COMPREHENSIVE PLAN
OF THE
CITY & BOROUGH OF JUNEAU

1995 UPDATE

Incorporating 2003 Amendments

City & Borough of Juneau
Alaska's Capital City

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PREFACE

The citizens of Juneau are nearly unanimous in supporting their community as a desirable place to live. The qualities cited most frequently are the beauty of the natural setting and surrounding wilderness, recreational opportunities, small population and the friendliness of the people.

In order to protect and enhance Juneau's liveability, most agree that it is important to safeguard the environment, promote orderliness in growth, provide affordable housing, and institute reasonable controls over land development and public services. The context in which these needs can be expressed and implemented is the comprehensive plan.

But what is a comprehensive plan.? The City and Borough code requires that the Assembly, with the advice and assistance of the Planning Commission, prepare a Comprehensive Plan. It is a long-range blueprint intended to guide the growth and development of a community. It is developed by the community, public officials, and staff and depicts what the community is today, both strengths and weaknesses and what we want to see happen in the future. The plan provides a way to shape a better community and to avoid costly mistakes detrimental to the well-being of the public interest. It forms the basis for land use regulations and future policy decisions.

Through the process of comprehensive planning, a community can preserve, promote, protect, and improve the public health, safety, comfort, good order, appearance, convenience, law enforcement, fire protection, and general welfare; prevent overcrowding of land and avoid undue concentration of population, transportation, water, sewage; and conserve, develop, utilize, and protect natural resources within its jurisdiction.

It is evident that the comprehensive plan can be a meaningful and effective document. But it must be used by citizens, the Planning Commission, and the governing body and it must be kept current. 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 objective value judgements can be made.

This document, then, comprises the Comprehensive Plan for the City and Borough of Juneau, and provides a logical, consistent and purposeful approach to managing community growth and development. Once adopted, the plan will be a road map which guides citizens 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 those areas which already have been developed.

The plan provides a vision of Juneau's future which has many dimensions. For some, it is a means of reinforcing Juneau's importance as the state capital; to others an opportunity to create access to Juneau's waterfront or to develop a variety of housing choices. To most, it is a means to preserve a high level of environmental quality.

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. So that development on suitable land may occur according to a predictable and affordable schedule, community services and facilities must be extended into areas which are not presently served. New policies, ordinances and procedures will provide the governing bodies a reasonable and workable means to implement the details of the plan.

Juneau has been the scene of conflicts between various philosophies and actions, some of which threaten the qualities most prized by most of its citizens. This comprehensive plan helps establish a level of confidence that the livability which many residents cherish will remain for generations to come.

CHAPTER 1.
INTRODUCTION AND BACKGROUND

SETTING

The City and Borough of Juneau (CBJ) is located in the central portion of the Alaskan panhandle, approximately 700 miles from Anchorage and 950 miles from Seattle (Map A). Because of its mountainous terrain and great distances to other urbanized areas, Juneau 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 Cone; and on the north by the Haines Borough (Map B). In 1991, an approximate 150 square mile portion of Admiralty Island, encompassing the Greens Creek Mine, was annexed into the CBJ.

About 90 percent of the total area of the borough consists of water or rugged mountains and glacial ice caps 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 "roaded area" which is the most subject to human endeavor.

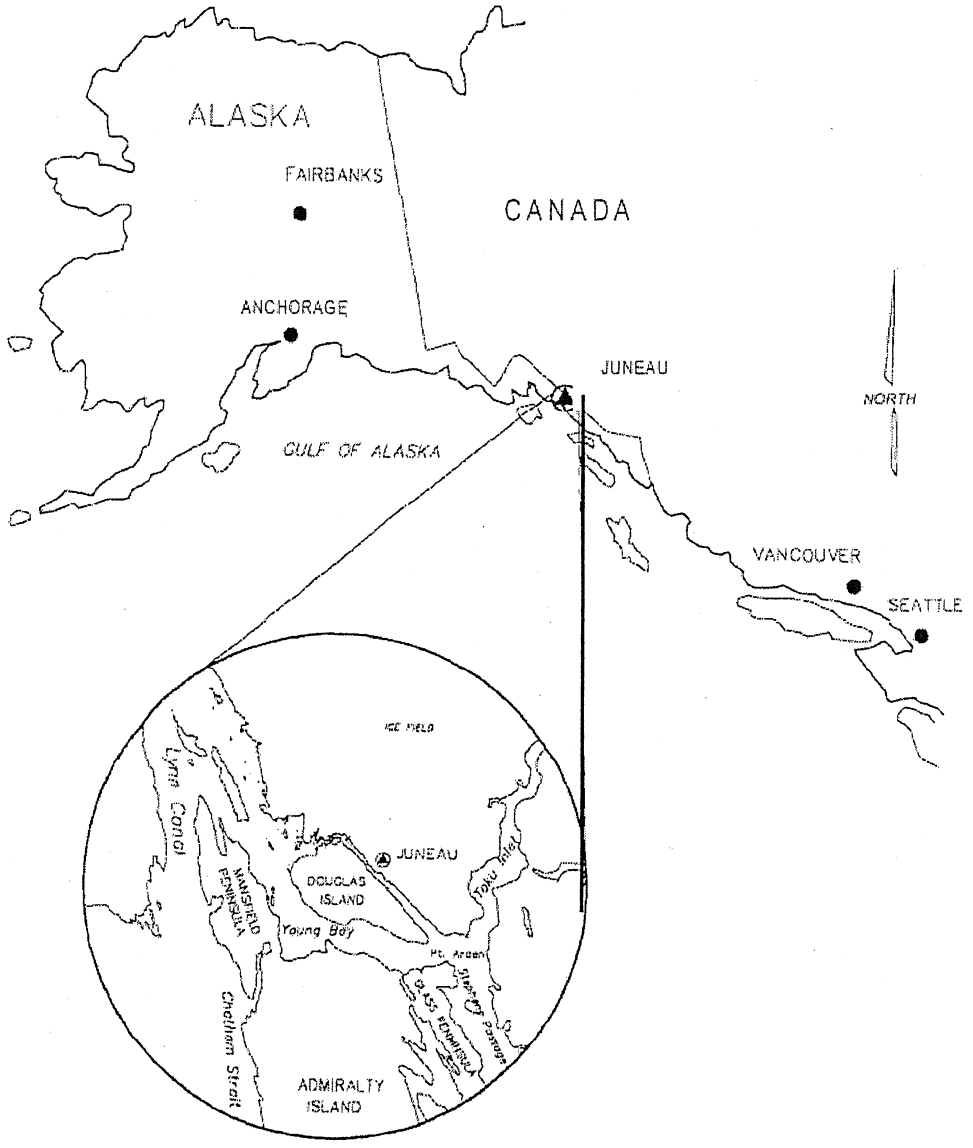
HISTORY

Juneau has developed into an important government, regional supply transportation and tourist center as a result of its location or history. The general vicinity was first inhabited by the Tlingit Indians 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.

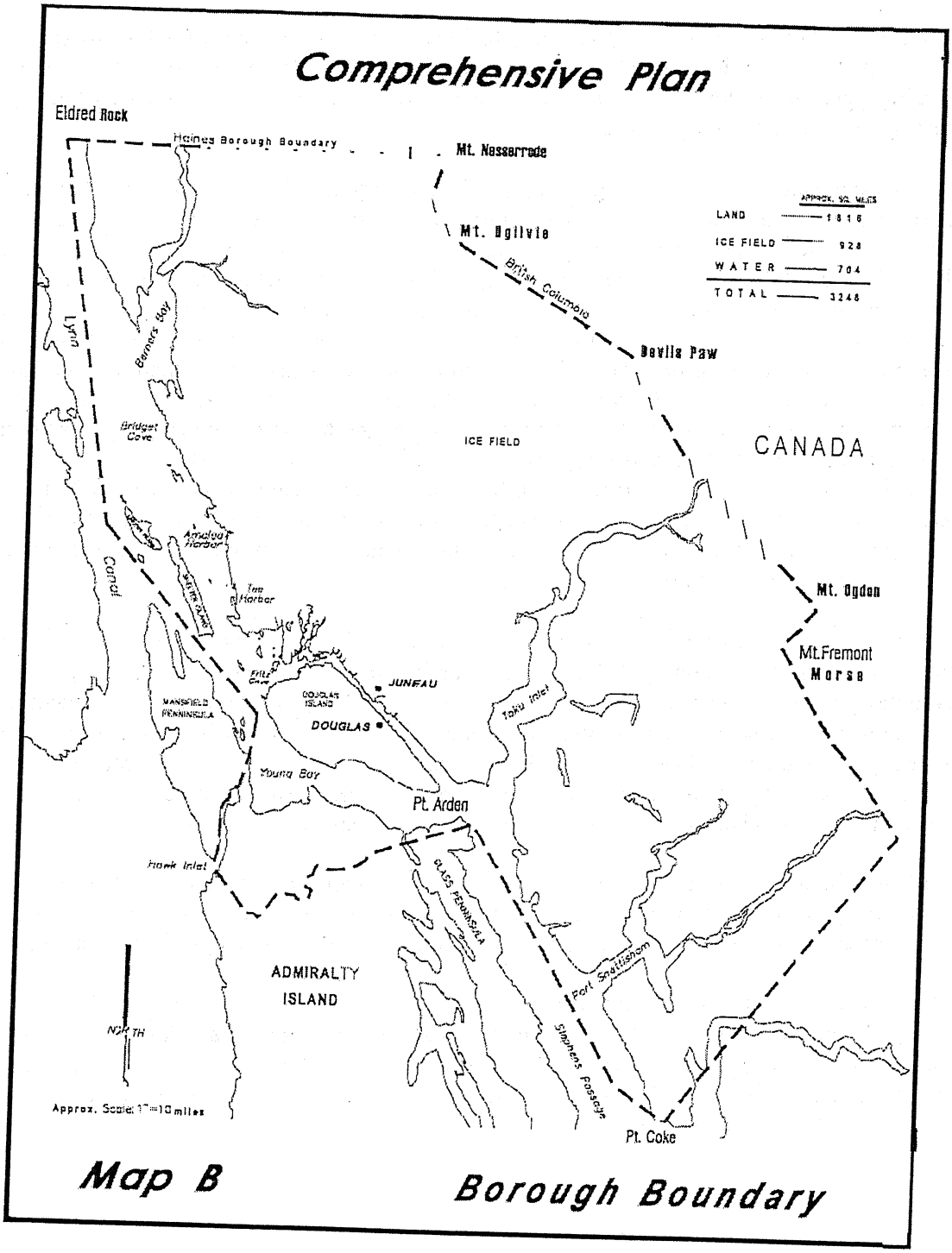
In 1880, gold was discovered in Gold Creek above Last Chance Basin by two prospectors, Richard Harris and Joe Juneau. Large-scale mining activity soon was undertaken on Douglas Island and in Juneau; by 1893 the area had become the largest mining center in Alaska.

Comprehensive Plan

City & Borough of Juneau



Map A **Vicinity Map**


Comprehensive Plan
Eldred Rock
Haines Borough Boundary
Mt. Nassarrede
Mt. Ogilvie
British Columbia
Devils Paw
APPROX. SQ. MILES
LAND 1816
ICE FIELD 928
WATER 704
TOTAL 3248
Lynn Canal
Berners Bay
Bridget Cove
ICE FIELD
CANADA
Auke Bay
Auke Harbor
Inn Harbor
Mt. Ogden
Mt.Fremont
Morse
JUNEAU
DOUGLAS ISLAND
DOUGLAS
MANSFIELD PENINSULA
Young Bay
Taku Inlet
Pt. Arden
Hawk Inlet
GLASS PENINSULA
ADMIRALTY ISLAND
Fort Snettisham
Stephens Passage
NORTH
Approx. Scale: 1"=10 miles
Pt. Coke
Map B
Borough Boundary

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 manpower 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 Juneau 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 in Juneau and a spurt in residential and commercial development that was staggering in comparison to the pre-1982 period of economic stagnation credited in large part to the threat of the capital move. However, in 1986, the state's revenue expectations were urgently revised with 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 classes of housing, especially apartments, was one of the results along with substantial loss of value in real estate since there were no buyers.

The so-called mid-eighties crash eventually came to an end as the city slowly started to grow again so that by now, eight years later, housing prices are roughly equivalent to cost of construction, there is and extremely limited supply of shelter. Additionally, three major new retail establishments have come to town and some existing local businesses are expanding and remodeling. By the end of 1994, about 275,000 square feet of new retail commercial space was added to the existing stock. There are indications that the customer base has significantly expanded to include other towns and villages in the entire Southeast Alaska region.

Also of significance in the local economy is the substantial increase in tourism, both of the cruise ship and independent traveler categories. The CBJ rehabilitated its downtown docks in the early '90s. Over the years, ships have increased in size, number of visits and length of stay in port.

Finally, Juneau will further diversify its economy with the expected reopening of the AJ, Kensington and Greens Creek Mines within the next several years. If all three mines go into production, long-term jobs will be provided for nearly 1,000 residents and an even larger number during the construction phase. Beyond these three mines there are at least three more in or near Juneau that are under exploration now.

STUDY AREA AND FORMAT

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 the downtown core of Juneau and Douglas, as well as more recent development in the areas of West Juneau, North Douglas, the Mendenhall Valley, Auke Bay, Tee Harbor and Lemon, Switzer, Salmon Creeks, and Thane. Generally, existing development is linear, confined to a narrow bench of land between the Gastineau Channel and the steeply rising mountains to the east 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.

Juneau's Comprehensive Plan consists of seven chapters. Each chapter contains one or more subject sections and related policies. Each numbered policy is preceded by findings, which form the foundation 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 providing the basis for guiding ongoing decisions related to land use and preparation of new land use regulations. Each policy statement is followed by implementing actions which are the practical means of putting each policy into effect. These include such actions as ordinance changes, map revisions, studies and financing mechanisms.

Chapter 2: Sustainability, Growth and Development, establishes the basic policies governing the general nature and location of new growth. Policies in Chapter 3, Natural Resources and Hazards, identify the areas of the CBJ in which future development is inappropriate. Policies which guide more specific growth and development decisions are found in Chapter 4: Transportation/Public Facilities and Services; and in Chapter 5: Land Use. Chapter 6: Comprehensive Land Use Plan Maps, translates the preceding policies into specific land uses for residential, commercial, industrial and other land uses on maps of 10 subareas of Juneau. Area-specific guidelines for future land use planning are also included in the discussion of each subarea. Finally, policies for the general implementation and administration of the plan are presented in Chapter 7. A glossary of terms and an index are presented in the appendix.

FUTURE DIRECTION

This Plan provides guidance to citizens of Juneau and local officials as they decide the location, intensity and timing of future public and private development. 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 basic services, roadway capacities, access to shopping, employment and recreational facilities, and the presence of natural hazards. In the Comprehensive Plan, the interrelationships of these factors--housing, economic development, transportation, public services and facilities, and natural resources and hazards--are considered.

The future of Juneau is inter-twined with the future of the State of Alaska. This is true, to an extent for any town in Alaska because so much of a given city's budget is dependent on state-shared revenues and state-sponsored capital improvements. In Juneau'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 downturn in state spending and reductions of state services. If Juneau 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 Juneau.

Fortunately, there is reason to be optimistic. Growth is expected in mining, tourism, second home development, retirement home development, regional and even international trade and retail activity, and, interestingly, in Juneau as a place to work for people who only need access to a telephone. As the electronic and information age develops, it is generally expected that more and more Americans will be able to do their work in whatever location they wish and so the quality of the environment, the culture, the physical services, and similar features will be decision factors when a person is selecting a place to live. The aspects of Juneau that make it so significant and meaningful to current residents will surely have significance and meaning to others who are looking for a place to live and work and who have the freedom to choose. Finally, in 1994, Alaskans voted to keep Juneau as their capital city. In response to this vote, Juneau is experiencing a building boom and a spirit of optimism which is coupled with a dedication to articulate a vision of its future and to become a capital city of which all Alaskans are proud.

CHAPTER 2.

SUSTAINABILITY, GROWTH, AND DEVELOPMENT

Policies relating to the CBJ's future land use patterns in terms of physical form, housing, economic development, community development, and the emerging concept of sustainability, are critical to its future condition and provide direction to all other parts of the Plan. The subject of energy has been added to this chapter as one of the fundamental subjects essential to community well-being.

SUSTAINABILITY

World-wide, a new approach to planning endeavors called "sustainability" is emerging. The premise on which sustainability is based is embodied in the 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 into perpetuity. Common aspects of sustainability are:

1. very long-term planning;
2. dedication to the vitality and integrity of local and global systems; and
3. recognition that "environment" and "development" are inseparable.

The concept is applicable to the planning efforts of any organization but seems especially suited to municipal comprehensive planning which, as the art has progressed over the current century, helped to lay the groundwork of holistic thinking from which the sustainability concept was born. Depending on the past efforts of a city, the actual process of devising a sustainable plan may not be new but the concept does call upon civic leaders and the public to re-examine their community and its desires and to look more deeply into the future.

In 1992 the U.S. President signed on to "Agenda 21" which was developed at the Earth Summit in Rio. The challenge to all communities in the U.S. was to prepare a plan for becoming a sustainable community by the year 1996. With the inclusion of a sustainable approach to this Comprehensive Plan update, Juneau has taken one step toward that challenge.

In order to assess the sustainability of the various elements of the Comprehensive Plan, a series of questions must be answered to evaluate if the policies or activities are sustainable into the future. The questions address the social, governmental, ecological, and economic interrelationships of the policies and activities proposed. The answers to these questions will give some indication of the sustainability of the existing and proposed policies or activities.

This questioning process will indicate whether Juneau is being managed in a sustainable manner. We are likely to find that in some areas we are and in some areas we are not. In order to assure

the continuance of those currently sustainable activities and to bring on track those that are not, we need to identify a set of indicators which are measurable and have some value that can be monitored. These indicators will show where improvement is needed or where we are succeeding toward a sustainable future into the next and succeeding centuries.

Sustainability indicators need to be reflective of the social, governmental, ecological and economic interrelationships of the community. There are many indicators, measures and values for measures which need to be identified to give the overall picture of sustainability for a community. In order to be successful, these indicators should be developed and agreed upon by diverse interests in the community. It is not an easy task and it won't be finished quickly. The important point is that it take place in a format which embodies a nonpartisan approach, welcoming diversity, mutual respect, seeking informed discussion, building consensus, and encouraging broad public participation.

The Juneau Sustainable Community Roundtable, associated with the Juneau Chamber of Commerce, was challenged by the Planning Commission to develop the questions, indicators, and measures as discussed above. The Roundtable took up this challenge and established the Task Force on Indicators and Measures which developed a series of questions to be asked in the approval review of proposed projects. These questions address the categories of Social/Ethical, Political/ Governmental, Ecological and Economic. The Task Force went on to establish a catalog of over 200 measures of sustainability from which 26 key indicators and 47 measures for those indicators were chosen as possibilities for Juneau to consider. Additionally, the Task Force outlined the process, principles, and values for building a sustainable community for Juneau. The work of the Task Force was periodically taken to the Roundtable for input. In May, 1995, a document of questions, indicators, and measures was advanced for consideration by individual members of the Roundtable. This work is presented for discussion purposes in Appendix C of the Comprehensive Plan.

The concept of sustainability was used in preparation of several parts of the 1995 update of the Plan and over time it is intended to apply throughout. Thus, the mention of it here, at the beginning, is only for the purpose of introducing it. The actual application of the concept must occur as each subject area is addressed. This takes time and effort for staff, public officials and the public to achieve. The 1995 revision is a start in that direction that should be continued and expanded.

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

Implementing actions:

2.1.1. Develop a series of questions which address the interrelationships of policies and activities within the community for the purpose of determining the long-term sustainability of the community.

2.1.2. Develop a list of indicators, measures, and values, which are based upon the principal sustainability interrelationships--social, governmental, ecological and economic.

2.1.3. Incorporate sustainability indicators into the process of reviewing and approving proposed policies and activities to assure the long-term sustainable future of the community.

2.1.4. Assess the state of the community to determine if the CBJ is managing itself in a sustainable manner.

2.1.5. Update the Comprehensive Plan within five years of adoption, and at earlier times for subjects and policies that mature early, to incorporate the indicators, measures and policies which result from the actions above. Periodically, review the indicators and measures to confirm their sustainability. Periodically, update the values and measures to track Juneau's progress toward, or away from, sustainability.

COMMUNITY FORM

The 1984 Plan was based in part on an anticipated 3 to 4 percent increase in population per year through the late 1990's. This projected rate of growth did not account for the currently observable decline in state revenues. In fact, the rate of growth has been much lower and more formal projections, done for review of mining permits and based on state revenue projections and projected employment in basic sectors, show substantially less growth is predicted for the near future. Despite this change in expectations, the reasons for considering community form are the same. Under most projections, growth will occur. The real variable is time. The impact of a four percent increase in population is about the same, whether it takes one year or two to actually occur. Cities should seek to guide development patterns in order to assure the following results:

- Sufficient development opportunities to meet a broad range of residents' needs and lifestyles.
- Efficient and economical provision of urban level services including community sewer, water and storm drainage; police and fire protection; schools, libraries and recreational facilities; and social and medical services.
- Protection of the region's scenic and environmental assets and economically valuable natural resources.

By clearly distinguishing those areas which are most suitable for future urban development, the CBJ will determine the community's ultimate physical form.

To facilitate an understanding of the land allocation process, several key concepts are defined below:

Urban Service Area: Site of existing urban development plus adjacent vacant land needed and appropriate for future urbanization, based on proximity to sewer, water and other public facilities, ownership and physical suitability.

Rural Area: All land outside the urban service area which contains natural resources in need of protection from development or areas unsuitable or not needed for more intense urban development. Urban services are not to be planned for or extended to these areas except when they must be provided to serve a new growth area as defined below.

New Growth Areas: Sites in rural areas suitable and available for future urban/suburban 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. Non-residential uses such as port facilities or resource-related industrial development, e.g. a lumber mill or fish processing plant, may be appropriate in some new growth areas.

Transition Area: Land located within the Urban Service Boundary which is set aside for higher density development after public sewer and water have been provided. Transition areas are identified by the designator "T" on the Comprehensive Plan maps.

In order to set management policies for land use, development is defined as follows:

Urban/Suburban: Residential, commercial, industrial and/or public development in the urban service and new growth areas which requires and supports a full complement of public services and facilities. A minimum residential density of three dwelling units (DU) per acre is needed before community water and sewer should be extended as a practical matter although densities of five units or more are considered more economically feasible. Under special circumstances dictated by ownership patterns, previous development commitments or other factors, residential densities as low as one unit per acre have occurred and have in fact been served by public water. In the early 1990's public sewer was also extended to parts of the West Mendenhall Valley where densities range from one to five units per acre depending on the neighborhoods being served.

Rural: Natural resource management and conservation activities and extremely low density residential uses characterized 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 special circumstances, densities as low as one unit per five acres may be required. In areas encompassing sensitive wildlife habitats and other natural resources, subdivision may not be appropriate.

Adequate Development Opportunities

Private and public land ownership patterns within the CBJ have a significant impact on the location of future urban development.

It is advisable to have more than a 15-year supply of vacant land in some categories, especially commercial and industrial, to facilitate long-range planning for needed public services and facilities.

One mechanism the CBJ has used to provide some predictability to patterns of future growth has been the "transition area" concept applicable to areas within the Urban Service Boundary but without public sewer and water. A designation in a transition area specifies the current lower density classification as well as the proposed higher density classification which would go into effect with the installation of public sewer and water. For example, areas in the West Valley are shown on the Comprehensive Plan maps as "RDR(T) ULDR." This designation means that once sewer and water services are provided, a zoning upgrade consistent with the higher density designation may occur.

One of the primary responsibilities of the CBJ is to facilitate future growth by insuring that adequate land is available when needed and providing a level of public services and facilities sufficient to promote public health, safety, and convenience.

POLICY 2.2. IT IS THE POLICY OF THE CBJ TO ENSURE AVAILABILITY OF SUFFICIENT LAND THAT IS SUITABLY LOCATED AND PROVIDED WITH THE APPROPRIATE PUBLIC SERVICES AND FACILITIES TO MEET THE COMMUNITY'S FUTURE GROWTH NEEDS. A RANGE OF DEVELOPMENT OPPORTUNITIES IN URBAN AND RURAL AREAS WILL BE PROVIDED TO ACCOMMODATE THE VARIOUS NEEDS AND LIFESTYLES OF JUNEAU'S RESIDENTS.

Implementing actions:

2.2.1. Estimate and plan for the CBJ's anticipated population growth for 15 years between 1995 and 2010, developing detailed population estimates every 5 years.

2.2.2. Designate sufficient land on the Comprehensive Plan maps (Chapter 6) to serve projected growth needs for residential, commercial/industrial and other land uses.

2.2.3. Revise the Land Use Code with respect to transition areas to provide:

1. When public sewer and water are available, a zoning upgrade (increase in density) of about 50 percent of the upgrade potential will be automatic. (For example, a D-3(T) D-18 will automatically transition to D-10, and a D-l(T) D-5 will transition to a D-3.) An increase in density closer to or up to the upper range of the (T) designation may be proposed and adopted, subject to public hearing, if deemed appropriate or if petitioned by the developer.

2. Special powers to mitigate the effects of zoning upgrade (increase in density) on existing neighborhoods be available to the Planning Commission.

3. Clarify upgrade procedures to respond to: (1) proposals to upgrade large areas outside of the applicant's ownership and; (2) proposals to upgrade small areas within a larger area of lower density zoning.

2.2.4. Continue to notify property owners of potential change in zoning in transition areas which will accompany development of public sewer and water service in the area.

2.2.5. As part of the Comprehensive Plan implementation and updating process (Chapter 7), monitor land availability and cost for various land uses and reevaluate the designations on the land use plan map.

2.2.6. 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 (Chapter 4, Transportation/Public Facilities and Services; other community form policies below).

2.2.7. Develop a map overlay system to annually document changes to the Juneau land base.

Urban Development Patterns

The CBJ's future community form depends upon transportation systems, open space 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 urban areas is preferable because there 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.

Most commercial and industrial land is located within the urban service area to insure 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 old Juneau, the Mendenhall Valley, Lemon Creek and Auke Bay on the mainland and Douglas and West Juneau on Douglas Island. Smaller enclaves are found at Thane, Lena Cove and Tee Harbor.

Based on extensive studies of the experience of other American cities, compact urban development is preferable to urban sprawl. 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 pollution will result by encouraging the development of residential uses in relative proximity to shopping, employment, cultural and recreational facilities.

POLICY 2.3. IT IS THE POLICY OF THE CBJ TO PROMOTE COMPACT URBAN DEVELOPMENT WITHIN AND ADJACENT TO EXISTING URBAN AREAS TO INSURE EFFICIENT UTILIZATION OF LAND RESOURCES AND FACILITATE ECONOMIC PROVISION OF URBAN FACILITIES AND SERVICES.

Implementing actions:

2.3.1. Delineate an urban service area which contains sufficient land in accord with the policies herein and relevant implementing actions.

2.3.2. Adopt an urban service boundary which defines the limits within which the full range of urban services, such as water and sewer, will be provided by the CBJ. Except for fulfilling existing commitments or serving new growth areas, such services should not be provided elsewhere. Delineate the urban service boundary by ordinance in the Land Use Code.

2.3.3. Depict the new growth areas on the official zoning map.

2.3.4. Adopt a capital improvements program (CIP) which schedules community sewer, water, storm drainage and transportation improvements for all areas within the urban service boundary and new growth areas over a period of 15 years.

2.3.5. Establish specific policies and land use plan map designations for the full range of needed urban land uses and activities; see Chapters 4, 5 and 6.

Rural Area Development

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

POLICY 2.4. IT IS THE POLICY OF THE CBJ TO PERMIT APPROPRIATE AND NEEDED DEVELOPMENT IN RURAL AREAS WHILE ASSURING PROTECTION OF NATURAL RESOURCES AND RECREATIONAL OPPORTUNITIES.

Implementing actions:

2.4.1. Coordinate all planning and development decisions in the rural area with state and federal agencies with appropriate jurisdiction.

2.4.2. Designate as public open space those publicly-owned rural lands of high recreational value or significant potential natural hazards, consistent with the open space land use policies in Chapter 5.

Environmental Protection

The City and Borough of Juneau is located in one of the world's most beautiful natural settings. Throughout this comprehensive planning process, citizens have indicated repeatedly their desire to protect the scenic beauty and environmental values of the region as well as promote the careful development of valuable timber, mineral and fishing resources. Through a plan which emphasizes compact development, the CBJ can mitigate the adverse environmental impacts of

urban uses and provide community sewer and water systems sufficient to protect the public health and lessen possible damage to the region's groundwater and wildlife resources.

POLICY 2.5. 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 AREAS.

Implementing actions:

2.5.1. Designate, on the Land Use Code Maps, those areas containing valuable natural resources and/or natural hazards. Manage development to minimize the adverse impacts of urban use.

2.5.2. Develop management plans for all categories of CBJ-owned natural resources including firewood and sand and gravel. The Community Development Department shall assist the Lands and Resources Division to prepare such plans after an inventory of CBJ lands is completed.

Coastal Resources Planning

Coastal resources are clearly important to the environmental quality and economic vitality of the CBJ. 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.

