<tr>
<td>Vanderbilt Creek</td>
<td>4a</td>
<td>Turbidity, debris, sediment, habitat modification</td>
<td>Urban runoff</td>
</tr>
<tr>
<td>Duck Creek</td>
<td>4a</td>
<td>Dissolved oxygen, debris, metals, fecal coliform, habitat modification, turbidity</td>
<td>Urban runoff, landfill, road runoff, land development</td>
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<td>Urban runoff</td>
</tr>
</tbody>
</table>
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 are 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 which are listed as “impaired waterbodies” in the CBJ and more effective methods and procedures are necessary.

**POLICY 7.6. 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.** [1995 Policy 3.3]

**Standard Operating Procedures**

7.6.1. 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. [1995 IA 3.3.1]

7.6.2. Participate with the State of Alaska Department of Environmental Conservation (DEC) and the Federal Environmental Protection Agency (EPA) in the development and implementation of waterbody recovery plans for the listed impaired waterbodies in the CBJ, including use of “Best Management Practices” for protection and improvement of water quality. [1995 IA 3.3.3]

7.6.3. Coordinate with DEC and the EPA 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. [1995 IA 3.3.4]

7.6.4. Cooperate with DEC and the EPA in monitoring permit conditions, permit compliance and watershed restoration in impaired waterbodies. [1995 IA 3.3.7]

7.6.5. 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. [1995 3.3.6]
7.6.6. Consult with private landowners, industry and the public regarding cooperative approaches to improving water quality in the impaired watersheds. [1995 IA 3.3.8]

**Development Guideline**

7.6.7. 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. [1995 3.3.2]

**Implementing Actions**

7.6.8. The Assembly should 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 waterbodies.

7.6.9. The CBJ should 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.

7.6.10. The CBJ should participate with DEC and non-profit watershed partnerships in the development and implementation of waterbody recovery plans for the listed impaired waterbodies in the CBJ, including use of Best Management Practices for protection and improvement of water quality. [1995 IA 3.3.3]

**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” was adopted which guides land use activities for the protection of the Gold Creek water source.

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 7.7. 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. [1995 Policy 3.4]

Standard Operating Procedures

7.7.1. Continue to evaluate the potential of local watersheds for surface or groundwater development of municipal water supplies. [1995 IA 3.4.1]

7.7.2. Continue to 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. [1995 IA 3.4.8]

7.7.3. 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. [1995 IA 3.4.4]

Development Guidelines

7.7.4. Regulate all development proposals and major activities in watershed areas which 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. [1995 IA 3.4.4 & 3.4.7]

7.7.5. 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. [1995 IA 3.4.5]

7.7.6. Prohibit development which could result in unmitigated degradation of water quality, including resource extraction, siting of septic system drainfields, and domestic or commercial use of pesticides and fertilizers on turf or other decorative landscaping, within designated watershed protection areas. [1995 IA 3.4.6]

Implementing Actions

7.7.7. 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, if necessary, by the prohibition of sale or importation of such species. Plant retailers, suppliers and contractors should
post notices and illustrations for customers to understand which plant species are invasive and how to properly eradicate them, if found.

7.7.8. Include funds in the CBJ budget for Fiscal Year 2008 – 2009 to support an effort to develop new water sources for the CBJ, particularly for Auke Bay, the Valley and North and West Douglas Island. The watersheds that can serve as a domestic water supply should be mapped on the CBJ GIS system, designated “WS” on the Land Use Maps and afforded the same protections as the Gold Creek, Last Chance Basin and Salmon Creek watersheds.

7.7.9. 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 fireplaces, 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 which 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 which click on and off 24-hours a day.
Lastly, outdoor lighting can produce glare and can obscure sighting of stars which can otherwise be viewed from rural areas of the CBJ.

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

**POLICY 7.8. IT IS THE POLICY OF THE CBJ TO CONTINUE EDUCATIONAL PROGRAMS, CAPITAL IMPROVEMENT PROJECTS, AND REGULATORY MEASURES TO PROTECT AND IMPROVE OVERALL AIR QUALITY.** [1995 Policy 3.5]

**Standard Operating Procedure**

7.8.1. Cooperative with the Alaska Department of Environmental Conservation (DEC) in implementing CBJ Chapter 36.40 regarding regulation of pollution from wood stoves and outdoor burning. [1995 IA 3.5.1]

**Implementing Actions**

7.8.2. Undertake public transit improvements to reduce congestion and encourage residents to utilize non-fossil-fuel 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 hydroelectric power sources. [1995 IA 3.5.2]

7.8.3. The City Manager should 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. [1995 IA 3.5.3]

7.8.4. The Assembly should 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 which obscure those sightings.

**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 defined herein as objectionable, annoying, nuisance or harmful sound, and 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, typically, are 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.


Standard Operating Procedures

7.9.1. Establish land use patterns which consider 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. [1995 IA 3.15.1]

7.9.2. 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, and encourage the Alaska Department of Transportation and Public Facilities (DOT) to leave or provide dense vegetation in along roadways in residential areas to absorb traffic noise and dust. [1995 IA 3.15.2]

7.9.3. 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 Implementation Action 7.9.10, below. [1995 IA 3.15.4]

Development Guideline

7.9.4. When reviewing permits for projects that generate noise from stationary or non-stationary sources, require a noise impact analysis with the application and require adequate mitigation of adverse noise impacts, particularly for night-time and week-end periods, as a condition of approval of such a permit.
Implementing Actions

7.9.5. Implement the guidelines developed in the International Airport Master Plan to manage aircraft-generated and airport-related noise impacts on surrounding development, consistent with Federal Aviation Administration (FAA) regulations and local regulations.

7.9.6. Establish an Airport Proximity Overlay Zoning District which encompasses lands located within the FAA-designated airport flight safety zone (aircraft arrival and departure routes) and airport noise contour zones. Within this District no rezoning of non-residentially-zoned lands to any new zoning or land use category should be permitted unless, as a condition of that rezoning, residential uses and other noise-sensitive receptors would be prohibited.

7.9.7. Establish an Airport Noise Notification Overlay Zoning District which encompasses lands located within an area where the sounds of arriving or departing aircraft, including jets, float planes and helicopters, are loud and can be heard from within an enclosed structure, possibly a one mile radius of airport property. Within this overlay district, require property owners to disclose to prospective buyers and to prospective tenants the presence of the airport and typical hours of operation for seasonal, off-season, weekday, weekend and early morning and night time flights.

7.9.8. Establish a Shooting Range Noise Notification Overlay Zoning District which encompasses lands located within a mile radius of outdoor shooting ranges and/or within an area where the sounds of gunfire and can be heard from within an enclosed structure. Within this overlay district, require property owners to disclose to prospective buyers and to prospective tenants the presence of the shooting range and typical hours of operation for the shooting range.

7.9.9. Establish special noise attenuation features in the local building code for new construction of habitable structures within areas demonstrating ambient noise levels of 65 decibels or more, such that habitable buildings are constructed with materials and by design to attain an interior noise level equivalent to an average of 45 decibels or less.

7.9.10. 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 close proximity to noisy industrial, commercial, recreational and/or entertainment land use activities (bars, rock blasting and gravel extraction, off-road-vehicle trails).
This Map will be updated with the current FAA-identified airport noise contour map which can now be viewed online in the CBJ Airport EIS.
Habitat Protection

The forests, wetlands, lakes, streams and marine waters of the CBJ are part of a network of habitat areas for fish and wildlife. Each of these areas support 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.

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 (Alaska Department of Environmental Conservation—DEC) are Duck, Lemon, Jordan, Vanderbilt and Pedersen Hill Creeks. Those which 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 Tee, Lena, Auke N u, W aydelich, Bay, Lake, Montana, McGinnis, Mendenhall, Switzer, Salmon, Falls, Fish, Windfall, Lake, Steep, Kowee, Lawson, Bear, Ready Bullion, Bullion, Nevada, Middle Creek, Hilda and other unnamed creeks.

A prevalent 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 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 reduces the deer population. Two other species, Stellar sea lions and Bald Eagles, have unique requirements because of the Endangered Species Act and the Bald Eagle Protection Act. 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 because the health of the species indicates the health and well-being of all other species up and down the food chain, including humans. 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; this, in turn, will benefit all
the species that feed upon the indicator species. These interventions can be called Best Management Practices (BMPs) and even simple measures, such as avoiding the introduction and pursuing the eradication of invasive plant species in our yards and gardens, can be critical BMPs to protect the health of our environment.

POLICY 7.10. IT IS THE POLICY OF THE CBJ TO PRESERVE AND PROTECT A DIVERSITY OF FISH AND WILDLIFE HABITAT THROUGHOUT THE CBJ. [Policy 3.6]

Standard Operating Procedure

7.10.1. 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 which could protect fish and wildlife habitat. [1995 IA 3.6.4 and 3.6.6]

7.10.2. Include protection of important fish and wildlife habitats in Capital Improvement Programs and land use planning. [1995 3.6.1]

Implementing Actions

7.10.3. 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. [1995 IA 3.6.2 and 3.2.5]

7.10.4. Use a wide variety of management approaches to protect important fish and wildlife habitat and assure their access to quality waterbodies, 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. [1995 IA 3.6.6]

Protection From Invasive Species

Many communities in the Alaska interior suffer from Spruce Bark Beetle and other infestations which 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
(mariculture) of food sources. Great care must be taken to select species of flora and fauna for these activities that are symbiotic with our native flora and fauna, our microclimate and our soils and that are energy efficient. Use of non-native pesticides and fertilizers should be avoided and predatory and invasive species should be prohibited in commercial and household food and fiber production activities.

POLICY 7.11. IT IS THE POLICY OF THE CBJ TO PROTECT LOCAL BIODIVERSITY, INCLUDING NATIVE FLORA AND FAUNA, FROM INVASIVE SPECIES.

Implementing Actions

7.11.1. 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. Should this study identify potential harmful effects of invasive species, such as the insects and fungus killing trees and causing forest fires in the Alaskan Interior, Canada and other States with similar climate changes, the CBJ should undertake aggressive measures to prevent and eliminate this infestation hazard.

7.11.2. 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 a location and procedure for residents to properly dispose of invasive plants; (6) development of new land use controls to require private property owners to eradicate, if extant, or to prevent introduction of invasive species on their property as part of review and approval of new building or grading permits; and (7) designation of a secure site and procedures for safe disposal of pulled or cut invasive species by members of the public.

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. Steller 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, disturbance of fishing areas and rookeries by vessel traffic and tourism, and killer whales. Under study are the effects of climate change on the mammal’s prey and rookery environment. Conservation measures include prohibition of shooting, establishment of “no transit zones” within three nautical miles of rookeries, limits on harvesting of the mammal’s prey, water quality regulations, and protection of rookeries from human contact other than for research and rescue activities.

POLICY 7.12. IT IS THE POLICY OF THE CBJ TO PROTECT AND PRESERVE THE AREAS ON BENJAMIN ISLAND IDENTIFIED AS CRITICAL STELLAR SEA LION HABITAT. [1995 Policy 3.7]

Standard Operating Procedure

7.12.1. Consult with the National Marine Fisheries Service on all development proposals, including commercial marine and aircraft fish and wildlife viewing, which could affect the sea lion’s use of the island, particularly for activities located with three nautical miles of Benjamin Island. [1995 IA 3.7.2]

Development Guideline

7.12.2. Prohibit development or excursions which would interfere with the critical sea lion habitat which would include their “haul out” habitat and a three nautical mile buffer area extending seaward of the haul-out land area. [1995 IA 3.7.3]

Implementing Action

7.12.3. 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 National Marine Fishery Service. [1995 IA 3.7.1]

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 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 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 activities can occur within the 330-foot zone in consultation with the Fish and Wildlife Service.
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 on public land, or within 50 feet 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. If “actively nesting” is interpreted to mean any aspect of nesting from the building of the nest through rearing of young eagles, development within the 330-foot radius of land around the tree is effectively prohibited. In practice, the CBJ has interpreted “actively nesting” to mean the months of March and April.

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 from law and enjoy considerable local affection.

**POLICY 7.13. IT IS THE POLICY OF THE CBJ TO PROTECT AREAS SURROUNDING IDENTIFIED EAGLE NESTS FROM CONFLICTING LAND USES.** [1995 Policy 3.8]

**Standard Operating Procedures**

7.13.1. On private lands, any siting of structures and roads and cutting of old growth trees within the 330-foot buffer zone around eagle nests will be done in consultation with the U.S. Fish and Wildlife Services. Old growth trees that, typically, are suitable for eagle nests should be retained within the buffer zone. When a CBJ conditional use permit is required, the nesting requirements of the affected eagles will be given strong consideration. [1995 IA 3.8.4]

7.13.2. In situations where lands are proposed for private platting next to CBJ-owned lands, and if the private party is willing, the CBJ may 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. [1995 IA 3.8.5]

**Development Guideline**

7.13.3. 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. [1995 IA 3.8.6]

**Implementing Actions**

7.13.4. Prohibit the cutting of trees near shoreline areas for the purpose of eradicating nesting eagles or of preventing eagles from nesting therein.
7.13.5. 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. [1995 IA 3.8.1]

7.13.6. Consider designating as Natural Areas or other low impact land use categories areas where eagles tend to nest in concentrations. [1995 IA 3.8.3]

7.13.7. Request the U.S. Fish and Wildlife Service to 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 Service for enhancing the presence and health of eagles in the urban area. [1995 IA 3.8.7]

7.13.8. 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, which may grow as more of the CBJ becomes developed, is the tendency of black 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 leads 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 (Municipal Code Section 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.

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 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 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 CBJ School system. 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 a source of pride for residents of the CBJ. Because of this, the need to trap or destroy bears because they are accessing garbage in neighborhoods 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 that limit the 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 present strategies of refuse management.

POLICY 7.14. IT IS THE POLICY OF THE CBJ TO PREVENT BEARS FROM GAINING ACCESS TO AND BECOMING CONDITIONED TO THE CONSUMPTION OF HUMAN-GENERATED GARBAGE BY PROVIDING PUBLIC EDUCATION, PROPER MANAGEMENT OF GARBAGE, AND PROTECTION OF THE NATURAL HABITAT AND FOOD SOURCES UPON WHICH BEARS DEPEND. [1995 Policy 3.9]

Standard Operating Procedures

7.14.1. Continue the current effort coordinated with JPD and CDD to monitor compliance with refuse container ordinances and maintain efficient and effective enforcement. [1995 IA 3.9.2]

7.14.2. Provide public education and publicity to enlist the community’s efforts to prevent bears from gaining access to garbage. [1995 IA 3.9.3]

Development Guidelines

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


Implementing Action

7.14.5. Study the feasibility of mandatory garbage pick-up in the “roaded” area of the CBJ and its costs and effectiveness in preventing stockpiled garbage. [1995 IA 3.9.4]
Gravel Resources

This resource, essential to construction, is limited to relatively small areas in the CBJ which frequently are also 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 and Herbert-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, as these lands can be built upon or can be developed with residential uses 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. Because of the necessity of this resource for all types of development, and 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 7.15. IT IS THE POLICY OF THE CBJ TO CONSERVE AND PROTECT FROM CONFLICTING LAND USES KNOWN GRAVEL DEPOSITS AND THOSE IDENTIFIED IN THE FUTURE.** [1995 Policy 3.10]

**Development Guidelines**

7.15.1. Require additional review of any permanent structures or other development proposed within untapped gravel resource areas which 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. [1995 IA 3.10.2]

7.15.2. Where residential or other developments with sensitive receptors are permitted next to gravel deposits, require a general note 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. [1995 IA 3.10.3]
7.15.3. Companies that transport gravel and rock products should be required to travel on roads with adequate heavy load-carrying capacity and those companies should be required, as a condition of approval of a use permit, to contribute to the maintenance of those roads. Vehicles carrying rock and gravel should be 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**

7.15.4. Designate known gravel resource areas on the CBJ GIS and Land Use Code Maps. [1995 IA 3.10.1]

## 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 common origin. Snowslide avalanches are most likely to occur on steep, brushy, or non-vegetated slopes. The debris and rubble at the base of steep rock slopes consist of soil and rocky materials which were deposited by slow erosional processes and/or sudden large scale movements of snow and/or rock. These debris slopes are susceptible to landslides. Studies of existing data and an analysis of aerial photographs indicate general locations and boundaries of landslide/avalanche areas.

Among other causes, landslides may be triggered by 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 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 of Juneau-the range at which damage might occur.

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.
In 1992, “The Juneau Area Mass-Wasting and Snow Avalanche Hazard Analysis” was completed. It updated portions of a study completed in 1972 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 7.16. IT IS THE POLICY OF THE CBJ TO MINIMIZE THE THREAT TO HUMAN SAFETY AND DEVELOPMENT POSED BY LANDSLIDES (MASS WASTING) AND AVALANCHES. [1995 Policy 3.11]

Development Guidelines

7.16.1. 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.). [1995 IA 3.11.5]

7.16.2. 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). [1995 IA 3.11.7]

7.16.3. 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. [1995 IA 3.11.8]

7.16.4. 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. [1995 IA 3.11.9]

7.16.5. Eliminate from long- and short-range development plans any public facilities which would have the effect of concentrating people in hazard areas. [1995 IA 3.11.10]

7.16.6. Tax-foreclosed property in the high hazard areas should be dedicated to the CBJ public natural areas inventory. [1995 IA 3.11.11]
Implementing Actions

7.16.7. 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. [1995 IA 3.11.1]

7.16.8. 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. [1995 IA 3.11.6]

7.16.9. Complete the reassessment of hazard areas and include all areas of the original 1972 study which 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. [1995 IA 3.11.3]

7.16.10. 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. [1995 IA 3.11.4]

7.16.11. The CBJ should, to the greatest extent practical, acquire vacant properties lying within areas designated as having high avalanche hazard potentials; these CBJ lands should remain undeveloped.

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 snowpack 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 which cause increased...
volumes and rates (velocity) of stormwater runoff. Stream crossings and under-sized culverts which 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 which 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 if the loan has federal origins.

**POLICY 7.17. 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. [1995 Policy 3.12]**

**Standard Operating Procedure**

7.17.1. Use the floodway and floodplain boundary lines outlined on maps prepared by FEMA as the basis for defining flood boundaries. [1995 IA 3.12.2]

**Development Guideline**

7.17.2. Apply the following guidelines to development proposals in the 100-year floodplain.

A. Allow sand and gravel operations, recreational activities, open space/natural areas and parking lots in floodplains only if the activities do not increase the flood danger;

B. Require industrial equipment and stored raw materials in the 100-year floodplain to be adequately bermed or otherwise protected; and

C. Prohibit commercial or industrial storage of toxic chemicals or materials in the 100-year floodplain. [1995 IA 3.12.3]
Implementing Action

7.17.3. 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. [1995 IA 3.12.1]

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. 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 7.18. IT IS THE POLICY OF THE CBJ TO ASSIST IN THE IDENTIFICATION AND MITIGATION OF IMPACTS ASSOCIATED WITH HAZARDOUS MATERIALS. [1995 Policy 3.13]

Standard Operating Procedures

7.18.1. Cooperate with State and Federal agencies in the investigation of hazardous waste sites. [1995 IA 3.13.4]

7.18.2. Continue to provide managed hazardous waste disposal opportunities. [1995 IA 3.13.5]

7.18.3. Provide information to the public regarding managed hazardous waste disposal opportunities. [1995 IA 3.13.6]
Development Guideline

7.18.4. When applicable, require safe, alternative (off-site) siting of more than a weekly supply of hazardous materials for businesses, a Best Management Plan with appropriate mitigation measures in the event of a failure of these measures, when approving permits for new development. [1995 IA 3.13.3]

Implementing Action

7.18.5. 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. [1995 IA 3.13.1]

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 let the public know what to do if there is a problem. A Junk Busters hotline was established in 1994 which 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 ways. In one case, the large amounts of refuse being gathered and properly disposed represents the cleanup of both current and long-standing litter and junk problems. On the other hand, developing a history of steadily reducing the amount of
material that has to be gathered would indicate that the community is making progress toward the goal of preventing litter and junk in the first place.

**POLICY 7.19. IT IS THE POLICY OF THE CBJ TO CARRY OUT AND IMPROVE PROGRAMS WHICH WILL BOTH REDUCE AND ELIMINATE LITTERING AND ACCUMULATION OF JUNK WITHIN THE CBJ AS WELL AS CLEAN UP SUCH MATERIAL WHEN IT IS FOUND.** [1995 Policy 3.14]

**Standard Operating Procedures**


7.19.2. Support non-profit, anti-litter organizations such as Litter Free to organize and coordinate community clean up events and standard operating procedures. [1995 IA 3.14.5]

7.19.3. Update and improve litter and zoning ordinances which will result in improved community appearance. [1995 IA 3.14.6]

7.19.4. 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. [1995 IA 3.14.7]

**Implementing Actions**

7.19.5. The CBJ should consider licensing or franchising waste disposal companies and requiring, as a condition of the permit, the curbside pick-up of separated, recyclable materials (glass, paper and metal) in addition to domestic and business garbage. The separated recycling material should be sold to recycling enterprises. The disposal companies should provide the proper recycling containers to each household for their use.

7.19.6. Revise the Land Use Code to limit the number of unlicensed or inoperative vehicles allowed on residential property. [1995 IA 3.14.1]


7.19.8. Evaluate the need to provide additional facilities for waste oil disposal. [1995 IA 3.14.3]
A safe, efficient, convenient and interconnected transportation system facilitates the movement of people and goods to and within the CBJ while conserving land resources, energy and 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 five priority transportation system improvements are paraphrased below and are incorporated by reference into this Plan until the AWTP is updated and a new set of priority projects are established.

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 both 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 and 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 pick up and drop off students; this will significantly reduce travel times for peak hour motorists.
However, motorists should be required to immediately yield to the bus signaling to re-enter the travel way.

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 Statewide Transportation Improvement Program (STIP); the STIP identifies local improvements also funded and implemented by the State Department of Transportation and Public Facilities (DOT).

Many of the Implementing Actions described below must be included as improvements in the next two-year STIP before it can be considered for funding. Only one of the 66 priority improvements recommended in the CBJ Area Wide Transportation Plan is included in the current 2006 to 2008 STIP: The Sunny Point Interchange which is an Egan Drive Grade Separated Interchange identified as priority 1.2 in the AWTP, at a STIP funding of $22.5 Million. Three transit improvements, totaling $2.6 Million in funding, are also included in the STIP and, although not specifically listed as priorities in the AWTP, all transit improvements should be considered essential.

Oftentimes, a single needed roadway improvement awaits 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 which seeks to minimize taxing existing transportation systems and facilities which 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 which already have congested roadway intersections.

**Non-Motorized Means of Transportation**

Improved pedestrian and bicycle movement within and between major shopping and employment centers, schools and other concentrations of population is needed to provide an alternative to private automobile travel. 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 CBJ residents. In the most recent traffic capacity analyses by DOT, nine of the intersections serving development in the Valley and seven intersections providing access to Douglas Island are overcrowded and are
operating beyond their design capacity, and were at Levels of Service (LOS) “D”, “E” and “F” where LOS “C” or better (“A” or “B”) 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 private 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 its routes which resulted in an 18% increase in ridership over the previous year. The system is patronized heavily by government office workers commuting Downtown to and from 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 and the 2003–2008 Draft Capital Transit Development Plan and Transit Improvement Program 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. Designation of an express bus route or Bus Rapid Transit (BRT) alignment or transit corridor along Glacier Highway and Egan Drive on the Comprehensive Plan Land Use Map is provided 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 cost-effectiveness of the BRT service therein. Typically, 25 to 30 residential units per acre or more would adequately support a BRT service.
Other transit options, such as car-pooling and formal car-sharing programs should be investigated for feasibility within the Urban Service Area.

The CBJ adopted a Capital Transit Development Plan and Improvement Plan in 1996 which identified needed improvements to the CBJ’s public transit system. The main system improvement was reducing the wait between buses to 30-minutes during peak travel periods. Notwithstanding this valuable upgrade of the system, a successful 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 ridership of convenient bus service.