Nearly all the developable land in the CBJ is within the coastal zone defined by the Alaska Coastal Management Program which requires that local governments carefully manage the development of shoreline areas and place highest priority on reserving waterfront areas for water-dependent and water-related uses. The obvious overlap between a local comprehensive plan for the CBJ and a coastal management program necessitates integrating the two approaches.

POLICY 2.6. IT IS THE POLICY OF THE CBJ TO INCORPORATE ITS DISTRICT COASTAL MANAGEMENT PROGRAM WITH ITS COMPREHENSIVE PLAN AND, IN PLANNING FOR USE OF COASTAL AREAS, TO PLACE HIGHEST PRIORITY ON WATER-DEPENDENT AND WATER-RELATED USES.

Implementing actions:

2.6.1. Assure that all requirements of the state and federal coastal zone management program are addressed within the comprehensive plan and its implementing ordinances and regulations.

2.6.2. Maintain, implement and improve Juneau's state and federally approved coastal management program including the incorporation of general coastal management goals and policies in this Plan and including the maintenance of enforceable coastal management policies as requirements in the CBJ Land Use Code.

2.6.3. Designate areas for water-dependent and related uses on the Land Use Code Maps. Where appropriate, designate publicly-owned shoreline areas for open space and recreational use.

2.6.4. Maintain limited authority for the granting of U.S. Army Corps of Engineers Section 404 permits by the CBJ for wetland areas specified in the Juneau Wetlands Management Plan.

2.6.5. Use the following definitions for coastal management terms in this Plan and in subordinate matters:

1. Coastal Development is defined to include industrial, port and harbor, commercial and residential development.

2. Water-dependent is defined as a 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.

3. Water-related is defined as a use or activity which is not directly dependent upon access to a water body but which provides goods or services that are directly associated with water-dependence and which, if not located adjacent to water, would result in a public loss of quality in the goods or services offered.

NEW GROWTH AREAS

New growth areas are defined as sites in rural areas potentially suitable for urban/suburban residential development--characterized by urban densities and a full complement of services and facilities, including water and sewer, recreational, educational and neighborhood commercial services. Non-residential uses such as port facilities or resource-related industrial development, may also be appropriate.

The concept of new growth areas responds to the need for limited urban level development opportunities outside the urban service area, especially for selected lands of the CBJ, Goldbelt, and the state. Four of the most likely sites for new growth, at Echo Cove, and on west, south, and north Douglas Island, are illustrated conceptually on the Comprehensive Plan maps (Chapter 6). The exact location, size, nature, timing and public/private involvement in the development of these areas will be determined in the future.

Development of new growth areas as satellite communities was identified as the most desirable way to accommodate growth outside the urban area. As planned developments, they can provide residents the advantages of urban living in a rural setting while minimizing incursion into environmentally sensitive areas.

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, 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 development or resort development. Other commercial uses of this land have been considered including golf course development, recreational airport, and maritime industrial development.

The development of carefully sited, well-designed new growth areas is an innovative means by which Juneau residents can have the advantages of rural living and urban amenities. Large amounts of land in suitable ownership are available for such development.

POLICY 2.7. IT IS THE POLICY OF THE CBJ TO ENCOURAGE AND FACILITATE THE DEVELOPMENT OF NEW GROWTH AREAS IN SUITABLE LOCATIONS IN THE RURAL AREA OF THE CBJ IN ORDER TO ACCOMMODATE LIMITED URBAN LEVEL DEVELOPMENT OPPORTUNITIES OUTSIDE THE URBAN SERVICE AREA.

Implementing actions:

2.7.1. Revise the New Growth Area section of the Land Use Code to provide flexibility for developing each individual New Growth Area, to define the mixed use development option, and to include all the implementing measures listed in the Comprehensive Plan.

2.7.2. Establish minimum open space, recreational and landscaping requirements, providing flexibility to allow consideration of new data, conditions, and analysis.

2.7.3. Provide minimum standards for roadways and bicycle and pedestrian paths.

2.7.4. Revise Land Use Code to require a demonstration from the developer that the number of residential units proposed 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 four dwelling units per acre. Additional acreage to accommodate open space, future expansion, recreational, public and commercial uses will be required.

2.7.5. Require developers, including the CBJ, to demonstrate economic feasibility and market demand for the proposed development if public lands and/or investments are involved.

2.7.6. Allow for phasing of the development which permits construction in reasonable increments within an overall design concept.

2.7.7. 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.

2.7.8. Establish policies and procedures for classifications, management and disposal of CBJ lands for new growth areas, through the use, in part, of the Lands Management Ordinance. (CBJ Chapter 53.09)

2.7.9. With the assistance of the Planning Commission, CBJ staff, and citizens, determine the CBJ's role in the marketing and/or development of new growth areas, particularly those located on publicly owned lands. The most efficient institutional mechanism for managing its development activities depends on the nature and extent of its involvement. Options include expanded Community Development Department, development officer, Land Management Office, independent development commission, and non-profit development corporation.

2.7.10. Evaluate the feasibility of developing each of the sites identified in this Plan and any additional potential sites for new growth, based on the following considerations:

1. Physical amenities, including views, vegetation, topography, water access, etc.

2. Physical suitability, including soils, slopes, climate, prevailing winds, etc.

3. Potential natural resource conflicts, including wildlife habitats, wetlands, groundwater supplies, commercially valuable mineral and timber resources.

4. Size/configuration.

5. Ownership patterns.

6. Proximity to commercial and employment centers.

7. Costs of extending roads and utilities and providing community water, sewer and storm drainage.

8. Market demand and financial feasibility studies conducted by the CBJ or private developers.

9. CBJ disposition/development strategies for lands under its ownership, current usage of the site.

10. Recreational use conflicts.

2.7.11. Determine in conjunction with potential developers the pertinent information including demographic characteristics, economic conditions, amenities and growth potential of the CBJ prior to development of new growth areas.

2.7.12. Identify road corridors and potential mass-transit service for new growth areas prior to development.

2.7.13. Require that each new growth area must be developed according to a unified, comprehensive plan which ensures the:

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

2. Efficient provision of sewer, water, and roads based on a sufficient population to support these services.

3. Preservation of vegetation, views, and other natural amenities.

4. Provision of passive and active recreational activities, including water access, open space, community recreational facilities, and pedestrian and bicycle paths.

5. Elimination of land use conflicts. This is particularly important in developments which combine residential and non-residential uses.

HOUSING

One of the CBJ's most important responsibilities is to provide a safe, healthy, and pleasant living environment for its residents. Although it does not construct housing, the CBJ plays a key role by establishing land use policies and development standards, providing public services, and subsidizing certain types of development. The purpose of this subject section is to recommend policies which encourage adequate housing for all Juneau residents and protect the character and livability of its neighborhoods.

Housing Availability and Affordability

The distribution of housing by type is summarized below:

HOUSING DISTRIBUTION BY TYPE (1995):

Type	# Units	Percent
Single family/Duplex and Condominiums	7,391	51
Multifamily	2,368	34
Mobile homes	1,195	15
TOTAL	10,954	100

Source: Community Development Department, 1995.

After many years of a housing shortage in the CBJ, a building boom took place in the early 1980's. The number of housing units rose from 7,516 in 1980 to 10,200 in 1985. Even with this high level of activity, supply was doing little better than meeting demand with a moderate vacancy rate of 3 to 4 percent.

The CBJ was also involved during this period of construction activity with sponsorship of a rental stimulation program. This was a low interest loan program for the purpose of stimulating rental construction with an emphasis on the low income market. 225 units were constructed under this program.

Later in the 1980's a complete turnaround took place in the housing market. Vacancy rates climbed to approximately 10 percent, with a 7 percent vacancy in a single family dwellings and 24 percent in multifamily dwellings. This substantial increase is considered to be a result of declines in employment, and therefore a decline in population, and some overbuilding.

The CBJ is presently experiencing a significant housing shortage. The 1992 vacancy survey shows the overall vacancy rate for the CBJ has declined from 1.3 percent in October of 1991 to 1.2 percent in October of 1992. In December of 1995, the overall vacancy rate was estimated by the Community Development Department (CDD) to be less than 1.03 percent. This is a seriously low vacancy rate. Practically speaking, a 1 percent vacancy rate is equivalent to zero availability of housing.

The reasons for the lack of housing construction commonly cited in the CBJ's "Low Income Housing Task Force Report," (1992), the "Housing Inventory Assessment and Capacity Review" (prepared by Soenksen and Associates, 1993) and more recently in a multifamily housing study done for the CBJ by Barker and Associates, 1994, are:

1. lack of long term financing;

2. construction costs still exceed the costs of purchasing existing units;

3. loss of federal tax incentives;

4. uncertainty about future economic growth; and

5. lack of return on the investment.

During the 1994 building season there was a significant increase in the number of single family homes, mostly custom homes, and more platting activity than in several prior years. This suggests that the cost versus value concern has eased for single family homes which are still the easiest to finance.

The "Housing Inventory Assessment and Capacity Review" points out that during the recent recession a large number of multifamily dwellings were placed on the market. Prices, and therefore valuations, dropped and have not recovered. This continues to be a drawback to the economic feasibility of construction of new housing.

The "Low Income Housing Task Force Report" discusses the shortage in low income housing. As housing becomes scarcer, prices and rents rise. This impacts low income households which are least able to absorb the increase, especially those who do not own homes. This sector of the

market is customarily housed in multifamily development. (Community Development comments on AJ Large Mine Permit Application, 1993)

"The Juneau Multi-family Housing Program Feasibility Study" estimates the existing pent up demand for housing to be 300 additional housing units to obtain a healthy vacancy rate (5%), as well, the number of housing units needed jumps to 875.

Projected growth in the CBJ from 1995 to 2000, will create additional demand for housing. To meet the existing pent up demand and future growth, 1,215 new housing units will be needed. That figure increases to 1,820 housing units if a 5 percent vacancy rate is to be maintained.

Following the 1994 vote to retain the capital in Juneau, building plans which had been "on hold" were brought to life. Mid-way through 1995, building permits had been issued or were in process for approximately 300 dwelling units.

As housing choice is influenced both by lifestyle and income, the CBJ should encourage and facilitate the provision of a variety of housing opportunities--single family detached and attached housing, condominiums, apartments and mobile homes--at reasonable prices. Insuring an adequate supply of rental housing, particularly for low income households, is also an important priority.

POLICY 2.8. IT IS THE POLICY OF THE CITY AND BOROUGH OF JUNEAU TO ENCOURAGE AND FACILITATE PROVISION OF A VARIETY OF HOUSING OPPORTUNITIES IN SUFFICIENT QUANTITIES AND AT AFFORDABLE PRICES, TO MEET THE HOUSING NEEDS OF ITS RESIDENTS. PROVISION OF AN ADEQUATE SUPPLY OF HOUSING FOR LOW AND MODERATE INCOME FAMILIES IS A TOP PRIORITY.

Implementing actions:

2.8.1. Monitor vacancy rates and housing activity, and report findings twice a year. The vacancy rate goal for each housing type should not be less than 5 percent.

2.8.2. **Take direct action to stimulate creation of housing at the appropriate** time the vacancy rate falls below an acceptable rate.

2.8.3. Designate an adequate amount of vacant land for all types and densities of residential development on the Comprehensive Plan Land Use Maps.

2.8.4. Continue to streamline the development permit review process.

2.8.5. Review and modify, if necessary, local building and fire codes to permit use of new, cost-efficient construction techniques and materials consistent with acceptable health and safety standards.

2.8.6. Review planned unit development (PUD) provisions in zoning code to insure maximum opportunity for flexible siting, design, and construction of residential developments. As an incentive, grant density bonuses which permit construction of more units than permitted by underlying zoning to developments which exceed legal requirements and meet the necessary criteria.

2.8.7. Maintain design guidelines and standards in the Land Use Code which require adequate landscaping and screening, permit storage facilities, establish buffers between the mobile home developments and adjacent properties.

2.8.8. Encourage quality design of public housing by establishing minimum standards for landscaping, open space areas, and other features.

2.8.9. Upgrade the CDD capability to track and monitor development activity and vacancy rates. Refine CDD vacancy analysis, and ability to establish housing demand of all forms. Track the impact of mining development and tourism on housing stock and construction activity.

2.8.10. Inventory, assess, and make available CBJ lands for public and non-profit development proposals that will provide affordable housing. Offer these lands at a negotiated value and make provisions for a timed/sunset clause for development.

2.8.11. Partner with the private sector to purchase, design and build Single Room Occupancies (SRO) complexes in existing under-utilized or unused buildings in downtown Juneau.

2.8.12. Encourage the Juneau Legislative Delegation to introduce legislation to make mandatory the reimbursement of property owners for market value decreases in the event of a capital move.

2.8.13. Continue to partner with non-profit local housing organizations and Alaska Housing Finance Corporation to build moderate and low income apartment complexes.

2.8.14. Partner with the University of Alaska Southeast to build student housing.

2.8.15. Provide an incentive program, such as parking relief or assistance, for conversions of commercial uses back to, or to residential uses in Mixed Use areas.

2.8.16. Create a program of seminars where private parties and developers can be trained in permitting procedures, financing options and building and Land Use Codes.

Housing Condition

Housing stock generally is in good condition; over half of all residential units have been constructed since 1970. Most marginal and substandard units, estimated to be less than 5 percent of the total, are located in downtown Juneau. By encouraging their preservation/rehabilitation, the CBJ can minimize the need for new units. In addition, rehabilitation of homes of historic significance will enhance Juneau's social and cultural vitality.

POLICY 2.9. IT IS THE POLICY OF THE CITY AND BOROUGH OF JUNEAU TO FACILITATE THE PRESERVATION AND REHABILITATION OF EXISTING HOUSING.

Implementing actions:

2.9.1. Continue to use federal Community Development Block Grant (CDBG) monies to provide low interest housing rehabilitation loans, when available.

2.9.2. Adopt standards for rehabilitation which meet acceptable levels of public health and safety.

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

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 with a number of efforts that will be summarized below. Private efforts include substantial progress in the permit process for reopening the AJ and Kensington Mines, the opening and expected reopening of the Greens Creek Mine, a tremendous increase in both cruise ship and independent tourism, modest resurgence of the commercial fishery and the advent of several small manufacturing businesses. Public efforts include continued program development by the Juneau Economic Development Council including drafting an Overall Economic Development Plan, outreach and assistance by the Community Development Department, and study of port authorities and related organizational ideas to further stimulate and attract development.

The economy and population of Juneau 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 area's economy. Juneau'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 is now declining as a function of the price of oil but soon the decline will be a function of the amount of oil and there is no revenue-generating engine on the horizon that has anything like the impact that Prudhoe Bay has had. Some hope is aimed at the ANWR area also on the north slope of Alaska but reserves have yet to be proven and the area is legally unavailable for exploration. Laws and policies change but many years would be needed to actually produce oil and revenue from ANWR and Alaska's revenue from Prudhoe Bay will have

substantially declined long before that could occur, even if ANWR was accessible now and even if it was eventually shown to have large reserves.

Employment can be categorized as "basic" and "support." Basic jobs are those generated and paid for by outside income; support jobs are generated by the exchange of dollars within the community. For every 100 basic sector jobs in Juneau in 1980, there were 93 support positions. The percentage of support jobs has increased steadily, whereby in 1988 for every 100 basic sector jobs there were 125 support positions. Current data (1994) from the Alaska Department of Labor indicates an increased ratio of 100 basic sector jobs for every 136 support positions. This basic/support ratio reflects the increasing development of "big box" and other retail outlets in Juneau.

The primary contributors to Juneau's basic employment are federal and state positions with central and regional functions. The former are statewide responsibilities, while regional positions serve southeast Alaska. In the third quarter of 1994, there was a total of 6,635 basic sector jobs in Juneau, of which 5,189 were government positions. Government therefore generates approximately 78 percent of basic sector employment. Tourism, mining, the fishing industry, local manufacture of goods and the ANCSA corporations 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. Seasonally based employers include tourism, construction, fishing, and retail/wholesale businesses.

The support sector accounted for a total of 6,969 jobs in 1986 while in 1994 they accounted for 9,039 jobs. The major components of the support sector jobs are retail and wholesale trade, government to serve the local population, services and transportation, and public utilities.

Opportunities for expanding the economic base have increased due to growth potential in mining, seafood, tourism and services. State government does not show the same potential due to stabilization in size in the years leading up to 1995 and reductions in state spending that are anticipated for the rest of the decade.

State Capital

Juneau's position as the state capital of Alaska is not only a major source of identity for the community but its major economic activity; nearly one-third of the 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.

In early 1995, Juneau embarked on a Capital City Visioning Project to define an image of how Juneau could look and how it might function in the future as a Capital City. This effort will be closely tied to the Comprehensive Plan. The Vision, when adopted by the Assembly, will become an addendum to this Plan. For informational purposes, a description of the Visioning Project, its goal and a list of possible projects, is included as Appendix A.

Juneau must continue efforts to make itself as attractive and functional as possible to serve the special needs of a capital city.

POLICY 2.10. IT IS THE POLICY OF THE CITY AND BOROUGH OF JUNEAU, 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.

Implementing actions:

2.10.1. Initiate joint planning, with representatives of the state legislature and appropriate state agencies, for the downtown capital complex and surrounding area.

The following issues should be discussed:

1. Defining the physical boundaries of the state capital planning area.

2. Designating an area for a new capitol building and related structures.

3. Formulating a facilities plan which identifies the nature, timing, cost, and local/state roles and responsibilities for all needed improvements.

2.10.2. Request federal agencies to coordinate their plans for expansion or modification of federal facilities in the downtown area with CBJ and state plans for state capital facilities.

2.10.3. Encourage consolidation of central state offices in downtown Juneau using the capital complex concept.

2.10.4. Encourage and assist the state in development and use of convenient and reliable teleconference and video conference facilities to improve state agency functions and to facilitate constituent contact for legislators.

2.10.5. Encourage coordinated or joint planning efforts to address the need for alternative transportation and parking opportunities for state workers and legislative personnel.

2.10.6. Seek ways and means to encourage or directly develop housing options for legislative personnel.

Downtown Juneau

Downtown Juneau has traditionally been the economic, civic, and cultural center of the CBJ. With the decision to retain the capital in Juneau, opportunities and pressures for development downtown have increased. It is important that new development be based on community objectives for the waterfront, capital complex, historic district and other areas. Careful planning for public facilities and development of an urban design concept and development standards for the area are necessary.

POLICY 2.11. IT IS THE POLICY OF THE CBJ TO EXPAND THE ROLE OF DOWNTOWN JUNEAU AS THE CIVIC, CULTURAL AND ECONOMIC CENTER OF THE COMMUNITY THROUGH CAREFUL URBAN DESIGN AND PLANNING OF PUBLIC AND PRIVATE FACILITIES.

Implementing actions:

2.11.1. Develop a comprehensive transportation plan for the downtown area which addresses the need for alternative transportation and assures adequate parking in downtown to support activities.

2.11.2. Encourage the construction of an additional two stories of parking on the state office building garage. The 104 spaces could serve as legislative parking, and as private for lease parking to serve the upper Franklin area.

2.11.3. Coordinate and possibly combine planning for the downtown with any development effort for the capital complex.

2.11.4. Facilitate the pedestrian usage of Downtown including:

1. Encourage development which improves pedestrian facilities.

2. Extend the waterfront seawalk.

3. Repair and widen sidewalks.

4. Separate pedestrian ways from vehicular traffic where practical.

5. Encourage addition of third elevator in State Office Building to bring pedestrians from Willoughby to Main Street.

6. Encourage development of bicycle storage facility.

2.11.5. Encourage continued public and private redevelopment of the South Franklin Street waterfront area, considering the following:

1. Create additional buildable sites bordering the waterfront.

2. Encourage redevelopment for mixed uses and incorporate architectural guidelines to insure aesthetic and harmonious building styles.

3. Expand dock facilities.

211.6. Update and adopt Downtown Waterfront Plan to include uplands, tidelands, and submerged lands from Norway Point to the little rock dump and the corresponding easterly shore of Douglas Island.

Tourism and Visitors

Tourism is Juneau's largest private industry. It is thriving and plays an important role in diversifying the economy. Juneau had approximately 480,000 visitors in 1994, a market wide increase of 15 percent over 1993. The scale of operations involved in the tourist trade varies widely and serves several different types of tourists. There appear to be four distinct types of potential visitors with different characteristics and needs: cruise, convention, independent, and overnight groups and small ship users. Long-range planning efforts should focus on strategies to promote and accommodate each type of use.

The trend in the cruise ship industry has been toward larger ships and more affordable packages. This has resulted in an upward spiral of rapid growth. In 1994, 373,000 cruise ship visitors arrived, an increase of approximately 30 percent over 1992. Over 400,000 are expected during the 1995 season. Cruise ship passengers and crew have shown the greatest increase in numbers due in part to the building of larger ships, better docks downtown and costs which are comparable with other types of vacation travel. Tourist accommodations, offerings, and infrastructure in Juneau have endeavored to keep pace with this growth. Steady growth over the long run in this segment has been predicted.

Convention and business travelers comprise a small portion of the tourist traffic in Juneau. As a capital city, general government center, increasingly diverse shopping center, and business and trade center, Juneau also hosts business travelers who come to lobby, shop, work with colleagues and the government, and to hold conventions and meetings. Construction of Centennial Hall led to additional increases in tourism, conventions and business visitation. These visitors typically come for business or professional reasons, but may take advantage of tourist services while here in Juneau. Competition for the convention trade has increased within the southeast Alaska marketing area. Convention travel should be encouraged to ensure continued growth of the segment. The potential for new facilities and services to serve its needs should be explored.

The 1986 CBJ Waterfront Plan, the Waterfront Center report on Juneau, and the Juneau Convention and Visitors Bureau all cite a need for a major visitor facility/orientation center that visitors can use to get an idea of the features of the city and outlying areas. This would be a service to all types of tourists although its location may limit its usefulness to a particular segment (i.e., a Visitor Center located on South Franklin, with limited parking capacity, may not be as useful to an independent tourist driving off the ferry in Auke Bay as one located nearer the ferry terminal or airport). A center would also help to promote and direct people to the mix and array of attractions and facilities.

Independent travelers are a diverse group, with widely different needs. This population requires different services and facilities from those sought by the packaged tour visitors, and in general contributes more money per day-of-visit to the local economy. Some fill hotels and an ever-growing supply of bed-and-breakfast inns in private homes all over the borough. Others arriving by recreational vehicle find a severe shortage of places to camp and park. Still others arriving by ferry, private boat, and plane are campers, bicyclists and pedestrians. All need accommodations of one kind or another. A review of the overall tourism market conducted by CDD in 1993 indicated that this segment of the industry is currently under-developed in Juneau.

There is a shortage of good camping areas and recreational vehicle parks in Juneau. There may be weaknesses in the current recreational vehicle park regulations which make it difficult to establish RV parks just for the summer, when they are needed. Another shortage that is often mentioned in discussions of tourism support is the lack of housing for workers and service personnel. Many of these workers are college students filling summer-only positions who do not live in Juneau permanently. Their wages are low in comparison to the permanent residents and they cannot afford costly housing. This, plus the legislative-related housing shortage means that the CBJ, or some entity, will have to take some assertive steps to remedy the seasonal housing problems, or risk an artificial limitation on the growth of the tour industry.

Efforts have been made to promote Eaglecrest as a ski destination in the Yukon and around other Southeast Alaska communities. Improvements have been made to upgrade the lodge buildings, the parking areas, and the ski runs, which have increased Eaglecrest's appeal as a ski area. This is an excellent example of a multi-purpose facility which accommodates locals as well as visitors.

Tourism activities add to the economic diversity of the CBJ and the strength and vitality of the downtown area. On the other hand, expansion of tourism opportunities has the potential to impact the quality of life for local citizens. There is strong support in some sectors of the community to develop a strategy which will accommodate tourism in balance with the needs of local citizens and the established policy of protecting our natural attractions.

Public concern over the impacts of tourism is clearly increasing. A League of Women Voters telephone survey in the winter of 1995 asked a question to elicit this concern. The result was the most one-sided response ever. The vast majority, 87 percent of respondents, believe that the CBJ should take a more active role in addressing tourism and its impacts. In a related question, some 22 percent of the respondents felt that the social impacts or costs of tourism outweigh the benefits of that industry. The issue was on the Assembly's mind in any case, because a Tourism Working Group was created by a special Strategic Policy Committee of the Assembly. The Working Group forwarded a philosophical statement to the Assembly which was adopted by motion in the Spring of 1995 and which has been worked into the policy below. The Working Group will continue its efforts over the summer of 1995, conducting a more detailed telephone survey and an economic impact survey. The result should be a more detailed and specific tourism policy which can be added to this Plan at a later time.

The challenge is to provide a quality experience for the visitor with improved facilities and infrastructure while addressing concerns from the permanent population about expanding impacts caused by more and different tourism opportunities.

POLICY 2.12. IT IS THE POLICY OF THE CBJ TO ENCOURAGE TOURISM, CONVENTION AND OTHER VISITOR-RELATED ACTMTIES THROUGH THE DEVELOPMENT OF APPROPRIATE FACILITIES AND SERVICES, WHILE PROTECTING JUNEAU'S NATURAL AND CULTURAL ATTRACTIONS FOR LOCAL CITIZENS 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.

Implementing actions:

2.12.1. Initiate and serve as leader of a long-term planning effort with citizens and the visitor industry to identify the capacity of existing facilities, assess future demand for services, and develop a plan to accommodate growth in balance with the need to protect natural and cultural attractions, and the needs of local citizens. This plan for the visitor industry should be updated as needed and made a part of the Comprehensive Plan.

2.12.2. Develop a process by which the comprehensive impacts of tourism, as identified by the Assembly and its subcommittees, will be evaluated, and how negative impacts might be 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.

2.12.3. Encourage recognition of the value of historic resources and preservation to tourism in Juneau and promote accurate representation of Juneau's unique cultures.

2.12.4. Identify areas with unique or locally important values, such as Last Chance Basin, and develop a system to regulate uses which may have adverse impacts on these areas.

2.125. Work with representatives from the cruise line industry, private developers, Juneau Convention and Visitors Bureau, and other tourism-related businesses to plan and develop additional or improved moorage and berthing facilities, including additional lightering and short-term moorage facilities.

2.12.6. Design new convention and tourist facilities for multi-purpose uses to accommodate local residents as well as visitors. Reach out to assist developers who can provide facilities or services that will broaden the array of attractions and experiences while not decreasing quality of life for Juneau citizens.

2.12.7. Focus marketing efforts on overnighting visitors.

2.12.8. Support the development of recreational vehicle parks and campgrounds. Revise Land Use Code to allow these uses in appropriate areas of the CBJ. Review development standards to insure compatibility with surrounding land uses.

2.12.9. Support Eaglecrest as a regional recreation and tourist facility.

2.12.10. Work with the tourism industry to create and market "shoulder" season activities and recreational opportunities boroughwide.

2.12.11. Conduct frequent appraisals of transportation facilities to insure they meet local and tour-related uses and demands.

2.12.12. Seek ways and means to encourage or directly develop housing options for moderate income workers who support the tourism industry locally.

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 effort, 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.

POLICY 2.13. IT IS THE POLICY OF THE CBJ TO SUPPORT EXPANSION AND DEVELOPMENT PLANS OF THE UNIVERSITY OF ALASKA SOUTHEAST.

Implementing actions:

2.13.1. Work with representatives of the UAS to determine the needs of the university for expansion and development. Give particular attention to the development plans of the UAS which affect land use policies in Auke Bay.

2.13.2. Assist UAS in the development of additional student housing.

2.13.3. 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.

Port Facilities

Historically, port development location in the Juneau-Douglas area has been a significant factor in the layout and development of the remaining community. Future growth and development of the Juneau area will be greatly impacted by the location, orientation and the type of port facilities developed. Port development issues are interwoven into many sections of the CBJ Comprehensive Plan including waterfront development; downtown Juneau; 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 southern part of the downtown waterfront. Because of the geography and development pattern of that area, room for expansion is limited. In addition, traveling up the Gastineau Channel is a significant detour for most barge traffic. Truck traffic to and from the port adds to the noise and congestion in the downtown 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 continued growth of the tour industry and local private enterprise. Recreational boat use is also on the increase and the CBJ Harbormaster has a waiting list of approximately 150 boats borough-wide. Summer season private boat visits are also on the increase with larger, ocean-going yachts becoming more familiar in the Juneau 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 are more accessible to marine traffic of Southeast Alaska would be more desirable. An appropriate site should provide protected docking space and adequate land for storage and industrial facilities.

POLICY 2.14. IT IS THE POLICY OF THE CBJ TO FACILITATE AVAILABILITY OF SUFFICIENT AND SUITABLE ACREAGE FOR PORT FACILITIES, AND TO WORK CLOSELY WITH THE PUBLIC AND PRIVATE SECTORS TO FACILITATE COMMERCE AND ENJOYMENT OF THE WATERFRONT THROUGH DEVELOPMENT OF WELL DESIGNED PORT FACILITIES.

Implementing actions:

2.14.1. Maintain an entity to carry out port planning, development and management functions.

2.14.2. Prepare a port development plan to assess current and future moorage demand, upland support facility demand, general availability of waterfront property adjacent to harbor areas throughout the borough, and to identify facility and locational requirements to address the demand.