The 1996 Capital Transit Plan offers policy statements which are excerpted below for incorporation into this 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 need 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. 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 MEANS OF TRANSPORTATION TO ALL RESIDENTS. [1995 Policy 4.3]

Standard Operating Procedure

8.1. Continue to 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. [1995 IA 4.3.1 and 4.3.8]

Development Guidelines

8.2. Require sidewalks and bicycle paths or lanes along existing or newly constructed arterial and collector streets where appropriate to provide safe and efficient access and recreation and to reduce pedestrian/automobile conflicts. [1995 IA 4.3.11]

8.3. 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. [1995 IA 4.3.7]

8.4. 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. [1995 IA 4.3.7]

8.5. Provide secure, weather-proof bike parking and storage facilities at public buildings and in private developments, particularly developments located along transit corridors. [1995 IA 4.3.9]

Implementing Actions

8.7. Complete and/or upgrade a continuous separated bicycle/pedestrian pathway between the Mendenhall Valley and downtown Juneau by connecting those portions now existing. [1995 IA 4.3.12]

8.8. Continue to 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 Bus Rapid Transit (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 pull-out 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 reenter. School buses should also use these bus pull-outs;

E. Exploring the feasibility of a Mendenhall Valley shuttle service linked to Downtown by express buses powered by non-fossil fuels;

F. Providing a downtown circulating shuttle service, serving the Central Business District (CBD). The CBD includes that area bounded by 4th Street, Franklin Street, Main Street and the Downtown Library. Evaluate the feasibility of serving the Federal Building and the Rock Dump 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. [1995 IA 4.3.1]

8.9. 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 an adequate easement or right-of-way for travel lanes, park & ride facilities, and transit stops and transfer stations. This alignment could, in the future, be developed as a mass transit trolley or similar rapid transit system linking the Ferry Terminal to Downtown Juneau with stops for “feeder” buses arriving from major population centers like shopping centers, major employment centers, the university, airport and hospital and bus transfer stations in residential neighborhoods. This easement may be located within or adjacent to Egan Drive and/or Glacier Highway and should include a spur or link to Douglas Island. [1995 IA 4.3.12]

8.10. 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 trolley 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.
8.11. To reduce the demand for land-consuming parking spaces and to reduce use of fossil fuels, the CBJ should urge Downtown Juneau State, Federal and their own local government agencies to participate in a Coordinated Downtown Transportation Management Program (TMP) managed by CBJ staff or a third party manager. All Downtown public and private employees should be urged to participate in the TMP. The program could include, but would not be limited to, the following features:

A. Free or heavily-discounted transit passes to area employees;
B. Coordinated, perhaps mandatory, staggered or flexible work hours for area employees to avoid peak hour traffic;
C. Provision of safe pedestrian and bicycle pathways throughout the Downtown;
D. Free parking and preferential parking locations for carpool and vanpool drivers, all other parking would be charged a fee that would discourage use of private automobiles, such as a high parking fee for day-long parking;
E. A residential parking program for neighborhoods within walking distance of Downtown Juneau. Residents would have vehicle stickers allowing free on-street parking while non-stickered vehicles could park for only short-term periods during week-day, daytime hours;
F. Satellite parking within shuttle distance to major destinations in Downtown Juneau. A Downtown circulator shuttle would need to be operational and function on a frequency shorter than 10 minutes. Such satellite parking could be located at the Juneau-Douglas Bridge or somewhere around the Bill Ray Center;
G. State of Alaska to allow off-hour parking in State parking facilities and lots to ease evening and week-end event parking congestion;
H. Re-instituting metered parking Downtown to discourage long-term on-street parking;
I. Increasing parking enforcement as nearly all of these actions require enforcement or they will be of minimal utility; and
J. Assigning one CBJ staff member to manage the Transportation Management Program and all CBJ parking facilities and to coordinate with all CBJ, State, Federal agencies, private businesses and individual users of these facilities and resources. [1995 IA 4.3.2 and 4.3.14]

8.12. Work with the School District to identify safe pedestrian and bicycle pathways for students to travel to and from school facilities. Safe bus shelters and covered routes for “walking buses” should be provided, where appropriate.

8.13. As mentioned in the Energy Chapter as Implementing Action 6.8.4., 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.

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 which 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 8.1. IT IS THE POLICY OF THE CBJ TO SUPPORT THE IMPROVEMENT OF TRANSPORTATION FACILITIES AND SYSTEMS WHICH REINFORCE JUNEAU’S ROLE AS THE CAPITAL CITY OF ALASKA AND A REGIONAL TRANSPORTATION AND SERVICE CENTER.** [1995 Policy 4.1—first half]

Standard Operating Procedure

8.1.1. Assume a leadership role in the encouragement of surface transportation links into and out of the CBJ, particularly those which are not fossil fuel-powered. Consider all affordable energy-efficient and non-fossil-fueled transport alternatives to improve transportation links between Haines, Skagway and other areas of Southeast Alaska, including improved air passenger and cargo service, roadways, high speed ferries, and light or standard rail service. [1995 IA 4.1.1]

Implementing Actions

8.1.2. Identify one CBJ agency or staff, possibly in the City Manager’s Office, which 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, cost-effective and convenient manner possible.

8.1.3. Improve transportation facilities that accommodate air and marine links between the CBJ and outlying communities. [1995 IA 4.1.1]

8.1.4. Encourage early and meaningful public participation in transportation decision-making processes. [1995 IA 4.1.9]

8.1.5. When analyzing transportation facility options, consider the life-cycle costs of operation and maintenance on the prospective systems, 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).

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 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.

Since the airport was a military air base, 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 industrial use which is more compatible with aircraft and 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 “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 8.2. 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. [1995 Policy 4.1—second half]
**Standard Operating Procedures**

8.2.1. 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 while minimizing to the greatest extent practicable adverse impacts to wetlands and riparian habitat.

8.2.2. Protect all designated airport properties from land use conflict and/or displacement. [1995 IA 4.1.3]

8.2.3. Keep current the Airport Master Plan. [1995 IA 4.1.2]

8.2.4. 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. [1995 IA 4.1.5]

**Implementing Actions**

8.2.5. Complete the Environmental Impact Statement (EIS) for the Airport expansion and fund and complete the expansion plans and mitigation measures recommended in the Airport Expansion Environmental Impact Statement (EIS).

8.2.6. Improve motor vehicle and pedestrian access and circulation to and through the Juneau International Airport including ingress, egress, parking, and non-airport traffic flow.

8.2.7. Complete a remodel of the Airport Terminal to showcase the CBJ as the Capital City of Alaska.

8.2.8. Adopt an Airport Zoning District (AIR) for the Juneau International Airport lands; this district would prescribe permitted and conditional uses and the performance standards which would be required as conditions of any use permit for each of the principal-permitted (as-of-right) uses allowed on Airport property.

8.2.9. Adopt and designate an Airport Noise Notification Overlay zoning district and performance standards for uses therein to address airport compatibility issues outside airport boundaries but substantially impacted by aircraft noise. Within this overlay district, property owners should notify prospective tenants and purchasers of property therein of the presence of the airport, hours of flights, and other potential noise impacts. Within this district, construction methods and materials that would reduce indoor noise from aircraft to 45 decibels or below should be used in new construction or substantial rehabilitation of existing residential or office structures [see also IA 7.9.6].

[Please also note the guidelines of Subareas 3 and 4 in Chapter 11 of this Plan]
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 and overcome 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 the Channel only at high tide periods and, as such, their location in the Salmon Creek area is not convenient to the Mendenhall Valley, a major destination for goods shipped into the CBJ. Similarly, the only other barge landing in Thane forces heavy truck traffic through heavily congested pedestrian areas in Downtown Juneau during the summer tourism months. West 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 8.3. IT IS THE POLICY OF THE CBJ TO PROMOTE AND FACILITATE MARINE TRANSPORT SYSTEMS AND FACILITIES TO SUPPORT GOODS AND PASSENGER TRANSPORTATION, COMMERCIAL FISHING INDUSTRIES, RECREATIONAL WATER TRAVEL, AND WHEN NOT IN CONFLICT WITH THESE OTHER USES, ECO-TOURISM.**

Development Guideline

8.3.1. When reviewing building or development permits for shoreline areas, intertidal areas or seaward areas, ensure that such development does not adversely affect marine vessel navigation lanes, particularly for marine drayage activities such as barge, fuel vessels or other vessels that ship goods in or out of the CBJ.
Local Transportation System

With the exception of the Mendenhall Valley, existing development in the CBJ is linear, that is, confined to narrow benches of land on either side of the Gastineau Channel and 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 arterials 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 Alaska 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 which 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 which facilitates traffic 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 8.4. IT IS THE POLICY OF THE CBJ TO PROMOTE A BALANCED, WELL-INTEGRATED LOCAL MULTI-MODAL SURFACE TRANSPORTATION SYSTEM WHICH PROVIDES SAFE, CONVENIENT AND ENERGY-EFFICIENT ACCESS AND TRANSPORT FOR PEOPLE AND COMMODITIES. [1995 Policy 4.2]

Standard Operating Procedures

8.4.1. 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.

8.4.2. Maintain the CBJ overall and subarea transportation plans and ensure their consistency with other relevant CBJ Plans, including the Comprehensive Plan, the Recreation and Park Comprehensive Plan and the Capital Improvement Plan and Program. [1995 IA 4.2.2]

Development Guidelines

8.4.3. Require dedication of all development-needed rights-of-way, including trails, roads and transit easements on subdivision plats and development plans. Obtain commitments to construct trails and local and collector roadway improvements from private developers when projects are approved. [1995 IA 4.2.5]

8.4.4. 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 “C” or better for roadways and intersections serving the development. [1995 IA 4.2.6]

8.4.5. Designate corridors for planned and potential roadways 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. Revise CBJ development ordinances to assure that needed right-of-way for planned or potential roadways are reserved as easements when development proposals are reviewed and approved. [1995 IA 4.2.7]

8.4.6. Minimize access roadways or driveways onto minor arterial roadways or highways by requiring shared access points, such as a frontage road, and connections to adjacent subdivisions’ roadways which lead to a “downstream” signalized intersection.
Implementing Actions

8.4.7. 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 STIP. 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 “C” or better. [1995 IA 4.2.2]

8.4.8. Conduct a feasibility study for a Bus Rapid Transit (BRT) express bus service throughout the Urban Service Area to identify the most effective corridor/routes, transfer stations, hours of service, type of vehicles, etc. for the system. In this study, consider the feasibility and practicality of innovative transportation concepts including non-fossil-fuel powered vehicles, fast express routes, fixed guide-way or trolley systems and/or dedicated transit lanes, “smart” traffic signal controls for buses, on-line purchase of transit passes, etc.

Subarea Transportation Needs

POLICY 8.5. 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. [1995 Policy 4.4]

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 Creek, Mendenhall Valley, Auke Bay and Douglas Island.

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 the 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 for Downtown

[Please also consult other relevant sections of this Chapter 8 and the Guidelines and Considerations noted for Subarea 6 in Chapter 11 of this Plan.]

8.5.1. The CBJ should immediately establish transportation improvement priorities that can be included in the next revision to the STIP, and revise the priority table of the CBJ Area Wide Transportation Plan accordingly. Potential priorities for STIP 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 on the Juneau-Douglas Bridge, particularly at the intersection of Tenth and Egan. This improvement 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 to encourage use of public transit rather than private automobiles by Downtown employees commuting to work. Private and public employers should participate in the Program to implement numerous strategies to encourage alternative modes of transportation to downtown, including:
   1. more buses (including a shuttle service), vanpools and carpools, walking and bicycling for commuters;
   2. effective staggered work hours to relieve peak hour congestion;
   3. convenient and free parking for car- and van-pool vehicles; programmed preferential parking for car-sharing vehicles, and for electric, hybrid and other alternate fuel-powered vehicles on parking lots and in garages;
   4. provision of secure, dry bicycle storage in or near public buildings for commuting cyclists, joggers and pedestrians; and
   5. fee rates for on-street parking which discourage week-day, day-long parking to be coupled with a residential parking program to prevent commuting motorists from parking all day in nearby residential neighborhoods.

C. Encourage DOT to construct a travel route across Egan Drive for pedestrian travel to and from Aurora and Harris Harbors.

D. Continue to pursue the addition of a CBJ street parallel to Egan Drive that connects Aurora Harbor with the University of Alaska Southeast Marine Technology Center and Harris Harbor.
8.5.2. The CBJ should develop and manage an emergency transportation plan to address temporary or emergency access to and from the Downtown from Thane, Douglas Island and the Valley in the case of a blockage of Thane Road, Egan Drive or the Juneau-Douglas Bridge. This may include emergency marine vessel (ferry or water taxi) and helicopter service.

**Lemon Creek and Switzer Creek**

The Lemon Creek and Switzer 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. 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.

**Implementing Actions for Lemon Creek & Switzer Creek**

[Please also consult pages 16 and 17 of Volume I of the 2001 AWTP as well as the Guidelines and recommendations for Subarea 5 in Chapter 11 of this Plan]

8.5.3. Develop and implement a neighborhood transportation facilities improvement plan, in coordination with an area-wide neighborhood plan, for roadway access, sidewalks, pedestrian crossings, bus pull-outs 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 (D Z) 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 and transit facilities.

B. Construct an “industrial vehicle bypass route” located away from residential neighborhoods and providing access for heavy vehicles and which connects the industrial area around the Lemon Creek gravel pits to Egan Drive via Glacier Highway;

C. Develop a roadway connection to Downtown Juneau in the vicinity of the 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 “C” or better throughout the plan study area.
The Mendenhall Valley and Auke Bay

For the past three decades, the Mendenhall Valley has been the most rapidly growing area in the CBJ at suburban densities. Many of the un-signalized intersections serving those areas are now heavily congested, reflecting levels of Service (LOS) D, E and F which indicates 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 use public transit, or developments whose occupants would travel only during off-peak periods (such as housing restricted to occupancy by seniors or disabled persons). Elsewhere within the Valley, 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 Egan Drive and Glacier Highway. Additionally, the Valley intersections which 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; and “smart” laser traffic signal “triggers” installed on Capital Transit buses which trigger green lights for approaching buses. Pedestrian pathways are incomplete in the lower Valley area and need to be connected.

Implementing Actions for Mendenhall Valley and Auke Bay

[Please also consult pages 18 and 19 of Volume I of the 2001 AWTP and the Guidelines and recommendations for Subareas 3 and 4 in Chapter 11 of this Plan.]

8.5.4. Urge DOT to undertake roadway capacity, vehicular turning movement improvements, bus pull-outs and pedestrian and bicycle safety improvements within the Urban Service Area where an existing intersection Level of Service on the State route is “D” or worse; priority improvements should be given to intersections that would serve new low-to-moderate income affordable housing developments.

8.5.5. Urge DOT to undertake transportation improvements within the Auke Bay area pursuant to recommendations included in a CBJ-adopted Auke Bay neighborhood plan to be conducted by CDD staff with the participation of area residents, workers, property owners, recreationists, government agencies, the University and other interested parties. The Plan should address existing and anticipated travel demands generated by the Ferry terminal, boat marina, commercial fisheries facilities at the harbor, affordable housing, expansion of the University of Alaska Southeast, and other destinations located further “out the road”. [1995 IA 4.4.19]

8.5.6. Vehicle access to the University should be limited to the Back Loop Road entrance.

8.5.7. Improve the area between Industrial Blvd. and Fritz Cove Road with a separated pedestrian/bicycle path and lighting.
8.5.8. Require sidewalks and bicycle paths or lanes separated from the road travel way along existing and newly-constructed arterial and collector streets, where appropriate, to provide safe and efficient access and recreation and to reduce pedestrian/motor vehicle conflicts. [1995 IA 4.4.21]

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 recreationists 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 recreationists. 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 bridge discussions.]

Residential development along the eastern side of Douglas Island, called West Juneau, has taxed the capacity of the Cordova/Douglas Highway intersection, and has contributed to congestion on the Juneau-Douglas (JD) Bridge and the 10th and Egan intersection during the 7 AM to 9 AM weekday peak commute periods. An August 2006 weekday analysis of vehicle turning movements at the 10th and Egan intersection by DOT demonstrated that about half the vehicles from the 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 JD Bridge and 10th/Egan 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 picking up or dropping off passengers, provided that motorists are required to immediately yield to the buses when they signal to re-enter the travelway. Notwithstanding these short-term improvements, vehicle capacity improvements to the JD Bridge and its landing at 10th and Egan will likely be needed to accommodate further residential development on the 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 transisland 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 other single-route travel way in the area (North Douglas Highway or Egan Drive) is inaccessible or out-of-service. The North Douglas neighborhood, the West Douglas 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 once it has “landed” on the Island, including the location, design and capacity of the bridge landing structure, the road(s) or rail 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 for Douglas Island

[Please also consult pages 15 and 16 of Volume I of the 2001 AWTP and the Guidelines and recommendations for Subareas 9 and 10 in Chapter 11 of this Plan.]

8.5.9. 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 related to tourist and resident visits to Eaglecrest and other recreational destinations 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 heavily non-motorized traveled areas; 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.

8.5.10. Urge DOT to make improvements to roads, intersections and bridges on Douglas Island to accommodate new affordable housing development. These improvements should include increased capacity on the Juneau-Douglas Bridge, improvements at the Cordova and Douglas Highway intersection, and a North Douglas Bridge to the mainland. [1995 IA 4.2.8]

8.5.11. Maintain strong municipal support for construction of a North Douglas crossing of Gastineau Channel to accommodate new, compact development of the New Growth Area on west Douglas Island. The bridge should connect to a roadway, in the short-term, which provides sufficient right-of-way to accommodate light rail or heavy rail 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) The evaluation of the engineering design and costs and the environmental impacts of the bridge landing intersection, including the options of the landing intersecting with North Douglas Highway or upland of the Highway at a bench road alignment;

(B). Analysis of the location and configuration of separated pedestrian/ bicycle pathways, bus pull-offs and any access road(s) carrying traffic from the Island to the mainland; and

(C). Analysis of those elements should identify 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 the New Growth Area to their destinations on the mainland. This may require improvements to the Juneau-Douglas Bridge as well as providing a new Channel crossing route located as close to Mendenhall Valley as is practicable.

8.5.12. Designate potential road and non-motorized trail linkages between residential neighborhoods throughout the Island, where terrain permits and avoiding high-value wetlands whenever possible.

8.5.13. Require sidewalks and bicycle paths or lanes along existing or newly-constructed collector streets to provide safe and efficient access and recreation and to reduce pedestrian/automobile conflicts. [1995 IA 4.4.25]

**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 which 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 recreationists.

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 recreationists, hunters, fisherpersons and boaters. The DOT maintains portions of this road year-round and parts of it are snowbound and inaccessible during winter months.

[Please also consult the Guidelines and recommendations for Subareas 1, 2, 7 and 9 of Chapter 11 of this Plan.]
Implementing Actions for Thane and “Out The Road” Areas

8.5.14. Encourage DOT to upgrade Thane Road beyond the CBJ Sewer Treatment Plant to its end. 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 along the shoreline. [1995 IA 4.2.11]

8.5.16. Require separated pedestrian and bicycle paths or lanes along existing and newly-constructed collector streets to provide safe and convenient access to area neighborhoods, recreation destinations or public facilities.

Other Relevant Adopted Plans

Many of these transportation problems are analyzed and recommendations are proposed in the following relevant documents which 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, 1996;
- 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.
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 a Juneau Parks and Recreation Department (P&RD) Comprehensive Plan which identified community needs, issues, recommended parks and natural area improvements and development standards. In 2007, the Department 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 subareas. 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 within its subareas. 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” which 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. 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. 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 WHICH LACK ADEQUATE PARKS AND RECREATION FACILITIES. [1995 Policy 4.16]**
[please note that the SOPs, DGs and IAs are new, reflecting the CBJ Parks and Recreation Department (P&RD) and Parks and Recreation Advisory Committee (PRAC) recommendations, as amended by the Planning Commission in November 2006]

Standard Operating Procedures

9.1. Monitor trends in the CBJ demographics and incorporate activities specifically related to under-served populations.

9.2. Pursue interdepartmental, interagency and community planning efforts necessary to protect and enhance recreational opportunities in the CBJ.

9.3. 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.

9.4. 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.

9.5. Provide outreach programs directly to youth; bring programs to the neighborhoods.

9.6. Continue to support and seek to expand resources for Youth Activity Grants and scholarships for this program.

9.7. Officially welcome participants and otherwise encourage large regional sporting or athletic events such as the Gold Medal Basketball Tournament.

9.8. Support the formation of the Juneau Channel Islands State Marine Park.

Development Guideline

9.9. Ensure that proposed commercial use of public trails and their environs is consistent with the JP&RD “Commercial Use of Trails” report.

Implementing Actions

9.10. 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 subdivision, taking into account existing facilities within the area, proposed subdivision 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 subdivisions 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 on permitted subdivisions.

9.11. Establish discrete zoning districts in the CBJ Title 49 Land Use Code for CBJ-owned lands dedicated to parks and recreation (P, Public or PRK, Parks) and natural area (NA-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.

9.12. 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, (3) a public swimming pool in the Valley; and (4) a performing arts center in Downtown Juneau.

9.13. 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.

9.14. 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.

9.15. 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.

9.16. 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.

9.17. 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.

9.18. 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.

9.19. Complete a camping plan for CBJ that identifies a range of camping facilities from highly developed RV campgrounds, to remote cabin sites, and primitive campsites.

9.20. Investigate the location and number of mini-parks needed in the community and construct them.

9.21. Seek location and construction for an ATV/snowmobile course; one which has a programmed riding course as well as trails.
9.22. Continue the Commercial Use of Trails Working Group, or an equivalent group, to address commercial activities on CBJ park land.

9.23. Support the establishment of dog parks, per the CBJ P&RD Dog Task Force’s recommendations.

9.24. Identify all Parks with signage.

9.25. Implement the replacement schedule for playground equipment and include accessible equipment in all new purchases.


9.27. Enhance the beauty and livability of the CBJ by augmenting the CBJ landscaping program.

9.28. Work cooperatively with the Alaska State Museum and Gastineau Channel Historic Society to manage activities at the City Museum, the Last Chance Basin, the University of Alaska Southeast and other similar venues.

9.29. Promote development of a performing arts facility that will meet a wide variety of needs.

9.30. Incorporate park lands in developing areas through designation of publicly owned lands, acquisition of private lands, or dedication of lands during the subdivision process.

9.31. Develop a GIS map layer that clearly labels developed or designated open space/natural areas, greenbelts, parks, playgrounds and beach access points.

9.32. 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.

9.33. Enact a permit system for commercial use of public lands which 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.

9.34. Encourage development of additional facilities at, and provision of electric power 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 trail/fish and wildlife corridor would assure the most critical habitat for fish and wildlife which 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 9.1. 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 WHICH PROVIDES FISH AND WILDLIFE AND HUMAN ACCESS TO THE SEA FROM THE UPLANDS.

Standard Operating Procedures

9.1.1. 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.

9.1.2. 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

9.1.3. 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 which 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.

9.1.4. 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 and well as dedication provision of public access through the trail easements.

9.1.5. 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.
9.1.6. 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.

9.1.7. 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.

9.1.8. Implement the tri-agency Juneau Trails Plan and update as necessary.

9.1.9. Implement adopted Non-Motorized Transportation Plan items in subareas, and update as new subdivisions are constructed. Update this plan by December 2008.

9.1.10. Work with the DOT, the CDD and Engineering Department to ensure that future CBJ construction includes adequate pedestrian and bicycle facilities, and that existing neighborhoods be connected by a network of non-motorized corridors.

9.1.11. Support the designation of Federal Transportation Enhancement Funds for trail development, athletic field enhancements and nature centers consistent with SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act—A Legacy for Users) 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 lodge, 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
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 most frequently expressed valued community assets 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 9.2. IT IS THE POLICY OF THE CBJ TO PRESERVE AS PUBLIC NATURAL AREAS THOSE PUBLICLY-OWNED LANDS AND SHORELINE AREAS WHICH POSSESS IMPORTANT RECREATIONAL, SCENIC, FISH AND WILDLIFE, AND OTHER ENVIRONMENTAL QUALITIES OR ARE SUBJECT TO NATURAL HAZARDS. [1995 Policy 4.17]

Standard Operating Procedures

9.2.1. 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.

9.2.2. Acquire land or regulate its use as necessary to protect the public from natural hazards and to preserve sensitive natural resources.

9.2.3. 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

9.2.4. 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.”

9.2.5. Revise the Land Use Code to establish conditional use approval procedures for proposed water-dependent or water-related developments and activities proposed in the Conservation Area (CA), Stream Protection Corridor (SC), and Natural Area Park (NP) land use categories that are not specifically stated as allowable uses in Chapter 11 of this Plan. This special review is necessary to prevent conflict between those uses and areas designated as natural or for resource protection.

9.2.6. Revise the Land Use Code to establish a View Corridor Protection Overlay District zoning designation which 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. The CBJ Title 49 Land Use Code, incorporating zoning standards, allowable uses, regulations, zoning 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. These land use policies also 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.