2.14.3. Conduct inventory of waterfront property to ascertain location, marine attributes (depth, currents, and winds), environmental attributes, size, access, and ownership. Prepare a detailed engineering and economic feasibility analysis of potential new or expanded port facility sites.

2.14.4. Based on the port plan and feasibility studies, designate appropriate areas for port facility development.

2.145. Over the near term, encourage in-filling and completion of existing port facilities prior to establishment of new sites.

2.14.6. Update and revise as necessary the recommendations of the 1983 Small Boat Harbor Study. Support the development of recommended moorage and associated facilities, such as showers and laundries for transient and local boats.

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

2.143. Encourage the expanded use of Juneau by state and federal government vessels and cooperate with those agencies in the development of adequate port and related upland facilities to meet present and future needs.

2.14.9. Evaluate the effect of changes in state and federal environmental laws on water-related and water-dependent facilities such as fuel docks, tidal grids, and upland boat storage and repair yards, and the role of the CBJ in facilitating compliance with those laws through the planning and zoning process.

2.14.10. Evaluate methods for assuring shore-side security without using fencing or security gates on CBJ port facilities.

2.14.11. Evaluate the creation of a free trade zone in the CBJ and encourage duty-free handling and shipment of goods through Juneau from foreign ports.

2.14.12. Identify suitable upland locations for dry land moorage of smaller vessels with launch ramp; remove restrictions from Auke Bay Harbor; reconfigure harbors to accommodate change.

Commercial and Industrial Development

An important characteristic of the Juneau economy has been the relatively low level of retail sales activity in comparison to other Alaskan cities. This pattern has changed in recent years as evidenced by the increase in employment in the retail sector. In 1993 and 1994 three new retail outlets of considerable size, Costco, K-Mart and Carrs, were constructed. Together they have dramatically changed the number and kind of goods available locally, and have also stimulated an increase in shopping from outside the CBJ.

A major factor in the past low level of retail sales activity was "leakage"; the purchase of many goods by mail, in Seattle or elsewhere due to more variety and lower prices. Recent studies indicate that Juneauites buy most of their goods locally with 75 percent of all households reporting doing 76 to 100 percent of all their spending in Juneau.

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.

POLICY 2.15. 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.

Implementing actions:

215.1. Follow the specific land use policies (Chapter 5) and Comprehensive Plan maps (Chapter 6) of this Plan which establish criteria for designation of commercial and industrial land.

2.15.2. If it is demonstrated that additional land is needed for commercial or industrial uses or that there are particular locational requirements for certain activities, consider appropriate amendments to the Comprehensive Plan maps. They should be evaluated in relation to all applicable policies of the Comprehensive Plan.

Mining

Mining is foremost among Juneau's private sector activity in importance as a provider of well-paid year-around employment. Juneau benefitted demonstrably with the opening of the Greens Creek Mine and suffered as well when that mine closed. Greens Creek is expected to reopen in 1997 and provide about 250 permanent jobs. The AJ and Kensington Mines area also expected to reopen, after two to three year development phases, and will together provide about 800 basic sector jobs. In addition, there are still other active mining prospects in and around the borough.

POLICY 2.16. IT IS THE POLICY OF THE CBJ TO SUPPORT THE DEVELOPMENT OF MINERAL RESOURCES IN AN ENVIRONMENTALLY SOUND MANNER, GIVING PROPER RECOGNITION TO THE UNIQUE VALUES OF THIS COMMUNITY.

Implementing actions:

2.16.1. Continue to implement the Mining Ordinance, #89-47am, 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 City and Borough and the operator of the mining operation.

2.16.2. Discourage the development of satellite communities associated with mining development, thereby encouraging development of the existing urban areas, maximizing economic benefits. This does not preclude the provision of camps which provide short-term housing and minimal services.

2.16.3. Encourage, if feasible, the cooperative development of roads and ports in the development of the individual mining enterprises.

2.16.4. Encourage coordination and cooperation among the mining, tourism, fishing and recreation industries in both development and operation of activities.

Seafood Industry and Commercial Fishing

The CBJ Fisheries Committee has considered specific implementation strategies and facility developments that would support and enhance the fishing industry. The Committee's primary recommendation is that a concerted effort be made by the CBJ to promote the development of a publicly-owned cold storage facility of one million pound capacity, or larger based on a review of other successful Southeast Alaska facilities, recognizing that over 75 million pounds of seafood are harvested annually within the CBJ and vicinity. The facility could become a highly valued community asset that would greatly benefit the fishing industry as a whole and other non-fishing industrial uses as well. Examples of other uses are charter and sport fishing needs, airline and other transportation needs, food service industry needs, and use by private individuals.

Fishing related money and tax revenue is leaving the community and potential revenue is being diverted elsewhere. There are 680 limited entry permit holders in the CBJ. Fish caught in the CBJ area by CBJ residents are processed in other communities. The state-collected raw fish

processing tax goes back to the community in which the fish are brought ashore, not where they are caught. The future will be in fresh and blast frozen fish. Juneau at present, is ill-prepared to meet these changes.

Jobs will be created in the CBJ both directly and indirectly by development of a publicly-owned cold storage facility. The Sitka cold storage operation has 15 full-time and 30 seasonal jobs. Indirect jobs could be created through the attraction of additional primary and secondary processors to our community; expansion of processing capability of already established processors; possible storage of fish in Juneau by outside processors; and, trucking company jobs and businesses will be expanded because of the need to transport fish to and from the cold storage facility.

Juneau 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 establish maritime services of several types in order to rebuild the resident 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 2.17. 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 ATTRACT FISH PROCESSORS AND HARVESTERS TO JUNEAU.

Implementing actions:

2.17.1. Investigate the development of a large-capacity, publicly-owned cold storage facility.

2.17.2. Provide for and encourage the location of hatcheries and remote release projects in the CBJ or its vicinity to support a local seafood processor.

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

2.17.4. Support the development of aquaculture and the location of suitable sites within the borough.

Regional Economics and Services

Juneau is, in fact as well as in perception, a political/commercial/transportation hub for most of 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 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, clerical, consulting and communications services provided to residents of outlying communities as well as many others.

Local issues directly related to serving residents and organizations in the southeast Alaska region include:

1. transportation terminals (marine and air);
2. roads;
3. parking;
4. mass transit;
5. freight accommodation;
6. lodging/housing;
7. commercial retail activities;
8. convention facilities;
9. communications services;
10. retail services and goods

Transportation is particularly significant to the development of regional commerce through the CBJ. Goods, customers and information, rely on the ability to travel in and out of the community rapidly, effectively and at the lowest cost to achieve maximum participation.

Juneau 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 debate. Only by fully participating in the regional development planning efforts will the CBJ see its economic development goals fulfilled.

Clearly, Juneau has responsibilities and opportunities as a provider of regional services and as a significant political, cultural, and economic presence in southeast Alaska.

POLICY 2.18. IT IS THE POLICY OF THE CBJ TO ENCOURAGE AND SUPPORT REGIONAL ECONOMIC DEVELOPMENT IN OTHER CITIES AND LOCATIONS IN SOUTHEAST ALASHA; CREATE A LOCAL ENVIRONMENT OF SERVICES AND OFFERINGS ATTRACTIVE TO COMMERCE ORIGINATING FROM OUTSIDE THE BOROUGH, AND, ACTIVELY PARTICIPATE IN DEVELOPMENT AND IMPLEMENTATION OF REGIONAL SUSTAINABLE DEVELOPMENT GOALS.

Implementing actions:

2.18.1. Conduct a market study to determine the economic impact of regional markets.

2.18.2. Revise and adopt the 1994 findings and recommendations of Juneau's Overall Economic Development Plan related to regional economic development.

2.18.3. Encourage regional marketing for locally made goods, and locally provided services.

2.18.4. Encourage development of attractive travel packages for regional shoppers.

2.18.5. Continue to participate in regional planning processes.

2.18.6. Consider the impact of local activities on regional systems. Coordinate with other regional communities and jurisdictions to avoid, minimize or reconcile intergovernmental conflicts.

2.18.7. Encourage economic development in particular industries that represent regional economic strengths.

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

COMMUNITY DEVELOPMENT

The CBJ has increasingly become involved in development activities such as the Centennial Hall convention facility, senior and low and moderate income housing projects, parking facilities, and public service facilities. Future possibilities for involvement include port and marina facilities, a performing arts center, public uses for some portion of its selected lands, and joint planning and development of a capital complex with the state.

Planning and Development Responsibilities

In response to demand for subsidized housing and facilities such as the convention center, the CBJ has expanded its role in development. However, current and planned activities are considered complementary to private development.

The development role requires specialized knowledge and experience in real estate, management, financial analysis, and public administration. The CBJ has relied primarily on consultants to provide these particular skills. Due to the CBJ's increasing role in planning and development, and because of the close relationship between these activities, an assignment of responsibility for these functions within local government is warranted.

POLICY 2.19. IT IS THE POLICY OF THE CBJ TO ASSIGN THE CITY AND BOROUGH MANAGER RESPONSIBILITY FOR ALL DEVELOPMENT FUNCTIONS OF THE CBJ. THE MANAGER'S OFFICE WILL COORDINATE DEVELOPMENT ACTIVITIES OF THE PRIVATE AND PUBLIC SECTORS

FOR PROJECTS WHICH ARE CONSISTENT WITH THE COMPREHENSIVE PLAN AND MEET IMPORTANT PUBLIC NEEDS.

CBJ 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 City and Borough of Juneau (CBJ) owns and manages approximately 23,000 acres of land. Over 19,500 of those acres were part of the CBJ's municipal land entitlement from the State of Alaska. The CBJ intends to make a portion of these lands available for private use. Careful evaluation of development potential and market demand for CBJ lands is important in planning for their efficient and appropriate use. The State of Alaska has also selected lands within the CBJ, and decisions will also need to be made on their future use.

POLICY 2.20. 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.

Implementing actions:

2.20.1. Follow the 1995 Land Management Plan, which is consistent with the Comprehensive Plan and will serve as the major means of implementing policies and guiding management, development and disposition of selected lands.

2.20.2. Implement and regularly update the Land Disposal Program of the Land Management Plan which calls for the regular disposal of CBJ land under a 10-year schedule.

2.20.3. Continue to evaluate the use and development potential of all CBJ and state selected lands.

2.20.4. Evaluate the opportunities for joint development of CBJ lands with state and private landholders.

2.20.5. Classify CBJ lands for residential, commercial, industrial, recreation or resource uses, or open space, based on the policies, land use designations, the natural resources/hazards and open space/recreation elements of this Plan.

2.20.6. Base disposal of CBJ lands on demonstrated market demand and evidence that disposal will be in the public interest. 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.

2.20.7. Evaluate land not scheduled for immediate disposal for possible interim uses prior to private development.

2.20.8. 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.

ENERGY

The topic of energy is pervasive in every element of human activity, interaction and comfort. The economic impacts associated with this resource consumption, and the unique potential of Juneau's renewable hydroelectric sites, presents policy makers with an enviable opportunity for guiding future community growth in this regard. There is also the need to balance the short-term goals of private enterprise such as resource development and petroleum distribution companies, with the perceived 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 citizens. The overall goal of energy policy should be to assure and enhance the near-term and long-term quality of life for all current and future citizens in Juneau, at the lowest cost to energy users and the environment. Given the ways in which local communities of today 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.

Wise application of free-market forces can help establish and maintain the most effective uses of energy at the least overall cost when public policy provides the necessary foundation for these forces to work efficiently. By developing a climate that fosters economic incentive within government and within the community at large, energy policy can play a crucial role in the development of a local energy system which can help assure the long-term economic viability of Juneau.

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. 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.

The Juneau Assembly's Energy Advisory Committee produced the following policies and implementing actions. This is the culmination of work conducted during public meetings held over a year's time.

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 section it will be necessary to establish a plan for the future use of energy resources in the CBJ.

POLICY 2.21. IT IS THE POLICY OF THE CBJ TO ANALYZE THE CBJ ENERGY SYSTEM, ESTABLISH A LONG-TERM ENERGY PLAN, AND IMPLEMENT THAT PLAN FOR THE EFFICIENT AND SUSTAINABLE USE OF ENERGY IN THE CBJ.

Implementing actions:

2.21.1. Undertake an analysis of the entire energy system in our community, and determine near-term and long-term needs and opportunities.

2.21.2. Catalog the CBJ's current energy budget: sources and uses, in energy units (gallons, KWH and dollars).

2.21.3. Establish and implement an energy plan.

Energy Efficient CBJ Buildings and Projects

Currently (1995) there is no established protocol nor are 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 should be established to efficiently and effectively manage energy use by the CBJ government. In addition to keeping costs to Juneau'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 2.22. 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.

Implementing actions:

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

2.22.2. Develop a system for rewarding CBJ employee initiative and responsibility in good energy management.

2.22.3. Establish energy management goals for targeted CBJ buildings.

2.22.4. Incorporate life-cycle costs.

2.22.5. Invest in necessary metering equipment and monthly project energy reports.

2.22.6. Enact water conservation ordinances.

2.22.7. Replace inefficient street lighting and lighting in CBJ buildings and facilities upon replacement cycle.

Maximize Use of Local Energy Resources

Juneau's fuel supply is subject to disruption due to a variety of reasons: embargoes, price hikes, shipping disputes, or disasters. Use of local energy resources reduces these risks. In addition, most of the money used to purchase fossil fuels leaves Juneau. We can have a much healthier local economy if we develop and encourage the use of our own energy resources.

POLICY 2.23. IT IS THE POLICY OF THE CBJ TO MAXIMIZE THE USE OF LOCAL ENERGY RESOURCES, AND KEEP ENERGY DOLLARS WITHIN THE COMMUNITY.

Implementing actions:

2.23.1. Encourage fuel switching and dual fuel systems which are cost effective for buildings.

2.23.2. Review transportation options for CBJ fleet and public transit systems, car pooling, and downtown parking.

2.23.3. Encourage conservation to reduce the amount of money leaving the community to pay for fuels.

Full-Cost Analysis

The very real environmental and social costs, now and to future generations, of relying so completely on fossil and nuclear fuels are not included in, and are thus external to, the prices we pay for fossil/nuclear energy. Wise local and global energy production and use requires these external costs to be internalized into energy prices, in order to conserve energy and to encourage its production from renewable sources. Because national and state policies, where they exist, have not been implemented to do this, the CBJ should take the initiative to protect long-term interests of its citizens. 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 2.24. IT IS THE POLICY OF THE CBJ TO INCLUDE THE INDIRECT, OR EXTERNAL, COSTS OF ENERGY USE IN ITS ECONOMIC ANALYSES.

2.24.1. 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.

Maximize Use of Renewable Energy Resources

About 85 percent of the energy used in Juneau is provided by fossil fuels. Conservation and renewable resources could displace much of this fossil fuel and greatly reduce both the dependance on these fuels and the export of capital from Juneau and Alaska.

POLICY 2.25. IT IS THE POLICY OF THE CBJ TO MAXIMIZE THE USE OF RENEWABLE ENERGY RESOURCES.

Implementing actions:

2.25.1. Give preference to dependable, cost-competitive, renewable sources when choosing a source of energy.

2.25.2. Analyze life-cycle costs of energy applications with consideration of renewable sources given priority.

2.25.3. Consider projected potential price and supply disruption when choosing energy sources for all end uses.

2.25.4. Consider multiple fuel uses for each end-use when designing new systems.

2.25.5. Consider impacts on environmental quality.

2.25.6. When investments required to establish use of renewables are not cost-competitive for the next five years or longer, consideration should be given to long-term economic viability and environmental impacts.

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

Implementing actions:

2.26.1. When additional sources of energy are required for the CBJ, require an analysis of the cost effectiveness of energy conservation programs and load-leveling mechanisms before the construction of new energy facilities.

2.26.2. Where public financing is required, require investment in conservation over construction of new energy facilities if conservation is more cost effective.

2.26.3. Incorporate life-cycle costs.

2.26.4. Encourage lowering peak loads by shifting to off-peak periods.

2.26.5. Encourage interruptible loads.

2.26.6. Apply these measures to both public and private sectors as appropriate.

Use of Favorable Energy Assets for Job Creation

A stable and reasonably priced source of electricity will enhance Juneau's business and industrial climate. Energy, worldwide, will likely cost more and be less dependable in supply in the future. Juneau's favorable electric energy assets include a current hydroelectric supply and a potential additional hydroelectric supply.

POLICY 2.27. IT IS THE POLICY OF THE CBJ TO TAKE ADVANTAGE OF JUNEAU'S FAVORABLE ELECTRICAL ENERGY ASSETS TO ADD QUALITY JOB OPPORTUNITIES.

Implementing actions:

2.27.1. Explain Juneau's favorable energy assets to potential employers.

2.27.2. Encourage planning for the next increment of hydroelectric power to be brought on-line in Juneau.

2.27.3. Assist current users with cost effective conservation programs.

Use Renewable Energy for Transportation

The CBJ currently consumes 7 million gallons of gasoline for automobiles per year (1987), most of which is used in private autos and light trucks. Owning and operating a private vehicle in Juneau ranges from $3,000 - $10,000 per year in cost. Private auto transportation may not be 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.

POLICY 2.28. IT IS THE POLICY OF THE CBJ TO ENCOURAGE THE TRANSPORTATION OF CBJ RESIDENTS, VISITORS, FREIGHT, MAIL, AND PARCELS WITH RENEWABLE ENERGY OR ON PUBLIC TRANSPORTATION.

Implementing actions:

2.28.1. 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.

2.28.2. Seek the use of newly-available federal funding (Intermodal Surface Transportation Efficiency Act of 1991) for long range transportation planning.

2.28.3. Solicit extensive public and industry input, especially from the freight, tourism, and mining industries, in planning for public transportation.

2.28.4. Encourage creation and operation of a renewable energy public or private transportation system in Juneau that is so good and extensive that one can conveniently live without a private auto and that will:

1. Move people safely, quickly, and pleasantly, with minimum fossil fuel use, among destinations within main residential and commercial areas.

2. Accommodate tourism traffic in private/exclusive carriages on the public transportation system, to a majority of the tourist destinations now served by private conveyances.

3. Be amenable to transportation of freight, mail, and parcels within the CBJ's main residential and commercial areas.

4. Make available land now committed to parking lots and rights-of-way for other development or for restoration.

Creation of Energy Efficient Buildings

Juneau'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 2.29. IT IS THE POLICY OF THE CBJ TO REQUIRE COST EFFECTIVE ENERGY EFFICIENT BUILDING AND REMODELING PRACTICES.

Implementing actions:

2.29.1. Encourage the installation of renewable sources of electrical energy-heating systems in new construction.

2.29.2. Encourage the conversion of existing heating systems from fossil fuel to renewable sources of electrical energy.

2.29.3. Encourage participation in the state's residential energy programs.

2.29.4. Encourage participation in current residential energy efficient mortgage programs for both new and existing homes.

2.29.5. Establish energy efficient standards for new and existing multifamily housing and commercial buildings.

2.29.6. Encourage favorable lending rate programs for energy efficient multifamily housing and commercial construction or renovation.

2.29.7. Consider water conservation ordinances. Water conservation measures would lead to significant energy savings to the CBJ in pumping water and in treating wastewater. These measures might include such things as metering of water, mandatory installation of low flow plumbing fixtures, or other incentives to save water.

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 2.30. IT IS THE POLICY OF THE CBJ TO ENCOURAGE LARGE INDUSTRIAL USERS TO BE AS EFFICIENT AS POSSIBLE IN THEIR USE OF ENERGY; USE RENEWABLE (E.G. HYDROPOWER) SOURCES AND TO MAKE ENERGY BY-PRODUCTS AVAILABLE FOR USE ELSEWHERE IN THE COMMUNITY.

Implementing actions:

2.30.1. Encourage large industrial facilities to provide excess storage/production capacity for community use of energy resources where practical (e.g., LPG tank farm).

2.30.2. Investigate and encourage conversion of facilities such as LPG tank farm for other energy uses, such as hydrogen production from hydroelectric surplus.

2.30.3. Discourage energy intensive projects compromising CBJ energy policy.

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

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

2.30.6. Review reclamation plans for conversion to further potential industrial uses.

2.30.7. Increase the capacity of LPG infrastructure in CBJ if mine-related LPG use develops.

2.30.8. Encourage the development of sources that could provide energy in the winter months.

2.30.9. Encourage the development of co-generated electrical power at avoided cost.

2.30.10. Encourage land use patterns of development close to potential location of surplus waste heat.

2.30.11. Require the evaluation and analysis of potential energy-intensive waste heat producing projects.

2.30.12. Provide economic incentives for the construction of waste heat distribution systems for sources that will likely provide a long-term supply of energy at an attractive cost.

Waste Reduction and Recycling

It is in the long-term interest of all in the CBJ, and worldwide, to minimize the use of materials and to recycle used materials as a part of conserving natural resources. Recycling, where appropriate, will lead to the more economical use of resources and lessen the impact on the environment by lessening the need for extraction and the disposal of materials. In the energy context, the activity of recycling should be carried out in recognition of the net-energy transfer of the recycling effort. Since Juneau is located far from major recycling markets, it may not be energy efficient to recycle some classes of materials at the present time. Reduced resource use is therefore especially important. Cost, however, should be a determining factor in recycling only when there is a significant cost to the CBJ for encouraging the recycling. In view of these sometimes contradictory conditions, the two efforts of materials conservation and energy conservation should be conducted in a mutually supportive manner.

POLICY 2.31. IT IS THE POLICY OF THE CBJ TO ENCOURAGE WASTE REDUCTION AND RECYCLING ACTIVITIES WHICH HAVE A POSITIVE

NET-ENERGY TRANSFER THAT HAS A POSITIVE OR COST-NEUTRAL FISCAL IMPACT TO THE CBJ.

Implementing actions:

2.31.1. Encourage recycling of materials that have a positive net-energy transfer, even if the cost of recycling is marginal for the present time.

2.31.2. Utilize community service program and halfway house correctional programs to provide human resources for recycling and waste reduction.

2.31.3. Include waste reduction and recycling goals in its purchasing policy.

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 will informed decisions.

POLICY 2.32. IT IS THE POLICY OF THE CBJ TO INCREASE PUBLIC UNDERSTANDING OF HOW ENERGY DECISIONS AFFECT INDMDUAL CONSUMER COSTS.

Implementing actions:

2.32.1. Recognize that dealing with limited energy availability is a new, complex area, and that expert help must be provided if consumers are to make substantial contributions to an improved energy picture.

2.32.2. Improve energy education in K-12 public school educational curriculum. The Juneau Energy Advisory Committee recommends this include:

- ? energy as a fundamental human need
- ? historical perspective of energy
- ? understanding our local energy system, and how it fits with 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
- ? working with the Juneau Energy Advisory Committee on energy
- ? curriculum

2.32.3. Conduct 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.

2.32.4. Conduct public meetings to explain and discuss the Energy Component

CHAPTER 3.

NATURAL RESOURCES AND HAZARDS

Juneau 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.

Traditional comprehensive plans have directed their attention primarily toward land use, transportation and public facilities. In the last two decades, however, cities are more and more frequently called upon, either by state and federal law or by their own citizens, to address an ever wider array of subjects. So it was that in the 1984 Comprehensive Plan, Juneau prepared a rough inventory of natural resources and addressed the issues and concerns for those resources voiced by the citizens. As it happens, the primary product of comprehensive planning, the zoning ordinance, or Land Use Code as it is called in the CBJ, can be an effective tool for addressing resource management issues.

The CBJ does not engage in those areas of management usually reserved to the state, such as fish or game allocation. Some concerns, however, which are shared with the state, such as habitat protection, are actually better done at the local level. This is true in terms of trying to achieve habitat protection 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 and implementing actions which follow are those called for by the citizenry and appropriate to implementation at the local level through the use of local authority. In some cases, notably wetlands, the CBJ has taken a high-profile stance and proposed a significant 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

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. 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. Carefully designed development, which is responsive to the conditions of the site can diminish the potential negative impacts on these ecosystems, and may be able to actually enhance 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 development, which primarily takes the form of requiring development to be set back from shorelines of streams and lakes. The 1986 Juneau Coastal Management Program (JCMP) contains "enforceable policies" concerning streamside management, and the Land Use Code addresses streamside protection as well. Additionally, in 1985, a resolution was passed which designated approximately 2,056 acres throughout the borough as open space in recognition of anadromous stream corridors. Further efforts are required to protect stream corridors and to coordinate the various management regimes.

POLICY 3.1 IT IS THE POLICY OF THE CBJ TO PROTECT 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.

Implementing actions:

3.1.1. On publicly-owned lands, continue to designate, on the Land Use Code Maps as not appropriate for development, an area extending 200 feet from the ordinary high-water mark of the shorelines or stream corridors of the anadromous fish streams and lakes listed in Appendix B.

3.1.2. Update the CBJ's open space resolution periodically as additions or corrections are made to the list of anadromous streams.

3.1.3. Review proposals for selective vegetative removal on private land within the established 25foot "no disturbance" area abutting designated anadromous waters on a case-by-case basis and in consultation with the Alaska Department of Fish and Game. Allow limited removal of vegetation where natural functions being served by riparian vegetation can be maintained.

3.1.4. For all development, continue to require a minimum setback of 50 feet from the ordinary high-water mark of all stream corridors and lake shorelines listed in Appendix B.

3.1.5. Revise the Land Use Code to pull together in one section or cross-reference all of the requirements for stream and lake shoreline management which are now under Habitat, JCMP, and Wetlands Management.

3.1.6. Require easements for public access to lake shorelines and stream corridors in platting ordinance consistent with appropriate statutory and case law.

3.1.7. Give high priority to public acquisition of open space 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.

3.1.8. Where development or other causes have led to serious streambank erosion, undertake programs in cooperation with other appropriate agencies to prevent further erosion.

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

3.1.10: Consider amending 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 required. The WRB shall also make recommendations regarding appropriate mitigation opportunities.

3.1.11: Update Appendix B, list of creeks, rivers, lakes with anadromous fishery resources in the CBJ, from time to time to reflect ADF&G's most current list of catalogued anadromous fish streams and lakes.

3.1.12: Evaluate, as part of the next Comprehensive Plan major revision, alternative methods of establishing the point from which the stream setback is established.

3.1.13: Consider revising sections of the Land Use Code which refer to the 50-foot stream setback, and the 25-foot no-disturbance area, from the ordinary high water mark of anadromous fish streams and lakes as listed in Appendix B of the Comprehensive Plan to include the following changes:

Prohibit the Following Items:

33 feet to 50 feet from OHW:

- ? *All structures, regardless of size, including decks and roof overhangs;*
- ? *Signs;*
- ? *Grading, including excavation, dredge and fill;*
- ? *Parking areas; and*
- ? *The use of fertilizers, herbicides, pesticides, and other chemical treatments.*

OHW to 33 feet "no disturbance area":

- ? *Replacing the natural vegetation with a lawn, or lawn/shrub/tree landscaping;*
- ? *Cutting or significantly limbing trees that are rooted in the streambank; Removing tree stumps; and*
- ? *Cutting more than a few trees so that the overhanging vegetation is significantly reduced.*

Permit the Following Items:

33 feet to 50 feet from OHW:

- ? *Fences;*
- ? *Gardens;*
- ? *Swing sets;*

? *Lawns without use of fertilizers; and*
? *Other similar items on a case-by-case basis and approved by staff.*

OHW to 33 feet "no disturbance area": permitted on a case-by-case basis and in consultation with the Alaska Department of Fish and Game:

? *Limbing or cutting a small number of trees for view enhancement, provided the functions served by the setback are not significantly impacted;*
? *Cutting trees which could cause damage to structures on the lot;*
? *Removing and replacing a small number of trees and shrubs with other species that will serve the same function, provided the functions served by the setback are not significantly impacted;*
? *Changes to existing vegetation that improve stream habitat and function; and*
? *Other similar items on a case-by-case basis and as approved by staff.*

3.1.14: Consider amending the Land Use Code to provide greater stream protection in future development. Evaluate the establishment of a 100-foot no-disturb setback in areas of CBJ which are currently less developed and with significant areas of unplatted or large lot properties.

3.1.15: CBJ Staff will determine the Ordinary High Water (OHW).

3.1.16: Follow up on following items:

a. *Establish public educational program regarding the importance of the riparian setback.*

b. *Investigate possible incentives for property owners who make improvements to the riparian habitat on their own property.*

c. *Establish a GIS database, which can track variances and existing setbacks from streams and lakes in order to allow greater analysis of cumulative impacts to the riparian setback.*

d. *Note setbacks from streams and lakes as a plat note on subdivision plats. (2003 Revision)*

Wetlands

Juneau'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 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 Juneau Wetlands Management Plan (Mendenhall Valley, Lemon Creek, Auke Bay and North Douglas) were defined as wetlands by the Corps of Engineers in 1986. Additional wetland areas have been, and continue to be, identified by the Corps of Engineers and added to Juneau'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 the groundwater table, cleaning surface waters by retaining sediment and toxins, and providing recreational and scenic values to Juneau's population.