The following adopted Plans include land use policies and recommended uses and improvements which are herein incorporated by reference, along with any updates to those Plans which are adopted by the CBJ Assembly within the effective time period of this Plan:

- Juneau Coastal Management Plan
- Downtown Historic District Development Plan
- Long Range Waterfront Plan
- Last Chance Basin Land Management Plan
- Watershed Control Program—Salmon Creek Source
- Watershed Control and Wellhead Protection Program—Gold Creek Source
- West Douglas Conceptual Plan, Chapter 6 Land Use
- Juneau Non-Motorized Transportation Plan
- Area Wide Transportation Plan
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 rezoning process should be conducted to reflect the more modest land use designations and densities recommended in this 2007 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 cost-effective public services 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. 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. [1995 Policy 5.1—first half]

Standard Operating Procedures

10.1. Continue to 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. [1995 IA 5.1.1]

10.2. 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. Continue to provide choices in residential neighborhood character such that residents can choose to live in urban, suburban and rural residential settings and neighborhoods. [1995 IA 5.1.2]

10.3. Continue to 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 affordable housing in-fill development, and (c) other areas within the CBJ’s Urban Service Area which may be suitable for immediate (within the next five years) residential development with sufficient densities to produce low or moderate income affordable housing. [1995 IA 5.1.3]
10.4. Use the CBJ lands as an important means of providing sufficient land for low- to moderate-income affordable residential development while insuring 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. [1995 IA 5.1.4]

Implementing Actions

10.5. 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 within a 2 to 5 year time period. [1995 IA 5.1.4]

10.6. Identify, with neighborhood participation, development plans, densities and design parameters of development projects suitable for these CBJ-owned “buildable sites” and re-zone the land with performance standards to assure its development according to the recommended design and densities.

10.7. Identify, design, fund and complete the construction of capital improvements needed to facilitate the development of affordable housing on CBJ or former CBJ lands.

10.8. Amend the Land Use Code to establish, as development standards, “good neighbor” operating procedures for operators of group homes, transitional housing programs, homeless shelters and programs that provide food, clothing and counseling services to homeless populations (except convicted sex offenders), such that these programs would operate discretely and mitigate any noise, air quality, traffic, privacy or other impacts to surrounding or nearby properties. With these “good neighbor policies placed as conditions of the use permit, these uses should be allowed as an allowable use within the Urban Service Area.

POLICY 10.1. 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. [1995 Policy 5.1—second half]

Implementing Actions

10.1.1. 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; panelized, modular, “kit”, and manufactured homes on permanent foundations; and other types of housing suitable to diverse CBJ residents’ lifestyles and budgets.
10.1.2. 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. [1995 IA 5.1.5]

10.1.3. 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 located within transit corridors and which would provide affordable housing.

10.1.4. Revise the Land Use Code to allow small-scale renewable power facilities, such as solar panels and wind mills, 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 10.2. IT IS THE POLICY OF THE CBJ TO FACILITATE RESIDENTIAL DEVELOPMENTS OF VARIOUS TYPES AND DENSITIES WHICH ARE APPROPRIATELY LOCATED IN RELATION TO SITE CONDITIONS, SURROUNDING LAND USES, AND CAPACITY OF PUBLIC FACILITIES AND TRANSPORTATION SYSTEMS. [1995 Policy 5.2]**

**Standard Operating Procedures**

10.2.1. 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;
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;

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

Distance from incompatible land uses which may generate offensive or nuisance off-site impacts to the new residential development, including noise, dust, fumes, malodors and/or heavy truck traffic. [1995 IA 5.2.1]

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 10.3. IT IS THE POLICY OF THE CBJ TO MINIMIZE CONFLICTS BETWEEN RESIDENTIAL AREAS AND NEARBY RECREATIONAL, COMMERCIAL, OR INDUSTRIAL USES WHICH WOULD GENERATE ADVERSE IMPACTS TO EXISTING RESIDENTIAL AREAS THROUGH APPROPRIATE LAND USE LOCATIONAL DECISIONS AND REGULATORY MEASURES. [1995 Policy 5.3]

Development Guidelines

10.3.1. New development, 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 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 “C” or better. When these criteria are met, higher density is encouraged on vacant “in fill” lands where public facilities can accommodate this new development.

10.3.2. When a developer extends public or private utilities and infrastructure, such as sewer service, roads or power 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**

10.3.3. 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” the parking behind or within the structure(s). [1995 IA 5.3.1]

10.3.4. 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 or Best Management Practices into the non-residential development permit in order to mitigate potential adverse noise, dust, odor and glare impacts to adjacent residential neighbors. These Best Management 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. [1995 IA 5.3.2]

10.3.4. Establish new Land Use Code Noise Notification Overlay Districts which coincide with noise contour distances of known nuisance noise generating uses 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.

**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 dependence upon the private automobile and to reduce consumption of fossil fuels and our contribution to climate change.
POLICY 10.4. IT IS THE POLICY OF THE CBJ TO REQUIRE PROVISION OR AVAILABILITY OF TRANSPORTATION ACCESS, SEWER, WATER, DRAINAGE AND OTHER NECESSARY PUBLIC AMENITIES AND FACILITIES AS A CONDITION FOR APPROVAL OF PROPOSALS FOR RESIDENTIAL DEVELOPMENT AND TO SUPPORT ANTICIPATED DEVELOPMENT THROUGH A PROGRAM OF EXTENSIONS AND IMPROVEMENTS TO MUNICIPAL SERVICES. ANY SUCH DEVELOPMENT PROPOSAL SHOULD BE LOCATED WITHIN THE URBAN SERVICE AREA BOUNDARY OR WITHIN A DESIGNATED NEW GROWTH AREA PRIOR TO PERMIT APPROVAL. [1995 Policy 5.4]

Standard Operating Procedures

10.4.1. 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. [1995 5.4.2]

10.4.2. Maintain the provisions in the Land Use Code which require developers to provide for access, facilities, and services prior to final plat approval. [1995 IA 5.4.4]

10.4.3. 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.[1995 IA 5.4.5]

10.4.4. Encourage the careful location and design of small-scale commercial development to 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

10.4.5. Develop a Capital Improvement Plan to extend facilities and services to areas within the Urban Services Area planned for medium to high 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.

10.4.6. Develop infrastructure which supports low- and moderate-income affordable housing developments on municipally-owned lands.

10.4.7. Amend the Land Use Code to prohibit dwelling units in Heavy Industrial districts and to allow caretaker dwelling units in Heavy Commercial/Light Industrial districts.
Residential Project Design

The CBJ residents support measures which 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. The 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 non-fossil fuel transportation opportunities, and improve traffic safety.

POLICY 10.5. 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. [1995 Policy 5.5]

Development Guidelines

10.5.1. Assure that proposals for residential development are evaluated with regard to quality site design, including: (a) preservation of anadromous streams, high-value wetlands, natural terrain features and historic resources; (b) the provision of vegetative screens; (c) safe and convenient circulation for autos, pedestrians, and bicycles; (d) building placement that respects the terrain, maximizes light, air and energy efficiency and protects privacy of neighbors; and (e) consideration of compatibility factors related to surrounding land uses and public facilities. [1995 IA 5.5.1]

10.5.2. Assure buffering and screening between residential and commercial/industrial uses and between high- and low-density residential uses to ameliorate noise, glare, and other adverse effects. [1995 IA 5.5.6]

Implementing Actions

10.5.3. 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 “hiding” the parking in medium-to-high density developments. These incentives may include lower permit fees and/ or permit expediting services. [1995 IA 5.5.5]

10.5.4. 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. [1995 IA 5.5.3]

10.5.5. 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. [1995 IA 5.5.7]

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 access and the resulting costs of importing raw materials, and 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 has 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, services and tourism dollars, resulting in local employment and tax revenues to support 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 goods and events, and for dining and shopping. The airport area and the area around 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, institutional, cultural arts and industrial activities. Determination of location and size of commercial and industrial districts should be based on the space needs and location 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 industries seek 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 have wetlands and are unsuitable for development. Unfortunately, too, the search for buildable lands conducted for this Plan Update identified very little potential industrial lands suitable for development in the short-term; these include current and former gravel extraction areas.

**POLICY 10.6. 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. [1995 Policy 5.6]**

**Standard Operating Procedure**

10.6.1. 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. [1995 IA 5.6.1]

**Development Guidelines**

10.6.2. When allocating CBJ lands or other resources to competing business applicants, the CBJ should favor local, independent business which would provide year-round, full-time employment for local residents over other applicants who would not provide those resources.

10.6.3. 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 light industrial zones and all dwelling units should be prohibited in heavy industrial zones.

10.6.4. Ensure adequate infrastructure for projected commercial and industrial development through the Capital Improvement Program and transportation planning. [1995 IA 5.6.3]

10.6.5. 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

10.6.6. 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. [1995 IA 5.6.4]

10.6.7. Identify and protect from land use conflicts potential sites for light industrial and heavy industrial uses.
Regional Trade, Medical Services and Visitor-Destination Uses

An important economic engine for the CBJ is the attraction of the CBJ to regional, state, national and international visitors. Although the CBJ hosts a robust summer-season cruise ship visitor industry, which bolsters the CBJ’s sales tax revenues, this sector does not provide full-time, year-round employment for local residents while heavily impacting residential rents, recreational destinations, roadways, and the quiet of the town 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.

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 achieve a balanced economy in the CBJ.

POLICY 10.7. 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

10.7.1. 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 10.8. 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. [1995 Policy 2.12, see also 2007 Policy 5.3]

Development Guideline

10.8.1. When reviewing permits for new commercial visitor destinations, support the placement of local, independent businesses that would provide authentic CBJ goods and services in prominent locations within the development. Urge businesses therein to hire local residents, rather than to import seasonal employees in order to preventing the “leakage” of income out of town and to reduce the demand for limited rental housing resources by immigrant seasonal workers.

Implementing Actions

10.8.2. The CBJ should conduct analyses of potential measures which 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. The CBJ wishes to convey an authentic cultural and historic character to its visitors which would distinguish the CBJ from all other port-of-call for cruise ship passengers. Measures may include strengthening the presence and ratio of year-round, local, independent businesses versus the seasonal-only businesses through improved signage, tax inducements, specialty marketing programs or the like with preference given to local, independent, year-round businesses. Of particular concern is the concentration of seasonal-only retail establishments within the South Franklin Street area that sell jewelry, T-Shirts and gifts that are seen in nearly every other store along that street and at every other port-of-call for those same visitors. Findings of this analysis may include new programs to be managed by the Juneau Convention and Visitors Bureau, volunteer marketing and signage programs by the Downtown Business Association and may include Land Use Code amendments or other CBJ ordinances.

10.8.3. When reviewing permits for visitor destinations and related tourism industry activities, identify and seek to mitigate off-site impacts which may affect fish and wildlife habitat and air and water quality necessary to sustain other economic sectors in the community, such as fisheries.

10.8.4. 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. [1995 IA 2.12.8 and IA 5.6.5]

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 10.9. IT IS THE POLICY OF THE CBJ TO ENCOURAGE SMALL-SCALE NEIGHBORHOOD CONVENIENCE COMMERCIAL USES IN NEW NEIGHBORHOODS AND IN APPROPRIATE AREAS AND WITH APPROPRIATE OPERATING MEASURES WITHIN EXISTING NEIGHBORHOODS. [1995 Policy 5.7]**

**Development Guideline**

10.9.1. Maintain provisions in the Land Use Code for neighborhood commercial developments such as convenience grocery stores, which include standards and limitations governing allowable uses, hours of operation and which 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. [1995 IA 5.7.1]

**Resource-Based Industrial Development**

In addition to government and tourism, the area’s natural resources, predominantly minerals and fish, 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, the re-use of abandoned mines and gravel pits can be of recreational or habitat value if properly remediated. 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 waterbodies linking upland habitat to the sea. The protection of those 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, seafood processing and shipping facilities, is essential to sustain the commercial fishing industry.

**POLICY 10.10. IT IS THE POLICY OF THE CBJ TO FACILITATE THE CAREFUL DEVELOPMENT OF ECONOMICALLY-VALUABLE NATURAL RESOURCES WHILE AVOIDING OR MINIMIZING ADVERSE ENVIRONMENTAL AND/OR ECONOMIC IMPACTS TO OTHER CBJ BUSINESS SECTORS. [1995 Policy 5.8]**
Standard Operating Procedures

10.10.1. Work with State and Federal agencies to promote natural resource development that is compatible with the policies contained in this Plan. [1995 IA 5.8.1]

10.10.2. Maintain close coordination in the review process for State permit activities that affect land and habitat in the CBJ. [1995 IA 5.8.2]

Development Guideline

10.10.3. When reviewing permits for resource extraction activities, identify and seek to mitigate off-site impacts which may affect fish and wildlife habitat and air and water quality that is necessary to sustain other economic sectors or sustenance activities in the CBJ.

Implementing Actions

10.10.4. 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. [1995 IA 5.8.3]

10.10.5. Review Land Use Code provisions regarding timber harvesting. Consider exerting jurisdiction over parcels 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 where logging operations of greater than 10 acres would be allowed. [1995 IA 5.8.4]

10.10.6. Review Land Use Code provisions regarding home-based, small-scale and medium-scale agriculture and harvesting of flora. Require such activities to use careful soil and water management practices, non-invasive and non-fossil fuel fertilizers and pesticides to assure sustainability over the long-term.

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 which 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 10.11. 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.** [1995 Policy 5.9]

**Standard Operating Procedures**

10.11.1. As part of a careful planning analysis of the uses of CBJ shoreline areas, designate lands on the Comprehensive Plan Land Use Maps which are suitable for water-dependent uses such as new or expanded CBJ docks, harbors and port facilities, marine drayage facilities, cruise shop facilities, recreation and eco-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 or Waterfront Industrial lands on Land Use and Zoning Maps and prohibit non-water-dependent uses such as residential, office or non-maritime-related commercial uses within those districts. Continue to assure public access to the shoreline and waters for passive and active recreation uses. [1995 IA 5.9.2]

10.11.1. Within the Capital Improvement Program (CIP), identify special infrastructure needs for port and water-dependent development. [1995 IA 5.9.3]

10.11.2. 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. [1995 IA 5.9.4]

**Mixed Use Development**

Downtown Juneau is the government, employment, tourist, 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, with a mix of local young adults, which, combined, do not sustain 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, by comparison, seems deserted. The Downtown is in need of a greater proportion of residential uses to give the neighborhood 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 a walkable community with transit, bikes and walking replacing the private automobile as the means of intercity 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 which are suitable for mixed use development include Downtown Douglas, the “village” 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 10.12. 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. [1995 Policy 5.10]**

**Standard Operating Procedures**

10.12.1. Maintain a category on the Comprehensive Plan Land Use Maps and the Zoning Maps which 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. [1995 IA 5.10.1]

10.12.2. Maintain and improve provisions in the Land Use Code which include performance standards which cover 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. [1995 IA 5.10.2]
Implementing Actions

10.12.3. Rezone the land areas designated in this Plan for appropriate mixed use designations. [1995 5.10.4]

10.12.4. 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. [1995 IA 5.10.5]

10.12.5. Conduct an area plan for the Auke Bay community to create an attractive, pedestrian-oriented marine mixed use “village” which promotes affordable housing and accommodates the space and livability needs and objectives of residents, University students and faculty, recreationists, fisheries, business operators, property owners, and area fish and wildlife.

Public Uses

POLICY 10.13. 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

10.13.1. Continue to identify land areas on the Comprehensive Plan Land Use Maps for a “Capitol Complex” in Downtown Juneau which 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 Actions

10.13.2. Amend the Land Use Code to add a new zoning district category called P-Public to include existing and proposed locations for public facilities and activities such as municipal schools, libraries, police and fire stations, jails, medical facilities, community gardens, parks and playgrounds, water reservoirs, municipal water and sewage treatment plants, municipal power plants and distribution facilities, solid waste sanitary land fill facilities, municipal vehicle and goods indoor and outdoor storage facilities, harbors, transit facilities, parking facilities, and other similar facilities and activities as either principal permitted or conditional uses. Map those lands for the P-Public district uses.
10.13.3. Amend the Land Use Code to create new zoning districts for CBJ-owned lands designated for Parks, Natural Areas and Resource Protection uses and map those districts on CBJ lands designated for greenbelts, stream corridors and other similar uses.

10.13.4. Amend the Land Use Code to create new “overlay” zoning districts for affordable housing developments (Affordable Housing Overlay District), for view corridors (View Corridor Protection Overlay District), and for noise notification areas (Airport and Shooting Range Noise Notification Overlay Districts) and may 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” 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 which fall within this density range, and which could then be chosen as consistent with the Comprehensive Plan. The following descriptions of the Land Use designations indicate which zoning district designation(s) would be consistent with that particular designation and, therefore, would be allowed as a re-zoning application. An Affordable Housing Overlay District (AHOD) is to be allowed anywhere within the Urban Service Area on vacant or underutilized land in residential or mixed use land use zones which are served by municipal water, sewer, roads, and where intersections on collector or arterial roads serving this land is at a Level Of Service “C” or better. This overlay district is to be considered a “floating” zoning map designation which could be mapped on a case-by-case basis through a zoning map amendment process pursuant to the AHOD provisions when the land so qualifies for the District and the development standards and criteria for the specific district are met. Please note that an AHOD should only be approved for a developed, but “underutilized” parcel when the resulting residential density would be at least 200 percent greater than the existing density on the parcel and further provided that any existing low-income rental housing units would be adequately replaced on the site or elsewhere. Off-site
replacement housing may be satisfied by contributing an in-lieu fee to a non-profit housing development corporation or housing trust fund.

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 this Chapter and 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 community form 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 were 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, or in rural 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 which, typically, warrants a suburban or urban density of development. Likewise, North Douglas is to be provided sewer service which warrants more dense residential development. Areas that are planned for sewer service are designated transition areas which, when services and road improvements are provided, should increase its density of development. The more remote “roaded” areas of Thane and “Out the Road” communities are rural and are not proposed for municipal water or sewer service within the 13 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 designated from industrial use to heavy commercial/light industrial use. Other lands which 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 Industry only use; these are expected to be available in the long term. Waterfront areas were designated for water-dependent development, mixed with compatible commercial 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. Maps indicate existing public shoreline access points. The location of potential small boat harbors is 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 would 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 which 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 which have been designated Stream Protection Corridors (SC), greenbelts, or high value wetlands. No development shall 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 designated as PRK-Park, NA-Natural Areas, RP-Resource Protection Zoning District.
designations or, until those districts are established, the RR-Rural Reserve Zoning District would be permitted on CA-designated lands.

Stream Protection Corridor (SC). On CBJ-owned lands, a SC-Stream Protection Corridor designation serves to protect anadromous streams and their tributaries from development which could cause pollution, erosion, depletion of groundwater infiltration or otherwise could degrade the stream corridor and its biological functions. Upon first designation, a 300 foot wide corridor on both sides of the bank would be included within the designated corridor along anadromous waterbodies 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 300-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 designated RP—Resource Protection or NA-Natural Area Zoning District designations.

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 shall 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 recreationist. These lands should be designated PRK-Park, NA-Natural Areas, RP-Resource Protection, or RR-Rural Reserve Zoning District designations.

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, or the Hank Harmon Rifle Range as a citywide, single-use facility. The Kaxdigoowu Heen Trail is part of a Recreation Service Park. Recreation, parking, playgrounds and fields, operations and maintenance-related structures and activities are allowed, however, no permanent residential development should be permitted within an RS District with the exception of a caretaker dwelling. These lands should be designated PRK-Park, or RR-Rural Reserve Zoning Districts.

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, seasonal recreational facilities. Permanent residential uses are not permitted with the exception of caretaker units associated with a permitted
resource management or recreation use. These lands should be designated PRK—Park, NA-Natural Areas, RP-Resource Protection or RR-Rural Reserve (RR) Zoning Districts.

Watershed (WS) Watershed lands are in natural, undisturbed states that provide, or could in the future provide, water supplies for domestic water consumption. No new development shall be permitted other than (1) hydroelectric power plants, dams, windmills or similar facilities and their distribution facilities and associated roads which would provide power to nearby community facilities or to the community-at-large; (2) structures, access roads and trails necessary for the maintenance and protection of the resources therein or for managed non-motorized public access for education, historic resource preservation, and/or passive recreation purposes; or (3) community gardens or small-scale commercial agriculture, provided that non-native and invasive species and the use of non-native pesticides and fertilizers are prohibited. These WS lands should be designated a RP-Resource Protection or Rural Reserve (RR) Zoning District designation.

Hazard Area (HA) Hazard Area lands have characteristics which, due to existing or potential use of the land, 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; the Salmon Creek Dam inundation area; and land within the airport flight safety zone and airport noise contour zones. Lands within Hazard Area 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 should be limited to P-Public, HC-LI Heavy commercial/ Light industrial or IND, Industrial use with the provision that no residential use is permitted therein. CBJ-owned lands in hazard areas should be rezoned as NA-Natural Area or RP-Resource Protection districts.

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 viewscape demonstrate a scenic view of great natural beauty, a spectacular landscape, an important historic building or site, provide views of the aurora borealis, sea and harbors, or of a cityscape which conveys 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 which 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 or may be zoned a discrete View Corridor Protection zoning overlay district. However, any new zoning request or rezoning application should identify specific view corridors which would be protected by any new development therein. Land uses which do not require view-blocking structures would 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 which 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 including RR, P-Public, LC, GC, WC, WI, I, MU, Transit Oriented Development Districts, and D-1 through D-18 zoning districts.

Transportation Corridors (TC). Land for major public roads and streets, classified as one of the following:
Arterial, streets intended to carry large volumes of traffic at steady speeds with minimum interruptions to traffic flow. No new driveways should directly access arterial roadways;
Collector, streets which form the boundaries of major blocks of land and are intended primarily for inter-neighborhood traffic;
Local, streets intended primarily for vehicular access to abutting properties and not for through traffic; and
Transit Corridors including Bus Rapid Transit (BRT) Corridors, trolley (electric powered) or rail Transit Corridors, including land for 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. Park & Ride parking facilities and other off-site parking facilities may also be accommodated within Transit Corridors. Transit Corridors can be expected to support Mixed Use, Transit Oriented Development, and Affordable Housing Overlay zoning districts. Those districts are suitable for small dwelling units, including the Single Room Occupancy (SRO) type of development.

Resource Development (RD). Publicly- and privately-owned rural and remote lands to be managed primarily to conserve natural resources until specific land uses are permitted and developed. Such specific uses may include such principal-permitted or conditional uses, and their accessory uses, as mining, logging, hydroelectric power facilities; subsistence hunting and harvesting; community gardens or small- to medium-scale commercial agriculture, provided that non-native and invasive species and non-native fertilizers and pesticides are prohibited; and resident and visitor-oriented recreational facilities such as resorts, hiking or cross-country skiing, snowmobile or all-terrain vehicle facilities, or shooting ranges. Public or private cemeteries and associated crematoria are also allowed. Permanent residential development should be limited to very low densities to accommodate homesteading, pioneer homes or seasonal cabins consistent with a density of one dwelling unit per 40 gross acres of land, provided that owners and tenants of permanent housing are aware of potential noise and other public access impacts related to other allowable resource-extraction and recreational uses within the area. The area outside the study area of this Comprehensive Plan is considered to be designated Resource Development (RD) and only the PRK- Park, RP-Resource Protection, NA-Natural Area, HA—Hazard Area, WS-Watershed Protection, or the RR-Rural Reserve zoning districts would be permitted on RD designated lands.
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. Only the Rural Reserve (RR) and a Noise Notification Overlay zoning district would be permitted in a RDR designation area.

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. The following zoning districts would be allowed in a RLDR designation area: Rural Reserve (RR), D-1, D-2, D-3, a Noise Notification Overlay zoning district and, if the land is sewer-ed, the Affordable Housing Overlay District zoning districts.

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. The following zoning districts would be allowed in a ULDR designation area: Rural Reserve (RR), D-1, D-2, D-3, D-5, a Noise Notification Overlay zoning district and/or Affordable Housing Overlay zoning districts.

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. All types of dwelling units are allowed including single-family detached, cottage and bungalow housing, duplex to sixplex structures, apartments, condominiums, loft housing, Single Room Occupancy (SRO) units when located within one-quarter mile of a transit corridor, and manufactured home subdivisions where specifically permitted by the zoning district within which the property lies. The following zoning districts would be allowed in a MDR designation area: D-10, D-10/SF, D-15, D-18, D-20, a Noise Notification Overlay zoning district, Transit Oriented Development and/or Affordable Housing Overlay zoning districts.

Medium Density Residential—Single Family (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. The following zoning districts would be allowed in an MDR/SF designation area: D-10/SF, D-18 and D-20, a Noise Notification Overlay zoning district, and/or Affordable Housing Overlay zoning districts where the unit type is limited to those described above.

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. Small dwelling units such as cottage and bungalow housing, condominiums and apartments, Single Room Occupancy (SRO) units, loft housing, group homes and institutions, and other similar housing would be suitable for these lands, particularly when located within areas served by...
public transit. These lands are suitable for Transit Oriented Development zoning designations, Affordable Housing Overlay District zoning designations, Mixed Use (MU and MU2) and D-18 to D-60 zoning designations and densities and a Noise Notification Overlay zoning district designation. Commercial space may or may not be an element of the developments therein.