Prior to 1993, regulation of wetlands management in Juneau was primarily the purview of the Corps of Engineers. To establish a stronger local role in wetlands management, in 1993, the City and Borough of Juneau adopted the Juneau Wetlands Management Plan (JWMP) under the Alaska Coastal Management Program. The plan, which has been approved by both the State of Alaska and the federal government:

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 Juneau 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 Juneau, 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 b y the Alaska Coastal Management Program. The Board further decided to focus the CBJ's initial wetland restoration and enhancement projects on restoring the water quality and habitat values in the Duck Creek watershed in the Mendenhall Valley. The CBJ is now an active participant in the Duck Creek Restoration Program, with other state and federal agency staff, interest groups, and members of the public.

The CBJ worked for many years to obtain a General Permit from the Corps of Engineers to allow the Wetlands Review Board to assume all responsibility for wetlands permitting on the Category C, D and EP wetlands. In July, 1995, the Corps issued the General Permit. In March 1994, the CBJ and Corps signed a cooperative permitting agreement that allowed Juneau to conduct its local wetlands permit process for projects in lower value wetlands, and required the Corps to complete its permit decisions for these projects in value wetlands in a shorter time period than is

usual. This interim, joint permitting process was a necessary precursor to receipt of a General Permit from the Corps for these lower value wetlands.

Juneau's wetlands management program is beginning to guide the use and protection of our wetland resources. While the Land Use Code already codifies key portions of the Juneau Wetlands Management Plan, the Comprehensive Plan should serve as the policy backbone for the wetlands regulatory program and address issues that can't be addressed through regulation of private development.

POLICY 3.2. IT IS THE POLICY OF THE CBJ TO PROTECT HIGH-VALUE WETLANDS FROM ADVERSE EFFECTS OF DEVELOPMENT THROUGH AND USE MANAGEMENT AND TO SPONSOR OR PARTICIPATE IN EFFORTS TO ENHANCE OR RESTORE THE ENVIRONMENTAL VALUES OF JUNEAU'S WETLANDS.

Implementing actions:

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

3.2.2. Retain all CBJ-owned Category A and B wetlands in CBJ ownership and manage for environmental protection. Consider the value of wetlands in public ownership for public education.

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

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

3.2.5. Expand the coverage of the JWMP to include wetlands identified by the Corps of Engineers since 1986 (the date of the Corps' 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 Corps of Engineers' requirements for General Permits.

3.2.6. 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.

3.2.7. Provide mechanisms to facilitate protection of high value privately-owned wetlands, such as through conservation easements.

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

3.2.9. Provide flexibility in density rules to allow developments to be designed to minimize impacts to wetlands and stream habitats, such as through cluster development.

3.2.10. Cooperate with state and federal agencies in wetland and stream habitat restoration and enhancement efforts.

3.2.11. Implement the approved JWMP, which (1) classifies wetlands based on their functions and community needs, (2) requires mitigation appropriate to the environmental value of the wetland, (3) provides for establishment of a CBJ-administered Mitigation Bank, and (4) provides for local wetlands permitting for lower value wetlands through decisions of the CBJ Wetlands Review Board.

3.2.12. Develop and maintain a computer database to track locally-issued permits, wetlands acreage developed under CBJ permits, mitigation required, mitigation success, and enforcement actions.

3.2.13. Develop and use geographic information system capability to record information regarding wetland location, resource information, permitting, and mitigation projects.

3.2.14. Provide monitoring and enforcement to ensure that projects comply with project plans and with any conditions placed on local wetland permits.

3.2.15. Consider the cumulative impacts associated with wetland fills in making local wetland management decisions. (Note: The JWMP requires that cumulative changes in the wetlands base be considered by the Wetlands Review Board for each local wetlands permit issued, as well as during preparation of an annual report on local wetlands management.)

3.2.16. Implement a Wetlands Mitigation Strategy that provides for (1) wetlands protection, (2) public education, and (3) wetlands restoration, enhancement, and creation.

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

3.2.18. Require long-term monitoring of mitigation projects undertaken by the CBJ or private parties to ensure that the mitigation project was undertaken as planned and to ascertain project success.

Water Quality

In Juneau, the primary sources of impacts to water quality are "non-point sources." Non-point sources refer to broad, diffuse sources or activities that generate wastes that are spilled, leaked,

leached, eroded or dumped onto land or water. Non-point source pollutants can include sediment, hydrocarbons, fecal coliform, heavy metals and other pollutants that are generated through streambank or upland erosion, urban runoff, landfills, sewage leach-fields, and other common features of our urban landscape.

Non-point sources are distinct from "point sources," which are mainly industrial or sewage treatment plan discharges from a discrete waste-water discharge pipe. In Juneau, the municipal sewage treatment plants are the primary point source waste-water discharges.

To effectively protect water quality, the CBJ must control non-point source pollutant sources primarily through land use controls and "best management practices" applied t development projects. Non-point source controls 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 avoids wetlands, placing siltation fences around construction sites, constructing a retaining dike around fuel storage areas, installing an oil/water separator on storm drains for a parking lot, and disposing of snow away from streams.

Since 1988, the provision of city sewer utilities to additional areas within the Mendenhall Valley (Back Loop Road) has helped to resolve localized surface and groundwater quality problems formerly caused by failed on-site septic systems. The CBJ's six-year Capital Improvements Plan (FY 1995-2000) calls for construction of additional sewer lines in the Industrial Boulevard and Mendenhall Peninsula 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" 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 could result in extremely stringent development controls in TMDL watersheds.

DEC continues to review Juneau waterbodies which exceed state water quality standards. The list of "impaired" waterbodies is updated every two years. As of 1995, the list included:

Water Body	Pollutants	Sources
Duck Creek	Dissolved oxygen, debris, metals, fecal coliform, habitat modification, turbidity	Urban runoff, landfill, road runoff, land development
Lemon Creek	Turbidity, sediment, habitat modification debris	Urban runoff, gravel mining
Pederson Hill Crk	Turbidity, fecal coliform, petroleum products, habitat modification, sediment	Urban runoff
Vanderbilt Creek	Turbidity, debris, sediment, habitat	Urban runoff

modification

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 to have them 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, and to avoid the extremely restrictive development controls that the federal Clean Water Act will impose if the impairment is not remedied.

Given these obligations, laws, and the general public concern about all water quality issues, it is appropriate to address them in a comprehensive planning and land use management and planning context.

SUMMARY OF STORMWATER MANAGEMENT

Nonpoint source pollutants are carried from their source to the streams through stormwater. Stormwater is the water from rainfall or snowmelt that flows across the land surface. 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 basically 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 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 natural water body and to reduce erosion.

Any activity that alters the natural 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 and quantity. 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, 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, often conveyed through municipal storm drains, is one of the leading contributors of degradation of water quality and habitat in streams and lakes nationwide.

In the past, CBJ has made an effort to reduce stormwater pollutants and sedimentation on a case by case basis and through storm drains. However, there are currently five streams which are listed as "impaired waterbodies" in the borough. They serve as evidence that the current efforts are insufficient.

Development and implementation of a comprehensive stormwater management plan would help meet the goal of reducing nonpoint source pollution. Development of a stormwater management

plan should be initiated by an inventory or comprehensive analysis of what is currently being discharged and where. Additionally, it should address stormwater within the public drainage system and on the streets, as well as stormwater that originates on private property and then flows into the public system. Methods to decrease the quantity of flow through increased percolation and reduced speeds of flow should be addressed. Likewise, methods to increase the water quality through additional filtering out of pollutants and sedimentation before entering the waterbodies should be addressed. (2003 Revision)

POLICY 3.3. IT IS THE POLICY OF THE CBJ TO PROTECT, MAINTAIN AND IMPROVE SURFACE WATER, GROUNDWATER AND MARINE WATER QUALITY IN ITS JURISDICTION SO THAT WATERS ARE IN COMPLIANCE WITH THE STATE OF ALASKA WATER QUALITY STANDARDS

Implementing actions:

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

3.3.2. Assure that stream corridors and surface waters receive greater attention in the local permitting process through application of streamside management requirements and adoption of additional requirements or criteria that protect these areas and waters if needed.

3.3.3. Participate with DEC in the development and implementation of waterbody recovery plans for the listed impaired waterbodies in Juneau, including use of "best management practices" for protection and improvement of water quality.

3.3.4. Coordinate with DEC when reviewing projects for local approvals (e.g., subdivisions, local permits, variances), planning CBJ projects (e.g., road and drainage projects, gravel mining, land disposals), or conducting enforcement in the impaired watersheds.

3.3.5. Map the impaired watershed areas on the Land Use Code Maps to ensure that they are accorded special attention.

3.3.6. Incorporate the goal of protecting and improving water quality into the planning, site selection, budgeting, design, construction and operation of CBJ and state-sponsored capital projects.

3.3.7. Cooperate with DEC in the development of a database of information related to permit conditions, permit compliance and watershed restoration in impaired waterbodies.

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

3.3.9: Develop a borough-wide stormwater management program, which at a minimum includes the following:

? *Mapped inventory of current stormwater discharge points.*

? *Inventory of sediment load and pollutants at each site.*

? *Evaluation of current development standards for public and private development regarding how the standards effect water quantity and quality and how the standards can be improved to help reduce water quantity and improve water quality before stormwater enters the storm drain system.*

? *Performance standards, for public and private development, regarding the amount of pollution and sediment that gets transported with storm water into the drainage systems and into the streams, lakes or channel.*

? *Evaluation of snow management practices.*

? *Establishment of required BMP standards for erosion control.*

? *Inventory of storm drains, catch basin and oil water separators and a maintenance schedule for these facilities.*

? *Mapped inventory of locations on city-land that would be suitable for construction of stormwater treatment systems, such as detention systems or vegetated swales. Designate and retain lands for this purpose.*

? *Consideration of incorporating funding for storm water management into capital improvement projects, to ensure adequate funding for construction and maintenance of necessary stormwater treatment methods.*

? *Education and outreach as a component of the stormwater management plan.*

? *Consideration of density credits for development which actively reduces stormwater runoff. (2003 Revision)*

Watersheds

Water supplies for domestic uses in the CBJ are a limited resource. The existing domestic water sources are the Gold Creek 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 Juneau 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.

Given trends in water usage, 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.

POLICY 3.4. 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.

Implementing actions:

3.4.1. Continue to evaluate the potential of local watersheds for surface or groundwater development for municipal water supply.

3.4.2. Consider re-instituting the surface water monitoring program of 1985-1986 with the United States Geological Survey to monitor water quantity and quality of potential water sources. Continue the ongoing monitoring of Gold and Salmon Creeks.

3.4.3. Designate on the Land Use Code Maps watershed protection areas comprised of the following watersheds: Gold, Upper Salmon, McGinnis, Fish, Montana, Hilda, Middle Point and Peterson (on Douglas Island).

3.4.4. Regulate all development proposals and major activities in watershed areas which have high potential for development as a municipal water source to insure maintenance of high quality water.

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

3.4.6. Prohibit development which will result in degradation of water quality, including resource extraction and siting of septic system drainfields, within designated watershed protection areas.

3.4.7. Regulate direct discharge from storm-water control devices into designated watershed areas.

3.4.8. Continue to implement the "Watershed Control and Wellhead Program -Gold Creek Source" (1994), and the "Watershed Control and Wellhead Program -Salmon Creek Source" (1993), for the protection of Juneau's municipal water supply *

3.4.9. Designate lands under public ownership within Salmon Creek and Gold Creek watersheds as open space. Designate privately-held land "Resource Reserve."

Air Quality

Although air quality in the Juneau area has generally been high, recently it has become a serious problem in some areas due to the rapid increase in urban development and installation of fire places and wood-stoves. The Mendenhall and Lemon Creek Valleys are the areas most seriously affected by 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 homes. As a result, air quality in the Mendenhall Valley has improved considerably since 1982.

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, Juneau's air quality is relatively good most of the time.

An issue of growing concern is that of indoor air quality. This issue may be addressed through the building codes. Overall, it is appropriate for the CBJ to remain involved and concerned with air quality.

POLICY 3.5. IT IS THE POLICY OF THE CBJ TO CONTINUE EDUCATIONAL PROGRAMS, CAPITAL IMPROVEMENT PROJECTS, AND REGULATORY MEASURES TO PROTECT AND IMPROVE AIR QUALITY.

Implementing actions:

3.5.1. Continue the cooperative program with the Alaska Department of Environmental Conservation (DEC) in implementing CBJ Chapter 36.40 regarding regulation of pollution from wood stoves and outdoor burning.

3.5.2. Undertake transportation improvements to reduce congestion and encourage residents to utilize alternative forms of transportation to reduce use of fossil fuels.

3.5.3. Continue monitoring air quality, working with state and federal regulatory agencies, stay abreast of air quality issues, concerns and technology.

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 supports a unique variety of animals. Urbanization often results in habitat fragmentation and degradation, causing long-term damage to animal populations.

The major aquatic habitat types in the CBJ are coastal marine waters, intertidal flats, estuaries, fresh and saltwater wetlands, 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 as well as interception of ground and surface water. This has caused the degradation of streams and fish resources in the Juneau area. Among the streams most seriously affected are Gold, Lemon, Duck, and Jordan Creeks. Those which retain important fish resource values are Fish, Auke, Windfall, Vanderbilt, Lake, Montana, Steep, Peterson, and Kowee-Davies Creeks and the Mendenhall River.

A prevalent habitat type in the Juneau 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 harvest can affect the type and amount of 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 eagles, have unique requirements because of the Endangered Species Act and the Eagle Protection Act. They are therefore treated separately following this section.

Other sections of the Comprehensive Plan address habitat protection issues more specifically. These include Stream Corridors, Wetlands and Water Quality.

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 resident and visitor alike.

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

Implementing actions:

3.6.1. Recognize fish and wildlife habitats, streams and wetlands as important land uses during the planning process. Include protection of important fish and wildlife habitats in CIP and land use planning.

3.6.2. Develop a Geographical Information System (GIS) capable of relating natural resources, fish and wildlife habitats, wetlands, and other information to the Land Use maps.

3.6.3. Revise Density Bonus policies in the Land Use Code to award bonus points for development which is designed to protect important fish and wildlife habitat.

3.6.4. Encourage clustering and other design alternatives which could protect fish and wildlife habitat.

3.6.5. Develop a 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.

3.6.6. Use a wide variety of management approaches to protect important wildlife habitat, including by not limited to: education, incentives (such as conservation easements), development regulations, private donations, or public acquisition.

3.6.7. Vary the use of management techniques based upon the size, location, vulnerability, and relative abundance of the wildlife habitat.

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. However, sea lions use the entire periphery of the island. Major haul-outs such as 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. Of importance also is that the site is a popular local sea lion viewing destination and may be of growing interest to visitors.

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

Implementing actions:

3.7.1. Designate publicly and privately owned areas identified as critical sea lion habitat on the Land Use Code Maps including a buffer area extending seaward of the haul-out.

3.7.2. Consult with the National Marine Fisheries Service on all development proposals, including commercial wildlife viewing, which could affect the sea lion's use of the island.

3.7.3. Prohibit development which would interfere with the critical sea lion habitat.

Eagle Nesting Areas

Bald eagles are present in the Juneau area in large numbers. Alaskan bald eagles are not an endangered or threatened species, but they are subject, nonetheless, 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 and prohibits construction within three hundred thirty feet on public land, or within fifty feet on private land, provided that there shall be no construction within three hundred thirty 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 3.8. IT IS THE POLICY OF THE CBJ TO PROTECT AREAS SURROUNDING IDENTIFIED EAGLE NESTS FROM CONFLICTING LAND USES.

Implementing actions:

3.8.1. Designate and map eagle nest locations and a 50-foot and 330-foot buffer area around the nest. Update this map periodically to include information gathered by the Fish and Wildlife Service in their annual eagle surveys.

3.8.2. Work with the Fish and Wildlife Service and developers to revise existing Code provisions which prohibit development on private land during the "actively nesting" periods in order to protect the nesting eagles while at the same time accommodating some development during the building season.

3.8.3. Consider open space or low density land use designations where eagle nest concentrations are particularly high.

3.8.4. 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. A maximum number of old growth trees will be retained in the buffer zone. When a CBJ conditional use permit is required, the nesting requirements of the eagles will be given strong consideration.

3.8.5. In situations where lands are proposed for private platting 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.

3.8.6. Private land within the eagle management radius will be subdivided into large lots, the largest of which will contain the nest tree. Roads will be located as far from the nest as possible, preferably landward from the nest tree. Low density residential or open space uses will be encouraged. These requirements will be expressed as a note on the approved plat.

3.8.7. Request the U.S. Fish and Wildlife Service to re-examine the status of the Bald Eagle in the Juneau 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.

Bear Management

A recurring problem which may grow as Juneau grows, is the tendency of black bears to become habituated to human-generated garbage. Many areas of town sit astride traditional bear pathways or are adjacent to bear habitat. The clear indication is that once a bear becomes habituated to eating garbage, it is almost impossible to rehabilitate to natural behavior. The normally shy bears become less afraid of human contact and at least two non-fatal attacks on humans have occurred in the 1989-1994 period.

Experts with the Alaska Department of Fish and Game (ADF&G) indicate that the CBJ's efforts to monitor garbage refuse containers have resulted in a decrease of garbage bears. They strongly urge, however, that the refuse container requirements should be strengthened to require garbage containers to be kept in bear resistant enclosures. A bad berry crop in any given year may result in more bears turning to garbage as a food source and continued efforts to control garbage are important. In the years between 1987 and 1994, authorities have been forced to kill as many as 21 garbage bears in a single season.

ADF&G coordinates closely with the Juneau Police Department (JPD) regarding bear incidents. The JPD patrol officers inform the Community Service Officers (CSO) about bear problem locations so CSO's can follow up with closer monitoring of garbage storage at those locations. In 1993,524 notices of improper garbage storage were issued.

Bears are enjoyed by the community as a natural resource. The need to trap or destroy garbage bears is upsetting to many citizens in Juneau. Continued interaction between bears and human settlement is inevitable but the foraging of bears for garbage does no good for either bears or humans.

POLICY 3.9. IT IS THE POLICY OF THE CITY AND BOROUGH OF JUNEAU TO PREVENT BEARS FROM GAINING ACCESS TO AND BECOMING HABITUATED TO THE CONSUMPTION OF HUMAN-GENERATED GARBAGE BY PUBLIC EDUCATION, PROPER MANAGEMENT OF GARBAGE, AND PROTECTION OF THE NATURAL HABITAT AND FOOD SOURCES UPON WHICH BEARS DEPEND.

Implementing actions:

3.9.1. Revise existing Title 36 Litter Code to include a new ordinance which would require garbage to be stored in a bear-resistant enclosure.

3.9.2. Continue the current effort coordinated with JPD and CDD to monitor compliance with refuse container ordinances. Work toward efficient, effective enforcement.

3.9.3. Through public education and publicity, enlist the community's efforts to prevent bears from gaining access to garbage.

3.9.4. Study feasibility of mandatory garbage pick-up, its costs and effectiveness in preventing stockpiled garbage.

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 Juneau area have increased demand for sand, gravel and quarry rock. The most extensive deposits and 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 Juneau 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.

Development in areas where potential sand and gravel deposits are located can preclude extraction of these resources. As growth and development continue in the Mendenhall Valley and Lemon Creek areas, pressure for closing existing pits may grow.

Because gravel extraction operations often conflict with surrounding land uses and some forms of development can preempt its use, it is important to take steps to avoid or minimize these conflicts.

POLICY 3.10. IT IS THE POLICY OF THE CBJ TO CONSERVE AND PROTECT FROM CONFLICTING LAND USES KNOWN GRAVEL DEPOSITS AND THOSE IDENTIFIED IN THE FUTURE.

Implementing actions:

3.10.1. Designate known gravel resource areas on the Land Use Code Maps.

3.10.2. Require additional review of any permanent structures or other development proposed within 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.

3.10.3. Recognize the potential for conflict between gravel extraction operations and other nearby development.

HAZARDS

Landslide and Avalanche Hazards

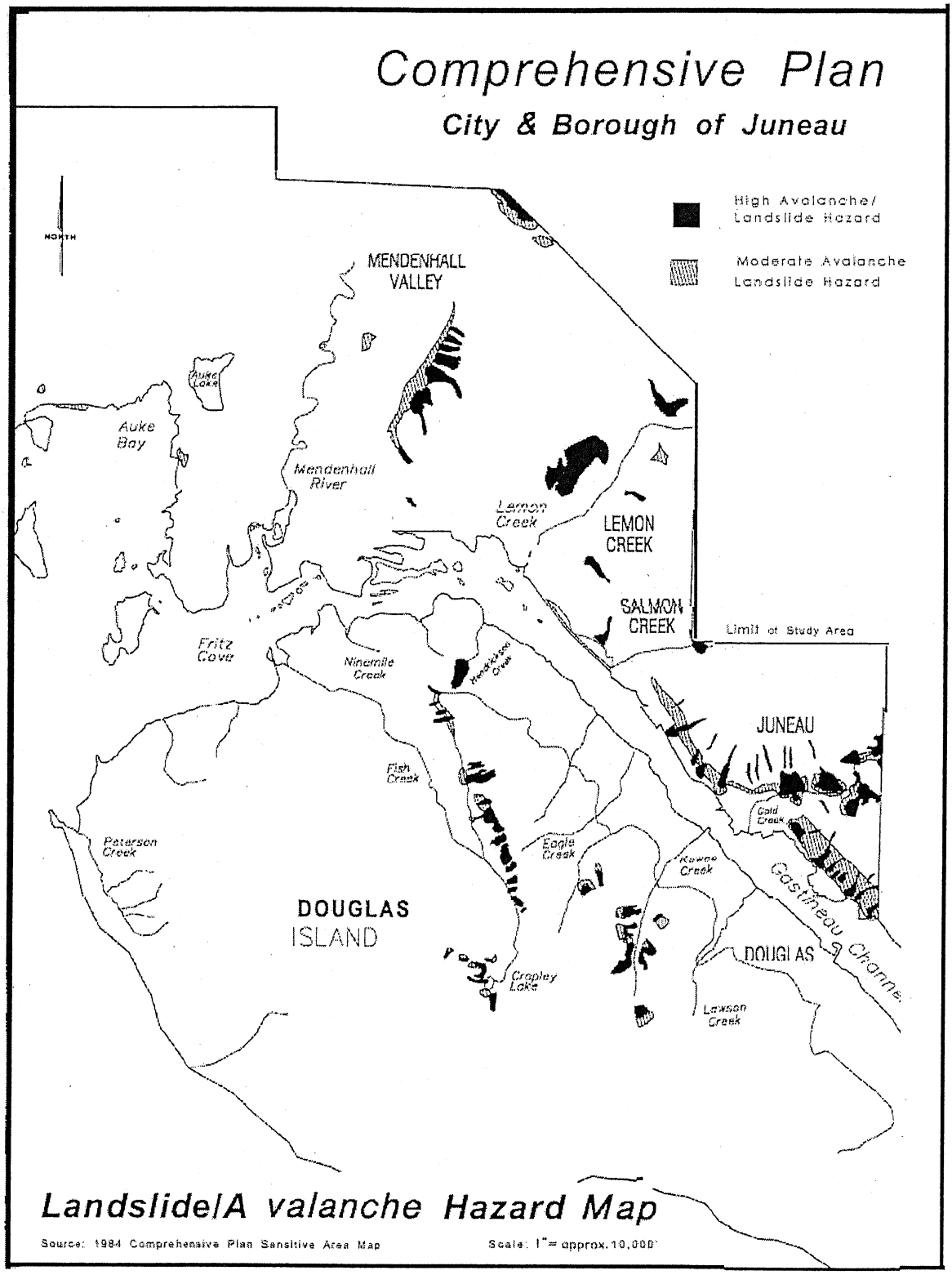
Avalanches and landslides present a very serious threat to human safety and development in some areas of the CBJ, and their nature and severity have been well documented. Careful evaluation of specific sites and corresponding land use and engineering solutions can help to minimize the risk of disaster.

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 Fair-weather, approximately 100 miles west of Juneau. Lynn Canal, Chatham Strait and the Gastineau Channel are classified as 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--the range at which damage might occur.

The Land Use Code adopted in 1987 included a new section which regulates development in landslide/avalanche areas. Currently the Land Use Code allows a developer to challenge the boundary of the avalanche and mass wasting area shown on the maps. If the Engineering Department is satisfied with the report, and the required criteria have been considered, the maps are revised. So far, four map amendments have taken place.

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.


Comprehensive Plan
City & Borough of Juneau
NORTH
High Avalanche/ Landslide Hazard
Moderate Avalanche Landslide Hazard
MENDENHALL VALLEY
Auke Lake
Auke Bay
Mendenhall River
Lemon Creek
LEMON CREEK
SALMON CREEK
Limit of Study Area
Fritz Cove
Ninemile Creek
Peterson Creek
Fish Creek
Eagle Creek
Kowee Creek
Gold Creek
JUNEAU
Gastineau Channel
DOUGLAS ISLAND
DOUGLAS
Cropley Lake
Lawson Creek
Landslide/Avalanche Hazard Map
Source: 1984 Comprehensive Plan Sensitive Area Map
Scale: 1"= approx. 10,000'

POLICY 3.11. IT IS THE POLICY OF THE CBJ TO MINIMIZE THE THREAT TO HUMAN SAFETY AND DEVELOPMENT POSED BY LANDSLIDES AND AVALANCHES.

Implementing actions:

3.11.1. Designate areas of moderate and high landslide/avalanche hazards as being subject to such threats on the Land Use Code Maps.

3.11.2. Determine boundaries of hazard areas on the basis of the landslide/ avalanche hazard maps, and the maps of avalanche areas using the 1972 "Geophysical Hazards Investigation for the City and Borough of Juneau, Alaska" and the 1992 "Juneau Area Mass-Wasting and Snow Avalanche Hazard Analysis."

3.11.3. Complete reassessment of hazard areas: include all areas of the original 1972 study which were not included in the 1992 study including the downtown waterfront area. Complete the detailed mapping of the White Subdivision.

3.11.4. Provide mitigating standards in the Land Use 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.

3.11.5. If a developer disagrees with the boundaries shown on the maps, the developer may seek departmental relocation of the boundaries by submitting site-specific studies prepared by an 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.).

3.11.6. Designate all public lands located in hazard areas as open space on the Comprehensive Plan Maps. Include all CBJ land in hazard area in Parks and Open Space Plan.

3.11.7. Review any proposed land disposals of CBJ lands in light of their hazard classification.

3.11.8. 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 existing and potential development.

3.11.9. 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.

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

3.11.11. Tax foreclosed property in the high hazard areas will be dedicated to the public open space.

Flooding

Flooding occurs with relative frequency in the Juneau area. 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 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 of stormwater runoff. Stream crossings and under-sized culverts which are blocked by stream debris or ice restrict the passage of storm flows.

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 hazards are undertaken.

The current floodplain requirements in the Land Use Code, at CBJ 49.70.400 have been developed to comply with the Policy below and with the requirements of the Federal Emergency Management Agency so that local property owners can maintain eligibility under the National Flood Insurance Program. This insurance is available anywhere in Juneau and is mandatory for any financing of property if the loan has federal origins. In 1994, there was $17.6 million in local flood insurance coverage, almost a 40 percent increase since 1990. There are 124 active local policies, up 29 percent since 1990. Of these, one is in the coastal velocity flood zone, 68 are in mapped riverine zones and the rest are unmapped flood areas. The 1990-94 increases may be due in part to increasing real estate values, but the total number of policies will grow as more older homes are sold or refinanced with federal-origin loans. Homes on hillsides that have mudslide threats can also be insured under this program if the CBJ maintains eligibility. In view of all of the above, it is vital to local safety and peace of mind that the CBJ maintain its flood management program.

POLICY 3.12. IT IS THE POLICY OF THE CBJ TO PROHIBIT RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL DEVELOPMENT IN FLOODWAYS, TO REGULATE DEVELOPMENT IN FLOODPLAINS, AND MAINTAIN A PROGRAM OF EDUCATION, ASSISTANCE, AND INFORMATION IN ORDER

TO MAINTAIN ELIGIBILITY FOR THE NATIONAL FLOOD INSURANCE PROGRAM FOR THE BENEFIT OF LOCAL HOMEOWNERS AND THE LENDING INDUSTRY.

Implementing actions;

3.12.1. Designate, on the Land Use Code Maps, areas within the 100-year floodplain but outside floodways as public open space if the subject land is in public ownership.

3.12.2. Use the floodway and floodplain boundary lines outlined on maps prepared by the Corps of Engineers as the basis for defining flood boundaries.

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

1. Allow sand and gravel operations, recreational activities, open space and parking lots in floodplains only if the activities do not increase the flood danger.
2. Require industrial equipment and stored raw materials in the 100-year floodplain to be adequately bermed or otherwise protected.
3. Prohibit commercial or industrial storage of toxic chemicals or materials in the 100-year floodplain.

Hazardous Materials

Federal law now 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 3.13. IT IS THE POLICY OF THE CBJ TO ASSIST IN THE IDENTIFICATION AND MITIGATION OF IMPACTS ASSOCIATED WITH HAZARDOUS MATERIALS.

Implementing actions:

3.13.1. Collect and assess data on the amount and location of hazardous materials in the community.

3.13.2. Use this information in developing an emergency response plan.

3.13.3. Consider alternative siting and/or mitigation measures in approving permits for new development.

3.13.4. Cooperate with state and federal agencies in the investigation of hazardous waste sites.

3.135. Continue to provide hazardous waste disposal opportunities.

3.13.6. Provide information to the public regarding hazardous waste disposal opportunities.

Litter and Junk

The general municipal 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 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 Juneau; and recorded information about household hazardous waste and waste oil disposal. In 1993,94 junk cars were towed and disposed of by the CBJ under the Junk Busters program.

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. This organization is, in 1995, considering an adopt-a-river program, expanding cleanups to more than one a year with an additional focus on marine litter. They also arrange for "Captain Clean" to go to the schools to give anti-litter presentations.

Another component of the Junk Busters program addresses illegal dumping. Illegal dumping on public land is reported to CBJ. An investigation of dumpers is initiated. If CSO's 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 recovers the cost through a property tax lien.

Channel Sanitation accepts the refuse free of charge. In 1993, Channel Sanitation accepted $10,000 dollars worth of refuse, or about 143,000 pounds. This amount is for litter picked up throughout the whole year under the Junk Buster and Litter Free, Inc. programs.

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 3.14. 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 BOROUGH AS WELL AS CLEAN UP SUCH MATERIAL WHEN IT IS FOUND.

Implementing actions:

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

3.14.2. Investigate, with the business community, a cost effective method for disposal of metals.

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

3.14.4. Support a marine cleanup program, including community awareness to discourage use of plastics.

3.14.5. Continue to support non-profit, anti-litter organizations.

3.14.6. Continue work to update and improve litter and zoning ordinances which will result in improved community appearance.

3.14.7. Continue to provide information to the public regarding recycling opportunities.

Noise

An increasing problem in Juneau, the most significant sources of noise are the airport, seaplane operations on the waterfront, and automotive traffic. In recent years, noise or the absence of it, has become a recognized concern in 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 most exhaustive study of noise in the Juneau area is included within the Airport Master Plan and Noise Compatibility Study. The recommendations of the Noise Compatibility Program which resulted from the study were included in the 1987 update of the Comprehensive Plan. This study and the recent efforts of the Noise Advisory Committee present a detailed response to the noise problems associated with aircraft. An airport noise exposure map is included at the end of this section. It is excerpted from the 1986 Noise Compatibility Study, and shows noise contours important to land use planning. The study will be updated in 1997. The noise contours are expected to decrease in area.

The purpose of considering noise in a comprehensive plan and in the regulation of development is not to prevent development but rather to encourage development that is compatible with various noise levels. The objective is to guide noise-sensitive land uses away from the noise and encourage non-sensitive land uses where there is noise. Where this is not possible, measures should be included in development projects to reduce the effects of noise.

In recent years, it has been generally recognized by the Planning Commission, and CDD, that the CBJ noise control regulations are limited and perhaps ineffective in protecting public health. Several noise experts familiar with the CBJ noise regulations have strongly encouraged the CBJ to adopt a "modern" noise control ordinance.

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

POLICY 3.15. IT IS THE POLICY OF THE CBJ TO MINIMIZE THE EXPOSURE OF CITIZENS TO THE HARMFUL EFFECTS OF EXCESSIVE NOISE, AND TO CONTROL THE LEVEL OF NOISE POLLUTION IN A MANNER WHICH WILL BE COMPATIBLE WITH COMMERCE AND PUBLIC SAFETY, THE USE, VALUE, AND ENJOYMENT OF PROPERTY, SLEEP AND REPOSE; AND THE QUALITY OF THE ENVIRONMENT.

Implementing actions:

3.151. Establish land use patterns which consider the effects of high-noise generators, particularly in the airport vicinity and along major traffic corridors.

3.15.2. Consider noise mitigation when reviewing new roadway improvements. Require berms and planting strips along highways and major arterials in noise sensitive areas, and encourage DOT&PF to leave vegetation in residential areas to absorb traffic noise.

3.15.3. Implement the guidelines developed in the 1987 Juneau International Airport Master Plan to manage airport-generated noise impacts on surrounding development.

1. Establish a policy against rezoning non-residentially zoned land to any category that permits permanent residences when such land lies within the existing or future Ldn 65 contour.

2. Maintain large-lot zoning in areas that have already been zoned residential and lie within incompatible areas.

3. Restrict mobile home development in areas which are impacted by aircraft noise and lie within the Ldn 65 contour.

4. Establish special protection features in the local building code for new construction of habitable structures within the Ldn 65 contour such that habitable buildings be constructed to attain an interior noise level equivalent to an average of 45 decibels or less.

5. Require aviation easements as a condition of subdivision approval on any residential subdivision proposed within the Ldn 65 contour.

3.15.4. Provide leadership in implementing the Juneau Fly Neighborly Program, an operator-supported, self-policing program intended to observe and improve an existing voluntary noise abatement program.

3.15.5. Initiate development of a comprehensive noise control ordinance when noise complaints or other indicators indicate increasing noise pollution and/or community sensitivity to noise. Such a comprehensive noise control ordinance should establish maximum environmental noise levels applicable within designated areas of the CBJ.

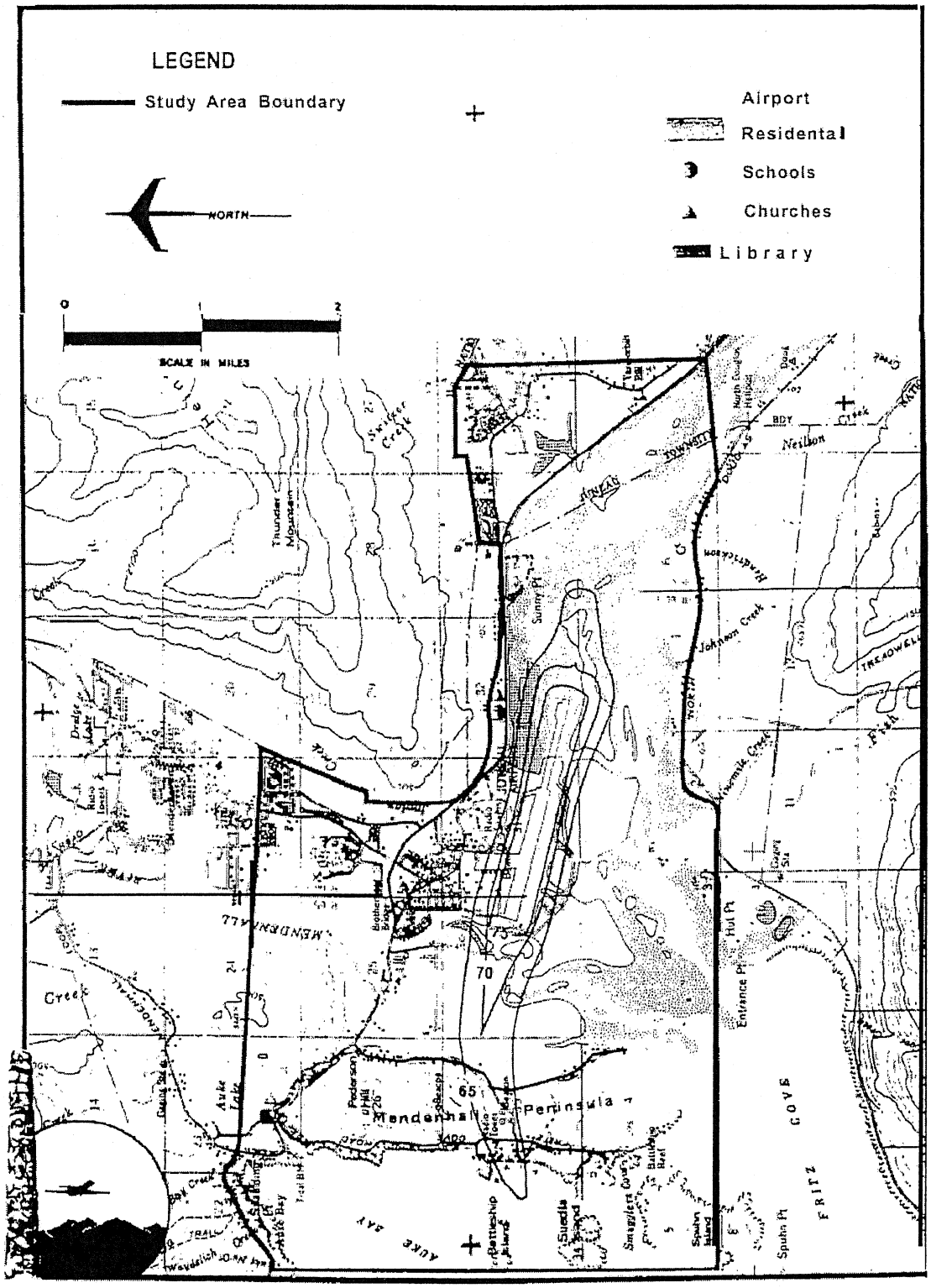


Exhibit 12B
NOISE COMPATIBILITY PLAN
1986 NOISE EXPOSURE

CHAPTER 4.

TRANSPORTATION, PUBLIC FACILITIES, SERVICES, AND AMENITIES

This Chapter addresses the infrastructure and a variety of public services grouped into four subject sections: Transportation, where the emphasis is primarily on structures, but includes some attention to traveling activity; Public Facilities, where the emphasis is on maintenance and enhancement of infrastructure such as water, sewer and drainage; Public Services, which may involve structures, but where the emphasis is on services and programs; and, Cultural Services and Amenities, where the emphasis is on quality of life considerations, and addresses the education, recreation, scenic and cultural needs of the community.

TRANSPORTATION

An efficient and balanced urban transportation system facilitates the movement of people and goods to and within the CBJ while conserving energy and reducing air pollution. Timely and coordinated multi-modal transportation improvements to the current system are necessary to support the growth patterns envisioned in this plan.

New opportunities have emerged to plan and fund the construction of local transportation facilities through the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). The federal act now considers local transportation issues including roads, pedestrian facilities, bike lanes, scenic enhancements and local transit improvements as well as other transportation-related improvements.

Regional Transportation System

Due to the lack of a road connection with other regions of Alaska and Canada, the CBJ depends upon air and marine transportation which also serves the southeast region of Alaska. Waterway transit accounts for much of the passenger, most freight and all vehicular traffic to and from Juneau.

Juneau International Airport

Juneau's airport has played an important role in the past development of the city and will play an even more important role in future development. The airport is an integral part of 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, and regional transportation system.

The airport is part of residents' private and professional lives. Air transportation in Juneau is critical for the movement of goods and people. Much of the commerce in Juneau passes through the airport as cargo or as business people traveling to or from the capital city. Residents visiting their elected representatives and state government agencies mainly use air transportation. The rapid growth of tourism has made Juneau's airport the second busiest in the state. The projected growth in tourism will result in an even busier airport.

Further, the airport serves as a hub for northern Southeast Alaska. Residents of Haines, Skagway, Gustavus, Hoonah, and other communities are served by carriers using Juneau's airport. Connections to the lower 48, as well as the rest of Alaska, are made in Juneau. The development of Juneau as a regional center for commerce and medical service will emphasize this aspect of the airport's role. The FAA classifies Juneau International Airport as a small hub airport.

It is critical that Juneau continue the orderly development of the airport to meet the expanding needs of Juneau 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. Juneau's airport plays a fundamental role in the basic infrastructure of the City, more so than in most areas of the country.

Surface Transportation

State and federal transportation agencies are responsible for providing surface links between Juneau and other communities of the Alaskan panhandle, or Canada, that have road access. In 1994, a study was initiated to study the environmental consequences of the alternative routes and methods and to select a preferred route. The Department of Transportation and Public Facilities (DOT&PF) continues to conduct a route assessment entitled the Juneau Access Study. The alternatives listed include, no-build, marine (ferry), west Lynn Canal, east Lynn Canal, and Taku River route. The Taku River route has been substantially eliminated from consideration because of opposition by the British Columbia government. Other than no-build, all alternatives have some form of ferry link, either interim operations between phases or on a permanent basis.

Marine Transportation

There is strong local support for increasing ferry service to and from other points in Southeastern Alaska, thus expanding Juneau's role as a regional center. The Auke Bay terminal was expanded to simultaneously accommodate two ships in 1982. The expansion significantly increased ferry traffic particularly in the summertime tour season.

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.

POLICY 4.1. IT IS THE POLICY OF THE CBJ TO SUPPORT THE IMPROVEMENT OF TRANSPORTATION SYSTEMS WHICH REINFORCE JUNEAU'S ROLE AS THE CAPITAL CITY OF ALASKA AND A REGIONAL

TRANSPORTATION AND SERVICE CENTER. IT IS FURTHER THE POLICY OF THE CBJ TO MAINTAIN AIRPORT FACILITIES THAT PROVIDE BASIC TRANSPORTATION NEEDS FOR JUNEAU RESIDENTS AS WELL AS FOR OTHER ALASKANS AND VISITORS TO JUNEAU, AND TO WORK WITH THE PUBLIC AND PRIVATE SECTORS TO FACILITATE COMMERCE, ECONOMIC DEVELOPMENT, AND ACCESS TO ALASKA'S CAPITAL CITY.

Implementing actions:

4.1.1. Assume a leadership role in the encouragement of surface transportation links into and out of the borough. Consider all alternatives to improve transportation links between Haines, Skagway and other areas of Southeast Alaska, including roadways, high speed ferries, and light or standard rail.

4.1.2. Update and keep the Airport Master Plan current.

4.1.3. Protect all designated airport properties from land use conflict and/or displacement.

4.1.4. Maintain an entity to carry out airport planning, development and oversee airport management functions.

4.1.5. Encourage the development of a Global Positioning System (GPS) to allow increased weather-limited landings at the Juneau Airport.

4.1.6. Improve transportation facilities that accommodate air and marine links between the CBJ and outlying communities.

4.1.7. Undertake a comprehensive port facilities feasibility study.

4.1.8. Coordinate activities with appropriate state and federal transportation agencies and the private sector to determine priority, timing, interagency roles and responsibilities, and funding.

4.1.9. Encourage early and meaningful public participation in transportation decision-making processes.

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. This makes transportation facilities comparatively more expensive than in other areas where arterials can serve more homes or businesses per mile of length. Traffic congestion caused by community growth and tourism-related activities has increased in the downtown area and other corridors in the borough. The CBJ has identified a general list of transportation-related problems which include:

? Defining the nature and scope of the downtown transportation needs which result in poor circulation and parking problems.

? Current transportation facilities are inadequate to support increased development of north and west Douglas Island.

? Traffic congestion at 10th Street and Egan Drive, and Douglas Highway on the Douglas side of the Juneau-Douglas Bridge.

? A shortage of marine industrial port facilities which limits the number and type of services that can be located in Juneau.

? Traffic congestion and safety considerations for the Glacier Highway through the Lemon Creek area and Sunny Point Intersection/Access.

? Traffic congestion in the vicinity of Mendenhall Mall and Vintage Park.

? Increasing traffic congestion and vehicular and pedestrian conflicts in the downtown area especially during the summer tour season.

? Incomplete and dangerous bike routes.

? Street marking technology which is inadequate for Juneau's climate.

Juneau's public transit system is patronized heavily by state and federal office workers commuting between downtown Juneau and the Mendenhall Valley. The system currently accommodates approximately 8 to 10 percent of the commuter work force in the downtown area. The system has the potential of displacing a substantial portion of the total vehicular trips made in the CBJ. A number of recommendations from the Capital Transit Detailed Development Program, 198% 1992 are being considered to improve the quality of service and to increase ridership.

Previous investigations made by both DOT&PF and the CBJ for rail transportation of commuters between the Mendenhall Valley and the downtown indicated that this was not economically justifiable. However, the provision of a dedicated commuter lane on Egan Drive is a feasible, less costly, alternative which can provide much better transit service without requiring additional land for right-of-way.

Improved pedestrian and bicycle movement within and between major concentrations of population is needed to provide an alternative to 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.

Private barge docks in downtown Juneau are not conveniently accessible to the Mendenhall Valley, the center of commercial and residential growth in the CBJ. North Douglas Island has

been identified as a possible location for new freight facilities, but this is feasible only if a second channel crossing is built. Cruise ship moorages also require improvement and expansion. 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 Harbor Board was formed by the Assembly to oversee new development projects. Emphasis has been placed on improving facilities to serve the fishing fleet and promote local fish processing as well as providing facilities and services to recreational mariners.

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, the region's employment, cultural, and tourist center.

POLICY 4.2. IT IS THE POLICY OF THE CBJ TO PROMOTE A BALANCED, WELL-INTEGRATED LOCAL TRANSPORTATION SYSTEM WHICH PROVIDES SAFE, CONVENIENT AND ENERGY EFFICIENT ACCESS AND FACILITATES THE MOVEMENT OF COMMODITIES.

Implementing actions:

4.2.1. Urge formation of a Transportation Advisory Committee and enhance CBJ staff capability to address long- and short-range planning issues related to surface, marine, and air transportation for the borough.

4.2.2. Develop a list of needed roadway improvements according to priority, cost, and potential funding, and incorporate it into the CBJ's capital improvement plan and ISTEA Statewide Transportation Improvement Program Needs list. Potential road corridors in the Mendenhall Valley/Auke Bay and on Douglas Island are illustrated on the Comprehensive Plan maps.

4.2.3. Develop an overall intermodal transportation plan for the CBJ.

4.2.4. Develop an agreement between the CBJ and the Alaska Department of Transportation that spells out the responsibilities for planning, construction, maintenance and ownership of roads within the CBJ.

4.2.5. Require dedication of all needed rights-of-way. Obtain commitments to construct local and collector roadway improvements from private developers when projects are approved.

4.2.6. Review and implement adequate development standards in subdivision and other development ordinances to facilitate vehicular traffic and provide safe pedestrian and bicycle access.

4.2.7. Designate corridors for planned and potential roadways on the Comprehensive Plan 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 rights-of-way for planned or potential roadways are reserved when development proposals are reviewed and approved.

4.2.8. Urge DOT&PF to adopt detailed and comprehensive improvement plans for roadways under state jurisdiction. These plans should include clear goals and intentions for each roadway corridor and be developed through a public process.

4.2.9. Prepare and adopt a classification ordinance and map identifying the existing and/or proposed level of use for each street in the CBJ within the following categories:

Arterial. A street intended to carry large volumes of traffic at steady speeds with minimum interruptions to traffic flow, generally connecting with collector streets and major traffic generators within the area.

Collector. A street which forms the boundary of major blocks of land, is intended primarily for inter-neighborhood traffic, connects neighborhood local road systems to arterials, and is often a feeder road to commercial areas from the arterial system.

Street designed to provide vehicular access to abutting properties and discourage through-traffic.

4.2.10. Evaluate DOT&PF design concepts and endorse an accelerated schedule for improvements of the intersection near Sunny Point.

4.2.11. Encourage the upgrading of Thane Road with that portion from Taku Smokeries to the CBJ Sewer Treatment Plant as the highest priority, and from the CBJ Sewer Treatment Plant to Sheep Creek next in priority. All reconstruction of Thane Road should include pedestrian and bike lanes.

4.2.12. Urge more frequent painting or use of more durable marking material for crosswalk and street demarcation.

4.2.13 Evaluate the motor vehicle and pedestrian access to the Juneau International Airport including ingress, egress, parking, and non-airport traffic flow. Consider methods for routing non-airport traffic through alternative arterials.

Alternative Means of Transportation

Despite its contribution to congestion, air pollution, expense, and inefficient use of energy, the private automobile remains the favored mode of transportation in the CBJ. To minimize these problems, the CBJ can 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 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. Improved pedestrian

access should greatly enhance the use of the downtown core area by local employees, shoppers and tourists.

POLICY 4.3. IT IS THE POLICY OF THE CBJ TO PROMOTE AND FACILITATE TRANSPORTATION ALTERNATIVES TO AUTOMOBILES AS A MEANS OF REDUCING CONGESTION AND AIR POLLUTION AND CONSERVING ENERGY.

Implementing actions:

4.3.1. Continue implementation of the Capital Transit Development Program.

1. Expand Capital Transit to provide holiday service.

2. Provide additional bus service during peak hours to the Mendenhall Valley and Douglas.

3. Implement new marketing programs to increase mass transit ridership.

4.3.2. Explore the feasibility of a downtown shuttle service and a Mendenhall Valley shuttle service linked by express buses. Consider using vehicles with alternative fuels.

4.3.3. Evaluate the provision of park-and-ride service.

4.3.4. Evaluate reinstitution of a CBJ-supported carpool program.

4.3.5. Develop employee incentives to use alternative modes of transportation which will not require the use of parking spaces in the Downtown area. Specifically establish such a system for CBJ employees to set a good example for other government and private sector employers.

4.3.6. Provide bus shelters and turnouts pursuant to the 1994 "Bus Passenger Shelter Design and Location Study."

4.3.7. Require bicycle and pedestrian paths, preferably separated from automobile traffic, in all new growth areas and planned unit developments. 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.

4.3.8. Continue to support supplementary transit service for the elderly and handicapped.

4.3.9. Provide secure bike parking facilities at public buildings and encourage them in private developments.

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

4.3.11. 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.

4.3.12. Undertake a comprehensive study in cooperation with Alaska DOT&PF to determine the feasibility of a light rail, commuter lanes, or other mass transit systems to link Downtown with the Valley. The study should also include analysis and recommendations for zoning changes to allow land use patterns to reach the population densities necessary to justify such a system.

4.3.13. Identify and establish mass transit corridors.

4.3.14. Identify pedestrian routes in the Downtown area. Include provisions for rest areas, and methods to reduce the conflicts between pedestrian, bicycle, and vehicular traffic.

Subarea Transportation Needs

As documented in the Downtown Transportation Plan prepared for the CBJ in 1987, there are several major transportation problems in downtown Juneau. Coordinated planning is needed to improve traffic circulation, accommodate additional off-street parking, increase mass transit service and facilitate pedestrian movement. These improvements support the role of downtown as a residential neighborhood and governmental, cultural, and tourist center.

For the past two decades, the Mendenhall Valley/Auke Bay Vicinity has been the most rapidly growing area in the CBJ. Future growth patterns in this area have been considered in the Mendenhall Valley Transportation Plan Update completed in 1987 with a number of changes recommended to proposed road improvements. These include deletion of the planned Jordan Creek and West Valley collectors. Also numerous improvements are recommended to upgrade existing roadways including Glacier Highway, Egan Drive and the Mendenhall Loop Road.

Existing traffic conditions on Glacier Highway in the airport commercial area are congested and improvements are necessary to allow safer and more efficient vehicular and pedestrian movement.

If north, west and/or south Douglas Island are developed extensively, major road improvements will be necessary to facilitate the movement of traffic between the island and the rest of the CBJ. These include the widening and possible extension of Douglas Highway northward or southward, construction of a parallel bench road, and/or construction of a channel crossing to the Mendenhall Valley.

During the past decade, the CBJ has commissioned studies concerning waterfront development, airport expansion and transportation conditions in downtown Juneau and the Mendenhall Valley. However, a comprehensive evaluation of CBJ-wide transportation needs has not been completed.

To insure 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 projected growth, and therefore most subject to increased congestion, include downtown Juneau, Lemon/Switzer Creek, Mendenhall Valley/Auke Bay and Douglas Island.

POLICY 4.4. IT IS THE POLICY OF THE CBJ TO RESPOND TO THE SPECIAL TRANSPORTATION NEEDS OF EACH SUBAREA OF THE BOROUGH AND TO INTEGRATE THEM INTO A BOROUGH WIDE COMPREHENSIVE TRANSPORTATION PLAN.

Implementing actions:

Downtown

4.4.1. Encourage alternative modes of transportation to downtown Juneau such as more buses (including a shuttle service), vanpools and carpools, walking and bicycling for commuters.

4.4.2. Encourage the state, federal, and local government to adopt policies encouraging staggered work hours to relieve peak hour congestion.

4.4.3. Provide additional parking and alternative transportation opportunities to support downtown office, housing, retail, recreational, and cultural activities. Specifically, the CBJ should establish a partnership with private parties, developers, nearby landowners, federal government and the state to construct a transportation terminal within the CBJ near the downtown area which will consolidate parking and offer a hub for commuter and local shuttle transit vehicles.

4.4.4. Reduce allowable on-street parking to facilitate vehicular and pedestrian circulation as off-street parking becomes available.

4.4.5. Work with the state and the private sector to provide needed parking for employees through the construction of adequate multi-level parking associated with any major office development.

4.4.6. Encourage employers to promote the use of mass transit and carpooling among their employees as an alternative to additional parking.

4.4.7. Maintain and improve design standards for new developments which facilitate pedestrian movement, particularly in the waterfront and retail core areas. Explore the possibility of providing a network of pedestrian skyways connecting major office buildings and new developments.

4.4.8. Encourage DOT&PF to provide necessary improvements to Egan Drive to allow pedestrians safe crossing and access between Aurora Harbor and the AJ Rock Dump.

4.4.9. Continue to pursue the "harbor bypass" whereby existing streets and parking lots serving Aurora Harbor, the University of Alaska Southeast Marine Technology Center, Harris Harbor and the office complexes on the south side of the mainland bridge approach can all be interconnected with a public street.

4.4.10. Continue to pursue an upgrade project for the "West Willoughby/Glacier Avenue Corridor" from Centennial Hall to the high school.

4.4.11. Evaluate pedestrian access improvements to downtown which could include a connection between Willoughby Avenue and Fourth Street.

4.4.12. Encourage DOT&PF to take steps to reduce congestion at Tenth and Egan.

4.4.13. Encourage city, state and federal employers to provide sufficient parking facilities for downtown offices.

4.4.14. Consider and adopt, where and when applicable, the findings and recommendations from the 1994 Downtown Tour Season Traffic Study.

Lemon Creek Switzer Creek

4.4.15. Locate the proposed Lemon/Switzer Creek corridor between medium and low density residential land uses where possible.

4.4.16. Evaluate the need for a route connecting the proposed corridor with Glacier Highway or Egan Drive in the vicinity of Lemon Creek or Anka Street.

4.4.17. 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.

Mendenhall Valley/Auke Bay

4.4.18. Pursue the upgrade of Glacier Highway between the McNugget intersection and the Loop Road.

4.4.19. Undertake transportation improvements within Auke Bay to accommodate additional demand resulting from the construction of the ferry terminal, boat marina, and other facilities, as well as the expansion of the University of Alaska Southeast. The proposed corridor should follow the division between low and medium density residential uses where possible.

4.4.20. Evaluate a corridor re-alignment of Glacier Highway from its intersection with UAS to Auke Bay. Encourage a new driveway for UAS that avoids the Auke Lake Wayside and minimizes adverse traffic impacts.

4.4.21. 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.

Douglas Island

4.4.22. Locate potential road corridors in Douglas/West Juneau between low and medium density residential uses where possible.

4.4.23. Renew municipal support for construction of a second channel crossing to encourage use of north and west Douglas Island. Evaluate the economic, environmental, and engineering feasibility of a channel crossing to the Mendenhall Valley.

4.4.24. Designate corridor extensions of Douglas Highway access to the west and south sides of the island to serve potential sites of new growth.

4.4.25. 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.

Rural

4..4.26. Develop a review procedure for the siting of dock facilities outside the waterfront districts.

4.4.27. Evaluate the extension of Glacier Highway northward into Berners Bay to enable a marine terminal in Berners Bay that could accommodate the Kensington and Jualin Mines and the Alaska Marine Highway System and provide benefits to other maritime users.

4.4.28. 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.

PUBLIC AND PRIVATE UTILITIES AND FACILITIES

Public facilities--public buildings, water service, sewer services, earth retention structures and storm drainage systems--are not only important to the health, safety and economic well-being of Juneau, but they also strongly influence future growth patterns. The development envisioned in this comprehensive plan 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 80's growth continued, gathering

momentum each year so that by 1995, residential and commercial construction is again quite significant. Despite flattening of the state budget, this level of activity could continue through the rest of the '90s because of the presence of the State Capital in Juneau, mining and tourism. A six-year capital improvements program (CIP) has been a major tool in determining the priority, timing and funding of needed facilities. The CIP should more closely reflect the recommendations in the adopted Comprehensive Plan.

Provision of Public Facilities

The CBJ generally funds improvements to the infrastructure through user fees, special assessments such as local improvement districts (LIDS), and sales tax initiatives passed by the voters. The community has also received substantial grants from the State of Alaska and the federal government, but these sources have diminished considerably in recent years. This reinforces the need for careful planning and avoiding over expansion of community services.

In 1988 funding for improvements for storm drainage commenced under a capital improvements program financed partially from sales tax revenue. An estimated $500,000 a year is being spent to improve storm drainage. As streets are reconstructed in the downtown area, storm drainage is reconstructed and separated from the sewer system. Separation and new storm drain facility construction will continue through the mid 1990's and beyond if the sales tax revenue source continues to be partially dedicated to this function.

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 level of service is not necessary in rural areas nor can it be provided 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.

POLICY 4.5. 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 OF THE CBJ.

Implementing actions:

4.5.1. Maintain an urban service boundary which defines the limits within which the full range of urban services, such as water and sewer, will be provided by the CBJ. Except for fulfilling existing commitments or serving new growth areas, such services are not to be provided elsewhere. The urban service boundary will be delineated in the Land Use Code.

4.5.2. Set standards for improvements required in new development in the CBJ, primarily new subdivisions and commercial developments, that coincide with the established Urban Service Boundary.

4.5.3. Continue to utilize the six-year capital improvements 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 and extend the CIP an additional year.