**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 rapid 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 arterial roads with parking behind the retail and housing above would be an appropriate and efficient use of the land. Single-Room Occupancy dwelling units (SROs) would be an appropriate use. The following zoning districts would be allowed in a MU designation area: D-18, D-20, D-60, LC, GC, MU, MU2, a Noise Notification Overlay zoning district, Transit Oriented Development and/or Affordable Housing Overlay zoning districts.

**Marine Mixed Use (M/MU).** These lands are characterized by high density residential and non-residential land uses in areas around harbors and other water-dependent recreational or commercial/industrial areas. Suitable areas 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 for those areas. Typically, neighborhood-serving and marinerelated retail, personal service, food and beverage services, recreational services, transit and transportation services are allowed and encouraged, as well as mixed use developments and medium- and high-density residential uses at densities ranging from 10 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 arterial roads with parking behind the retail and housing above would be an appropriate and efficient use of the land. Single-Room Occupancy dwelling units (SROs) would be an appropriate use. The following zoning districts would be allowed in a M/MU designation area: D-10, D-18, D-20, D-60, LC, GC, MU, MU2, a Noise Notification Overlay zoning district, Transit Oriented Development and/or Affordable Housing Overlay zoning districts.

**Transit Oriented Development (TOD).** These lands are located with one-quarter mile of an express bus route or planned express bus route or within an areas to be provided enhanced “feeder” bus service to an express bus route. 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 and along rapid 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 20 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 arterial roads with parking behind the retail and housing above would be an appropriate and efficient use of the land. Single-Room Occupancy dwelling units (SROs) would be an appropriate use. The following zoning districts would be allowed in a TOD designation area:
D-10/ SF, D-18, D-20, LC, GC, MU, a Noise Notification Overlay zoning district, Transit Oriented Development and/or Affordable Housing Overlay zoning districts.

**Transition Area.** Predominately undeveloped or low density residential areas within the Urban Service Area boundary that do not yet have public sewer service. A transition area is shown as a lower density classification that would undergo a transition (T) to the specifically-named higher density classification once sewer and adequate road capacity and intersection vehicular Levels of Service are provided (LOS “C” or better). When such services are provided to the property, the higher densities should be allowed and developed thereon to maximize the efficient use of the land and sewer service.

**Neighborhood Commercial (NC).** Lands devoted to neighborhood commercial uses which generally sell goods necessary and convenient to meet daily residential needs, and on parcels which occupy less than two acres. Such uses include small-scale grocery stores, laundry and dry cleaners, video/DVD stores, cafes, delis, and beauty/barber shops. Residential uses above or adjacent to commercial space are encouraged. The following zoning districts would be allowed in a NC designation area: D-1 through D-10, LC, GC, MU, MU2, Transit Oriented Development and/or Affordable Housing Overlay zoning districts.

**General Commercial (CG).** 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 large employment centers. Mixed retail/residential/office uses are allowed, and encouraged, in neighborhood “Downtowns” such as in Juneau, Douglas and Auke Bay, and in shopping centers 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. Single-Room Occupancy dwelling units (SROs) above commercial space would be an appropriate use. The following zoning districts would be allowed in a GC designation area: LC, GC, MU, MU2, Transit Oriented Development and/or an Affordable Housing Overlay district.

**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 the business for which the occupant is caretaking. The following zoning districts would be allowed in a HC/LI designation area: GC—General Commercial, LI—Light Industrial, or a Noise Notification Overlay zoning district.

**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 public recreational uses are permitted including sport vehicle, all terrain vehicle (ATV) or snowmobile motor-course facilities, outdoor shooting ranges, and other similar noise-generating uses. Residential, office and personal service uses are not to be allowed. This use is limited to Heavy Industrial, P-Public or Rural Reserve districts.

Waterfront Commercial (WC). Land to be used primarily 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 fisheries, 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, and similar goods and services to support mariners and their guests. Float homes would be the only residential use to be allowed within a WC district. The following zoning districts would be allowed in WC designated areas: WC and P-Public districts.

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, 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. The following zoning district would be allowed in WCI designated areas: WI and P-Public zoning districts.

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 which 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 which will influence the future direction of the subarea. Finally, guidelines for future subarea planning, including capital improvements and permit review considerations which have emerged from this Comprehensive Plan Update process, are listed.

The ten subareas are shown on the Subarea Index (Map C).

Please note that the proposed amendments to the Subarea Land Use Maps are shown by hand-drawn notes accompanied by a text description of the proposed changes at the beginning of each Subarea discussion in this chapter.
Proposed Land Use Map changes for Subarea 1: Eagle River to Berners Bay.
Description of the proposed Land Use Map Changes for Subarea 1: Eagle River to Berners Bay

- Identify three new watershed areas for protection of future potable water supplies: One above Davies Creek, one above Eagle River, and one above Herbert River/Windfall Lake;
- Identify the area of special concern for Herring spawning between Bridget Cove and the east shoreline of Berners Bay;
- Identify the area of special concern for the Steller Sea Lion Rookery and fisheries area extending three nautical miles around Benjamin Island.
- Designation of a Scenic Corridor/Viewshed area above the highway from Bridget Cove to Eagle Beach, an approximately 400 feet wide, 10 mile long stretch, per the CBJ Parks and Recreation Department’s recommendation in their 2007 Chapter 8 Comprehensive Plan amendment which is reflected in the Subarea 1 Consideration Number 6(j); and
- Renaming two CBJ-owned lands from “Other Public Lands--OPL” designation to “Conservation Area--CA” designations; and renaming two streams from a Conservation Area designation to Stream Corridor--SC designation.
Subarea 1: Eagle River to Berners Bay
(Map 1)

Community Form: Rural, with a New Growth Area

Natural Resources and Hazards:

<table>
<thead>
<tr>
<th>Type</th>
<th>General Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wildlife (Eagles Nests, Sea Lion Haul Out</td>
<td>Echo Cove, Lynn Canal Shorelines, Bridget Cove, North Island, <strong>MAB Island</strong>,</td>
</tr>
<tr>
<td>&amp; Rookery, Herring Spawning area)</td>
<td>Benjamin Island, Amalga Harbor, Shrine of St. Terese</td>
</tr>
<tr>
<td>Stream and Lakeshore Corridors</td>
<td>Cowee and Davies Creeks, Bridget Creek and Shrine Creek</td>
</tr>
<tr>
<td></td>
<td>Eagle and Herbert Rivers, Peterson Creek</td>
</tr>
<tr>
<td>Watersheds</td>
<td>Herbert River, Davies Creek &amp; Eagle River</td>
</tr>
<tr>
<td>Gravel Resource</td>
<td>Eagle and Herbert River corridors, delta/estuary area</td>
</tr>
<tr>
<td>Wetlands/ Tidelands</td>
<td>Eagle/Herbert River estuary, Echo Cove, Bridget Cove, Yankee Cove</td>
</tr>
<tr>
<td>Flooding</td>
<td>Cowee and Davies Creeks, Eagle River, Herbert River, Peterson Creek coastal areas</td>
</tr>
<tr>
<td>Scenic Corridor/ Viewshed</td>
<td>10 miles upland of Glacier Highway from Bridget Cove to Eagle Beach</td>
</tr>
<tr>
<td>Historic and Cultural Resources</td>
<td>Subarea-wide</td>
</tr>
</tbody>
</table>

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. [1995 Guideline #1]
2. There is special concern for the conservation and protection of Herring species spawning areas located between Bridget Cove and the east shoreline of Berners Bay west of Cowee Creek, a distance of about 3.9 nautical miles from Bridget Cove, pursuant to the AKF&G March 2007 Regional Information Report No. 1J07-01, "Berners Bay Herring Research for 2005 and 2006".

3. There is a special concern for the conservation and protection of Steller Sea Lion Rookery and fisheries area zone extending three nautical miles around Benjamin Island, pursuant to the National Marine Fishery Service "Steller Sea Lion Recovery Plan". It is recommended that only research scientist teams visit land on Benjamin Island and that no tourist vessel or recreationist vessel approach the island closer than 100 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. [1995, # 2]

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. [1995, # 3]

6. Recognize Berners Bay and the river systems which feed it as important fish and wildlife habitat, recreation and scenic areas which 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 “critter crossing” to assure safe passage of wildlife from the uplands to the sea along each anadromous stream alignments affected by the road or railway. [1995, #4]

7. Develop a comprehensive, interagency plan for Tee Harbor to Berners Bay which recognizes, protects and enhances fish and wildlife habitat as well as the multiple recreational, educational and scenic resources found in that area. [1995, #5]

8. The Parks and Recreation Comprehensive Plan, Chapter 8, recommends a number of parks, trail, community garden and stream corridor improvements. Those recommendations for subarea 1 and 2, combined, 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, Davies and Wildes Richardson Trails; (h) protect stream corridors and, where practical, establish a 300 foot
stream buffer on CBJ-owned lands each side of the following creeks: Peterson, Shrine, 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; (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) 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 for rail, vehicles, bicyclists and pedestrians. A rail line or, at a minimum, an adequate right-of-way easement for a heavy rail line should be provided along any roadway extension of Glacier Highway to provide for electric or non-fossil fuel powered rail service to northern land-based transport systems.

10. Continue to 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. 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
Map 2A

Natural Resource
- REC: Recreation Resource
- RD: Resource Development
- FP: Federal Park
- SP: State Park
- NP: CBJ Natural Park Area
- RS: CBJ Recreation Service Park
- CA: CBJ Conservation Area
- SC: Stream Corridor
- IFP: Identified for Future Park
- OPL: Other Public Lands

Residential
- RDR: Rural Dispersed Residential

Roads/Trails
- ---: Potential Road Corridor
- - - - : Trail

Other
- 🌊: Boating Facility
- 🌊: Proposed Boating Facility/Improvement
- 🏖️: Beach Access

NOTE: Potential geographical hazards, entities, flood zones, natural resource setbacks or other features which can affect properties may be present. CONTACT THE COMMUNITY DEVELOPMENT DEPARTMENT FOR DETAILED INFORMATION.

CBJ Comprehensive Plan
Adopted 11/15/96
Or. No. 95–37
Proposed Land Use Map Changes for Subarea 2: Lena Cove to Eagle River, Map 2A
Proposed Land Use Map Changes for Subarea 2: Lena Cove to Eagle River, Map 2B
Proposed Land Use Map Changes for **Subarea 2: Lena Cove to Eagle River, Map 2A**

- Change the designation on CBJ-owned lands above the Eagle and Herbert River areas down to Amalga Harbor area from Resource Development (RD) to Natural Area Park (NP). Federally-owned lands would remain Recreational Resource (REC);

- One privately-owned area which is surrounded by the CBJ-owned NP area would remain Resource Development (RD);

- One large privately-owned area upland of the CBJ-owned NP area would be designated Rural Dispersed Residential (RDR) instead of the current RD designation because that area has already been subdivided into residential lots reflecting that density—one unit per acre with no sewer service;

- Three areas, one at Eagle Harbor, one at Amalga Harbor, and one at Pearl Harbor, all CBJ-owned parcels designated “Identified for Future Park—IFP” were designated NP;

- A potential road corridor alignment by the Herbert River and leading toward Montana Creek and ending at Auke Nu Cove was deleted;

- Peterson Creek and Lena Creek alignment were designated Stream Protection Corridors;

- Land upland of Peterson Creek was designated as Watershed areas; and

- One parcel between Amalga and Pearl Harbors was changed from OPL to Institutional Public Use (IPU).

**Subarea 2, Map 2B**

- Portions of federally-owned lands on the southern part of Shelter Island which is currently designated Rural Density Residential (RDR), but that is in open space/natural areas use was included within the adjacent REC designated area;

- Lena Creek alignment was designated a Stream Protection Corridor;

- A portion of the Lena Point South subdivision which is designated as an open space/natural areas area was designated from Rural Low Density Residential (RLDR) to CA;

- CBJ-owned land upland of the highway remains in Resource Development (RD) designation with the exception of two areas that have been developed as ball fields; those will be designated Recreational Service Park (RS); and

- Future land selection areas by the State and CBJ on federal lands would be designated RD.
Subarea 2: Lena Cove to Eagle River (Maps 2A & 2B)

Community Form: Rural

The Rural Dispersed Residential (1 dwelling per acre) and Rural Low Density Residential (1 to 3 dwellings per acre) designations predominate in this Subarea, primarily due to the absence of both public sewer in the area; there are no plans to provide or extend these services. The lands in the Auke Nu/Point Lena area were designated Rural Low Density Residential (1 to 3 dwellings per acre) primarily because of the established development pattern therein.

Natural Resources and Hazards:

<table>
<thead>
<tr>
<th>Type</th>
<th>General Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wildlife (Eagle Nests)</td>
<td>Lena Cove, Tee Harbor</td>
</tr>
<tr>
<td>Stream Corridors</td>
<td>Lena Creek, Tee Creek</td>
</tr>
<tr>
<td>Gravel Resource</td>
<td>Adjacent to road</td>
</tr>
<tr>
<td>Watershed</td>
<td>Peterson Creek</td>
</tr>
<tr>
<td>Flooding</td>
<td>All coastal areas</td>
</tr>
<tr>
<td>Cultural and Historic Resources</td>
<td>Subarea-wide</td>
</tr>
</tbody>
</table>

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. [1995, #1]

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. [1995, #2]

4. Encourage development of boat launch facilities at Lena Cove and South Tee Harbor. [1995, #3]

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; and (d) implement the Master Plan for Amalga Meadows area.

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. [1995, #8]

7. Continue to 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.
Proposed Land Use Map Changes for Subarea 3: Auke Bay, Mendenhall Peninsula and West Mendenhall Valley:
Proposed Land Use Map Changes for Subarea 3: Auke Bay, Mendenhall Peninsula and West Mendenhall Valley:

- A portion of Auke Nu Cove extending westward toward the cove from the current Waterfront Commercial Industrial (WCI) zone was included within the WCI zone to accommodate the CBJ Docks and Harbors commercial fishing facilities and related private fishing facilities;
- At the eastern side of Indian Cove, the OPL zone was split in half with the western half renamed IPU and the eastern half included within the adjacent NP area;
- The study area designation for a road corridor extending from Auke Nu Cove toward Montana Creek to the Eagle River was deleted, per the rationale mentioned in Subarea 2;
- East of the Ferry Terminal, OPL land was renamed IPU;
- An area around the Auke Bay General Commercial (GC) area, Waterfront Commercial (WC), Medium Density Residential (MDR), IPU and other residential areas was identified as a study area for a future Area Plan to create a transit-oriented mixed use zone which provided high-density, affordable housing for UAS students and faculty and other households, and to create a walkable Auke Bay “village” marine-oriented mixed use center or “downtown” for the village. In the interim, these lands are designated MU-Mixed Use.
- Where sewers are provided, the higher densities of the “transition” zone are designated. For example, the current RDR (T) ULDR zone north of Auke Land has been provided sewer, therefore it is now designated ULDR;
- The northernmost 11 acre, CBJ-owned portion of the Mendenhall Peninsula, directly across the highway from UAS, was designated Resource Development (transition to ) Medium Density Residential [RD (T) MDR] as a result of the Comp Plan Buildable Sites study which found this parcel to be relatively dry and buildable, once the problem of safe access is solved;
- The remainder of the CBJ-owned Mendenhall Peninsula was found by the Buildable Sites study to have pockets of buildable land interspersed among steep terrain and high-value wetlands: as such this area was designated from RD to Rural Dispersed Residential transitioning to Urban Low Density Residential [RDR (T) ULDR] which would allow for higher density “clustered” residential development when sewers are extended to those lands. This is the same designation as the adjacent land to the west;
- A small portion of the south Mendenhall Peninsula CBJ-owned land which is now designated NP was included in the RDR(T)ULDR zone because the Buildable Sites study found this area to be relatively flat and dry which related more closely with that area. The Urban
Service Area boundary (USAB) will be extended to include the small land area moving from the NP zone to the RDR(T)ULDR zone;

- The portion of Spuhn Island that was designated RD was re-designated Rural Low Density Residential (RLDR) to reflect the pattern of subdivision taking place on the island;
- The small area on the southernmost tip of the Mendenhall Peninsula which is designated RD was re-designated RLDR;
- The westernmost portion of the CBJ-owned land uplands (east) of Auke Lake to the crest of the ridge would be designated NP; this would double the current open space/natural areas area therein;
- The remaining portion of the “Pedersen Hill” area east of Auke Lake would be designated RDR(T) MDR as it is viewed as a housing opportunity site once road access and utilities are provided to the land and intersections serving this site are improved to LOS “C” or better. This RD (T) MDR designation is consistent with the same designation at the bottom of the hill along Glacier Highway;
- CBJ-owned lands located along the western edge of Mendenhall River would be renamed from RS to NP as these lands were purchased as stream corridor greenbelts, rather than active play areas. However, a small portion of this CBJ-owned land located at the bottom of Pedersen Hill would remain RS for the purpose of locating a raptor center;
- About half of the IPU land located within the Industrial (IND) zone between Sherwood Drive and Industrial Boulevard was removed from IPU and put into the IND zone. The IPU zone would contain the Fire Department facility and portion of a new Stream Protection Corridor for the portion of Pedersen Creek therein. The new IND zone is “wet” but with “uplift” it may be usable and should be reserved for industry sometime in the future although not in the planning horizon of this Plan. Staff is looking for suitable industrial land in every corner of the USAB and this land would meet industrial location criteria once it dries out;
- The stream corridors of Montana Creek and Mendenhall River are designated SC;
- The stream corridor along Montana Creek located above the USAB is widened from 200 feet to 500 feet each side of the banks.
- A new Upper Montana Creek Watershed (WS) was designated above the “roaded” area of Montana Creek, and a new Nugget Creek Watershed was designated; and
- The CBJ-owned RD area north of the Mendenhall Loop Road and leading toward the shooting ranges are designated from RD to NP with the exception of the areas containing the indoor and outdoor gun shooting ranges and the archery range which would be designated RS.
Subarea 3: Auke Bay, Mendenhall Peninsula, West Mendenhall Valley

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 west of Auke Nu Creek and along the shoreline of 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 “C” or better. Greenbelts are shown for Mendenhall River, Montana Creek, and Auke Lake.

Natural Resources and Hazards:

<table>
<thead>
<tr>
<th>Type</th>
<th>General Location</th>
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<tr>
<td>Wildlife (Eagle Nests)</td>
<td>Auke Bay, Mendenhall Peninsula</td>
</tr>
<tr>
<td>Stream and Lake Corridors</td>
<td>Auke Nu Creek, Weydelich Creek, Bay Creek, Lake Creeks, Montana Creek, Mendenhall River, Auke Lake, Jordan Creek, Duck Creek</td>
</tr>
<tr>
<td>Impaired Water Body</td>
<td>Peterson Hill Creek</td>
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<tr>
<td>Wetlands</td>
<td>West Mendenhall Valley, Spuhn Island, Mendenhall Peninsula, Mendenhall Wetlands State Game Refuge, Montana Creek, Auke Nu Cove</td>
</tr>
<tr>
<td>Gravel Resource</td>
<td>Montana Creek basin, Mendenhall River corridor, North side of Auke Lake</td>
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<td>Flooding</td>
<td>Montana Creek, West Mendenhall Valley, all coastal areas</td>
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<tr>
<td>Hazards</td>
<td>Airport flight safety zone in mid-Mendenhall Peninsula area</td>
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<tr>
<td>Watershed</td>
<td>Montana Creek(above the roadded area)</td>
</tr>
<tr>
<td>Cultural and Historic Resources</td>
<td>Subarea-wide</td>
</tr>
</tbody>
</table>
Guidelines and Considerations for Subarea 3:

1. Conduct an area plan, or neighborhood plan, for the Auke Bay area which 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 needs, student and faculty housing, neighborhood-commercial needs, transportation systems, habitat protection, educational facilities, 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. Adopt design guidelines and development standards for the proposed Auke Bay neighborhood plan and Marine Mixed Use District. [1995, #1]

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. Continue to 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. [1995, #2]

5. Continue to protect CBJ-owned lands located within 500 feet of each side of the bank of Montana Creek from its juncture with the Mendenhall River to its headwaters.

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 right-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. [1995, #4]

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 Shooting Range Noise Notification zoning 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. [1995, #6]

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&PF at Brotherhood Bridge; (o) light the trail at Kaxdigoowu Heen Trail for year-round use; (p) create a neighborhood park for subarea 2; (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 Peterson Hill area and other areas around the University to accommodate higher density, affordable student and faculty housing. Extend the Urban Service Area boundary to all properties served by municipal water and sewer service.

15. Pederson Hill Creek is listed as an “impaired” waterbody by the Alaska Department of Environmental Conservation (DEC) and, therefore, careful review of future development proposals which 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 Peterson Hill area to the Mendenhall Back Loop Road; this may be designed as a collector street serving development of the Peterson Hill area and could also be considered as a possible bypass of the Auke Bay area.

17. Encourage beautification and buffering along major roadways. [1995, #20]

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. [1995, #21]

19. Continue to 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. Require sidewalks, bicycle paths and 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.
Proposed Land Use Map Changes for Subarea 4: East Mendenhall Valley and the Airport
Proposed Land Use Map Changes for Subarea 4: East Mendenhall Valley and the Airport

- The Jordan Creek stream corridor on CBJ-owned lands “Under Thunder” and north of the airport were designated SC;
- The lands above the mouth of Nugget Creek are designated Watershed (WS);
- An OPL zone at the north end of the subarea was renamed IPU;
- Land along a portion of Duck Creek that will be realigned as part of the airport runway safety zone was un-designated Conservation Area (CA) and was included in the surrounding IPU zone because the airport runway expansion safety project is expected to re-route the creek; the re-routed creek alignment will be designated CA;
- The Industrial (IND) zone north of the airport was designated a new land use category called Heavy Commercial/Light Industrial (HC/LI) which would accommodate new retail and office use as-of-right while allowing light industry to remain, expand and relocate within the zone. This was to accommodate retail and office uses which have been encroaching on other IND zones within the USA. The remaining IND zones would not allow retail, office, service or residential uses.
- The former gravel extraction pits which were designated IFP (Identified for Future Park), located east of the airport, is designated IND to accommodate airport-related industrial uses, acknowledging that this area is also “wet” and may be years away from being suitable for industry. Its location near the airport and highway noise makes it unsuitable for residential use.
- The non-gravel extraction pits (now ponds) of the former IFP zone and extending to the Urban Low Density Residential (ULDR) zone at Sunny Point is designated CA-Conservation Area. This, however, may also qualify for a Scenic Corridor/Viewshed designation;
- The CBJ-owned land next to the DOT office building was included in the adjacent IPU zone and should be designated P-Public District when that zoning category is formed; and
- A potential “by-pass” road corridor extending from Glacier Highway near the airport to the Prison/jail area of Lemon Creek was deleted as this industrial by-pass should not pass through the residential neighborhoods of Lemon Creek to get to Glacier Highway. The portion of the by-pass that leads from the prison/jail/gravel extraction areas of Lemon Creek to Egan Drive should go through the industrial area of Lemon Creek/Vanderbilt Creek; this is shown in Subarea 5.
Subarea 4: East Mendenhall Valley and Airport

Community Form: Suburban/Urban

Natural Resources and Hazards:

<table>
<thead>
<tr>
<th>Type</th>
<th>General Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wildlife (Eagle Nests)</td>
<td>Airport vicinity</td>
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<tr>
<td>Stream Corridors</td>
<td>Mendenhall River, Duck and Jordan Creeks (Additional waterbodies are listed in Appendix A)</td>
</tr>
<tr>
<td>Wetlands/Tidelands</td>
<td>Nugget Creek, Mendenhall Flats - Airport Vicinity</td>
</tr>
<tr>
<td>Gravel Resources</td>
<td>Mendenhall River corridor, upper part of valley</td>
</tr>
<tr>
<td>Impaired Water Bodies</td>
<td>Duck Creek, Jordan Creek</td>
</tr>
<tr>
<td>Flooding</td>
<td>Mendenhall River, Jordan Creek, all coastal areas</td>
</tr>
<tr>
<td>Watershed</td>
<td>Nugget Creek with a potential hydroelectric power source at Nugget Falls</td>
</tr>
<tr>
<td>Hazards</td>
<td>Thunder Mountain (avalanche and landslides); Airport (noise contour zones)</td>
</tr>
<tr>
<td>Cultural and Historic Resources</td>
<td>Subarea-wide</td>
</tr>
</tbody>
</table>

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. [1995, #1]

2. Provide for increased community commercial development close to existing commercial areas in the lower valley. [1995, #3]

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. [1995, #4]

4. Utilize CBJ-selected lands for high-density residential development, recognizing constraints of sensitive areas. [1995, #5]

5. Maintain public access to the Mendenhall Wetlands State Game Refuge (MWSGR) through the Emergency Vehicle Access Route along the northern airport dike. [1995, #6]

6. Duck Creek and Jordan Creek are listed as “impaired” waterbodies by the Alaska Department of Environmental Conservation (DEC) and, therefore, careful review of future development proposals which could affect the volume, velocity, cleanliness, and overall water quality of these creeks and their watersheds and tributaries is warranted. The Assembly should support community efforts to educate and, perhaps, regulate snow removal and storage practices as described in Development Guideline 7.6.8 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 Capital Transit Corridor with transfer stations at the Malls and 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. [1995, #11]

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 which address the treatment and placement of runoff. [1995, #12]

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 greenbelt along Jordan Creek; (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.