Public Water, Sewer, Storm Drainage and Retaining Walls

To support the nature and density of development envisioned in the urban service and new growth areas, enhance the quality of life, promote public health, and protect the environment, the CBJ should provide adequate water, sewer, storm drainage, and earth retention facilities. In addition to long established municipal water systems in downtown Juneau and Douglas, the area-wide water system expansion now serves the Mendenhall Valley, Lemon Creek, Auke Bay to Indian Point, and Douglas Island from the community of Douglas to the Forest Service Boundary near Fish Creek. The system now serves all of the east Mendenhall Valley, Auke Bay, and extends out Glacier Highway to serve the Lena Loop residential area. Residents further out, in the Tee Harbor area are now indicating a desire for water service. The system as designed and installed is not intended to support large demand industrial users. The supply is not adequate and the distribution system is not adequate for these types of users without substantial additional investment.

The water system as installed provides sufficient water flows and reservoir capacities in the majority of the community to qualify the community for a IS0 rating of five. Prior to the 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, Gold Creek Basin and Salmon Creek Reservoir.

Extension of public water to evermore remote locations with correspondingly lower residential density becomes extremely expensive on a per-service basis. The cost to serve residents on north Douglas and Lena Loop, for example, ranges between $30,000 and $40,000 per service and could be as low as $5,000 per service in more densely developed areas like the east Mendenhall Valley. In 1984, when residents voted on a sales tax increase to expand the water system, these cost distinctions were not part of the public discussion. Rather, an official commitment was defined by the election pamphlet which showed water service to all of the areas now served. That was the expectation when the tax election was held and that expectation has now been fulfilled. It is thus appropriate to consider cost-per-service once again in making system expansion decisions.

The Auke Bay wastewater treatment plant frequently operates over its design limit. New development in the area will tax the plant beyond its limit. A sewer line needs to be constructed from the Mendenhall Wastewater Treatment Plant out to Auke Bay and the Auke Bay plant converted to a lift station in the immediate future.

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, cannot 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 existing municipal systems is likely to be the most economically and technically feasible alternative. In new growth areas, some distance from municipal systems, a packaged or community-wide sewage treatment is appropriate. In the early 90's, 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.

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 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.

The Urban Service Boundary is intended to clearly demarcate the extent to which urban services will be extended and is shown on the Comprehensive Plan 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 Urban Service Boundary 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 concept and resist extension of urban services beyond the boundary.

POLICY 4.6. 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 BOUNDARY, WHICH LACK SUCH SERVICE.

Implementing actions:

4.6.1. Amend the Land Use Code to specify that no urban service, specifically sewer, and storm drainage, will be provided by the CBJ in any location beyond the Urban Service Boundary and that the CBJ water system will not be extended beyond its 1995 configuration. Extensions should only be considered after a decision has been made to expand the boundary.

4.6.2. Coordinate public services and facilities and assist private developers to identify state sources of technical information and funding.

4.6.3. Request the Alaska Department of Environmental Conservation to improve its regulation of on-site sewage disposal in the CBJ and provide assistance to their program to identify and monitor existing systems within the CBJ or to transfer this function to the CBJ with sufficient resources to enable an adequate transition.

4.6.4. Develop plans for overall storm drainage systems, including public provision of the central drainage system within the urban service area and storm/sanitary sewer separation.

4.6.5. Implement through the capital improvements program those central storm drainage systems identified in the planning process.

4.6.6. Develop a program to prioritize the reconstruction of retaining walls within the Urban Service Boundary. Incorporate CBJ staff and Planning Commission review at the design stage to consider specific design features and impacts on the neighborhood.

4.6.7. Determine CBJ's role in development in new growth areas and decide whether public services should be publicly or privately owned and maintained.

4.6.8. Consider as a top priority connection of the Mendenhall and Auke Bay treatment plants, together with infilling of urban areas not presently serviced by city sewer.

Electrical Generation and Distribution

A substantially expanded section on energy has been added to Chapter 2 which addresses a much wider array of subjects and issues. This section is specifically aimed at the electrical system for Juneau and is included in this subject section because the network is one of the linear components essential for modern life. The privately owned Alaska Electric Light and Power Company (AEL&P) distributes electricity throughout most of the roaded area of Juneau. AEL&P buys most of its power wholesale from the federally-constructed Snettisham hydropower facility some 25 miles south of downtown Juneau, but it also generates power from hydro facilities on Salmon Creek, Annex Creek and Gold Creek. AEL&P also maintains a wide assortment of standby generating facilities when the primary hydro source is unavailable. The standby facilities include fourteen diesel generators and four jet turbine-powered generators.

POLICY 4.8. IT IS THE POLICY OF THE CBJ TO ENCOURAGE THE PROVISION OF AN ADEQUATE SUPPLY OF HYDROELECTRIC POWER TO PROVIDE FOR THE CONTINUED GROWTH AND DEVELOPMENT OF THE COMMUNITY.

Implementing actions:

4.8.1. Encourage the continued development of hydroelectric power generating facilities to provide for future community needs.

PUBLIC AND SEMI-PUBLIC SERVICES

This section focuses attention on the service and program aspect of the services discussed below. This section addresses physical services that any community requires in order to function. The next subject section addresses cultural services and needs.

Solid Waste

Disposal of solid waste is an essential community service. Assurance that solid waste disposal occurs in an aesthetic, safe and environmentally-sound manner is in the public interest. Local government frequently provides solid waste disposal services, directly with its own personnel, or indirectly with a contractor. Juneau's solid waste services are currently provided by the private sector, with the exception of the household hazardous waste program.

Heightened concern about environmental impacts of solid waste landfills have resulted in more stringent federal standards for siting, operating, and closing landfills. This trend has resulted in greater costs in constructing new, and managing existing landfills. Nationwide, there is increasing emphasis on developing integrated waste management systems in which waste reduction and recycling are preferred over traditional waste disposal options of incineration and landfilling.

In the last several years, the CBJ has taken an active role in addressing solid waste issues and developing alternatives for recycling, waste stream reduction, and hazardous waste disposal, and in conducting a formal study for new landfill sites. The CBJ has conducted or been involved with a number of other studies related to solid waste disposal. The CBJ is also in the process of evaluating the Lemon Creek area (CBJ land) for possible development, including landfill and recycling facilities. Solid waste disposal is an essential service in any community.

POLICY 4.9. IT IS THE POLICY OF THE CBJ TO PROMOTE EFFICIENT, SAFE AND ENVIRONMENTALLY SOUND METHODS FOR THE DISPOSAL OF SOLID WASTE.

Implementing actions:

4.9.1. Reserve the top two candidate landfill sites (and a buffer surrounding them) which were identified in the October 1993 "Technical Reconnaissance Study for New Landfill Site Selection," by designating those sites public/institutional in the Comprehensive Plan.

4.9.2. Prepare and adopt a solid waste management plan that presents a methodology for implementing an integrated waste management system.

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

4.9.4. Continue to explore alternative disposal methods, including recycling, energy recovery, and/or compaction to reduce the quantity of solid waste requiring landfilling.

Police Protection

Many changes have occurred with regard to police protection in Juneau. A three-phase process starting in 1986 resulted in area-wide responsibility of enforcement activities shifting from a combination of Juneau Police Department/State Troopers to mainly JPD. July 1, 1993 was the beginning of Phase III. Full police protection of CBJ became JPD's responsibility. The Juneau Police Department has forty-five commissioned officers and twenty-five records and dispatch personnel. The State Troopers are still 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.

In the mid-1990s, JPD completed installation of the "enhanced 9-1-1 system" and improved their internal computerized records management and computer dispatch system. The enhanced 9-1-1 system provides JPD dispatch or the PSAP (Public Safety Answering Point) the telephone number of the calling party, name and address to which the number is designated, name of business, building name, cross street information, phone type. It also provides that location to the proper primary and secondary law enforcement, fire, emergency medical service, and other special emergency services (i.e., Poison control, TTD service, Foreign Language service). The CBJ is preparing a conceptual design for a new public safety building. This building will replace the inadequate facilities which currently house the JPD. A new police facility and the addition of centralized communication will increase efficiency and effectiveness of the JPD.

POLICY 4.10. IT IS THE POLICY OF THE CBJ TO PROMOTE ADEQUATE AND EFFICIENT POLICE PROTECTION FOR THE COMMUNITY.

Implementing actions:

4.10.1. Encourage and support coordination of services between state, federal, and local police.

4.10.2. Develop and review the strategic location of police and fire facilities including a plan for centralized dispatch of all emergency and essential services.

4.10.3. Continue with the planning effort to design a centralized public safety facility. Proceed with efforts to secure funding for the facility so it becomes reality.

4.10.4. Update and improve JPD's computerized dispatch and record keeping systems to increase efficiency.

4.10.5. Maintain enhanced 9-1-1 system.

4.10.6. Continue to improve computerized integration of JPD and CDD and other CBJ departments.

Fire Protection and Emergency Services

Fire protection is a fundamental and basic community service 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 fire 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. In 1992, the fire and emergency medical service, borough-wide was given the name Capital City Fire and Rescue or CCFR.

The CBJ had been divided into eight fire protection districts and five semi-autonomous fire departments prior to 1994. Consolidation of the fire service into one department took place in April 1994. A Joint Chiefs committee was established as an advisory committee to the Assembly to represent each fire department.

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.

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 advanced cardiac life support level. Rescue squads in volunteer departments are an integral part of this service and augment the paid staff. The department has a Dive Rescue Team available as a quick response team for water-related emergencies.

CBJ staff from various departments are undergoing training to form a CBJ Crisis Management Team (CMT). The role of the CMT is to respond to a major incident that exceeds the capabilities of the fire department and assume command and control. The team functions within the scope of the Incident Command System.

POLICY 4.11. IT IS THE POLICY OF THE CBJ TO PROMOTE ADEQUATE AND EFFICIENT FIRE PROTECTION AND FIELD EMERGENCY MEDICAL CARE FOR ALL CITIZENS. IT IS FURTHER THE POLICY OF THE CBJ TO ESTABLISH AND MAINTAIN AN INCIDENT RESPONSE ORGANIZATION TO RESPOND TO LARGE-SCALE EVENTS AND DISASTERS.

Implementing actions:

4.11.1. Continue the program to provide standardized training, procedures, equipment and response to all fire stations.

4.11.2. Determine adequate and efficient fire protection by conducting a fire hazard analysis, fire flow requirement analysis, and resource requirements.

4.11.3. Review and recommend changes in the Fire Code to reduce fire hazards and life and property loss.

4.11.4. Design and implement a public fire education program to reduce life and property loss.

4.115. Develop a plan for the Southeast Regional Fire Training Center to provide extended training programs to the CBJ and the southeast region.

4.11.6. Determine the level of pre-hospital emergency medical services the fire department should provide.

4.11.7. Complete organization of CBJ Crisis Management Team. Conduct two training programs and two exercises each year. At least one of the exercises should be a "wheels-rolling" mock disaster.

4.11.8. Develop and implement a plan for a centralized dispatch system with other essential agencies, i.e., Juneau Police Department, Alaska State Troopers.

4.11.9. Complete preparation of a plan for emergency response to a hazardous materials incident (Community Right to Know).

Medical and Social Services

High-quality medical and social services are important amenities of urban life. In addition to the municipally-owned Bartlett Memorial Hospital, the CBJ operates mental health and chemical dependency treatment centers. 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. Continued provision of quality services is an important goal of the CBJ.

Bartlett Memorial Hospital, although municipally-owned, is operated by an independent management firm. A recent expansion has made major improvements to the radiology, physical therapy, admitting, emergency room, and surgery facilities. This is intended to meet the needs of the community for a number of years. However, the hospital Board of Directors has initiated a master-planning effort for the campus area of the hospital. This 1994 draft plan shows substantial expansion of the hospital itself, development of a go-bed nursing home, and development of other facilities including a road extension to improve access. Many of the projected buildings would be built by private medical organizations or by other CBJ departments under the hospital master plan.

The goal of providing quality social services remains of great importance. During 1994, alternative methods for administering medical and social service programs have been debated. At

this time it is not apparent that administrative changes in providing services would change the stated general policy regarding social services. A CBJ-sponsored health care task force was initiated in mid-1994 to address administrative questions and other issues.

The CBJ Health and Social Services Department is presently headquartered in an inadequate building that was bought by the CBJ and converted from its original form. The structure is decaying and frail, subject to a leaky roof and not adequately soundproofed for counseling. Funds have been requested to rehabilitate this building.

POLICY 4.12. IT IS THE POLICY OF THE CBJ TO PROMOTE QUALITY MEDICAL AND SOCIAL SERVICES IN THE CBJ.

Implementing actions:

4.121. Designate adequate land adjacent to Bartlett Memorial Hospital on CBJ lands to accommodate expansion of hospital/support medical facilities.

4.12.2. Continue to provide public funds for programs for the indigent and for high risk groups such as youth and the elderly .

4.12.3. Rehabilitate the existing Health and Social Services Department building.

4.12.4. Review and approve a master plan presented by the Hospital Board for the hospital campus as a component of the Comprehensive Plan.

4.12.5. Promote the establishment of a voluntary Juneau Health Care Alliance as a forum for public and private health care providers to communicate and cooperate among themselves and to provide a voice in administrative, legislative, judicial, and general matters that may affect the professional practices of health care providers and the services received by consumers.

CULTURAL SERVICES AND AMENITIES

Schools

Schools are among the most important public services society provides for its citizens. Not only are they the centers of learning for our children, they are also important focal points for all kinds of 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 1995, the Juneau Public Schools serve 5,400 students in a senior high, two middle schools, and five elementary schools. A sixth elementary school is planned to be built in Dimond Park to serve the mid-valley area. One of the most urgent decisions that must be made in this process is to determine whether the District will build a second high school that is a complement to the

existing high school, thus having a two-school system or whether the new school will completely replace the existing school.

School district building programs are coordinated with the CBJ's Department of Community Development and with the Parks and Recreation Department. Joint planning efforts are beneficial, particularly as population shifts and growth results in excess classrooms in some portions of the CBJ. As an alternative to school closures, these facilities could be used for other community functions such as adult education, senior citizen centers, day care facilities or community recreational/ cultural facilities.

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 more full-time students will create pressure in the area for additional support services such as 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, WAS) offers educational and technical training to Juneau's population.

POLICY 4.13. IT IS THE POLICY OF THE CBJ TO SUPPORT AND FACILITATE A STRONG SYSTEM OF HIGH QUALITY PUBLIC ELEMENTARY, SECONDARY, AND HIGHER EDUCATION IN THE CBJ WHICH WILL ENABLE ALL STUDENTS TO BECOMF, WELL EDUCATED, INFORMED CITIZENS WHO UNDERSTAND AND APPRECIATE DIVERSE CULTURES AND WHO ARE EQUIPPED TO PURSUE FURTHER EDUCATION AND COMPETE SUCCESSFULLY IN THE WORK FORCE.

Implementing actions:

4.13.1. Develop and implement a joint CBJ/School District school facility site identification process in accordance with projected growth.

4.13.2. Recognize student needs for pedestrian safety and a quiet environment conducive to learning in land use and transportation decisions made by CBJ. 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.

4.13.3. Wherever practicable, centrally locate elementary school sites in their service areas. Site selection should consider the needs and impacts of bus and other traffic.

4.13.4. Locate middle schools on or near a collector or minor arterial to minimize the impact of bus and other vehicular traffic.

4.13.5. Locate high schools to be readily accessible to both pedestrian and vehicular traffic via major or minor arterials.

4.13.6. Planning for school facilities should take into account potential community use for educational, recreational and cultural purposes and facilitate after-hours use of these facilities by adults. Conversely, planning for parks, recreational facilities, cultural facilities, and libraries should account for possible instructional uses.

4.13.7. Evaluate existing facilities for possible expansion if they are determined to need additional outdoor space for physical education and for parking.

4.13.8. Plan school facilities to accommodate other services to students and their families which may be necessary and appropriate to address societal factors which interfere with learning such as medical and counselling facilities.

4.13.9. Review with the School District any proposal to dispose of CBJ-owned land or equipment to determine if there are impacts on or opportunities for the District.

4.13.10. Continue to work closely with the staff of UAS in detailed planning for the Auke Bay area which considers the on and off-site impacts and requirements associated with UAS expansion. This should include impacts on existing and planned elementary or secondary school campuses.

4.13.11. Work cooperatively with UAS to ensure that new UAS facilities are planned and sited to enhance their availability to the citizens of Juneau.

4.13.12. Continue to coordinate and cooperate with UAS in the development of UAS infrastructure, housing, vehicular and pedestrian access, trails, the future recreation facility, and other such additions to UAS which contribute to a successful learning environment.

4.13.13. Incorporate Planning Commission review of the siting of public, parochial and private schools.

4.13.14. Encourage the Juneau School District to establish high standards for curriculum content, and other factors contributing to a high quality of education for all of Juneau's students.

Libraries

The Juneau Public Libraries provide materials and services to help community residents of all ages obtain information meeting 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 two branches in 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 waterfront. Six thousand additional

square feet is available for expansion on that site. Future plans for waterfront development should make this location increasingly central.

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 in a 7,250 square-foot leased storefront. Space and electronic needs in the next ten years are likely to require construction of a new building to serve the community. Land in the Mendenhall Valley Community Park site has been identified for this purpose.

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 Juneau, as Alaska's Capital City, a destination for Internet users worldwide.

POLICY 4.14. IT IS THE POLICY OF THE CBJ TO SUPPORT AND FACILITATE THE PROVISION OF FREE ACCESS TO LIBRARY FACILITIES AND SERVICES.

Implementing actions:

4.14.1. Identify and pursue local, state and federal funding sources for library services.

4.14.2. Provide support to the Library such that each library facility provides consistent and reasonable public service hours.

4.14.3. Continue resource-sharing and electronic networking efforts to provide for the most efficient, far-reaching and cost effective library services for the CBJ.

Arts and Humanities

Residents of the City and Borough of Juneau 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.

It appears that 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 could encourage growth in the arts and humanities as a potentially significant economic as well as cultural element in the capital city.

As indicated in a report prepared for the Juneau Arts and Humanities Council and Juneau Economic Development Council in 1988, the arts industry plays a significant role in the Juneau economy. Improvements in the cultural environment, including some additional facilities for cultural activities, may enhance the economic benefits this sector has on the community. 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 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. Particularly as the capital city, Juneau'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 potential of the built environment should be promoted. In the Downtown Historic District, emphasis is well placed on respecting the historic character of the area. In other central and visible areas less restrictive standards are appropriate. Related policies are found in the section pertaining to design review.

POLICY 4.15. IT IS THE POLICY OF THE CBJ TO CONTINUE ITS SUPPORT OF THE ARTS AS A VITAL ELEMENT OF COMMUNITY LIFE, AND TO RECOGNIZE THE IMPORTANT ROLE THAT THE ARTS PLAY IN THE CULTURAL, SOCIAL, AND ECONOMIC WELL-BEING OF THE COMMUNITY. IT IS FURTHER THE POLICY OF THE CBJ TO STRENGTHEN ITS ROLE AS A REGIONAL CULTURAL RESOURCE TO THE COMMUNITIES OF SOUTHEAST ALASKA.

Implementing actions:

4.151. Continue to require that at least one percent of the construction, remodeling or renovation costs of a public facility be reserved for public art.

4.15.2. Maintain and further develop the municipal art bank as a collection of art and artifacts that depict the history of Juneau, its people, wildlife and natural setting. The CBJ shall secure a stable source of funding for maintenance and repair of the public art collection in the art bank.

4.15.3. Continue to make funds available to individual artists and arts organizations through the CBJ's designated arts agency, the Juneau Arts and Humanities Council.

4.15.4. Through the designated arts agency, continue to provide the community with technical assistance, reference and resource material, and rental equipment including a concert grand piano, professional dance floor, acoustic shell, theatrical lights, display panels, and portable sound equipment.

4.155. Co-sponsor summer weekly concerts in Marine Park.

4.15.6. Maintain fee schedules for all non-profit arts organizations for CBJ facilities including Centennial Hall and the High School Auditorium that are related to actual costs of using the facilities, but not more than approximately 50 percent of the regular fee schedule.

4.15.7. Through the Capital Improvement Program, promote the expansion of facilities for a wide variety of cultural activities including performing and visual arts. Such facilities shall be developed at an appropriate site or sites, such as an expansion of Centennial Hall or as a part of a larger Centennial Hall or community center complex, or, in cooperation with the University of Alaska, as part of the university campus.

4.15.8. Promote the development of neighborhood cultural centers or other appropriate opportunities for cultural expression and participation.

4.15.9. Promote purchase of durable art for CBJ.

4.15.10. Strengthen its Design Review District/Downtown Historic District standards and site development standards to prevent degradation of and to enhance the visual environment.

4.15.11. Establish a program to encourage the use of professional design services for projects having or likely to have a significant visual impact. The program should include recognition, as by annual awards, of outstanding building, landscape, and other appropriate design.

4.15.12. Support facilities, institutions organizations and individual artists, that enable the CBJ to maintain its regional stature.

4.15.13. 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.

Parks and Recreation

The forms of recreation chosen by residents and visitors in Juneau 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 and dispersed recreation where improvements are limited to trail systems and perhaps destination cabins. It should be recognized that providing a broad range of recreational experiences involves a cooperative effort between the local, state and federal government.

In 1995 the Parks and Recreation Department will be updating their long range plan. The results of this effort should be adopted as part of this plan. The "Juneau Area Recreation Plan" (1982), contained the following recommendations:

1. Designate appropriate municipal lands for recreation.

2. Develop a Mendenhall Valley indoor recreation facility.

3. Acquire land on the west bank of the Mendenhall River as recreational open space.

4. Develop cooperative agreements with state and federal government for management of U.S. Forest Service land and state tidelands.

In planning for the dispersed portion of recreational opportunities, the CBJ Parks and Recreation Department has worked closely with the State Division of Parks and Outdoor Recreation, the U.S. Forest Service, the National Park Service, multiple citizen groups and individuals to produce a vision document called the "Juneau Trails Plan" (1992). As a comprehensive evaluation of all the trails in the Juneau 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 Forest Service has officially adopted the plan, and it is to be approved by the Alaska Division of Parks as well. The Parks and Recreation Advisory Committee has unanimously endorsed it. The general nature of the plan and its long term look at trail related issues makes it an appropriate document to include as a component of the Comprehensive Plan.

In recent years, there has been increasing commercial use of public trails in connection with the burgeoning tourist population. This use appears to be accelerating, and there seems to be increasing acceptance of the need to regulate this use so as to protect the resource and the quality of the recreation experience for local residents and tourists alike.

There is a lack of adequate neighborhood and community parks and facilities in major areas, including the Mendenhall Valley and Lemon Creek. While recreational programs are in great demand in Juneau, the number of facilities to support these programs is insufficient. Planning underway by the CBJ Parks and Recreation Department 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, hosts 45,000 skier visits annually. Of that number, about 92 percent are local residents. The average number of skiers per day has been increasing steadily. Eaglecrest is an important winter recreational resource to many Juneau families. The ski area would benefit from the provision of electrical power from Juneau's existing electrical grid. It is believed that the second channel crossing would increase skier visits.

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. As appropriate, other sources of funding should be investigated.

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.

POLICY 4.16. IT IS THE POLICY OF THE CBJ TO CONTINUE PROVIDING 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.

Implementing actions:

4.16.1. Adopt the "Juneau Trails Plan" (1992), as an addendum to this plan.

4.16.2. Develop a long-range plan for parks and recreation land management and acquisition, facility development and maintenance, program development and provision of services.

4.16.3. Develop a map layer that clearly labels developed or designated open space, parks, and beach access routes.

4.16.4. Pursue funding for acquisition and development of parks and recreation facilities through the CBJ Capital Improvements Program, state legislative process, and federal funding opportunities.

4.165. 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 value of the resource when establishing a commercial user fee.

4.16.6. Develop parks and recreation facilities, for both urban level and dispersed recreation, based on Juneau's unique characteristics, needs, and traditions. In developing dispersed recreation opportunities such as wildlife viewing areas and increased sport fishing opportunities, recognize the importance of habitat and sensitive area protection.

4.16.7. 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.

4.16.8. Encourage development of additional facilitites and provision of electric power from Juneau's existing electrical grid to Eaglecrest ski area.

4.16.9. Cooperate with the State of Alaska and the U.S. Forest Service to encourage the establishment of recreational and open space facilities and areas.

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

4.16.11. Revise the subdivision code to provide a mechanism for designation of land for public purposes.

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

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

Open Space

Open space is an essential component of Juneau's community form and identity. It should be maintained and enhanced, especially in relation to future development. Shoreline areas are a major coastal resource, which also function as valuable natural recreational resources. Most are publicly owned.

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. Area for a Mendenhall Valley recreational facility has been accommodated in the Dimond Park plan.

The CBJ should maintain awareness of and educate the public of, the importance of open space in land use and development decisions. Valuable habitat areas within the CBJ require retention of vegetation and water resources. Inadequately regulated development degrades scenic resources. The quality of residential developments is enhanced by standards and policies to preserve open space.

Demand for outdoor recreational opportunities is related to tourism and residential growth. Tourism is increasing at an estimated rate of 10 to 15 percent annually.

POLICY 4.17. IT IS THE POLICY OF THE CBJ TO PRESERVE AS PUBLIC OPEN SPACE PUBLICLY-OWNED LANDS AND SHORELINE AREAS WHICH POSSESS IMPORTANT RECREATIONAL, SCENIC, WILDLIFE, AND OTHER ENVIRONMENTAL QUALITIES OR ARE SUBJECT TO NATURAL HAZARDS.

Implementing actions:

4.17.1. Designate public areas and sites recommended in the "Juneau Area Recreation Plan" for permanent public access and use. Work toward acquiring such privately-owned land through

dedication, donation or purchase. Develop legal descriptions and revise the zoning map accordingly.

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

4.17.3. Encourage relevant state agencies to adopt open space management policies for state land and tidelands indicated in the "Juneau Area Recreation Plan." Initiate cooperative management agreements proposed in the plan.

4.17.4. Where regulatory actions are inappropriate, acquire easements through dedication, donation, or purchase through privately-owned streamside lands and other areas indicated in the "Juneau Area Recreation Plan."

4.17.5. Amend the Land Use Code relating to subdivision and planned unit development ordinances to strengthen open space requirements in residential development.

4.17.6. Revise the Land Use Code to establish special approval procedures to prevent conflict between water-dependent or water-related uses and areas designated as open space.

4.17.7. Designate corridors along streams and rivers on CBJ, state, and federal land as identified in Appendix B. These corridors may vary in size depending on topography and surrounding uses, but should be more than 50 feet and less than or equal to 200 feet from the ordinary high water mark on both sides of the stream or river.

4.17.8. Designate corridors along recreation trails on CBJ, state and federal land. These corridors may vary in size depending on topography and surrounding uses.

Historic And Cultural Resources

Juneau is rich in history. Tlingits lived in the area long before the city was founded by Richard Harris and Joe Juneau. The CBJ possesses historic and archeological resources from Native, Russian, early American, and other ethnic cultures which should be protected. Current documentation lists 300 to 400 buildings that were built before or during the first quarter of this century. Uncounted numbers of historic sites and structures throughout the borough await documentation. The CBJ has many commercial and residential structures that are significant turn-of-the-century architecture.

It is in Juneau's best interest to preserve the historic and cultural diversity of the community. Juneau has been one of the most active communities in Alaska in its historic preservation efforts. The historic preservation program has been important in the development of Juneau as a tourist destination and for enhancing Juneau as Alaska's Capital City. It is important for the visitor to Juneau and the local residents to have access to accurate depictions of the unique history of the area.

The existing policy on historic resources is a basic good start toward recognizing and protecting valuable historic resources. However, a Historic and Cultural Preservation Plan should be developed for the CBJ which would identify future preservation activities and integrate them into broader community and land use planning efforts. Such a plan would provide further direction for planning decisions and encouragement for enhancing the historic features of Juneau. Heritage tourism has been shown to be a viable economic asset to many communities. Juneau's Downtown Historic District is recognized around the state and regionally as a fine example of early twentieth-century northwestern architecture.

While the downtown Historic District is certainly Juneau's showcase, other parts of the community contain rich historic resources as well. The historic buildings of the original Juneau Townsite, Chicken Ridge, Starr Hill and Casey-Shattuck neighborhoods represent various periods in Juneau's history. These buildings are worthy of preservation. The general character of Juneau as a whole is enhanced by the very existence of these historic neighborhoods. Owners of historic buildings should be educated, encouraged, and assisted in the preservation of these important features in the community.

POLICY 4.18. IT IS THE POLICY OF THE CBJ TO IDENTIFY AND PROTECT HISTORIC AND ARCHEOLOGICAL RESOURCES; TO EDUCATE, ENCOURAGE AND ASSIST THE GENERAL PUBLIC IN RECOGNIZING THE VALUE OF HISTORIC PRESERVATION; AND TO PROMOTE HERITAGE TOURISM WHICH ACCURATELY REPRESENTS JUNEAU'S UNIQUE NATIVE ALASKAN, RUSSIAN, EARLY AMERICAN AND OTHER CULTURES.

Implementing actions:

4.18.1. Identify appropriate regulatory measures to protect identified historic resources. These may include special review of proposed changes, development standards, tax concessions and other measures.

4.18.2. Educate local citizens and visitors to the community about Juneau's unique and diverse ethnic heritage, through publications, museum development, interpretive exhibits, and other measures.

4.18.3. Encourage owners of significant historic properties to maintain them in the original character through tax incentives, recognition programs and other funding measures.

4.18.4. Assist owners of significant historic properties who wish to maintain the original character of the property with the development of design guidelines, design information, building code provisions and other measures.

4.18.5. Expand and improve the Historic District Standards to assure that the unique architectural character of the Downtown Historic District is preserved and enhanced.

4.18.6. Encourage property owners to take steps to lessen the threat of catastrophic fire.

4.18.7. Educate vendors of on-shore excursions about Juneau's unique heritage, including the Native Alaskan, Russian, and early American cultures, through workshops, publications, and other measures.

4.18.8. Reward vendors of on-shore excursions who participate in appropriate training workshops and demonstrate the ability to deliver accurate depictions of Juneau's unique and diverse ethnic heritage with recognition, official certification, and other measures.

4.18.9. Continue to support and maintain the Juneau Douglas City Museum as a repository for heritage materials and information held in the public interest.

4.18.10. Develop interpretive materials for placement throughout the community that inform locals and visitors about the unique and diverse ethnic heritage of the area.

4.18.11. Revise and expand the Juneau Historical Preservation Strategy to become a Historic and Cultural Preservation Plan that sets forth goals and objectives for organizing preservation activities and integrating preservation into broader community and land use planning efforts outlining tasks, area specific surveys, and grant funding sources.

4.18.12. Complete the inventory of historic resources and evaluate historical significance and relative value of each resource.

CHAPTER 5.

LAND USE

The land use policies implement important decisions relating to community form, housing, economic and community development, and natural resources and hazards (Chapters 2 and 3). They also are the basis for the land use maps in Chapter 6. In this section, land use policies are divided into two major categories: residential, and commercial/industrial. Policy for open space, recreation, parks and historic resources appear in the preceding chapter and also have effect on the land use maps in Chapter 6.

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 zoning code, subdivision regulations, permit processes, and capital improvements program (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, streets, schools, utilities, 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, pursue opportunities for suitable economic development, and promote conservation and rational development of natural resources.

There are about 57,600 acres of vacant land in the study area. Of this land, 6,200 acres are in private ownership, with 3,470 acres of the private holdings located within the more remote RR designation. With nearly level projected population growth in the next ten years, there is no shortage of developable land although these figures do not account for wetlands, steep slopes or other development limitations such as distance from urban infrastructure. The policies which follow are designed to guide decisions about its appropriate use--whether for near-term development, to be managed as long-term natural resource, to be retained as open space, or to be reserved for future uses.

RESIDENTIAL USE OF LAND

Residential Land Availability and Density

A substantial revision of land zoned for residential uses was accomplished in 1988 to bring the zoning map into conformance with the 1984 Comprehensive Plan.

Availability of lands for residential use should continue to be monitored and adequate public service and facilities provided to accomplish the objectives of assuring available, affordable housing for all income levels and household types in the CBJ.

POLICY 5.1. IT IS THE POLICY OF THE CBJ TO FACILITATE AVAILABILITY OF SUFFICIENT LAND WITH ADEQUATE PUBLIC FACILITIES AND SERVICES FOR A RANGE OF HOUSING TYPES AND DENSITIES TO ENABLE THE PUBLIC AND PRIVATE SECTORS TO PROVIDE HOUSING OPPORTUNITIES FOR ALL CBJ RESIDENTS. IT IS FURTHER THE POLICY OF THE CBJ TO ALLOW GREATER FLEXIBILITY AND A WIDER RANGE OF CREATIVE SOLUTIONS IN LAND DEVELOPMENT BY ENCOURAGING SUCH TECHNIQUES AS PLANNED UNIT DEVELOPMENT AND CLUSTER HOUSING.

Implementing actions:

5.1.1. Monitor land use designations to insure sufficient land available to meet projected needs for residential development in areas with existing or projected arterial access, public transit service, and other adequate public facilities and services.

5.1.2. Designate sufficient land on the Comprehensive Plan Maps and zoning maps to provide for a full range of housing types and densities desired by CBJ residents-- rural dispersed residential, rural low density residential, and low, medium and high density urban residential.

5.1.3. Continue to prepare and implement a capital improvements program for public facilities and services to serve a) existing residential areas, b) areas with potential for residential in-fill development, and c) other areas within the CBJ's urban service boundary which may be suitable for immediate residential development.

5.1.4. Use the CBJ lands as one means of providing sufficient land for residential development. 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, natural resources, open space and parks.

5.1.5. Review the existing multifamily zoning districts to see if the individual density limits could be raised.

5.1.6. Revise the Land Use Code to allow for a procedure to approve clustering of housing and planned unit developments.

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 5.2. IT IS THE POLICY OF THE CBJ TO FACILITATE RESIDENTIAL DEVELOPMENTS OF VARIOUS DENSITIES WHICH ARE APPROPRIATELY LOCATED IN RELATION TO SITE CONDITIONS, SURROUNDING LAND USES, AND CAPABILITY OF PUBLIC FACILITIES AND TRANSPORTATION SYSTEMS.

Implementing actions:

5.2.1. Designate various categories of residential density on the Comprehensive Plan maps and the Land Use Code maps based on evaluation of the following criteria:

1. Physical site conditions including slope and areas of natural hazard or high value natural resources.

2. Capacity of adjacent streets. Areas designated for medium or high density development should have primary access to a collector or be in close proximity to an arterial street; low density residential area should have access to local streets.

3. Availability of public facilities and services, especially municipal water and sewer systems.

4. Compatibility of potential density with surrounding land uses.

5. Potential of specific sites to accommodate suggested density including size and shape of property and adequacy of internal circulation, parking, screening and privacy.

Residential Land Use Conflicts

A major concern expressed by citizens of Juneau 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 incompatible design, noise, and other factors associated with higher intensity uses.

POLICY 5.3. IT IS THE POLICY OF THE CBJ TO MINIMIZE CONFLICTS BETWEEN RESIDENTIAL AREAS AND COMMERCIALKNDUSTRIAL AREAS THROUGH APPROPRIATE LAND USE LOCATIONAL DECISIONS AND REGULATORY MEASURES.

Implementing actions:

53.1. Seek to reduce or eliminate conflicts between medium or high density residential uses in established low density residential neighborhoods.

5.3.2. Maintain, and consider enhancing land use code requirements for buffering and screening between residential and commercial/industrial uses and careful review of site development plans.

5.3.3. Continue to subsidize residential rehabilitation through state and federal funds to conserve existing housing stock in established neighborhoods.

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.

POLICY 5.4. IT IS THE POLICY OF THE CBJ TO REQUIRE PROVISION OR AVAILABILITY OF TRANSPORTATION ACCESS, SEWER, WATER, AND DRAINAGE 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.

Implementing actions:

5.4.1. Develop a master plan to extend facilities and services to areas planned for residential development based on a capital improvements program.

5.4.2. Encourage public/private partnerships in the development of new subdivisions with water and septic lines that meet CBJ standards.

5.4.3. Within the capital improvements program, consider improvements to the infrastructure in established neighborhoods as a high priority.

5.4.4. Maintain the provisions in the Land Use Code which require developers to provide for access, facilities, and services prior to final plat approval. In areas to be served by municipal systems, require subdivision designs which allow for in-fill development when services are available.

5.4.5. Amend the Land Use Code to allow appropriate urban densities in areas served by community sewer and water systems.

5.4.6. Develop infrastructure which supports planned-unit development on municipally-owned lands.

Residential Project Design

Juneau 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, shelter residential areas from adverse impacts of major streets or incompatible land uses, provide for alternative transportation opportunities, and improve traffic safety.

POLICY 5.5. IT IS THE POLICY OF THE CBJ TO REQUIRE NEW RESIDENTIAL DEVELOPMENTS TO MEET MINIMUM CRITERIA FOR OVERALL SITE DESIGN.

Implementing actions:

5.5.1. Maintain and improve design review procedures to assure that proposals for residential development are evaluated in regard to site design, including preservation of open space and natural features, buffers and screens, safe and convenient circulation for autos, pedestrians, and bicycles, building placement and factors related to surrounding properties, land uses and public facilities.

5.5.2. Encourage clustered and planned-unit developments to minimize impacts on adjacent natural or manmade features. Encourage preservation of natural features where feasible.

5.5.3. Improve the development approval process to require all applications for residential developments, including major subdivisions, to provide detailed site information that identifies natural resources, slopes, soil characteristics, natural hazards, drainage channels, access to streets and public utilities, and existing buildings or historic features.

5.5.4. Within the development review process, provide clear criteria and a checklist of needed information.

5.5.5. Continue existing incentives and develop additional incentives to encourage and reward excellence in site design and provision of amenities or facilities.

5.5.6. Maintain and improve specific standards for buffering and screening between residential and commercial/industrial uses and between high and low density residential uses to ameliorate noise, glare, and other adverse visual effects.

5.5.7. Encourage multifamily development proposals in the future to include adequate land set aside for playgrounds as appropriate.

COMMERCIAL AND INDUSTRIAL USE OF LAND

Commercial and Industrial Land Availability

Juneau's distance from national markets, size of the labor force, and lack of land access impose serious limits to the growth of manufacturing and distributive industrial activities. With adequate planning and accessible community developments such as shopping centers, Juneau can capture

a greater share of the local market for retail goods and services which is now lost to Seattle, Anchorage, and elsewhere. As retail and commercial services follow residential development, it will be necessary to provide additional commercial land accessible to centers of population growth.

Commercial and industrial uses in Juneau range from neighborhood scale retail to general industry. A considerable proportion consists of public institutions, most notably office facilities of the state government and the University of Alaska Southeast. Water-dependent commercial/industrial uses are another important activity in Juneau. Downtown Juneau and the airport area are the major centers of retail activity; additional commercial areas are located in Douglas, Lemon Creek, Salmon Creek, Auke Bay, and the Mendenhall Valley.

The CBJ must designate sufficient vacant land to meet future demand for general commercial/industrial activities. Determination of location and size should be based on the need for such development, land suitability, transportation access and other appropriate requirements. Through careful planning, retail and employment centers can be located conveniently without adverse effect upon residential areas. Any decisions to disperse industrial/commercial activity should be balanced with the need to maintain downtown Juneau as the region's governmental, tourist and cultural center.

POLICY 5.6. IT IS THE POLICY OF THE CBJ TO IDENTIFY AND PROVIDE SERVICES TO SUFFICIENT VACANT LAND APPROPRIATELY LOCATED TO ACCOMMODATE FUTURE COMMERCIAL AND INDUSTRIAL USES.

Implementing actions:

5.6.1. Conduct an analysis of the market for commercial/industrial activities as needed to ascertain changing needs for land and infrastructure.

5.6.2. Evaluate land to determine the suitability and capacity of specific sites to be designated for industrial use.

5.6.3. Ensure adequate infrastructure for projected commercial and industrial development through the capital improvements program and transportation planning.

5.6.4. Maintain and improve design review procedures to insure that proposals for commercial and industrial development are evaluated in regard to site design, building placement, parking, landscaping, exterior lighting, and other factors related to surrounding properties, land uses and public facilities.

5.6.5. Identify and protect from conflict potential sites for new or expanded recreational vehicle parks, campgrounds, and related facilities.

5.6.6. Develop incentives for industries to centralize in designated industrial districts. For example, develop an incentive for fuel tank farms and propane storage facilities to be located away from residential areas.

5.6.7. Revise the Land Use Code to accommodate temporary industrial use related to major road development projects in the rural areas as a conditional use.

5.6.8. Revise Land Use Code to allow in rural areas commercial and industrial uses which are uniquely suited to locating in the rural area. The use shall be subject to conditional use approval.

5.6.9. Evaluate and designate potential sites for cemeteries.

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. One conditional use permit has been granted for such a facility in the east Mendenhall Valley. There are a number of other locations in the city where additional such "Mom and Pop" stores might be permissible.

POLICY 5.7. IT IS THE POLICY OF THE CBJ TO ENCOURAGE LIMITED NEIGHBORHOOD COMMERCIAL USES IN NEW NEXGHBORHOODS AND IN APPROPRIATE AREAS IN EXISTING NEIGHBORHOODS.

Implementing actions:

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

5.7.2. Maintain and improve design review procedures to assure that proposals for neighborhood commercial development are evaluated in regard to site design, building placement, parking, landscaping, exterior lighting, and other factors related to surrounding properties, land uses and public facilities.

Resource-Based Industrial Development

In addition to state government and tourism, the area's natural resources which include mineral, timber and fish are also important economic activities. It is important to promote their long-term economic benefits of developing these resources while minimizing their negative impacts of such development upon the environment. Growth is likely in resource-based industries such as mineral extraction and processing, fisheries, and timber. Land with good access to maritime shipping channels is required to support this development.

POLICY 5.8. IT IS THE POLICY OF THE CBJ TO FACILITATE THE CAREFUL DEVELOPMENT OF ECONOMICALLY VALUABLE NATURAL RESOURCES WHILE MINIMIZING ENVIRONMENTAL DEGRADATION.

Implementing actions:

5.8.1. Work with state and federal agencies to promote natural resource development that is compatible with the policies contained in this Plan.

5.8.2. Maintain the review process for state permit activities that affect land in the CBJ.

5.8.3. Formulate management plans for resource-related activities such as sand and gravel extraction, mining and timber harvesting on CBJ lands.

5.8.4. 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 that logging operations of greater than 10 acres are allowed.

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 Juneau's future economic health. This subject is discussed more broadly under "Port Facilities" in Chapter 2. 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 wildlife habitats and other sensitive coastal resources.

POLICY 5.9. IT IS THE POLICY OF THE CBJ TO DESIGNATE AND RESERVE WATERFRONT LAND WITH ADEQUATE SERVICES AND IN APPROPRIATE LOCATIONS FOR WATER-DEPENDENT OR RELATED COMMJ3RCIAL/INDUSTRIAL ACTIVITIES WHILE PROTECTING IMPORTANT WILDLIFE, HABITAT, AND OTHER COASTAL RESOURCES.

Implementing actions:

5.9.1. Revise the Comprehensive Plan Maps and zoning code to reflect recommendations of the port development plan and feasibility studies described in Chapter 2, Port Facilities.

5.9.2. In addition to new or expanded public port facilities, zone suitable waterfront land for water-dependent and water-related uses.

5.9.3. Within the capital improvements program (CIP), identify special infrastructure needs for port and water-related development.

5.9.4. Maintain and improve design review procedures to assure that proposals for waterfront development are evaluated in regard to site design, building placement, parking, landscaping, exterior lighting, and other factors related to surrounding properties, land uses and public facilities.

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 by commercial and government office use. As displaced uses move to suburban areas, other urban support components such as schools and churches follow. Urban centers gradually become one-dimensional. This trend can be reversed by promoting mixed uses.

Mixed use development is also seen as an avenue to implement several Comprehensive Plan policies, notably those pertaining to sustainability, transportation and housing. Locations outside of the downtown core suitable for mixed use development include downtown Douglas and an area in the Valley adjacent to the Racquet Club.

POLICY 5.10. IT IS THE POLICY OF THE CBJ TO PROVIDE FOR MIXED USE DEVELOPMENT THAT INTEGRATES RESIDENTIAL, RETAIL AND OFFICE USE IN THE DOWNTOWN AREA AND IN OTHER SUITABLE AREAS.

Implementing actions:

5.10.1. Maintain a category on the Comprehensive Plan and the zoning maps which allows high density residential and retail and office uses as mixed use developments.

5.10.2. Maintain and improve provisions in the Land Use Code which include performance standards which cover height, floor area ratio, parking and other design standards in the Mixed Use zones.

5.10.3. Maintain and improve design review procedures to assure that proposals for mixed use development are evaluated in regard to site design, building placement, parking, landscaping, exterior lighting, and other factors related to surrounding properties, land uses, and public facilities.

5.10.4. Investigate other areas in the CBJ which might be suitable for mixed use designation, and pursue such designation found to be appropriate for mixed use development.

5.10.5. Establish standards for mixed use areas outside of original downtown Juneau mixed use area.

CHAPTER 6.

COMPREHENSIVE PLAN LAND USE MAPS

INTRODUCTION

The Comprehensive Plan Land Use Maps, generally called the Comprehensive Plan Maps, display land use policy for the study area within the CBJ. The Comprehensive Plan Maps translate the policies of the preceding chapters into specific land use designations for residential, commercial, industrial, open space, and institutional/ public use.

The land uses shown are expressed in a range of development intensities. All zoning is required to be consistent with the Comprehensive Plan Maps and is generally more specific. In some cases, the Comprehensive Plan Map will provide a range of densities that can be allowed which means that the zoning classification could be one of several selections within that range. For example, an "Urban Low Density Residential" designation describes residential development with densities ranging from one to six dwelling units per acre. There are three residential zoning classifications which fall within this density range, and which could then be chosen as consistent with the Comprehensive Plan.

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 borough. The study area was in turn divided into subareas. The primary presentation of land use and related policies appear in Subarea Maps and related policies.

Methodology and Criteria

The Comprehensive Plan Maps were prepared after analyzing each subarea in terms of its relationship to the community form policies, existing development patterns, suitability for additional development, and other characteristics. The steps taken to prepare the subarea maps are discussed below.

For each subarea, the designated intensity of future development was determined in large part by whether the subarea is located in the urban area, that is, within the Urban Service Boundary, or in rural or new growth areas. For example, a key determinant for the use of land in the east Mendenhall Valley is its designation for urban development.

Vacant and potentially buildable land was located in each subarea and physical development constraints such as steep slopes and wetlands were evaluated. Existing development patterns were also analyzed. In most cases, existing patterns were reinforced with a compatible designation on the subarea maps. Most publicly-owned land within sensitive areas was designated for very low density development or open space in accordance with the Natural Resource and Hazards policies described in Chapter 3.

Designation of residential land was based on the level of existing or planned urban services, the pattern of existing subdivision, and compatibility with adjacent land uses. A high priority was given to the maintenance of existing low density (one to 6 dwelling units per acre) neighborhoods within the urban service area. Medium density (7 to 20 dwelling units per acre) residential uses were designated in areas which are unplatted, have convenient access and relatively central locations, and/or are currently developed at medium densities.

Commercial uses were generally designated in or adjacent to existing commercial areas if the latter are accessible to major population centers. Water-related and water-dependent commercial uses were designated for shoreline areas characterized by adequate services and marine access. Mixed Use development was designated in two areas in addition to downtown based on existing development patterns, access and location.

Industrial uses were designated according to the type of use. Existing industrial areas were designated to maintain that use. Waterfront areas were designated for water-related and water-dependent development, mixed with compatible commercial uses.

The public/institutional designations reflect existing uses; downtown they allow for expansion and redesign of the state capital 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.

DEFINITIONS OF LAND USE CATEGORIES

Recreational Resource. Land primarily under federal or state management for a range of resources, such as timber, minerals, wildlife and recreation uses, including recreation cabins. Uses may include small-scale, visitor-oriented, seasonal recreational facilities.

Resource Development (RD). Land to be managed primarily to identify and conserve natural resources until specific land uses are identified and developed; minimal residential development may occur. Uses may include small-scale, visitor-oriented, seasonal recreational facilities. The area outside of the study area of this Comprehensive Plan is considered to be designated Resource Development (RD).

Rural Dispersed Residential. Dispersed, very low density development not provided with municipal sewer or water. Densities are intended to permit one dwelling unit per acre, but larger lot sizes may be appropriate based on existing platting and capability of the land to accommodate on-site septic systems and wells. Uses may include small-scale, visitor-oriented, seasonal recreational facilities.

Rural/Low Density Residential. Rural residential land at densities of one to three dwelling units per acre.

Urban/Low Density Residential. Urban/suburban residential land for detached single-family units, duplex and zero-lot-line units at densities of one to six units per acre; may include mobile homes where specifically permitted.

Medium Density Residential. Urban/suburban residential land for multifamily dwelling units at densities ranging from 7 to 20 units per acre; may include subdivisions of mobile home parks where specifically permitted.

Mixed Use (Including High Density Residential). Land in the downtown and other areas intended for a mixture of retail, office, general commercial, and high density residential uses at a density of 60 residential units per acre downtown, and a density of 40 units per acre elsewhere. These uses could be combined within a single building.

Transition Area. Predominately undeveloped or low density residential areas within the urban service boundary that do not have public sewer and water services. A transition area is shown as a lower density classification that would undergo a transition (T) to a higher density classification. The transition classification intended to limit development to the lower density until sewer and water are available.

Neighborhood Commercial. Neighborhood commercial areas generally sell goods necessary to meet daily needs, and occupy less than two acres. Such uses include small grocery stores, dry cleaners and beauty/barber shops. Areas shown on the map are conceptual unless existing use is neighborhood commercial.

General Commercial. Land for retail uses, including neighborhood retail and community commercial, such as shopping centers, mixed retail/residential/office uses, especially in downtown Juneau and Douglas, and office use, including leased government office space.

Industrial. Land to be developed for general industrial uses such as manufacturing, warehousing, repair and maintenance, wholesaling, and as presently allowed by conditional use permit under the Land Use Code, an array of sales and service uses.

Waterfront Commercial. Land to be used primarily for water-dependent and water-related commercial uses and, in special cases, for water-related mixed uses including hotel and residential use.

Waterfront Commercial/Industrial. Land to be used primarily for water-dependent and water-related commercial and industrial uses such as marine transportation terminals, small boat marinas, marine freight handling areas, fish
buying and processing plants and marine parks.

Institutional and Public Use. Land for major public institutional uses, such as the University of Alaska, Southeast; local, state and federal government uses; and for such public facilities as schools, libraries, fire stations, treatment plants, and public sanitary landfills.

Proposed Public Facility Sites. Potential sites for future boat harbors, schools, parks and mass transit nodes.

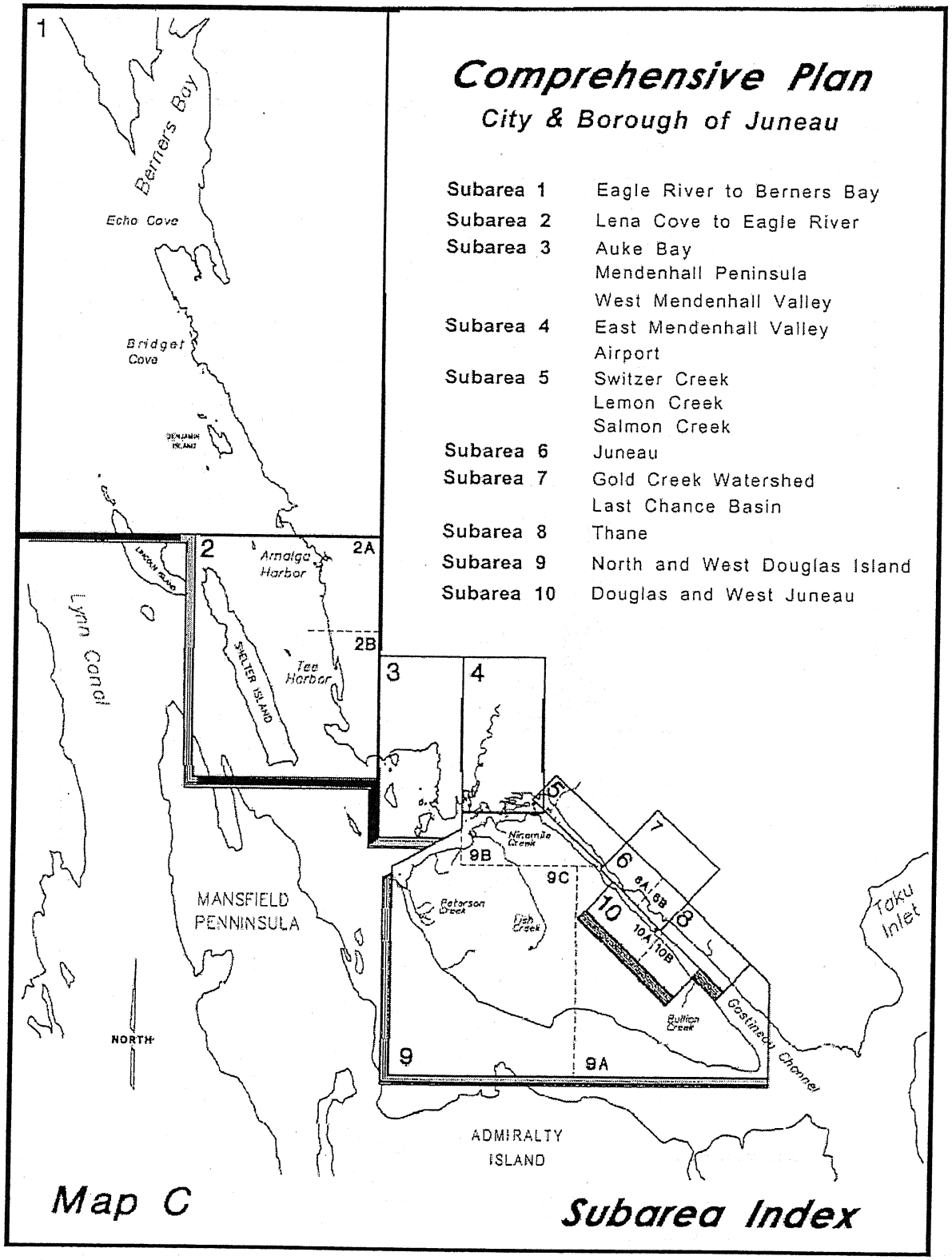
Proposed New Growth Areas. Sites in rural areas suitable and available for future urban/suburban or a mixed use development when specifically approved by the CBJ in accord with the procedures and criteria set forth for New Growth Areas in Chapter 2 and in the Land Use Code.

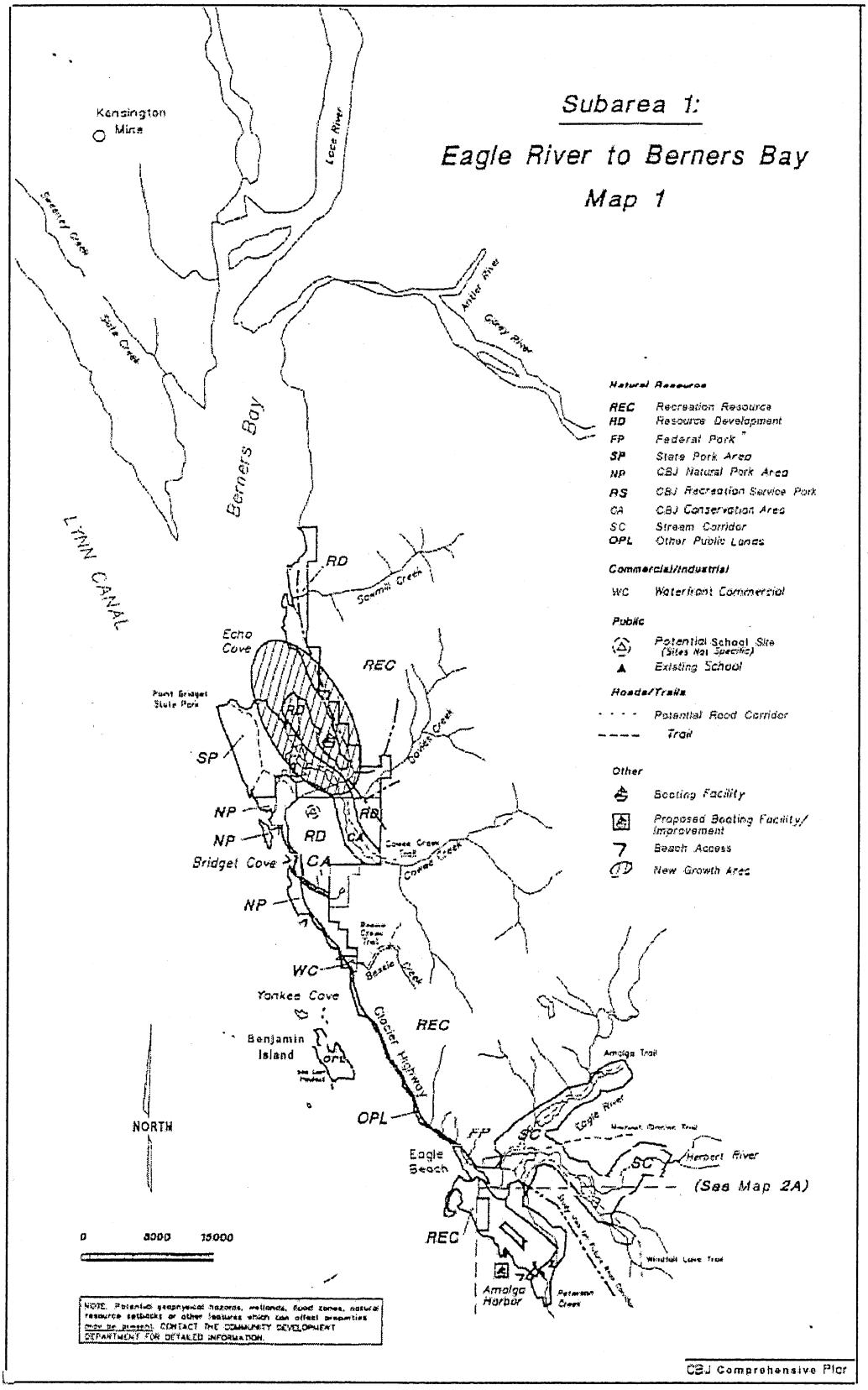
Transportation Corridors. Land for major public roads and streets, classified as: Arterial, streets intended to carry large volumes of traffic at steady speeds with minimum interruptions to traffic flow; Collector, streets which form the boundaries of major blocks of land and intended primarily for inter-neighborhood traffic; Local, streets intended primarily for vehicular access to abutting properties and not for through traffic; and Mass Transit Corridors, 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 (i.e., bus, light rail, rapid transit).