13. Continue to 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.
Proposed Land Use Map Changes for Subarea 5: Switzer Creek, Lemon Creek and Salmon Creek
Proposed Land Use Map Changes for Subarea 5: Switzer Creek, Lemon Creek and Salmon Creek

- CBJ-owned lands above and west of the Dzantik’I Heeni School were changed from ULDR to MDR;
- Portions of the CBJ-owned lands located north of the prison/jail were changed from IPU to RD(T)IND for heavy industry only;
- The industrial by-pass road corridor that goes through the MDR lands was deleted;
- The Switzer Creek alignment was designated SC;
- The NP zone located on Sunny Point was renamed CA;
- A portion of the RD area south of the jail was designated MDR to reflect the new condominiums constructed therein;
- The remaining portion of the RD area south of the jail was included in a new HC/LI zone that also included the IND zone lands around Costco. This acknowledges the encroachment of this industrial area to retail uses;
- A portion of the former RD area east of Costco was designated NP to match the Vanderbilt Creek preservation areas designated as part of the Costco land trade deal;
- A CBJ-owned parcel located south of the new NP zones was designated Conservation Area, as this parcel was studied as part of the Comp Plan Buildable Sites Study and was found to have a Vanderbilt Creek tributary running through it and is entirely designated as a high-value wetland;
- The existing landfill site was designated IPU and the lands south of the landfill were renamed IPU from the obsolete OPL designation;
- A portion of the Waterfront Commercial Industrial (WCI) zone at Salmon Creek was re-designated General Commercial (GC) to conform to current and proposed land use patterns therein; and
- The WCI zone from the new GC zone was extended eastward to the Yacht Club area at the request of the CBJ Docks and Harbor Board and may be suitable for development if this area is deemed by the Coast Guard and Assembly as not suitable for marine navigation, particularly for barge traffic.
Subarea 5: Switzer Creek, Lemon Creek and Salmon Creek

Community Form: Suburban/Urban

Natural Resources and Hazards:

<table>
<thead>
<tr>
<th>Type</th>
<th>General Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wildlife (Eagle Nests)</td>
<td>Vanderbilt Hill, Lemon Creek and Switzer Creek</td>
</tr>
<tr>
<td>Stream Corridors</td>
<td>Lemon, Switzer, and Salmon Creeks; Creek at 7 Mile; Vanderbilt Creek</td>
</tr>
<tr>
<td></td>
<td>(Additional waterbodies listed in Appendix A)</td>
</tr>
<tr>
<td>Wetlands/Tidelands</td>
<td>Mendenhall Flats, Lower Lemon Creek, Switzer Creek</td>
</tr>
<tr>
<td>Gravel Resource</td>
<td>Lemon Creek</td>
</tr>
<tr>
<td>Landslide/ Avalanche</td>
<td>Thunder Mountain/Upper Lemon Creek Valley, White Subdivision</td>
</tr>
<tr>
<td>Impaired Water Bodies</td>
<td>Jordan Creek, Lemon Creek, Vanderbilt Creek</td>
</tr>
<tr>
<td>Flooding</td>
<td>Lower Lemon Creek/ Switzer Creek, all coastal areas</td>
</tr>
<tr>
<td>Hazard Area</td>
<td>Salmon Creek Dam Inundation Area</td>
</tr>
<tr>
<td>Watershed</td>
<td>Upper Salmon Creek.</td>
</tr>
<tr>
<td>Cultural and Historic Resources</td>
<td>Subarea-wide</td>
</tr>
</tbody>
</table>

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 open space/natural areas needs, (4) identify transportation 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 decrease or eliminate parking requirements for such residential developments where served by public transit. [1995, #1]

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. [1995, #2]

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. [1995, #3]

6. Encourage a buffer and beautification effort along all major roads. [1995, #4]

7. Reserve wetlands and tidelands in public ownership for fish and wildlife habitat and open space/natural areas. [1995, #5]

8. Designate areas outside the Salmon Creek Dam inundation hazard area for Bartlett Regional Hospital expansion hospital and related medical facilities as shown in the Hospital Area Master plan. [1995, #6]

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. [1995, #7]

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. [1995, #9]

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” waterbodies by the Alaska Department of Environmental Conservation (DEC) and, therefore, careful review of all future development proposals which could affect the volume, velocity, cleanliness, and overall water quality of these creeks and their watersheds and tributaries is warranted.

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 DZ School; (d) reserve a stream corridor on Switzer Creek; (e) resolve Lemon Creek Trail issues; (f) develop an All-Terrain-Vehicle (ATV) 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 Heintzelman 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; (m) encourage construction of a coastal trail along Egan Drive; and (n) continue ADA improvements at Twin Lakes.

14. Continue to 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.
Proposed Land Use Map Changes

Subarea 6: Juneau, Map 6A
Proposed Land Use Map Changes

Subarea 6: Juneau, Map 6B
Proposed Land Use Map Changes for Subarea 6: Juneau, Map 6A

- Various land use designations that allowed duplicate or similar uses and activities were combined into one land use zone. In this way, the Medium Density Residential (MDR) zone that is occupied by the Senior Center and housing was combined with adjacent General Commercial (GC) zones and Institutional Public Use (IPU) zones to create a larger GC zone;

- Similarly, the IPU zones around the Capitol and other government office areas were combined with the surrounding higher-density residential areas to form one larger Mixed Use (MU) district;

- The Capitol Complex area and the Cultural Campus area are noted on the map;

- The high-density single-family older and historic districts next to the Evergreen Cemetery and above East Road were not included within the MU district because the MU district allows higher densities, taller buildings and different housing structure types. It was feared that those, more generous, uses would result in the demolition of the smaller single-family homes within these historic districts for the taller and higher density residential structures. This would alter the currently cohesive character of these neighborhoods and would result in the loss of historic structures. As such, staff recommended a new land use category called “Medium Density Residential—Single Family Detached Only”; this designation would match the existing density, scale and housing type of these neighborhoods while facilitating complementary in-fill or replacement, if necessary.

- Along the waterfront, on the east side of the Juneau-Douglas Bridge, the CBJ-owned property at the Public Works maintenance yard was designated Recreation Service Park to be consistent with the CBJ Long Range Waterfront Plan’s (LRWP) recommendation for a year-round park with bike and kayak rentals, artists areas, a small restaurant and other complementary uses along with the start of the 1.8 mile seawalk.

- Along the waterfront at the Subport, the northernmost portion of the area was included in the expanded Mixed Use district and the southern and eastern portion of the area was included within a Waterfront Commercial (WC) zone; both are consistent with the LRWP;

- The Marine Park area was combined with the City Hall and Library areas to create one IPU zone rather than two IPU zones for City Hall and the Library and one RS-Recreational Service zone at the Marine Park site;

- OPL zones were renamed IPU; and

- The avalanche and landslide Hazard Area (HA) designations on or affecting CBJ-owned lands on the steep slopes of this Subarea will be added to this map when geologic studies are conducted and those areas are identified.
Juneau Subarea 6, Map 6B

- The MU zone above the South Franklin Street area should be expanded to include more of the privately-owned and CBJ-owned properties further up the hill just short of any potential avalanche and/or landslide hazard area. There should be some design guidelines for new development within the view corridor of the mine stamping foundations/ruins so that the ruins can remain a prominent visible feature in the viewscape from the Channel and so that the design, scale and form of new structures next to or near the ruins are complementary to the historic character of that area.

- The South Franklin Mixed Use zone will not include any avalanche or landslide hazard area; when such areas are identified, the hazard areas will be noted as HA zones on the Subarea map;

- The site of the sewage treatment plant would remain an IPU designation;

- The tideland area often referred to as the boat "bone yard" would be changed from IND-Industrial to WCI- Waterfront Commercial/Industrial;

- The "big" rock dump would be designated as a IND--industry-only designation to prevent further encroachment from retail and office uses therein;

- The "little" rock dump area located east of the boat "bone yard" area would remain IPU;

- A notation on the Subarea map will be added to indicate a potential shoreline trail or pathway from South Franklin to Sheep Creek in Thane. The potential road-separated pathway and/or shoreline trail alignment from the end of the Mt. Roberts Road sidewalk to Sheep Creek will be noted on the Subarea map to complement the Implementing Action for such a separated path found in the Plan's Transportation Chapter and the Subarea 8 Chapter.
Subarea 6: Juneau (Map 6A & 6B)

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 which is the subject of the adopted Long Range Waterfront Master Plan, along with Landslide and Avalanche Hazard Zone designations.

Natural Resources and Hazards:

<table>
<thead>
<tr>
<th>Type</th>
<th>General Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wildlife (Eagles and bears)</td>
<td>Six eagle nests around Downtown Juneau (2006) and bear on the steep slopes above town and on Mount Roberts</td>
</tr>
<tr>
<td>Stream Corridors</td>
<td>Gold Creek upstream from Cope Park</td>
</tr>
<tr>
<td>Wetlands/Tidelands</td>
<td>Gold Creek Tidelands</td>
</tr>
<tr>
<td>Landslide/Avalanche</td>
<td>Mt. Juneau, Mt. Roberts, Gold Creek Basin, Last Chance Basin</td>
</tr>
<tr>
<td>Flooding</td>
<td>Gold Creek, lands adjacent to Gastineau Channel (FEMA “V” zone)</td>
</tr>
<tr>
<td>Watershed</td>
<td>Gold Creek</td>
</tr>
<tr>
<td>Cultural and Historic Resources</td>
<td>Subarea-wide</td>
</tr>
</tbody>
</table>
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, Basin Road, Windy Hill, the Highlands, and the higher density apartments and homes in the vicinity of the Federal Building.

2. Prohibit, or severely discourage (by exact replacement costs), conversion of dwelling units to non-residential uses, such as office or retail uses in or near the older residential neighborhoods to avoid exacerbating traffic and parking congestion and to preserve the privacy and quiet of those neighborhoods. Prohibit or severely discourage the conversion of year-round rental housing to non-year-round and non-full time residential use such as for hotels, motels, hostels, Bed and Breakfast establishments and similar transient housing uses.

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. There is a significant threat of fire in the Downtown because of the current condition and age of most of the older structures in the area. Many of these buildings 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 which would allow fire to spread very quickly to adjacent buildings. Many are built on pilings, leaving a common crawl space which 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. Therefore, it is critical to for the CBJ to 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 areas. [1995, #19]

5. Limit development in landslide/avalanche hazard areas; rezone publicly-owned land in those hazard areas as Resource Protection zones. [1995, #5]

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. [1995, #9]
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. [1995, #4]

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. [1995, #8]

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 through modest increased building heights and appropriate parking relief. [1995, #3]

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. [1995, #6]

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 which 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 in shared development of solutions, since parking demand created by State 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. This facility is scheduled for construction on the site of the existing CBJ parking lot/ bus stop at the corner of Main and Egan (the Telephone Hill location).

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 which 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 which, 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. [1995, #s 12 through 16]

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.

It should be noted that in neighborhood outreach meetings throughout the “roaded” areas of the CBJ, the most frequently stated capital improvements sought by all neighborhoods were (in order of frequency): a performing arts center, a swimming pool in the Valley, an ATV/snowmobile course, and a garbage incinerator /cogeneration (waste to power) facility.

15. Consider establishment of an alternative local roadway from Egan Drive in Downtown Juneau to the industrial barge terminal and Thane Road which by-passes the South Franklin/Cruise Ship Terminal area.

16. Require a traffic impact analysis of major developments and conditional use applications proposed for areas located east of the Juneau Public Library traffic circle. In these studies, consider the effects of summer season pedestrian traffic when determining the capacity of the Thane, South Franklin and Egan roadways that would serve the proposed use or development. Require adequate mitigation to ensure pedestrian safety and to avoid exacerbating traffic congestion during peak travel periods along these roads; these mitigation measures must be permitted by DOT, where applicable.

17. Study the feasibility and effectiveness of eliminating one parking lane along South Franklin Street between the Tram area and Front Street, or where appropriate, and widening the sidewalks therein or designate separated pedestrian travel-ways to accommodate pedestrian traffic during peak summer months.
18. 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. [1995, #20]

19. Continue to 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. Assure a Gold Creek “Mouth” Coastal Protection Zone, as shown on the Subarea 6A Land Use Map, 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.

21. 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.
Proposed Land Use Map Changes

Subarea 7: Gold Creek Watershed, Last Chance Basin and Salmon Creek Watershed.

- There were no changes to this Subarea map.

Subarea 7: Gold Creek Watershed/ Last Chance Basin

Community Form: Rural
Natural Resources and Hazards:

<table>
<thead>
<tr>
<th>Type</th>
<th>General Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wildlife</td>
<td>Abundant diversity throughout watershed</td>
</tr>
<tr>
<td>Watershed</td>
<td>Gold Creek, Last Chance, Granite Creek</td>
</tr>
<tr>
<td>Stream Corridors</td>
<td>Gold Creek (Additional waterbodies are listed in Appendix A)</td>
</tr>
<tr>
<td>Avalanche</td>
<td>Gold Creek Basin</td>
</tr>
<tr>
<td>Cultural and Historic Resources</td>
<td>Last Chance Basin</td>
</tr>
</tbody>
</table>

**Guidelines and Considerations for Subarea 7:**

1. Protect watershed areas to assure an adequate supply of clean, safe drinking water. [1995, #1]

2. Identify and protect historic resources. [1995, #2]


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. [1995, #5]

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. [1995, #6]

6. Also in 1994, the CBJ adopted the Watershed Control and Wellhead Protection Program - Gold Creek Source. The protection program defines measures for protection of water quality in the Gold Creek watershed. The measures identified in this program were coordinated with the LCBLMP to be consistent and supportive of the land use objectives in the watershed. [1995, #7]

7. 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. Undertake monitoring of 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. Develop a permit and fee system for tourist use of CBJ property which would support required maintenance of road, trails and historic resources and enforcement activities;

C. Revise the Land Use code to recognize the particular importance of the Gold Creek Watershed and the Last Chance Basin. All commercial use of the Basin should be reviewed under the requirements of a conditional use permit; and

D. 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.

[1995, #8]

8. The historic buildings in the 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 Historic 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.

9. 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. [1995, #10]

10. Vandalism and illegal dumping has increasingly become a problem in the 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. [1995, #11]

11. 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.

12. Continue to 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.
Proposed Land Use Map Changes for **Subarea 8: Thane**
Proposed Land Use Map Changes for Subarea 8: Thane

- The New Growth Area at Sheep Creek was deleted. Additionally, until DOT constructs an avalanche-proof road or road cover, new, higher density residential development should not be located in Thane. DOT has expressed to CDD staff that they do not have any intention of constructing such a road protection measure and would prefer that the CBJ take jurisdiction of Thane Road to maintain it and improve it as we see fit. CDD staff does not see the feasibility of the CBJ taking responsibility for the maintenance and avalanche protection of Thane Road. As such, a New Growth Area is not recommended until and unless avalanche protection for the access road is assured;

- A potential shoreline trail alignment will be shown on the Subarea map; and

- The Sheep Creek beach area would be designated a Recreation Service –RS zone to facilitate both active play, picnics and passive enjoyment of the beach.
Subarea 8: Thane

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:

<table>
<thead>
<tr>
<th>Type</th>
<th>General Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wildlife (Eagle Nests)</td>
<td>9 eagle nests along shoreline (in 2006)</td>
</tr>
<tr>
<td>Stream Corridors</td>
<td>Sheep Creek, DuPont Creek</td>
</tr>
<tr>
<td>Habitat</td>
<td>Sheep Creek Valley</td>
</tr>
<tr>
<td>Gravel Resource</td>
<td>Sheep Creek</td>
</tr>
<tr>
<td>Flooding</td>
<td>Lower Sheep Creek</td>
</tr>
<tr>
<td>Avalanche</td>
<td>Numerous chutes along Thane Road</td>
</tr>
<tr>
<td>Cultural and Historic Resources</td>
<td>AJ and Perseverance Mines</td>
</tr>
</tbody>
</table>

Guidelines and Considerations for Subarea 8:

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. [1995, #1]

2. Non-residential uses that require a rezoning, a conditional use permit, or a variance from a development or roadway standards should provide a traffic analysis with the application which should include adequate mitigation measures to apply as conditions of approval to the permit such that pedestrian and bicycle safety on Thane Road is assured or, alternatively, the Applicant contributes to the construction of a shoreline trail from Mt. Roberts Road to Sheep Creek. The application should also provide assurances that avalanche hazards on Thane Road to the new development can be avoided or mitigated. All such mitigation measures are to be approved by DOT prior to CBJ consideration of the use permit or variance application.
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&PF 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.[1995, #3]

5. Consider allowing a heliport at the DuPont shoreline, provided that passengers, employees and suppliers access the facility solely by air, by sea, or by non-motorized travel along a separated shoreline trail or by a separated pedestrian and bicycle pathway along Thane Road. The flight route of any helicopter should be over the Channel alignment and not over residential areas of Thane or Douglas Island.

6. Continue to 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.
Proposed Land Use Map Changes for Subarea 9: Douglas Island, Map 9A:
Proposed Land Use Map Changes for Subarea 9: North and West Douglas, Map 9B
Proposed Land Use Map Changes for Subarea 9 West Douglas, Map 9C
Proposed Land Use Map Changes for Subarea 9: Douglas Island, Map 9A:

- A "Potential Road Corridor" designation is shown connecting Fish Creek Road, along a "bench" road alignment, to the West Douglas "Potential Road Corridor". This would complete the trans-island roadway corridor. This road corridor should be wide enough to accommodate light rail or heavy rail facilities, should that mode of transport prove economically- and environmentally more effective or attractive to the Borough.
- A scenic corridor/viewshed designation is noted from the Fritz Cove boat launch to False Outer Point.

Proposed Land Use Map Changes for Subarea 9: North and West Douglas, Map 9B

- The two New Growth Areas designated near the Fritz Cove boat launch ramp and at Nine Mile Creek were deleted. The area of the boat launch cove is one of the most spectacular vista points to see the Mendenhall Glacier and this view shed should be protected for the public and not obscured by development. The area around Nine Mile Creek is not near the Bay View subdivision which will be receiving municipal sewer service. There is no planning rationale for establishing a New Growth Area, which are intended to be remote or satellite towns, at either of these locations. Rather, the West Douglas New Growth Area is the appropriate location for such a new town or village once access and adequate traffic capacity to the mainline is assured. The area upland of a one-quarter mile scenic corridor along Fish Creek Road may be suitable for medium-density residential development when water, sewer and utilities are provided to the Eaglecrest area, some time after the 13 year planning horizon of this Plan;
- The area from the Fritz Cove boat launch area to the False Outer Point area is designated a Scenic Corridor/Viewshed (SCV) to protect the views of the Mendenhall Glacier from public access points within this area;
- The notation showing the "vicinity of potential channel crossing" is deleted. This would be replaced with the preferred location for the crossing once the Assembly chooses the alignment route;
- Lands designated OPL are renamed IPU;
- Stream corridors labeled Conservation Area (CA) are re-designated Stream Protection Corridor (SC);
• A new Fish Creek Watershed (WS) would be designated above the roaded area of Eaglecrest to provide an assured, high quality potable water to north and east Douglas Island;

• The "Fish Creek Corridor" designated in the 1975 North Douglas Plan has been designated as a Scenic Corridor/Viewshed (SC/V) and encompasses one-quarter mile distance from each side of the right-of-way of Fish Creek Road from Eaglecrest to North Douglas Highway, rather than the 1,000 feet each side of the ROW designated in the N.D. Plan;

• The area encompassing the Bonnie Brae subdivision (the existing and the platted Phase II) would be combined with a portion of CBJ-owned property into a Medium Density Residential (MDR) zone. This MDR would reflect the residential density of the Bonnie Brae neighborhood, which is sewered, and the CBJ-owned land included within the MDR zone was identified as a buildable site in the Comp Plan study of that property;

• The area around the mouth of Eagle Creek has a mix of land use designations including MDR, General Commercial (GC) and some transition zones to allow higher densities when sewer service and intersection Levels of Service of "C" or better are provided to this area: Rural Dispersed Residential--transitioning to—Urban Low Density Residential [RDR (T) ULDR]; Resource Development--transitioning to—Medium Density Residential [RD (T) MDR]; and Resource Development—transitioning to—Urban Low Density Development [RD (T) ULDR].

The MDR designation of the manufactured home park would be joined with the adjacent RDR (T) ULDR to form a larger MDR zone.

The GC zone around the auto dealership would remain.

The RD (T) ULDR would be re-designated and joined with the adjacent RD (T) MDR zone to form a larger RD (T) MDR zone.

• The Urban Low Density Residential (ULDR) zone on both sides of the North Douglas Highway would remain unchanged.

• The CBJ-owned land uphill of the aforementioned ULDR zone would be re-designated from RD (T) ULDR to ULDR (T) MDR; and

• The Waterfront Commercial Industrial (WCI) zone and the MDR zone at the foot of the Juneau-Douglas Bridge would remain unchanged.
Proposed Land Use Map Changes for Subarea 9 West Douglas, Map 9C

- Shaman Island located between False Outer Point and Outer Point would be labeled and designated Conservation Area (CA);
- The Fritz Cove Scenic Corridor/Viewshed (SCV) would be labeled;
- An area upland of the Outer Point shoreline area would be properly labeled Resource Development (RD);
- Stream corridors would be re-designated from Conservation Area (CA) to Stream Protection Corridors (SC);
- A “Potential Road Corridor” designation is shown connecting Fish Creek Road, along a “bench” road alignment, to the West Douglas “Potential Road Corridor”. This would complete the trans-island roadway corridor.
- Two new watersheds would be designated: one at Middle Creek, and one at Hilda Creek. On this map all three Douglas Island Watersheds would be labeled: Fish Creek, Middle Creek and Hilda Creek watersheds; and
- The OPL designation of the road to Eaglecrest is renamed IPU.
Subarea 9: North and West Douglas Island
(Maps 9A, 9B, 9C)

Community Form: Predominantly Rural with the exception of a New Growth Areas in West Douglas. Urban near the Douglas Bridge.

Natural Resources and Hazards:

<table>
<thead>
<tr>
<th>Type</th>
<th>General Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wildlife (Eagles Nests)</td>
<td>25 eagle nests along North Douglas shoreline and 60 along West Douglas shoreline (2006 data)</td>
</tr>
<tr>
<td>Stream Corridors</td>
<td>Eagle, Peterson, Fish and Hilda Creeks</td>
</tr>
<tr>
<td>Wetlands/ Tidelands</td>
<td>Shoreline between Fritz Cove and Kowee Creek, along and above North Douglas Highway</td>
</tr>
<tr>
<td>Gravel Resource</td>
<td>Small area on lower Fish Creek, area near Douglas Bridge, Eagle Creek area</td>
</tr>
<tr>
<td>Landslide/ Avalanche</td>
<td>Hendrickson Creek, Upper Fish Creek, and various hillside Areas</td>
</tr>
<tr>
<td>Flooding</td>
<td>Lower Fish Creek, Lower Peterson Creek, all coastal areas</td>
</tr>
<tr>
<td>Watershed</td>
<td>Upper Fish and Hilda Creeks</td>
</tr>
<tr>
<td>Cultural and Historic Resources</td>
<td>Treadwell ditch</td>
</tr>
<tr>
<td>View Corridor</td>
<td>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</td>
</tr>
<tr>
<td>Adopted Plans</td>
<td>West Douglas Concept Plan, Land Use Chapter 6</td>
</tr>
</tbody>
</table>
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. 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 busses should be provided pull-outs or other facilities to allow pick-up and delivery of school children out of the travel way provided that motorists are required to immediately yield to the bus when it signals to re-enter the travelway.

A portion of West Douglas Island is designated a New Growth Area 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 this New Growth Areas once road access is assured.

North Douglas Highway is accessed solely by the Juneau-Douglas Bridge. Vehicle traffic at the intersection of the bridge landing at 10th and Egan 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 JD Bridge which 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 and Egan 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 and Egan 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&PF report recommended several options for expanding capacity and improving the LOS on the JD Bridge. The existing roundabout at the Douglas Island terminus was recommended and implemented. The CBJ-accepted improvements to the mainland terminus at 10th and Egan 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 JD 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 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 rail, 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.

Guidelines and Considerations for Subarea 9:

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 waterbodies, community gardens, neighborhood-serving commercial uses, 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 which 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&PF. 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 and is herein incorporated by reference.
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 “C” or better. [1995, #2]

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 which 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) increase stream corridor widths to 300 feet on CBJ lands next to Fish Creek, Eleven Mile Creek, Peterson Creek, Middle Creek and Hilda Creek; and (j) consider acquisition of private land at Outer Point for public recreation use; and coordinate recreational and maintenance activities at Eaglecrest.

6. Protect access to the Treadwell Ditch Trail and beach trails and support improvements to the trail as recommended by Trail Mix. [1995, #4]

7. Retain an easement for a bench road and trail corridor on CBJ lands around the perimeter of the Island (a transisland 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. Identify an appropriate location for an All-Terrain-Vehicle (ATV) and snowmobile course and trail system, with adequate parking, which is sufficiently distant or buffered from residential uses to avoid adverse noise and air quality impacts.
9. 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.

10. 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. [1995, #6]

11. Protect anadromous stream corridors on 300 feet of each side of the creek for Fish Creek, Eleven Mile Creek, Peterson Creek, Middle Creek and Hilda Creek. This stream corridor 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 or less, 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.

12. 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. Continue to 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 transisland 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 this New Growth Area is subject to a master development plan to be adopted by the Assembly.
Proposed Land Use Map Changes for Subarea 10: Douglas and West Juneau, Map 10A
Proposed Land Use Map Changes for Subarea 10: Douglas and West Juneau, Map 10A

- Grant Creek, Kowee Creek, Lawson Creek, Paris Creek and portions of Bear Creek upland of the town are designated Stream Protection Corridors (SC);

- Portions of Downtown Douglas which had several land use designations which allowed duplicate or similar activities were combined into one Mixed Use (MU) zone which encompasses lands formerly designated IPU, MDR and GC;

- The Waterfront Commercial (WC) zone encompassing the Douglas harbor was expanded to the north from land formerly designated Recreational Service Park (RS) associated with Savikko Park;

- The Sandy Beach area was added to the adjacent Savikko Park RS zone;

- The Mayflower Island IPU designation was reduced to just include the island and not the water surrounding the island; that area was included within the WC zone of the Douglas harbor;

- The Waterfront Commercial Industrial (WCI) zone between the harbor and downtown Douglas will be reduced at Bradley Street. The parcels west of Bradley Street will be included in the adjacent Medium Density Residential –MDR zone;

- An area designated OPL east of Sandy Beach was designated Natural Park Area and combined with the NP area of the Treadwell Trail further east; and

- The notation “Treadwell Historic Trail” would end at the CBJ-owned property and would not include the historic trail that lies on private property to the east.
Proposed Land Use Changes for Subarea 10: Douglas and West Juneau

Map 10B
Proposed Land Use Changes for Subarea 10: **Douglas and West Juneau, Map 10B**

- The New Growth Area identified at the Bullion Creek was deleted. This area is remote and, although a “trans-Douglas road” providing access to this area is shown on this Subarea Map 10B and Map 9C, the road is not expected to be built for many decades, if not many generations. It is acknowledged that this area has been sparsely developed with cabins, with access provided by boat and by a tidal trail. However, there is no planning rationale for selecting this area as a satellite town or village and, as such, it is being deleted from this Plan and map; and
- The stream corridors of Paris Creek, Ready Bullion Creek, Bullion Creek and Nevada Creek have been designated Stream Protection Corridor (SC).

**Subarea 10: Douglas and West Juneau (Maps 10A & 10B)**

**Community Form:** Predominately urban in Downtown Douglas and West Juneau and Rural, with a New Growth Area, south of Downtown Douglas

**Natural Resources and Hazards:**

<table>
<thead>
<tr>
<th>Type</th>
<th>General Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wildlife (Eagles Nests)</td>
<td>8 eagles nest in Douglas and South Douglas</td>
</tr>
<tr>
<td>Stream Corridors</td>
<td>Cowee Creek, Bear Creek, Lawson Creek</td>
</tr>
<tr>
<td>Wetlands/Tidelands</td>
<td>South of Douglas</td>
</tr>
<tr>
<td>Cultural and Historic Resources</td>
<td>Downtown Douglas, Treadwell mine complex, Douglas cemeteries</td>
</tr>
</tbody>
</table>

**Guidelines and Considerations for Subarea 10:**

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 “C” or better). [1995, #1]
2. Maintain the “bridge requirement” for the transition area on upper Cowee Creek, 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. [1995, #2]

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) acquire Mayflower Island for park purposes; (c) complete a Master Plan for Savikko Park; (d) retain neighborhood access to Mt. Bradley trail; (e) reserve the meadows behind Crow Hill for cross country skiing; (f) construct the West Juneau Rotary Park consistent with the master plan approved in 2003; (g) develop Homestead Park as a beach access site; (h) Develop the Treadwell Ditch Trail for a variety of uses.

4. Preserve publicly-owned, undeveloped shoreline areas for public open space/natural areas. [1995, #3]

5. Assure public access to Treadwell Ditch, Dan Moller and Mt. Jumbo trails and, where appropriate, to area beaches. [1995, #4]

8. 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.

A Marine Mixed Use District designation is shown for 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. [1995, #7]

9. The east Douglas area between the Downtown Douglas core and Lawson Creek has been extensively developed over the past 25 years. This development features a wide array of condominiums and apartment buildings above and below the highway with some single-family development nearer the shoreline. There are still 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 “C” or better) serve the new development. [1995, #8]

10. 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 JD 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 and Egan Drive intersection continues to function at unacceptable congested Levels of Service E and F in the peak week day morning periods. Future development in North Douglas, West Juneau or Downtown Douglas will require improvements to the 10th and Egan intersection and may require additional traffic capacity on the 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 CBJ should strongly urge DOT to upgrade the 10th and Egan intersection as a top priority. [1995, #9]

9. Continue to 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.

11. Identify an all-terrain-vehicle (ATV) or off-road-vehicle (ORV) and snowmobile trail system and track/course, plus transport vehicle parking areas, in South Douglas on or near Mount Jumbo.
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 these 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 which meet the greatest need and serve the greatest number of residents; this requires compact development.

**POLICY 12. 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. [1995 Policy 4.5]**

**Standard Operating Procedures**

12.1. Maintain an Urban Service Area boundary which 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. [1995, IA 4.5.1]

12.2. Continue to utilize the six-year Capital Improvement Program (CIP) which 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. [1995, IA 4.5.3]

**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 ice field 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 Douglass to the Forest Service Boundary near Fish Creek. The system also serves all of the 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 a ISO rating of five [out of a range of ?? to ??]. 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 which 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 is not cost-effective 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 which is easily disposed 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 12.1. 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. [1995 Policy 4.6]**

**Standard Operating Procedure**

12.1.1. 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 [1995, IA 4.6.2]

**Implementing Actions**

12.1.2. Amend the Land Use Code to specify that no urban service, 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 2006 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. [1995, IA 4.6.1]

12.1.3. Consider the connection of the Mendenhall and Auke Bay treatment plants as a top priority, together with extending sewer service to developed lands within the USAB not presently serviced by CBJ sewer.
12.1.4. Urge the Alaska Department of Environmental Conservation (DEC) to improve its monitoring of 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. [1995, IA 4.6.3]

12.1.5. Develop plans for overall storm drainage systems, including public provision of a central drainage system within the USAB, and storm/sanitary sewer separation. [1995, IA 4.6.4]

**Electrical Generation and Distribution**

With the scarcity of non-renewable fossil fuel, particularly “cheap oil”, the CBJ must plan for the production of energy and power sources locally. The community is well-situated to expand its hydroelectric power 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 power is generated at hydro-electric plants by the private-investor-owned Alaska Electric Light and Power Company (AEL&P). Eighty percent of the power 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 power from hydro-facilities on Salmon Creek, Annex Creek and Gold Creek and is developing a new hydro-plant at Lake Dorothy. AEL&P also maintains diesel generators and jet turbine-powered generators as back-up facilities.

**POLICY 12.2. IT IS THE POLICY OF THE CBJ TO ENCOURAGE THE PROVISION OF AN ADEQUATE SUPPLY OF HYDROELECTRIC POWER AND OTHER RENEWABLE ENERGY SOURCES TO PROVIDE FOR THE CONTINUED GROWTH AND DEVELOPMENT OF THE COMMUNITY.** [1995 Policy 4.8]

**Standard Operating Procedure**

12.2.1. Encourage the continued development of clean, efficient hydroelectric power generating facilities to provide for future community needs and to reduce dependence upon the use of fossil fuels for power. [1995, IA 4.8.1]
Development Guideline

12.2.2. In reviewing permits for businesses which use heavy energy loads, seek implementation of Best Management Practices which conserve and/or re-use energy loads, minimize the use of fossil fuels, and maximize renewable energy sources in its operations.

Implementing Action

12.2.3. Seek to convert CBJ transport vehicles and stationary motors from fossil fuel powered systems to renewable power systems and, particularly, hydroelectric power.

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 landfilling. This is the approach being pursued by the CBJ through the preparation of a Long Range Solid Waste Management Strategy and Alternatives Analysis in 2007. Of particular concern by the public are programs which address waste stream reduction and curbside pick-up of recyclable material.


Development Guideline

12.3.1. 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**

12.3.3. Prepare and adopt a solid waste management plan that presents a methodology for implementing an integrated waste management system, including an aggressive waste reduction and mandatory curbside pick-up of recyclable materials program.

12.3.4. 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.

12.3.5. The CBJ should create property tax advantages or other incentives for retail and food service businesses that implement a waste reduction plan, such as using no plastic bags or using only biodegradable containers.

12.3.6. 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.

12.3.7. Acquire and/or develop CBJ property that could be used for a recycling/processing center.

12.3.8. Facilitate identification and permitting of a “stump dump” landfill site for near-term use by residential and non-residential builders.

**POLICY 12.4. 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. [1995, Policy 4.9]**

**Development Guideline**

12.4.1. 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,” at Upper Lemon Creek and Lower Lemon Creek as shown on the Land Use Maps of this Plan, be cognizant of the on- and off-site impacts which could be generated by landfill operations at those sites. [1995 IA 4.9.1]

**Implementation Actions**

12.4.2. Implement the recommendations of the 2007 Long Range Solid Waste Management Strategy and Alternatives Analysis Project.
12.4.3. 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. [1995 IA 5.6.9]

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 which 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.


Standard Operating Procedures

13.1. Encourage and support coordination of services between State, Federal, and Local police. [1995 IA 4.10.1]
13.2. Maintain strategic locations of police and fire facilities to reduce emergency response times to incident locations. [1995 IA 4.10.2]
13.3. Maintain centralized dispatch of all emergency and essential services. [1995 IA 4.10.3]
13.4. Continue to improve computerized integration of JPD and CDD and other CBJ departments. [1995 IA 4.10.6]

Fire Protection and Emergency Services

Fire protection is a fundamental and basic community service which 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 and 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 which 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.

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 13.1. 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 LARGESCALE EVENTS AND DISASTERS. [1995 Policy 4.11]

Standard Operating Procedures

13.1.1. Provide standardized training, procedures, equipment and response to all fire stations. Enhance training and provide equipment for volunteer teams. [1995 IA 4.11.1]

13.1.2. Determine adequate and efficient fire protection by conducting fire hazard analyses, fire flow requirement analyses, and resource requirements. [1995 IA 4.11.2]

13.1.3. 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. [1995 IA 4.11.3]
13.1.4. Improve and implement a hazardous materials safe storage and disposal, mitigation and response plan.

13.1.5. Coordinate with the CBJ Emergency Services Manager to plan for prevention of and, when necessary, adequate response to disasters and major incidents.

13.1.6. Implement a public fire education program to reduce life and property loss, including a “Firewise” educational outreach effort.

Implementing Actions
13.1.7. Develop a plan for the Southeast Regional Fire Training Center to provide extended training programs to the CBJ and the southeast region. [1995 IA 4.11.7]

13.1.8. 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. [1995, IA 4.11.9]

Medical and Social Services

The CBJ is a caring community and through skilled professionals and volunteers provide 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.

Standard Operating Procedures
13.2.1. 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. [1995 IA 4.12.2]

13.2.2. 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. [1995 IA 4.12.5]

Implementing Actions
13.2.3. Designate adequate land adjacent to Bartlett Regional Hospital on CBJ lands located outside the Salmon Creek Dam hazardous inundation area to accommodate expansion of hospital/support medical facilities. [1995 IA 4.12.1]

13.2.4. Establish 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.

13.2.5. 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.
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 preschool 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 from 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.

POLICY 14. 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. [1995 Policy 4.13]

Standard Operating Procedures

14.1. 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.[1995 IA 4.13.14]
14.2. 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.

14.3. Coordinate and cooperate with UAS in the development of UAS infrastructure, housing, vehicular and pedestrian access, trails, educational and recreational facilities and to the protection and conservation of natural habitat in and around UAS that contributes to a successful learning environment. [1995 IA 4.13.12]

14.4. 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. [1995 IA 4.13.13]

**Development Guidelines**

14.5. 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. [1995 IA 14.3.2]

14.6. 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. [1995 IA 4.13.11]

**Implementing Actions**

14.7. Continue and strengthen efforts to reduce the drop-out rate of high school students.

14.8. 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.

14.9. Evaluate existing school facilities for possible expansion if they are determined to need additional outdoor space for physical education and associated parking demand. 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 which 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” which makes the CBJ, as Alaska’s Capital City, a destination for Internet users worldwide.

POLICY 14.1. IT IS THE POLICY OF THE CBJ TO FOSTER LITERACY AND TO PROVIDE FREE ACCESS TO LIBRARY FACILITIES AND SERVICES. [1995 Policy 4.14]

Standard Operating Procedures

14.1.1. Identify and pursue local, State and Federal funding sources for library services. [1995 IA 4.14.1]

14.1.2. Provide support to the Library such that each library facility provides consistent and reasonable public service hours. [1995 IA 4.14.2]
14.1.3. Continue resource-sharing and electronic networking efforts to provide for the most efficient, far-reaching and cost effective library services for the CBJ. [1995 IA 4.14.3]

Implementing Action
14.1.4. 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 10.5 section of this Plan pertaining to design review].


**Standard Operating Procedures**

15.1. Continue to 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. [1995 IA 4.15.1]

15.2. 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.[1995 IA 4.15.2]

15.3. Continue to make funds available to individual artists and arts organizations through the CBJ’s designated arts agency, the Juneau Arts and Humanities Council. [1995 IA 4.15.3]

15.4. Through the designated arts agency, continue to provide the community with technical assistance, reference and resource material, and rental equipment. [1995 IA 4.15.4]
15.5. Through the designated arts agency, continue to sponsor summer weekly concerts in Marine Park. [1995 IA 4.15.5]

15.6. 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. [1995 IA 4.15.13]

**Implementing Actions**

15.7. 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. [1995 IA 4.15.7]

15.8. 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.

15.9. Support the concentration of arts, entertainment, dining, museum and cultural activities and venues as a “cultural campus” in the area bounded by Gold creek, Willoughby Avenue, Main or Franklin Streets and Egan Drive. Support artist workshops and housing and joint use of parking resources therein.

15.10. Strengthen the CBJ’s Historic District design standards to prevent degradation of historic resources therein. [1995 IA 4.15.10]

15.11. 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.

15.12. 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 Tlingit Indians and their ancestors 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.** 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. [1995 Policy 4.18]

**POLICY 16.1.** IT IS THE POLICY OF THE CBJ TO IDENTIFY HISTORIC RESOURCES WITHIN THE CBJ AND TAKE APPROPRIATE MEASURES TO DOCUMENT AND PRESERVE THESE RESOURCES.

**Standard Operating Procedures**

16.1.1. Continue to inventory historic resources within the identified historic neighborhoods, as well as other areas listed in the Historic and Cultural Preservation Plan. [1995 IA 4.18.12]

16.1.2. Encourage owners of significant historic properties to maintain them in their original character. [1995 IA 4.18.3]

16.1.3. Create a local landmarks designation for identified historic resources with significance to local culture or heritage.

16.1.4. 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. [1995 IA 4.18.1]

16.1.6. Develop additional local incentives for historic preservation, including tax incentives, low interest loans, and technical assistance.

**Implementation Action**

16.1.7. Publish design guidelines which will assist historic building owners in planning alterations or new construction within historic neighborhoods and districts.

**POLICY 16.2.** 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

16.2.2. Continue to support and enhance the Juneau-Douglas City Museum as a repository for heritage materials and information held in public trust.

Implementing Action

16.2.1. Revise and 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 16.3. IT IS THE POLICY OF THE CBJ TO PRESERVE AND PROTECT THE UNIQUE CULTURE OF JUNEAU’S NATIVE PEOPLES, INCLUDING BUILDINGS, SITES, TRADITIONS, LIFESTYLE, LANGUAGE AND HISTORY.

Standard Operating Procedures

16.3.1. Implement programs to educate local residents and visitors to the community about the CBJ’s unique and diverse ethnic heritage, through publications, museum outreach, interpretive exhibits, and other measures. [1995 IA 4.18.2]

16.3.2. Work with local native groups to build partnerships to identify and preserve significant cultural resources and sites.

POLICY 16.4. IT IS THE POLICY OF THE CBJ TO PROMOTE RESPONSIBLE HERITAGE TOURISM WHICH ACCURATELY REPRESENTS JUNEAU’S UNIQUE HISTORY, WHILE PROTECTING THE RESOURCES FROM OVERUSE OR HARM.

Implementing Actions

16.4.1. Develop interpretive materials for placement throughout the community that inform locals and visitors about the CBJ’s history. [1995 IA 4.18.10]

16.4.2. Develop training workshops for seasonal tourism providers to encourage the accurate depiction of the CBJ’s unique history and diverse ethnic cultural heritage. [1995 IAs 4.18.7 and 4.18.8]
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 Valley swimming pool, a Downtown Juneau performing arts center, and an ATV/snowmobile course. City charter authorization for a development or redevelopment authority to accommodate joint public/private partnerships in development agreements may be appropriate.

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. IT IS THE POLICY OF THE CBJ TO COORDINATE DEVELOPMENT ACTIVITIES OF THE PRIVATE AND PUBLIC SECTORS FOR PROJECTS WHICH ARE CONSISTENT WITH THE COMPREHENSIVE PLAN AND MEET IMPORTANT PUBLIC NEEDS. [1995 Policy 2.19]

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 13 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 which 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 17.1. 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. [1995 Policy 2.20]**

**Standard Operating Procedures**

17.1.1. Continue to 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. [1995 IA 2.20.1, 2.20.2 and 2.20.3]

17.1.2. Evaluate the opportunities for joint development of CBJ lands with state and private landholders. This may include establishment of a CBJ Redevelopment Authority to take advantage of tax increment financing. [1995 IA 2.20.4]

17.1.3. 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. [1995 IA 2.20.5]

17.1.4. Base 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. [1995 IA 2.20.6]

17.1.5. Evaluate land not scheduled for immediate disposal for possible interim uses prior to private development. [1995 IA 2.20.7]
17.1.6. Enact a general application ordinance which 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. [1995 IA 2.20.8]

**Development Guidelines**

17.1.7. 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.

18.1.8. When disposal of CBJ lands are deemed by the Assembly to be necessary or appropriate, the CBJ should incorporate into the transaction the ways and means to provide affordable housing for low- to moderate-income households or should favor development projects that will create full-time jobs for local residents that pay a living wage and provide medical benefits for the employee. A living wage would allow the employee to rent an appropriate sized home suitable for his/her household size while paying no more than 30 percent of his/her gross monthly income for rent and essential utilities (water, sewer, garbage and home heating).

**Implementing Action**

17.1.8. 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.

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**CHAPTER 18. IMPLEMENTATION AND ADMINISTRATION**

The findings and policies in this Comprehensive Plan concern the natural and human factors which 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 which 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 operation 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:

1. Monitor changes in land use, social, economic and environmental conditions and periodically review and update the Plan to reflect these factors;
2. Maintain and use procedures to amend the plan to address needs of individual property owners;
3. Provide for ongoing resident involvement in the land use decision making process; and
4. 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 104 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. 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. [1995 Policy 7.1]
Standard Operating Procedures

18.1. Continue preparation of the six year Capital Improvements Program (CIP). Develop annual budgets which incorporate the transportation, sewer, public transit, and other public improvements recommended in the plan. [1995 IA 7.1.3]

18.2. 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 which provide the legal basis for determining approval or disapproval of a development application. [1995 IA 7.1.5]

Implementing Actions

18.3. 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. [1995 IA 7.1.1]

18.4. 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. [1995 IA 7.1.2]

18.5. Support residents’ advisory committees to advise the Planning Commission and CBJ Assembly in related planning matters. [1995 IA 7.1.4]

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 two budget cycles, or four years, will provide the CBJ with opportunities to make important mid-course corrections which 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 2007 update.

**POLICY 18.1. IT IS THE POLICY OF THE CBJ TO REVIEW THE COMPREHENSIVE PLAN EVERY FOUR YEARS AND 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 BOUNDARIES, AT ANY TIME THE PLANNING COMMISSION AND ASSEMBLY DETERMINE THAT AMENDMENTS ARE NEEDED.** [1995 Policy 7.2]

**Implementing Actions**

18.1.1. Develop procedures to monitor changing conditions and update database as necessary. This may require establishing a data collection system. [1995 IA 7.2.1]

18.1.2. Prepare a biennial report which:

   A. Indicates public and private development activity in the past period;
   
   B. identifies problems and deficiencies identified in implementing the Plan; and
   
   C. describes environmental, economic, social, demographic and other conditions which may necessitate changes and/or amendments to the Plan. [1995 IA 7.2.2]

18.1.3. Identify all general and site-specific changes, issues and concerns which should be addressed in the biennial updating process, after soliciting comments from public officials, State and Federal agencies, property owners, neighborhood and business organizations, and other special interest groups. [1995 IA 7.2.3]

18.1.4. Establish procedures governing the updating process including roles and responsibilities of staff and public officials, nature and extent of resident involvement, and public notice and hearing requirements. [1995 IA 7.2.4]
18.1.5. Adopt procedures for considering amendments to the Plan initiated by property owners or residents between major updating, providing that one or more of the following factors can be demonstrated:

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. proposed change is consistent with other applicable policies of the Comprehensive Plan, other CBJ adopted Plans, and any specific subarea plans which apply to the site/area. [1995 IA 7.2.5]

**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 18.2. IT IS THE POLICY OF THE CBJ TO MAINTAIN AN ONGOING RESIDENT INVOLVEMENT PROGRAM IN RELATION TO LAND USE PLANNING.** [1995 Policy 7.3]

**Standard Operating Procedures**

18.2.1. 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. [1995 IA 7.3.1]

18.2.2. Encourage and facilitate the formation of CBJ-sanctioned neighborhood organizations, such as the Douglas Advisory Board, in areas which 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 which 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. [1995 IA 7.3.2]

18.2.3. 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. [1995 IA 7.3.3]

18.2.4. Support alternative methods for increasing public participation in the CBJ's decision-making and planning process. [1995 IA 7.3.4]

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 18.3. IT IS THE POLICY OF THE CBJ TO FACILITATE INTERGOVERNMENTAL COORDINATION SO THAT DECISIONS AFFECTING LOCAL PLANNING AND DEVELOPMENT ARE RENDERED IN AN EFFICIENT AND CONSISTENT MANNER. [1995 Policy 7.4]

Standard Operating Procedure

18.3.1. Notify appropriate State and Federal agencies of local actions which affect matters within their jurisdiction.
Implementing Actions

18.3.2. Establish and maintain intergovernmental agreements with those State and Federal agencies which have local management/development responsibilities: Alaska Departments of Transportation and 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 which are consistent with the Comprehensive Plan and Coastal Management Program and that the CBJ is informed of activities in a timely manner. [1995 IA 7.4.1]

18.3.3. Assign appropriate CBJ personnel as liaisons with these agencies. [1995 IA 7.4.3]

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 which 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 18.4. 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. [1995 Policy 7.5]

Standard Operating Procedures

18.4.1. Prepare an annual Six-Year Capital Improvement Program (CIP). Request CBJ departments, the public, and policy bodies to nominate potential capital improvement projects from a variety of sources including the Comprehensive Plan and suggestions of resident and special interest groups, other CBJ officials, advisory commissions, and others. [1995 IA 7.5.1]
18.4.2. CDD staff should analyze each CIP project list for conformity with the Comprehensive Plan. [1995 IA 7.5.3]

18.4.3. The CIP sponsoring agency should prepare and make public related subsidiary CIP studies, reports and documents. [1995 IA 7.5.2]

18.4.4. 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. [1995 IA 7.5.4]
Appendix A: Glossary of Terms Used in the Plan

ACCESS: A way or means of approach to provide physical entrance to a property.

ACCESSIBLE HOUSING: Housing units which are accessible and adaptable to the needs of the physically disabled. For example, accessible units have zero steps to enter the unit or are accessible via an elevator; doorways and hallways are wide enough to accommodate a wheelchair; hooks, cabinets and light switches are reachable by a person in a wheelchair; bathrooms and showers are suitable for persons in wheelchairs.

ACRES, GROSS: The entire acreage of a property, project site or area devoted to a particular land use category. For example, in New Growth Areas, the land designated for residential use would include the land devoted to interior roadways, utility, access, drainage or natural area easements, buffer zones and areas devoted to parks, parking or storage for the residential use.

ACRES, NET: The developed portion of a property, site or area devoted to a particular land use after excluding areas devoted to roadways, public drainage, utility or natural area easements, or public park or recreation facilities.

AFFORDABLE HOUSING: Dwelling units of all types that are affordable to residents whose income is below the median family income (MFI) or 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.

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/ maricultural, horticultural, and forestry crops.

AIR RIGHTS: The right to the use of air space over property owned by another. Air rights are granted for space above an existing right-of-way, parking lot, structure, or other type of property. Air rights can be sold or leased and a platform built over the existing use where new development can be constructed or can be sold to prevent development, as in preserving a view from another property.

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 waterbodies, 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: Referring to fish, such as salmon, which hatch in fresh water, migrate to ocean waters to grow and mature, and return to fresh waters to spawn.

AQUACULTURE: The raising and harvesting of aquatic organisms for human use, including shellfish, mollusks, crustaceans, seaweed, kelp, algae, fish, and other aquatic life. [See also Mariculture.]

AQUIFER: An underground, water-bearing layer of earth, porous rock, sand, or gravel, through which water can seep or be held in natural storage. Aquifers generally hold sufficient water to be used as a community water supply.

ATV/SNOWMOBILE 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. Parking areas for the towing vehicles and trailers are required as are convenience facilities such as toilets and trash receptacles. Noise, safety/ access to emergency medical care, water pollution, trash, and hazing or disturbance of fish and wildlife are concerns with siting such facilities.

AVALANCHE: Rapid fall or slide down a mountainside of a large mass of snow, rock or other material. Avalanche Chutes are the land areas upon which the avalanche falls and are usually marked by denuded areas or shrubby and grassy devoid of trees which have been brought down by a previous avalanche and powder blast.

BASIC SECTOR INDUSTRY: A basic sector industry is one in which a good or service is exported outside of the community and the particular business derives income from that export activity and pays wages to local residents. This is also termed a "value-added" industry in which the product of the particular industry is a good that was fabricated or processed from raw materials and is shipped out of the area in exchange for income. The income is new money to the community and is distributed to employees in the form of wages, to the municipality in the form of taxes, and to contracting businesses who provide goods and services to the company. The employees of the business circulate their wages throughout the community to landlords, retailers and service providers. Thus, an export business creates employment and supports retail and service employment with the same dollar. In the CBJ, tourism can be deemed a basic industry when visitors purchase goods and services from local businesses that, in turn, pay taxes, wages and purchase goods and services from other businesses.

BEACH: Gently sloping area of loose material (e.g. sand, gravel, and cobbles) which extends landward from the low water line to a point where there is a definite change in the material type of landform, or to the line of vegetation.

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 which 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, would be designated BMR units for the term of the requirement. The BMR unit has a deed restriction that requires the unit to be purchased by a qualifying household, with regard to income, unit size and household size. Then the owner wishes to sell the unit, they are required to sell it to another qualifying applicant. Typically, the appreciation the seller realizes on their home is capped or limited; the sale price they receive is the original
price along with a pre-determined percentage annual appreciation rate. This keeps the home affordable to the next qualifying buyer, but still gives a return on investment or equity in the home to the seller.

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 reduces adverse impacts to the environment and environs. These BMPs are often updated biannually as the science or industry standards improve or the cumulative impacts on the environment from other forces or elements change such that new BMPs are necessary and appropriate.

BIO-CAPACITY: Bio-capacity, or biological capacity, is the capacity of ecosystems to produce useful biological materials and to absorb waste materials generated by humans using current management systems and extraction technologies. “Useful biological materials” are defined by the human economy and can change over time. Corn stocks and stems may be deemed waste today, but it may in the future be deemed useful to produce cellulosic ethanol to fuel transport vehicles economically; thereby capturing a “waste” and converting it to energy and productive capacity.

BIO-DIVERSITY: Bio-diversity, or biological diversity, describes the condition of sustaining a variety of species within an ecosystem or combination of terrestrial, marine and freshwater ecosystems. This can be described as the collective “foot chain” that sustains the earth’s species.

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: Land of one-quarter acre or more in size located within the Urban Service Area which is vacant or has an improvement, such as a structure, which is valued at less than $50,000 by the CBJ Assessor and on which large portions of the land does not contain slopes greater than 18 percent or class A or B wetlands. These vacant lands are located near municipal water and sewer service, roads, utilities and other public services.

BUNGALOW HOUSE: A small, maximum 1,000 square feet single-family detached house type of dwelling unit as defined by Title 49 Land Use Code of the CBJ.

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 generally reviewed annually for conformance with this Comprehensive Plan.

CAPITOL COMPLEX: An area in the Downtown Juneau area which could contain legislative hearing rooms, offices, meeting rooms, pedestrian-friendly circulation systems, parking spaces, 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.

CARRYING CAPACITY: Carrying capacity refers to the maximum capacity of an element to serve the purpose for which it was established. 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. For example, road capacity. The amount of traffic local roads can accommodate without reaching a level of service that is severely congested and results in traffic accidents or nuisance delays in travel time. For example, a road is typically designed to accommodate a certain number of vehicles during a certain time period. If the road is carrying more than that number during a “peak” period, say from 8 to 9 in the morning and from 5 to 6 in the evening, the carrying capacity of the road is exceeded and levels of service are reduced, thereby reducing the neighborhood’s livability. the size of the treatment plant capacity.

CENSUS: The official decennial (every ten years) inventory of population, housing units and household characteristics conducted by the United States Department of Commerce.

COASTAL DEVELOPMENT: Shoreline development which includes industrial, port and harbor, recreational, resource protection, commercial and residential development.

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 of 1977.

COASTAL WATERS: As defined in the Alaska Coastal Management Act of 1977: “The coastal water... and adjacent shore lands... strongly influenced by each other...” include intertidal areas, beaches and wetlands. The coastal zone extends inland to the extent necessary to control the uses which have a direct and significant impact on coastal waters.

COMMERCIAL USE: Economic activity, including retail sales, personal and business services, and private and public offices.

COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG): A grant program administered by the U.S. Department of Housing and Urban Development (HUD) on a formula basis for entitlement communities and by the ?? for non-entitled communities. The grant program allows money to communities for housing acquisition, rehabilitation and construction, and for community development projects.

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 vacant parcels within a designated Urban Service Area; the Urban Service Area is the target area for the provision of public infrastructure, services and facilities.
**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.

**CONSERVATION:** To ensure that a valued resource is protected such that the resource can thrive and be sustained in its natural course or lifetime. This may include passive actions such as prohibiting development on or near the resource by zoning ordinance or may require more active actions such as placing a conservation easement on the property title to prohibit such development or alteration of the resource or funding and administering a monitoring and enforcement program to ensure conservation.

**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 weekends. 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 OR IMPACTS:** 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 structural components of the dam, an earthquake or major upstream flooding.

**DECIBEL (dB):** A unit used to express the relative intensity of sound as it is heard by the human ear. A 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 similar human hearing. Each increase of 10 dBA intensifies the noise tenfold and doubles the perceived loudness. Community Noise Equivalent Level (CNEL) is a 24-hour energy equivalent level derived from a variety of single-noise-events with weighting factors of 5 and 10 dBA applied to the evening (7 to 10 PM) and nighttime (10 PM to 7 AM) periods to allow for the greater sensitivity to noise during those hours.

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 [See also Acres, Gross and Net]. Density can be controlled by zoning regulations in the following ways: use restrictions; minimum lot size; maximum lot coverage; setback and yard requirements; maximum house size limits; limits on the number of units per acre; building heights; vegetative cover requirements; and number of parking spaces required per home, among others.

DENSITY BONUS: In planned unit developments, approval of more housing units or commercial/industrial development than permitted by the underlying zone in return for the developer's agreement to use more innovative design, preserve open space/natural areas, or provide more amenities than legally required.

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 or family or klan 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.

EAGLECREST: A CBJ-owed and operated recreation facility that offers cross-country and downhill skiing, snowboarding and snowshoe hiking during a winter season and hiking and bike trails during summer months. The manager seeks to expand year-round activities and has allowed commercial “canopy/zip line” venues and other tourist-related adventures during the summer months. Potential new facilities could include summer mountain bike courses, off-road-vehicle courses and sled dog events.

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.

ECOLOGICAL DEBT: Since the mid-1980s, when human demand on biological capacity first exceeded the available biological productive capacity, mankind has been in a condition of ecological debt, with its use of resources exceeding sustainable or renewable supply. By demanding more than the biocapacity can supply, humanity is accruing an ecological debt. This debt is the sum of all the annual deficits.

ECOLOGICAL FOOTPRINT: An ecological footprint is a measuring stick, or indicator, which can let us know how well we are doing in achieving sustainability or balance in how we use the earth's resources. It is a way to calculate humans' use of resources in relation to how those resources can regenerate to continue the life cycle. Please note that it does not calculate what resources would be needed to sustain wildlife in addition to humans; additional land area would be needed to achieve biodiversity. Nonetheless, it is a useful tool to help measure the extent of human demand on the world's ecosystems, described in terms of the area of biologically-productive land and sea required to provide the resources we use as well as needed to absorb our waste. The Ecological Footprint (EF) measures the total land area needed to produce all the food, fuel and fiber we consume as well as the land area needed to assimilate all the waste we generate. The footprint of a country, state, community or person includes land devoted to (1) cropland, (devoted to producing food, animal feed, fiber, and oil) (2) grassland and pasture (devoted to grazing of animals for meat, hides, wood and milk), (3) forest (devoted to wood, wood fiber, pulp and fuel wood), and (4) fishing grounds (sustaining fish and seafood) required to produce the food, fiber and timber it consumes and (5) to absorb the wastes emitted in generating the energy it uses (carbon dioxide released when fossil fuels are burned, less the amount taken up by the oceans and land needed to absorb the wastes of nuclear power), as well as (6) land to provide space for its structures and infrastructure. From the late 1980s to 2003, the world's population has been exceeding the earth's biological productive capacity by about 25 percent; we are in ecological debt. People are turning resources into energy and waste faster than nature can turn the waste back into resources; we are exceeding the earth's productive capacity. The global area of ecologically-productive land available to support biodiversity, energy and productive capacity for the 2003 global population was about 4.4 acres per person; the ecological footprint (resources used) for all persons, globally, in 2003 was about 5.4 acres. The amount of land available to support biodiversity and productive capacity in the U.S. in 2003 was 11.6 acres per person, while the ecological footprint of the average U.S. resident was about 24 acres. Even with considerable biological capacity, the U.S. operates at an ecological deficit, whereas, by comparison, all of South America and all of Canada operate at less than 50 percent of their available bio-capacity. The ecological footprint is a useful tool to illustrate the magnitude of change needed for the world, nation or community to become sustainable and can be used to measure and evaluate strategies for reducing the environmental impacts of specific production and consumption activities. The EF is one of the indicators to measure a community's sustainability—living within the carrying capacity of supporting ecosystems while improving the quality of human life and protecting wildlife habitat. Other measurements, typically, include, but are not limited to, the availability of quality potable fresh water, life expectancy, educational attainment levels, and per capita income. Typical ways to reduce ecological debt

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is to (1) stabilize population levels (offering better education, economic opportunities and health care), (2) reducing consumption of non-essential goods and services, (3) increasing energy efficiency in manufacturing, transport and homes, (4) minimizing waste by reuse and recycling, (5) reducing the distance of transporting goods (grow food and produce goods locally), (6) increasing fuel-efficiency in transportation vehicles, (7) increasing bioproductivity by protecting soil from erosion and pollution, and (8) protecting fresh water sources from pollution, overuse and urbanization. [For more information, please see the 2006 Living Planet Report at http://assets.panda.org/downloads/living_planet_report.pdf To conduct your own EF, go to http://ecofoot.org/].

ECOSYSTEM: Living and non-living components of the environment which interact or function together, including plant and animal organisms, the physical environment, and the energy systems in which they exist. All components of an ecosystem are interrelated.

EMINENT DOMAIN: The right of a public entity, such as a city or a redevelopment agency, to acquire private property for a public use by condemnation and payment of “just compensation” based on assessed value of the subject property.

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 by man of sand, sediment, or other material, usually in submerged lands or wetlands, to create new uplands or 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].

FIRM (FIRE INSURANCE RATE MAP): 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 OR COMMERCIAL FISHERIES: Commercial fishing businesses which operate fishing boats and which sell their catch to local seafood processing plants and companies.

FLORA AND FAUNA: Describing plant (flora) and animal (fauna) species.

FLOODPLAIN: Area adjoining a stream, tidal estuary or coast that is subject to periodic regional flooding.

FLOOD, REGIONAL OR 100-YEAR: Standard statistical calculation used by engineers to determine the probability of never flooding. Figure represents the largest flood which has a one percent chance of occurring in any one year as a result of higher than normal rainfall or stream flows, extremely high tides, high winds, rapid snowmelt, natural stream blockages, tsunamis or combinations thereof.
FLOODWAY: Normal stream channel and adjoining area of the natural floodplain needed to convey the
waters of a regional flood which causes less than a one foot increase in upstream flood elevations.

FOOD SECURITY: Physical and economic access by all people at all times to sufficient safe and
nutritious food to meet their dietary needs and cultural food preferences for an active and healthy life.
Rights to natural, organic subsistence hunting, fishing, and harvesting is an example of food security.
Household and community gardens are another example of facilitating food security for persons,
households, neighborhoods and the community-at-large.

FOSSIL FUELS: A term for buried combustible geologic deposits of organic materials, formed from
decayed plants and animals that have been converted to crude oil, coal, natural gas, or heavy oils by
exposure to heat and pressure in the earth’s crust over hundreds of millions of years. This material is not
renewable; once it has been harvested and used, depleted, it is gone. Energy from the burning of fossil
fuels is often used to power engines and modern industry and residents are “hooked” on the burning of
fossil fuels. Over 85% of the world’s energy demands are met by burning fossil fuel. Although it is not
possible to determine how much fossil fuel is left to harvest globally, based on current use patterns, it can
be “guesstimated” that we are running out of oil and will have to convert to use of natural gas, coal, solar
and other means to generate energy. It should be noted that the burning of fossil fuel, particularly that of
coal, is the largest source of carbon dioxide emissions which is one of the greenhouse gasses that
contributes significantly to global warming.

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. Many implementing
actions of this Plan request mapping of natural and built-features on the CBJ’s GIS maps.

GROUNDWATER: Supply of fresh water under the surface in an aquifer (water-bearing rock) or soil
which forms a natural reservoir for potable water.

HEADLANDS: Bluff, promontories, or points of high shore land jutting out into the ocean, generally
sloping abruptly into the water.

HIGH OCCUPANCY VEHICLE: The term high-occupancy vehicle (HOV) can describe any motor
vehicle that has two or more persons traveling within although, typically, it refers to a carpool van or bus.

HISTORICAL RESOURCES: Areas, sites, buildings, structures, and artifacts which 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.

**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. According to HUD standards, households are classified as “family”, “families with children”, “elderly” or “non-family”. Homeless persons are not counted in U.S Census data as households.

**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. For ease of discussion, median household income is called median family income in the yearly HUD income reports and is referred to as “MFI”. According to HUD standards, a “moderate-income household” would earn no more than 100% of the MFI level established by HUD for each U.S. geographic region, differentiated by household size, each year. A “low-income household” would earn no more than 80% of MFI; a “very-low-income household” would earn no more than 50% of MFI; and an extremely-low-income household would earn no more than 30% of MFI.

**HOUSING AFFORDABILITY:** The conventional, national standard for housing affordability, as used by HUD, is the percent of combined household income devoted to shelter costs. An affordable housing unit would require no more than 30% of gross annual or monthly household income. A “severe housing cost burden” exists when a household pays more than 50% of their household income for shelter costs. Pursuant to HUD standards, “shelter costs” include, for ownership dwelling units, the monthly or annual costs of the mortgage payments private mortgage insurance premium on the home loan, real estate taxes, property hazard and liability insurance premium, homeowners’ association fee or condominium association fee, utilities for electricity, gas, water, sewage disposal, home heating fuel costs, garbage collection and, where applicable, necessary snow plowing services. Total shelter costs for renters includes rent, tenant-paid essential utilities, and, where applicable, necessary snow plowing services.

**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 would include goals, policies and implementation programs for the preservation, improvement and development of housing.

**HOUSING OVERLAY DISTRICT:** 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.
HOUSING TRUST OR LAND 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.

IMPACT ANALYSIS: The process of evaluating an effect on a community of a public or private activity. Federal and some state laws require environmental impact statements (EIS) before a project of some consequence can proceed. Impact analyses may include traffic, air quality (noise, dust, fumes), fish and wildlife habitat, effects on the carrying capacity of municipal water, sewer, police, fire, schools, recreation and other public services as well as direct, indirect and cumulative effects on the community's economic, social and fiscal health and well-being.

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 described in the Water Quality section of Chapter 7 of this Plan, pollution could be soil sediment, hydrocarbons, fecal bacteria, heavy metals and debris.

INADEQUATE OR SUBSTANDARD HOUSING: Housing with severe physical problems such as (1) Plumbing—lacking piped hot water or a flush toilet or lacking both a bathtub and shower for the exclusive use of the unit; (2) Heating—having been uncomfortably cold in the last winter for 24 hours or more or 3 times for at least 6 months each due to broken heating equipment; (3) Electrical—having no electricity or having all of the following three electrical problems—exposed wiring, a room with no working wall outlet, and 3 or more blown fuses or tripped circuit breakers within a 90 day period; (4) Upkeep—having any five of the following six maintenance problems—leaks from outdoors, leaks from indoors, holes in the floor, holes or open cracks in the walls or ceilings, more than a square foot of peeling paint or plaster, or rats within a 90 day period; or (5) Hallways—having all of the following four problems in public areas—no working light fixtures, loose or missing steps, looser missing railings, and no elevator.

INCLUSIONARY AFFORDABLE HOUSING ZONING: A zoning requirement which may be placed by the Planning Commission as a condition of a rezoning, special use permit or other discretionary permit approval in which a specific percentage of the residential units constructed under that permit is required to be sold or rented at Below Market Rate (BMR) prices. Parameters of such a program may include: (a) The size of the residential or mixed use development that would trigger the requirement; (b) the percent or number of units per development that would be designated “Below Market Rate” (BMR) units; (c) the CBJ Medium Family Income (MFI) range(s) that would be targeted for the BMR units; (d) the length or term that the BMR units would be price-restricted; (e) the discretionary approvals and/or development agreements that would be required for the development project; (f) the development
standards that could be waived or modified by the Planning Commission for a development that provided the required number of BMR units: (g) the sale and resale and/or the rental marketing and occupant selection process and procedures for the developer, owner or manager of the BMR units; and (h) selection of a Monitoring Agency or Agencies for the BMR units and the monitoring, auditing and reporting procedures for the BMR units by that/those agencies to a CBJ agency.

INDICATOR: Indicators are bits of information 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. Your body temperature is a good example; it indicates the state of your entire body's well-being. When we cannot see the condition of something in its entirety, an indicator can make the overall condition readable enough to deliberate on a course of action for change or sustainability. Indicators can represent the current state of a community, or they can measure change over a period of time. Both types of indicators can raise awareness and inspire change.

INDICATOR SPECIES: An indicator species, or keystone species, is a species of animal or plant whose health and well-being “indicates” the health and well-being of species that feed upon it—up and down the food chain. For example, the herring species of fish is an indicator species in that salmon, seal, sea lion, orca, bear and human species feed upon it and reduction in the health and population of the herring species can cause reduction in the health and population of the species that feed upon it.

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, 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:

"JOBS FOR GENERATIONS":

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.

LANDSLIDE: Dislodging and rapid or gradual movement of a mass of earth and rock.

LEEDS (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 (silver, good and platinum) according to a scoring system.

LEVELS 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. LOS A describes the condition where traffic flows travel at or above the speed limit and all motorists have complete mobility between lanes and through intersection signal points (no wait when green light appears) and travel in excellent comfort and safety for the motorist. LOS B is slightly more congested with some loss of maneuverability between lanes and two motorists might be forced to drive side-by-side. LOS B does not reduce speed from LOS A. LOS C has more congestion than B, where the ability to pass or change lanes is not assured. However, at LOS C, most drivers are comfortable, roads remain below or at-capacity, and the posted speed can be maintained. A LOS C is the desired target Level of Service for most highways and streets and is the standard of acceptability for the CBJ, pursuant to the Land Use Code, when assessing the carrying capacity of facilities which would serve a major new development. LOS D is, typically, the level of service during peak morning and evening commute periods: Speeds are reduced, motorists are hemmed in by other vehicles and changing lanes to exit the roadway must be negotiated well in advance of the desired exit, and many cars would be lined up awaiting a traffic signal to turn green. Turning left at an un-signalized intersection may take several minutes wait. LOS E is a marginal state of service: Traffic flow is intermittent and traffic is, typically, characterized as “bumper to bumper” at varying speeds and rarely reaches the posted speed. LOS E is consistent with a road or intersection that is traveled over its designed capacity; cars waiting to pass through a signalized intersection may have to wait two cycles to get through. LOS F is often characterized as “grid lock” in that speed drops to 5 miles per hour (mph) and zero at numerous intervals. A road with a constant traffic jam is at LOS F or below. A road or intersection may have LOS C during mid-day periods but would have LOS F at peak commute periods during which travel time cannot be predicted, except with delays. After waiting several minutes, motorists attempting to turn left at an intersection which is operating at a LOS F would likely want to turn around and find another route to a signalized intersection.

LIFE CYCLE COSTS: A life cycle cost analysis analyses the cost of the new product (including the energy and materials associated with materials extraction, produce manufacture and assembly, distribution and costs and environmental emissions resulting from its eventual disposal), the cost of installation, the cost of maintenance over the life of the feature, the cost of replacement and disposal of the feature to determine the overall costs and benefits of a product or feature; deemed a “cradle to grave” analysis. A life cycle cost
analysis shows what costs need to be allocated to a produce or feature so the organization can recover its costs from customers or users.

LIGHT RAIL TRANSIT: Trolley buses that typically operate in mixed traffic and in non-exclusive, at-grade rightsof-way. Vehicles are self-propelled by electricity or other power and usually operate in one or two-car trains.

“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.

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.

MARICULTURE: Marine aquaculture, known as mariculture, depend on water systems in-shore and off-shore to maintain a constant high quantity salinity level. In-shore mariculture systems include clams, oysters and other mollusks. Off-shore mariculture often refers to large intensive fisheries in off-shore fish pens.

MASS AND SCALE OF DEVELOPMENT:

MASTER PLANNED NEW GROWTH AREA: New Growth Areas that are designated on the Land Use Maps of the CBJ Comprehensive Plan are to be developed according to a master plan or master development plan adopted by the CBJ Assembly. The land within the New Growth Area can be developed in phases, per the master plan, but the services, utilities and infrastructure that serves the worker, visitor and resident populations within the New Growth Areas are to be provided in adequate amounts and numbers to serve each phase of the development. The New Growth Area is not an extension of the Urban Service Area and is not to be extended municipal utilities or services from within the Urban Service Area. Rather, the New Growth Area is to be fully self-contained with regard to utilities, internal circulation systems and roads, public services and convenience shopping.

MEDIAN FAMILY INCOME (MFI) OR MEDIAN HOUSEHOLD INCOME: Household income is the combination of two or more income earners living as a unit within a single dwelling and pooling resources. Family income only takes households with two or more persons related through blood, marriage or adoption and living as a unit within a dwelling and pooling resources. Median household income is calculated with differentiation for the various household sizes (one person, two person and so
forth) and by the geographic area as the cost of living varies by area. The United States Department of
Housing and Urban Development (HUD) calculates the MFI each year by household size and geographic
area, typically by region. The median income is the mid-point income in an ordered distribution of all
household income levels. The median divides households into two equal segments with the first half of
households earning less than the median, or mid-point, household income and the other half earning
more. Statisticians consider the median income to be a better indicator of the economic health of a
community than the average or “mean” household income for a community as it is not dramatically
affected by unusually high or unusually low values. The “mean” is the sum of all household incomes
divided by the number of households. Household income is not to be confused with family or personal
income.

**MEAN HIGH WATER MARK:** Is the average elevation of the high tides.

**MITIGATION MEASURE:** An action or series of actions designed to avoid or reduce the adverse
impact or effect of a development on the site or surrounding environs or neighborhood. For example, a
Developer whose development increases vehicle traffic to an intersection which has a Level of Service “C”
but which the new development would deteriorate the intersection to a LOS of “D” or worse would
mitigate the impact by paying for the installation of a traffic signal at the affected intersection or would
make other road improvements such as a dedicated left-turn lane, acceleration and deceleration lane, and
the like.

**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. The Marine
View Center building in Downtown Juneau is an example of a vertical mixed use development with retail
at the ground floor, three floors of office space, and five floors of apartments. The Juneau Public Library
and parking garage structure is also an example of a mixed use development. Numerous mixed use
developments in Downtown Juneau feature shops with apartments above the shops. Mixed use
developments are effective in Downtown or shopping areas because they can be served by public transit,
offer round-the-clock security with “eyes on the street” surveillance by occupants, create a sense of place as
a gathering space, and offer after-hours destinations for residents and workers of the development. The
presence of destinations for non-work or non-residential activity extends the life of the development and
street between and following commuting hours—creating a dynamic, 24-hour neighborhood.

**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 would 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. A surface transportation system would include land-based facilities, including bridges over waterbodies, rather than those accommodating air or marine travel.

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. These land areas have, in the past, been termed or described as “open space” resources.

NATURAL HABITAT: Habitat is the physical environment or place where a particular species lives, grows and reproduces, including the physical environment that influences or is used by that species for those purposes. For example, many Alaskan species reproduce in one area, grow in another, and birth and may nurture offspring in yet another area.

NATURAL RESOURCES: Air, land and water, and the elements thereof which are valued for their current and potential usefulness.

NEW GROWTH AREA: Sites in rural and remote areas quite distant from the Urban Service Area and potentially suitable for urban/suburban residential 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. Examples of noise could include: Loud music from a neighbors home after 10 PM; a nearby dog barking or car alarm that exceeds a couple of minute’s duration and a frequency of one or two times per evening; sounds of a nearby continuously-operating appliance motor after 10 PM or the sound of a nearby intermittently-operating motor.

NON-PROFIT HOUSING DEVELOPMENT CORPORATION: A non-profit housing development corporation is 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.

OCEAN FLOODING: Overflow onto lowlands by salt water, due to tidal action, storm surge or tsunamis, i.e. seismic sea waves. Land forms subject to ocean flooding including beaches, marshes, coastal lowlands and low-lying intertidal areas.

OPEN SPACE: Please see the discussion of Natural Areas, above.

ORDINARY HIGH WATER: The line on the shore established by the fluctuations of water indicated by physical characteristics such as natural line impressed on the bank, presence of litter and debris or other appropriate means.

ORDINARY HIGH WATER MARK:
(1) In the non-tidal portion of a river, lake or stream: the portion of the beds and banks up to which the presence and action of the non-tidal water is so common and usual and so continuous in all ordinary years as to leave a distinctive natural line or mark impressed on the bank or shore and indicated by erosion, shelving, changes in soil characteristics, destruction or prevention of terrestrial vegetation, predominance of aquatic vegetation or other distinctive physical characteristics.
(2) 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, as defined above, whichever offers greater protection to the waterbody.

OVERCROWDING: In relation to substandard housing, it is the condition of having more than one person per room in a dwelling unit, excluding the kitchen and bathroom in that calculation. A two bedroom home with a living room and no separate dining room would be considered overcrowded if more than three persons resided therein.

OVERLAY DISTRICT: Zoning requirements imposed in addition to or, in the case of an Affordable Housing Overlay District, in place of, those of the underlying zoning district’s development standards and procedures. Outside of the Affordable Housing Overlay District, development within an overlay zone must conform to the most restrictive of the two zoning district standards. The Affordable Housing Overlay District is a “floating” overlay district which can be mapped on a parcel located within the Urban Service Area, at the request of the property owner and upon approval as a zoning map amendment by the Planning Commission and Assembly.

PEAK HOUR/PEAK PERIOD: A daily period during which traffic volume is highest on a roadway, usually in the morning and evening commute periods.

PERMITTED USE: Use of land specifically authorized in a particular zone.
(1) Principal Permitted Use. A principal permitted use is a use that is allowed as-of-right within the zoning district and requiring only authorization of a use permit or an allowable use permit.
(2) Conditional Use. A conditional use is a use that requires Planning Commission authorization and which may require conditions placed on the operation of the use to mitigate potential adverse impacts to the site, environs and/or neighborhood’s facilities and infrastructure.

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. For example, a new housing development located within walking distance of a rapid bus service route and designed with small dwelling units may qualify for reduced parking requirements than is typically required for dwelling units located in areas not served by transit. Another example are taller building heights for structures which contain affordable housing units when the taller structure is oriented and designed to avoid obstruction of public views and vistas.

PLANNED UNIT DEVELOPMENT (PUD): A form of housing development usually characterized by a unified site design and approval. May include clustered buildings, common open space/natural 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 a discrete area, usually self-identified by property owners and residents therein, which functions as a community or neighborhood and includes all land area surrounding the neighborhood which could impact the livability of the neighborhood. For example, vacant lands adjacent to the core neighborhood which, if developed, could impact the carrying capacity of water, sewer, roads, air quality or other elements of the neighborhood. These adjacent lands are considered within the “sphere of influence” of the neighborhood for the purpose of developing a neighborhood plan.

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; and medical and social services.

PUBLIC OPEN SPACE: Land in public ownership or subject to publicly-held easements or dedications which are permanently retained and managed for passive recreational and scenic values, such as trails and waterways, sitting and picnic parks.

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PUBLIC TRANSIT & BUS RAPID TRANSIT: Public transit refers to buses or vans which are owned and operated by a public entity, a transit authority, or a non-profit organization that may contract with a public entity to provide such service. In the CBJ, Capital Transit is a public transit provider and operates fixed route bus service as well as the Care-a-van small bus vehicles for “on demand” public transport for qualifying persons. A Bus Rapid Transit Service includes a fixed route system of regular “feeder” buses which take passengers from within neighborhoods to a central transfer station where the passenger can rapidly transfer to an express bus which travels quickly via a dedicated travel way to major destination, such as Downtown Juneau or the Mendenhall Mall. The express buses are timed to be ready to go when passengers from the feeder lines embark and there would be no or only limited stops before arriving at its final destination.

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.

RENT- OR COST-BURDEN: A ratio between housing costs (rent plus tenant paid utilities or mortgage and utilities) and household income that exceeds 30%, which is a conventional national standard for housing affordability. A “severe” cost burden is one in which the household pays more than 50% of their gross income for housing costs. A “moderate” cost burden exceeds 30% but is less than or equal to 50% of gross household income. In this case, all wages earned by related household members are considered in calculating the gross income.

REMOTE AREAS: Lands located a great distance from the Urban Service Area boundary and which may be located distant from a public road and which remain in their natural state. 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. In the CBJ, the Comprehensive Plan provides that urban services are not to be planned or extended to remote areas. Rather, some remote areas in Echo Cove and West Douglas Island have been designated New Growth Areas within which self-contained urban services are to be provided as part of each New Growth Area Master Development Plan.

RENEWABLE ENERGY: Energy generated from naturally renewable sources such as the sun, wind, water and earth’s heat. Examples of renewable energy systems include: Solar thermal, photovoltaics (solar electric), wind energy conversion systems, geothermal (earth heating), hydroelectric, tidal power, and biodiesel.

RESIDENTIAL LAND: Used 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: Vegetation and fish and wildlife (flora and fauna) located 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 waterbody margins are called riparian vegetation and these areas provide food and shelter for many aquatic animals, and their predators. Riparian habitat serve valuable functions in dissipating stream energy resulting in less soil erosion; they trap sediment reducing turbid water and replenishing soils and build stream banks; they filter pollution and enhance water quality; they provide diverse fish and wildlife habitat; they provide fish and wildlife corridors and provide native landscape irrigation by extending seasonal or perennial flows of water.

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: The scale and massing of a building reflects how big or compatible the development is in relation to its neighbors, the adjacent structures. For example, a five story building located next to a row of single-story structures would be “out-of-scale” with its neighbors. The mass or massing of a development reflects the building’s width and breadth. For example, a single-story building that covers a full city block (say) is massive compared to its neighboring structures that each cover only a quarter of the block.

SCENIC CORRIDOR/ VIEWSHED: Areas of land and/or waters within the CBJ from which views of off-site near or distant locations and features are offered and when these off-site features are deemed by the general public as an important or spectacular view which provide a sense of identity and open space/natural areas for the viewer. The scenic portion of the “corridor” or “viewsed” would include the area from which the general public viewer can see the valued object, such as a glacier, historic structure or scenic landscape, as well as the area which the viewer can see the “frame” or the near-edge “context” of valued object, such as the sea, islands, river and mountains that “frame” the distant view of the Mendenhall Glacier from the Fritz Cove to False Outer Point Scenic Corridor/Viewscape in North Douglas. Scenic Corridors or viewsheds include public lands or waters from which the valued object(s) or resource can be viewed by the general public from a public road or vista point. Scenic corridor/ viewshed designations are not intended to protect views of a valued object or resource from private property. Protection of views of valued objects or resources from private property would require the interested property owner to purchase the “air rights” (the allowable building area from the ground or rooftop of existing buildings to the theoretical maximum building height allowed by the zoning for that property) for all properties for which structures may block his/her view. Scenic Corridor/Viewshed areas may be designated as such by designation of a View Corridor Protection Overlay District through a zoning map amendment process.
SENSITIVE AREA: Areas with significant natural resource value, natural hazards, and/or scenic views which 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 aquatic or wildlife.

SENSITIVE RECEPTOR: A person or group of persons who are highly susceptible to the adverse effects of 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.

SHELTER COSTS: See Housing Affordability definition.

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. By contrast, a high occupancy vehicle (HOV) is a motor vehicle containing two or more persons, a carpool van or a bus.

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. Developments containing SRO units must be located within a five to ten-minute walking distance of a public transit stop and, therefore, off-street parking would be reduced or waived, for the development. This type of dwelling is most suitable for elders, students, seasonal workers and single adults.

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).

SPRAWL: “Sprawl” refers to 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 and removal, police, fire suppression, emergency medical services and school and public transport services to those outlying, lower-density areas. This type of development usually results in deforestation and loss of wildlife species habitat, increased use of fossil fuels for transportation facilities and associated increase in carbon dioxide emissions, alteration of land forms and natural drainage patterns and loss of open space.
STREAM CORRIDOR: On CBJ-owned and other publicly-owned lands, and except on heavily modified streams, a 300-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 unto two or more lots. Dividing land into four or more parcels of land is deemed a major subdivision and must be approved by appropriate local regulatory bodies.

SUBDIVISION REGULATION: Local ordinance which regulates the conversion of land into building lots for residential and other purposes, 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).

SUSTAINABILITY: The premise on which sustainability is based is embodied in the following generally accepted definition: Sustainability is meeting our needs without compromising the ability of future generations to meet their needs. A sustainable community will maintain it’s ecological, economic, social, and governmental systems into perpetuity [See also the American Planning Association’s Policy Guide on Planning and Sustainability at www.planning.org/policyguides/sustainability.htm].

SUSTAINABILITY INDICATORS: Sustainability Indicators (SI) describe attributes or conditions of the environment that can be used to measure or gauge the health of a species or community. For example, measuring the presence of a certain amount of pollution in a natural water body or in a community potable water supply can “indicate” the health or potential harm to a species or community. Other more social indicators of the health and well-being of a species or community are the life expectancy at birth, maternal and off-spring mortality rate and ratio of male to female populations. For humans, some indicators can be poverty level, education level, drop out rate, per capita consumption of fossil fuels, employment rates, and the like. SI’s must be easily measurable and able to track over time to show trends and results of interventions.

TIDAL MARSH: Wetlands from lower high water (LHW) inland to the line of non-aquatic vegetation.

TIDAL WAVE (TSUNAMI): Very large ocean wave caused by an underwater earthquake or volcanic eruption.

TIDELAND: Generally un-vegetated areas which is alternately exposed and covered by the falling and rising of the tide.

TITLE 49 LAND USE CODE: See Land Use Code description.

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, 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. Transit Oriented Developments (TOD) create dynamic, livable developments and/or neighborhoods focusing on compact, walkable communities centered around convenient express public transit systems.

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. Transportation Systems Management (TSM) Programs seek efficiencies and cost effectiveness of the whole transportation system and can utilize computerized traffic signals, metered highway ramps, one-way streets, free-flow High Occupancy Vehicles lanes, and toll lanes for Single-Occupancy Vehicles.

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.
UPLAND: Lands located up-hill of a roadway or waterbody. Upland areas typically include drainages, aquifers (that is, underground water-bearing strata), whose development has a direct and significant impact on coastal waters.

URBAN AND/OR 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.

URBAN SERVICE AREA (USA): 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: A five percent vacancy rate for all types of housing within a municipality is considered as a conventional standard by national planning and community development specialists as a national standards for measuring the health of the municipality's housing stock in that a five percent vacancy rate (1) would provide surety and low financial risk on the part of the banking and investment community in lending for new housing construction or for lending for investments; (2) would provide adequate choice on the part of households with regard to location, dwelling unit size and habitability condition in seeking new shelter; and would provide a stabilizing effect on the price of housing. It should be noted that a ten percent vacancy rate is considered by national standards to provide choice in location, size, condition and price for commercial businesses seeking space to operate, while assuring a healthy return on investment for property owners, banks and investors.

VALUE ADDED EXPORT INDUSTRY:

VIEWSHED: See above description of 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 or 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 waterbody 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. It is a drainage water divide at the ridge of land that separates two adjacent drainage basins.

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. These can include: Saltwater and freshwater marshes, brackish marshes, swamps, vernal pools, and seasonal wetlands. The U.S. Army Corps of Engineers have jurisdiction over wetlands and unvegetated “other waters”, which can include mudflats, lakes, ponds, and open waters of bays, lagoons, and ocean. In the Coastal Zone, wetlands can include the presence of plants found in wet habitats and wet soils. Jurisdictional Wetlands include areas that meet the criteria established by the Corps of Engineers (COE) for a Wetlands, as set forth in their Wetlands Delineation Manual. Such areas come under the jurisdiction of the COE for permitting certain actions such as dredge and fill.

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.

ZONING MAPS: Zoning Maps are the official maps of the CBJ that identify the specific zoning districts located in the CBJ. Typically, zoning district designations implement the Comprehensive Plan Land Use Map designations for each parcel in the CBJ. However, the Comprehensive Plan Land Use Map designations, when amended as part of a comprehensive update of this Comprehensive Plan (Comp Plan), do not automatically amend the underlying zoning designations of each parcel. However, after a Comp Plan Land Use Map amendment has been adopted, any property-owner request for a zoning map amendment for his/her property must be consistent with the Comprehensive Plan Land Use Map designation and the Land Use Category definition which specify which zoning districts are allowed within the specific land use category. Lands within the boundaries of the CBJ that are not specifically shown on the Comprehensive Plan Land Use Maps and/or the CBJ Zoning Maps are, by default, designated Conservation Areas (CA) on the Comprehensive Plan Land Use Maps and are designated Rural Reserve (RR) zoning districts.

Zoning maps indicate which lands are regulated by the different zoning district standards. Zoning Maps may show a “base” zoning district designation and an “overlay” zoning district designation and, with the exception of the Affordable Housing Overlay District, the most restrictive of the base or overlay district regulations, standards and controls would be applied to development of the subject parcel. For the Affordable Housing Overlay District, the standards of that district allow greater flexibility in standards and
regulations, all of which would be defined as conditions of approval of a site-specific zoning map amendment.
### APPENDIX B: Acronyms and Abbreviations Used in the Plan

<table>
<thead>
<tr>
<th>Acronym or Abbreviation</th>
<th>Full name</th>
</tr>
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<tbody>
<tr>
<td>ADA</td>
<td>Americans with Disabilities Act federal law</td>
</tr>
<tr>
<td>AEL&amp;P</td>
<td>Alaska Electric Light and Power Company</td>
</tr>
<tr>
<td>ADF&amp;G</td>
<td>Alaska Department of Fish and Game</td>
</tr>
<tr>
<td>AHFC</td>
<td>Alaska Housing and Finance Corporation</td>
</tr>
<tr>
<td>AHOD</td>
<td>(a proposed CBJ) Affordable Housing Overlay District</td>
</tr>
<tr>
<td>AIR</td>
<td>(a proposed CBJ) Airport land use zoning district</td>
</tr>
<tr>
<td>ANSCA</td>
<td>Alaska Native Claims Settlement Act</td>
</tr>
<tr>
<td>ATV</td>
<td>All terrain vehicle</td>
</tr>
<tr>
<td>AWARE</td>
<td></td>
</tr>
<tr>
<td>AWTP</td>
<td>The adopted CBJ Area Wide Transportation Plan</td>
</tr>
<tr>
<td>BMPs</td>
<td>Best Management Practices</td>
</tr>
<tr>
<td>BMX</td>
<td>A type of mountain bike</td>
</tr>
<tr>
<td>BRT</td>
<td>Bus Rapid Transit system</td>
</tr>
<tr>
<td>CA</td>
<td>Conservation Area land use map designation</td>
</tr>
<tr>
<td>CBD</td>
<td>Central Business District</td>
</tr>
<tr>
<td>CBJ</td>
<td>City &amp; Borough of Juneau</td>
</tr>
<tr>
<td>CCFR</td>
<td>The CBJ Capital City Fire and Rescue Department (Fire Department)</td>
</tr>
<tr>
<td>CDBG</td>
<td>Community Development Block Grant</td>
</tr>
<tr>
<td>CDD</td>
<td>The CBJ Community Development Department</td>
</tr>
<tr>
<td>CIP</td>
<td>The CBJ Capital Improvement Program</td>
</tr>
<tr>
<td>CMT</td>
<td>Crisis Management Team in the Fire Department</td>
</tr>
<tr>
<td>DEC</td>
<td>The Alaska Department of Environmental Conservation</td>
</tr>
<tr>
<td>DG</td>
<td>The Comp Plan Policy Development Guideline</td>
</tr>
<tr>
<td>DOT and DOT&amp;PF</td>
<td>Alaska Department of Transportation and Public Facilities</td>
</tr>
<tr>
<td>DZ School</td>
<td>Dzantik’I Hemeni Middle School</td>
</tr>
<tr>
<td>EMT or EMTs</td>
<td>Emergency Medical Technicians</td>
</tr>
<tr>
<td>EPA</td>
<td>The United States Environmental Protection Agency</td>
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<tr>
<td>FAA</td>
<td>The United States Federal Aviation Administration</td>
</tr>
<tr>
<td>FEMA</td>
<td>The United States Federal Emergency Management Agency</td>
</tr>
<tr>
<td>GC</td>
<td>General Commercial land use map designation</td>
</tr>
<tr>
<td>GIS</td>
<td>Geographic Information System of mapping community resources</td>
</tr>
<tr>
<td>GPS</td>
<td>Global Positioning System</td>
</tr>
<tr>
<td>HA</td>
<td>Hazard Area land use map designation</td>
</tr>
<tr>
<td>HC/LI</td>
<td>Heavy Commercial/Light Industrial land use map designation</td>
</tr>
<tr>
<td>HDR</td>
<td>High Density Residential land use map designation</td>
</tr>
<tr>
<td>HOV</td>
<td>High Occupancy Vehicle</td>
</tr>
<tr>
<td>HRAC</td>
<td>The CBJ Historic Resources Advisory Committee</td>
</tr>
<tr>
<td>HUD</td>
<td>The United States Department of Housing and Urban Development</td>
</tr>
<tr>
<td>Acronym or Abbreviation</td>
<td>Full Name</td>
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<tr>
<td>------------------------</td>
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<tr>
<td>IA</td>
<td>The Comp Plan Policy Implementing Action</td>
</tr>
<tr>
<td>IND</td>
<td>Industrial land use map designation</td>
</tr>
<tr>
<td>IPU</td>
<td>Institutional Public Use land use map designation</td>
</tr>
<tr>
<td>JWMP</td>
<td>Juneau Wetlands Management Plan</td>
</tr>
<tr>
<td>JEDC</td>
<td>Juneau Economic Development Council</td>
</tr>
<tr>
<td>JPD</td>
<td>Juneau Police Department</td>
</tr>
<tr>
<td>JNU</td>
<td>Juneau International Airport</td>
</tr>
<tr>
<td>LCBLMP</td>
<td>Last Chance Basin Land Management Plan</td>
</tr>
<tr>
<td>LEEDS</td>
<td>Leadership in Energy and Environmental Design standards</td>
</tr>
<tr>
<td>LID</td>
<td>Local Improvement District</td>
</tr>
<tr>
<td>LOS</td>
<td>Levels of Service</td>
</tr>
<tr>
<td>LRWP</td>
<td>The CBJ adopted Long Range Waterfront Plan</td>
</tr>
<tr>
<td>MDR &amp; MDR/ SF</td>
<td>Medium Density Residential and MDR/Single Family only and use map designations</td>
</tr>
<tr>
<td>MLLT</td>
<td>Mean Lower Low Tide level</td>
</tr>
<tr>
<td>MU &amp; MMU</td>
<td>Mixed Use and Marine Mixed Use land use map designations</td>
</tr>
<tr>
<td>NC</td>
<td>Neighborhood Commercial land use map designation</td>
</tr>
<tr>
<td>NOAA</td>
<td>National Oceanic &amp; Atmospheric Administration</td>
</tr>
<tr>
<td>NP</td>
<td>Natural Area Park land use map designation</td>
</tr>
<tr>
<td>NPIAS</td>
<td>National Plan of Integrated Airport Systems</td>
</tr>
<tr>
<td>OHWM</td>
<td>Ordinary High Water Mark of waterbodies</td>
</tr>
<tr>
<td>OS</td>
<td>Open Space land use map designation</td>
</tr>
<tr>
<td>P</td>
<td>Public land use map designation</td>
</tr>
<tr>
<td>PRK</td>
<td>Park land use map designation</td>
</tr>
<tr>
<td>P&amp;RD</td>
<td>The CBJ Parks and Recreation Department</td>
</tr>
<tr>
<td>PUD</td>
<td>Planned Unit Development</td>
</tr>
<tr>
<td>RAC</td>
<td>Residential Units per Acre/ number of dwelling units allowed per increment of land as a density descriptor</td>
</tr>
<tr>
<td>RD</td>
<td>Resource Development land use map designation</td>
</tr>
<tr>
<td>RDR</td>
<td>Rural Dispersed Residential land use map designation</td>
</tr>
<tr>
<td>REC</td>
<td>Recreation Resource land use map designation</td>
</tr>
<tr>
<td>RLDR</td>
<td>Rural Low Density Residential land use map designation</td>
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<tr>
<td>RNP</td>
<td>Required Navigational Performance for the airport</td>
</tr>
<tr>
<td>RS</td>
<td>Recreational Service Park land use map designation</td>
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<tr>
<td>SAFETEA-LU</td>
<td>Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users</td>
</tr>
<tr>
<td>SC</td>
<td>Stream Protection Corridor land use map designation</td>
</tr>
<tr>
<td>SC/V</td>
<td>Scenic Corridor / Viewshed land use map designation</td>
</tr>
<tr>
<td>SOP</td>
<td>The Comp Plan Policy Standard Operating Procedure</td>
</tr>
<tr>
<td>SOV</td>
<td>Single-occupancy vehicle</td>
</tr>
<tr>
<td>SRO</td>
<td>Single Room Occupancy type of residential unit or development</td>
</tr>
<tr>
<td>Acronym or Abbreviation</td>
<td>Full Name</td>
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<tr>
<td>------------------------</td>
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<tr>
<td>STIP</td>
<td>Alaska State Transportation Improvement Plan or Program</td>
</tr>
<tr>
<td>T</td>
<td>Transition land use category</td>
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<tr>
<td>TMP</td>
<td>Coordinated Downtown Management Program</td>
</tr>
<tr>
<td>TMDL</td>
<td>Total Maximum Daily Load of pollutants in a water body</td>
</tr>
<tr>
<td>TOD</td>
<td>Transit Oriented Development</td>
</tr>
<tr>
<td>TSA</td>
<td>Transportation Security Administration</td>
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<tr>
<td>UAS</td>
<td>University of Alaska, Southeast</td>
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<tr>
<td>ULDR</td>
<td>Urban Low Density Residential land use map designation</td>
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<tr>
<td>USAB</td>
<td>Urban Service Area boundary</td>
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<tr>
<td>WC</td>
<td>Waterfront Commercial land use map designation</td>
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<td>WCI</td>
<td>Waterfront Commercial/Industrial land use map designation</td>
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<tr>
<td>WRB</td>
<td>The CBJ Wetlands Resources Advisory Board</td>
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<tr>
<td>WS</td>
<td>Watershed land use map designation</td>
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