Subarea Maps and Guidelines

The subarea Maps section describes subarea land use on maps and with text. It lists the particular guidelines which influenced land use designations for the maps. 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 which have emerged from this Comprehensive Plan update process are listed.

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


Comprehensive Plan
City & Borough of Juneau
Subarea 1 Eagle River to Berners Bay
Subarea 2 Lena Cove to Eagle River
Subarea 3 Auke Bay
Mendenhall Peninsula
West Mendenhall Valley
Subarea 4 East Mendenhall Valley
Airport
Subarea 5 Switzer Creek
Lemon Creek
Salmon Creek
Subarea 6 Juneau
Subarea 7 Gold Creek Watershed
Last Chance Basin
Subarea 8 Thane
Subarea 9 North and West Douglas Island
Subarea 10 Douglas and West Juneau
Berners Bay
Echo Cove
Bridget Cove
Lynn Canal
Shelter Island
Tee Harbor
Mansfield Peninnsula
North
Admiralty Island
Taku Inlet
Gastineau Channel
Map C
Subarea Index


Subarea 1:
Eagle River to Berners Bay
Map 1
Kensington Mine
Lace River
Sawmill Creek
Spole Creek
Antler River
Gilkey River
Berners Bay
LYNN CANAL
Natural Resource
REC Recreation Resource
RD Resource Development
FP Federal Park
SP State Park Area
NP CBJ Natural Park Area
RS CBJ Recreation Service Park
CA CBJ Conservation Area
SC Stream Corridor
OPL Other Public Lands
Commercial/Industrial
WC Waterfront Commercial
Public
Potential School Site (Sites Not Specific)
Existing School
Roads/Trails
Potential Road Corridor
Trail
Other
Boating Facility
Proposed Boating Facility/ Improvement
Beach Access
New Growth Area
RD
Sawmill Creek
Echo Cove
REC
Point Bridget State Park
SP
Cowee Creek
NP
NP
RD
CA
Bridget Cove
CA
Cowee Creek Trail
Cowee Creek
NP
Bessie Creek Trail
Bessie Creek
WC
Yankee Cove
Glacier Highway
REC
Benjamin Island
OPL
Amalga Trail
Eagle River
Herbert River
NORTH
OPL
FP
SC
SC
Eagle Beach
(See Map 2A)
REC
Amalga Harbor
Peterson Creek
0
8000
15000
NOTE: Potential geophysical hazards, wetlands, flood zones, natural resource setbacks or other features which can affect properties may be present. CONTACT THE COMMUNITY DEVELOPMENT DEPARTMENT FOR DETAILED INFORMATION.
CBJ Comprehensive Plan

Subarea 1: Eagle River to Berners Bay (Map 1)

Community Form: Rural, with potential New Growth Area

Resources and Hazards:

Type	General Location
Wildlife (Eagles Nests)	Echo Cove, Lynn Canal Shorelines
Stream and Lakeshore Corridors	Kowee and Davies Creeks, Eagle and Herbert Rivers, Peterson Creek, Salt Lake (Additional waterbodies are listed in Appendix B)
Gravel Resource	Eagle and Herbert River corridors, delta/estuary area
Wetlands/Tidelands	Eagle/Herbert River estuary, Echo Cove, Bridget Cove
Flooding	Kowee and Davies Creeks, Eagle River, Herbert River, Peterson Creek and coastal areas

Guidelines and Consideration for Subarea 1 Map:

1. Preserve valuable, publicly-owned recreation lands and wildlife habitat, including Lynn Canal shorelines areas, as public open space.

2. Provide opportunities for new growth area development, including a mixture of residential and water-related uses in Echo Cove.

3. Limit density or rural development north of Peterson Creek in response to the presence of sensitive areas; allow higher rural densities to the south.

4. Recognize Berners Bay and the river systems which feed it are important recreation and scenic areas which experience significant local usage and have potential for tourist use as well.

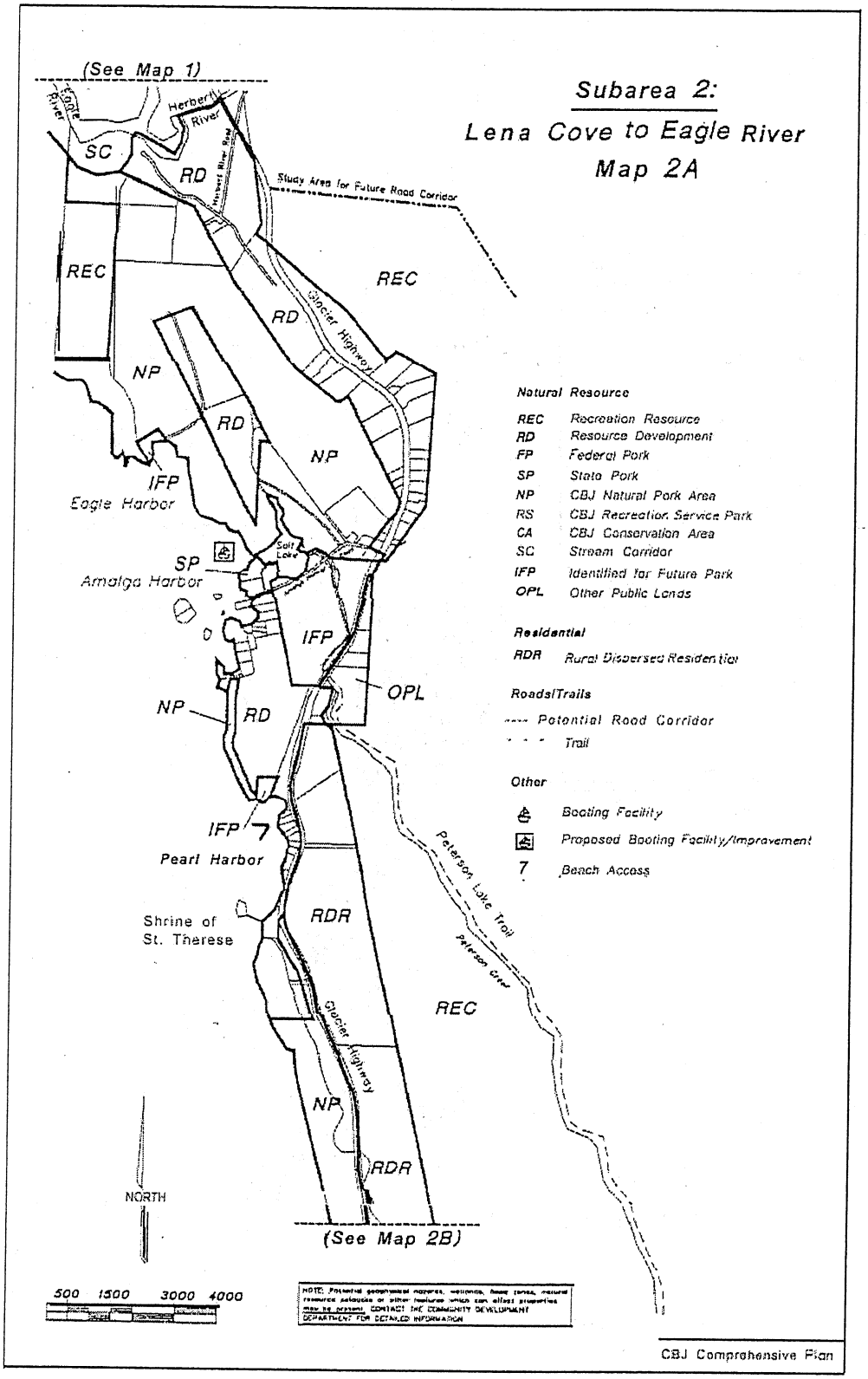
5. Develop a comprehensive, interagency plan for Tee Harbor to Berners Bay which recognizes, protects and enhances the multiple recreational and educational programs found in that area.

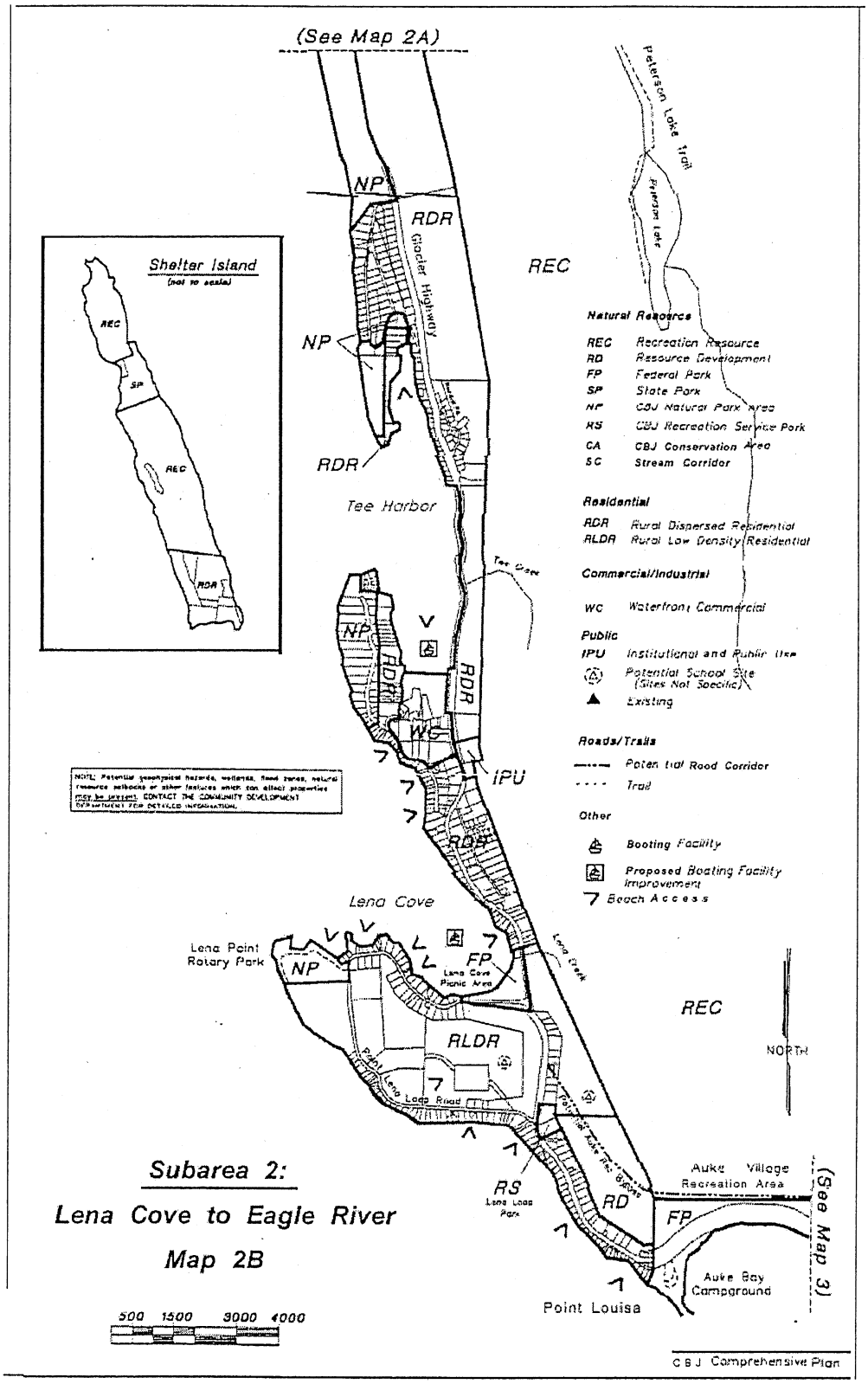
6. Evaluate development of hiking trail between Point Bridget and Point Bishop.

7. Develop a management plan for CBJ lands at Bridget Cove to complement the recreational opportunities on the state holdings at Bridget State Park.

8. Expect increased commercial use of public land for tourism.

9. Proposals are under consideration to extend Glacier Highway past Echo Cover to Sawmill Creek where there is potential to create a marine terminal that could serve mining, ferries, commercial watercraft and others.


Subarea 2:
Lena Cove to Eagle River
Map 2A
(See Map 1)
Eagle River
Herbert River
Herbert River Road
Study Area for Future Road Corridor
SC
RD
REC
REC
RD
Glacier Highway
NP
RD
NP
IFP
Eagle Harbor
SP
Amalga Harbor
Salt Lake
IFP
OPL
NP
RD
IFP
Pearl Harbor
Shrine of St. Therese
RDR
REC
Peterson Lake Trail
Peterson Creek
Glacier Highway
NP
RDR
NORTH
(See Map 2B)
500 1500 3000 4000
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
7 Beach Access
CBJ Comprehensive Plan


(See Map 2A)
Peterson Lake Trail
NP
RDR
REC
Glacier Highway
Shelter Island
(not to scale)
REC
SP
REC
RDR
NP
RDR
Tee Harbor
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
Residential
RDR Rural Dispersed Residential
RLDR Rural Low Density Residential
Commercial/Industrial
WC Waterfront Commercial
Public
IPU Institutional and Public Use
Potential School Site (Sites Not Specific)
Existing
Roads/Trails
Potential Road Corridor
Trail
Other
Booting Facility
Proposed Boating Facility Improvement
Beach Access
NOTE: Potential geophysical hazards, wetlands, flood zones, natural resource setbacks or other features which can affect properties may be present. CONTACT THE COMMUNITY DEVELOPMENT DEPARTMENT FOR DETAILED INFORMATION.
NP
RDR
WC
RDR
IPU
RDR
Lena Cove
Lena Point Rotary Park
NP
FP
Lena Cove Picnic Area
Lena Creek
REC
NORTH
RLDR
Point Louisa Trail
Point Louisa Loop Road
RS
Lena Loop Park
RD
FP
Auke Village Recreation Area
(See Map 3)
Auke Bay Campground
Point Louisa
Subarea 2:
Lena Cove to Eagle River
Map 2B
500 1500 3000 4000
CBJ Comprehensive Plan

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 (1-3 dwellings per acre) designations predominate in this Subarea. This is primarily due to the absence of both public sewer and water in the area, and because there are no plans to have both services extended. The lands in the Auke Nu/Point Lena area were designated Rural Low Density Residential (1-3 dwellings per acre) primarily because of the established development pattern.

Resources and Hazards:

Type	General Description
Wildlife (Eagle Nests)	Lena Cove, Tee Harbor
Stream Corridors	Lena Creek, Tee Creek (Additional waterbodies listed in Appendix B)
Gravel Resource	Adjacent to road
Flooding	All coastal areas

Guidelines and Considerations for Subarea 2 Map:

1. Preserve shoreline areas in public ownership as public open space.

2. Continue rural residential development.

3. Encourage development of boat launch facilities at Lena Cove and South Tee Harbor.

4. Develop CBJ land at Point Lena as a neighborhood park.

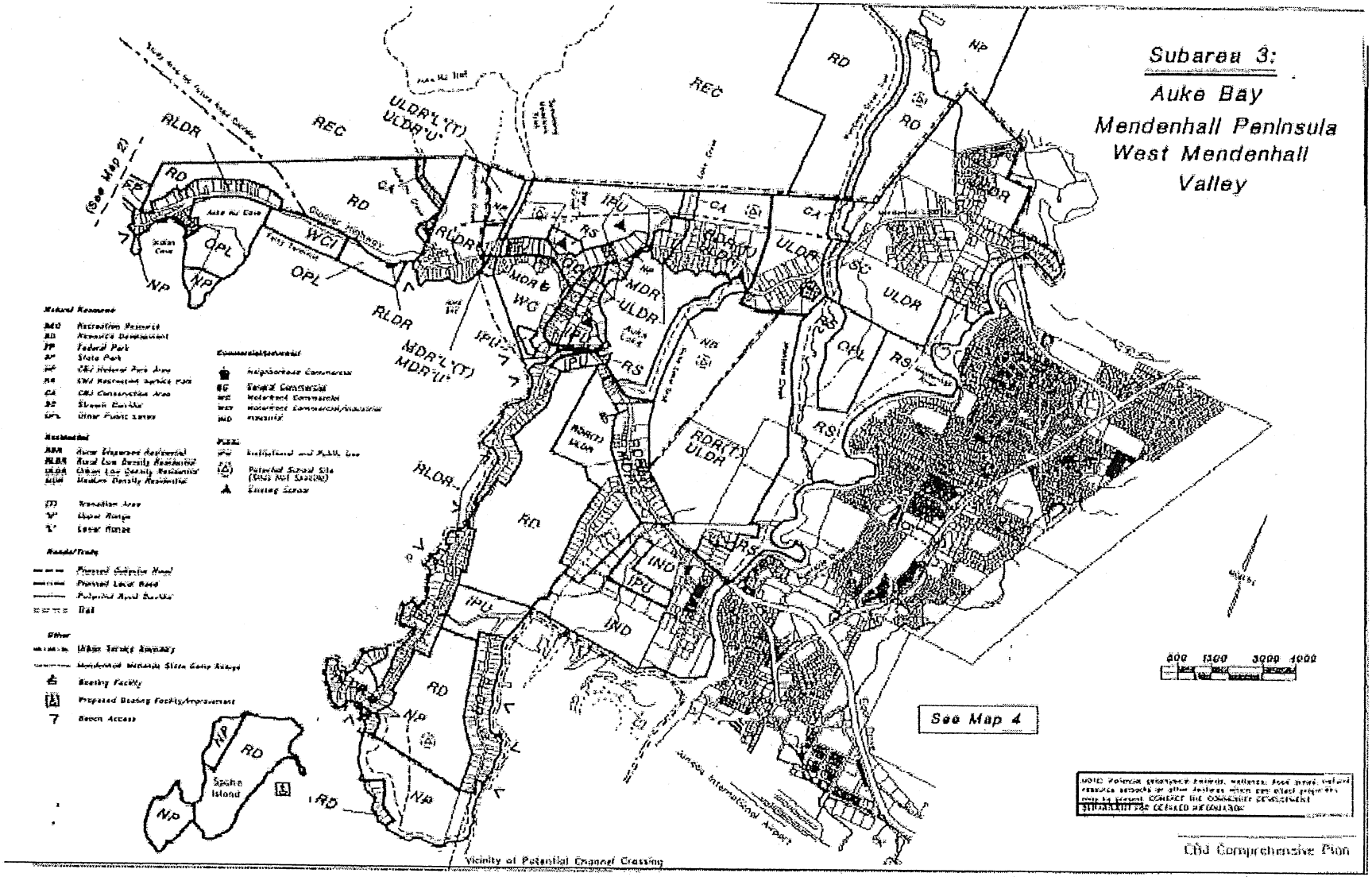
5. Encourage development of a by-pass of the Auke Village Reservation area rather than making improvements to the existing roadway.

6. Develop a recreational facility including a ballfield in vicinity of Lena recreation site.

7. The public water system has been extended to the north entrance to Point Lena Loop Road. A feasibility study of expansion of the system to the Tee Harbor area is being completed. The preliminary findings are that the existing water system can be expanded to the South Tee Harbor area without the need for a new reservoir ($2.7 million cost estimate). Extending the system further north will cost considerably more (an additional $3.3 million) because of the reservoir requirement.

8. The subarea is not served by the public sewer system, and is outside of the Urban Service Boundary. There is little likelihood of public sewer reaching the subarea.

9. The state is considering expansion of the existing Ferry Terminal at Auke Bay by expanding the site both to the north and to the south in order to provide more staging area.


Subarea 3:
Auke Bay
Mendenhall Peninsula
West Mendenhall
Valley
See Map 4
Vicinity of Potential Channel Crossing
CBJ Comprehensive Plan

Subarea 3: Auke Bay, Mendenhall Peninsula, West Mendenhall Valley

Community Form:

Urban for Auke Bay, the northerly part of the Mendenhall Peninsula, and that portion of the West Mendenhall Valley that is serviced by both sewer and water.

Transition from rural to urban in the remainder of the West Mendenhall Valley.

Rural for southerly Mendenhall Peninsula, and west of Waydelich Creek.

Land use designations on the Subarea map range from open space to industrial. Transition ("T") designations predominate, indicating that higher density development will be considered once public water and sewer are available. Greenbelts are shown for Mendenhall River, Montana Creek, and Auke Lake.

Resources and Hazards:

Type	General Location
Wildlife (Eagle Nests)	Mendenhall Peninsula, Auke Bay
Stream and Lake Corridors	Mendenhall River, Montana Creek, Auke Creek, Lake Creek, Auke Lake, Auke Nu Creek (Additional minor waterbodies are listed in Appendix B)
Wetlands	West Mendenhall Valley, Mendenhall Peninsula, Montana Creek, Auke Nu Cove.
Gravel Resource	Montana Creek basin, Mendenhall River corridor, north side of Auke Lake
Flooding	West Mendenhall Valley, all coastal areas
Watershed	Montana Creek

Guidelines and Considerations for Subarea 3 Map:

1. Provide for continued water-dependent and water-related development at the Ferry Terminal and in Auke Bay.

2. Preserve valuable public tidelands, shorelines and stream corridors as public open space. Continue to acquire land for greenbelts along the stream corridors as necessary along West Mendenhall River and Montana Creek.

3. Limit density of development in Mendenhall Peninsula in response to proximity to flight paths into Juneau International Airport.

4. Provide for additional low and medium density residential development on CBJ lands with access to existing or planned urban services.

5. Limit density of development in West Mendenhall Valley to maintain wetlands, avoid flood hazards and provide open space.

6. Provide for expansion of the UAS campus, including student housing and athletic facilities.

7. Allow for increased neighborhood commercial development.

8. Retain trail access to Spaulding Meadows and to beaches.

9. Maintain transition area designation as shown on the Comprehensive Plan map for Auke Bay, Lower West Mendenhall Valley, and Mendenhall Peninsula to regulate development at lower density until public sewer and water are provided, at which time higher densities will be allowed.

10. Potential road corridors include the "Auke Bay Collector", a potential bypass around Auke Recreation area from mile 14-17; and a possible corridor between Montana Creek Road and the Herbert/Eagle River area via Windfall Lake.

11. Acquire high-value wetland portion of "Montana Bill" property and designate as Open Space.

12. Acquire high-value University of Alaska Southeast (UAS) wetlands and designate as Open Space.

13. The public water system has been extended to serve all road-accessible lands in this subarea.

14. The sewer system should be expanded to include the industrial area in the southerly part of the West Valley. Although water service has been extended beyond the urban service boundary at Waydelich Creek, the boundary is considered the logical end point for public sewer for the long term.

15. The Auke Bay Waste Water Treatment Plant (WWTP) has a limited amount of excess capacity. This excess capacity could be used up with new development such as the UAS housing expansion. In addition, expansion of the service area is also being considered, with extension of the existing sewer line along Mendenhall Loop Road to the Goat Hill area. This expansion will deplete the excess capacity as these land areas develop. One solution is to expand the existing treatment plant at Auke Bay. A more long-term and effective solution is to eliminate the Auke Bay WWTP and tie into the proposed expansion of the Mendenhall Valley system which will serve the lower West Mendenhall Valley and Mendenhall Peninsula areas.

16. The Urban Service Boundary was amended in the 1995 update of the Maps, and now includes most of the Mendenhall Peninsula as well as the West Valley.

17. The general direction for development in the West Valley for over 20 years has been to enable residential development at densities of three to five units per acre. The transition designation was, and is, intended to address the need for public water and sewer and to limit development until those utilities are provided. Therefore:

    A detailed land management plan for the West Mendenhall Valley area should be developed. Soils, water table, and other relevant data should be examined in order to identify appropriate locations for commercial and medium density residential development.

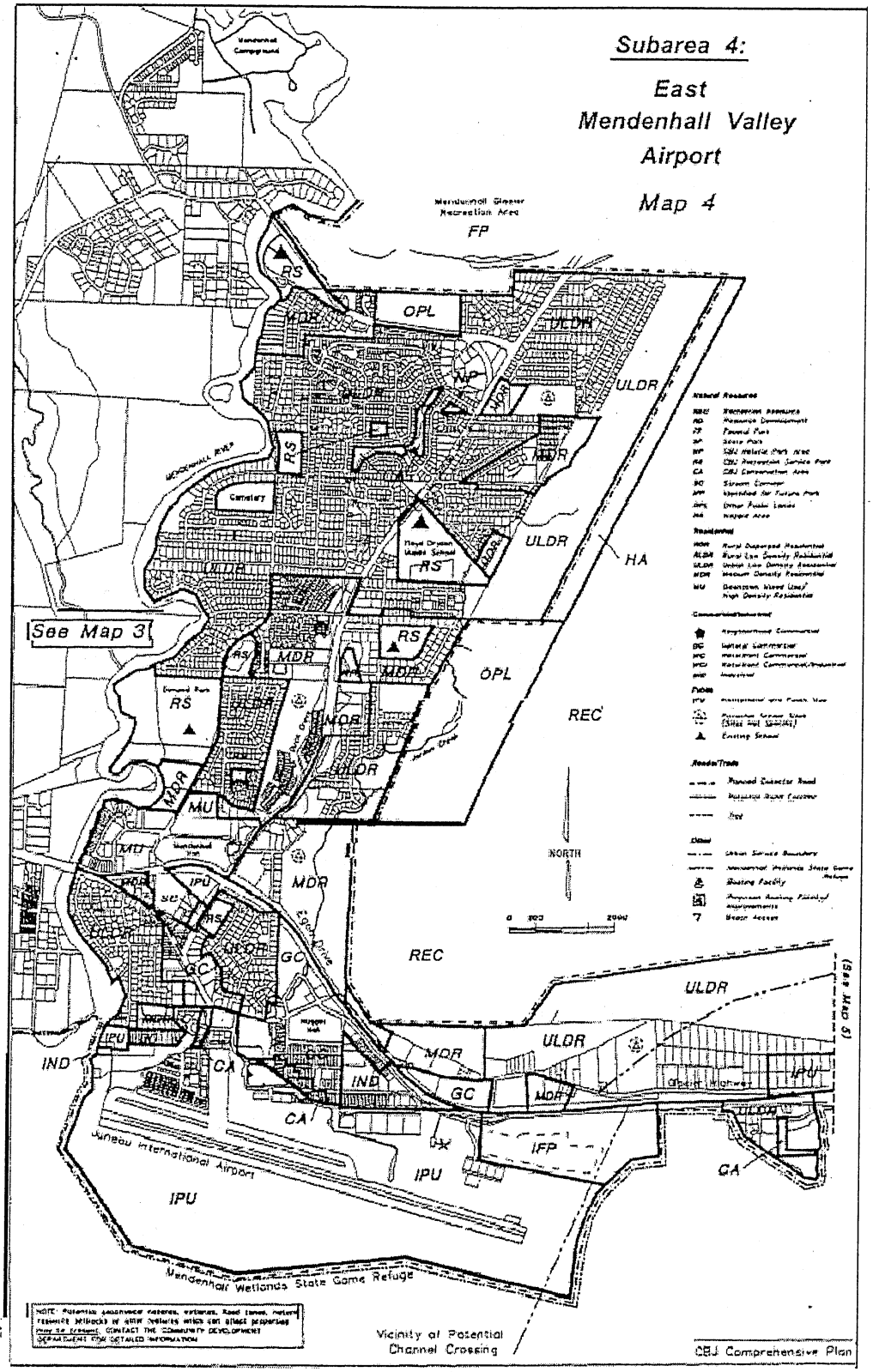
18. Public water and sewer have been extended to portions of the West Mendenhall Valley, allowing for an increase in the density of development. The Planning Commission will reconsider the zoning for this area after the Comprehensive Plan has been updated in 1995.

In translating the Subarea 3 Map into zoning districts, preserve the character of existing neighborhoods as much as possible, with graduated development, buffering and other techniques.

19. The concept of a roadway extending from Glacier Highway and running east of Auke Lake to the Mendenhall Loop Road emerged in 1995 from the CBJ's land management planning process. This roadway may develop as collector street that serves only the surrounding properties, but it may also be considered as a possible bypass of the Auke Bay area.

20. Encourage beautification and buffering along major roadways.

21. Reserve view corridors through height restrictions and building spacing requirements.


Subarea 4:
East
Mendenhall Valley
Airport
Map 4
See Map 3
Mendenhall Glacier Recreation Area
FP
OPL
ULDR
MDR
RS
MU
HA
REC
GC
IND
IPU
CA
IFP
Juneau International Airport
Mendenhall Wetlands State Game Refuge
Vicinity of Potential Channel Crossing
NORTH
CBJ Comprehensive Plan

Subarea 4: East Mendenhall Valley and Airport

Community Form: Urban

Resources and Hazards:

Type	General Location
Wildlife (Eagle Nests)	Airport Vicinity
Stream Corridors	Mendenhall River, Duck, Jordan, Nugget, and Steep Creeks, (Additional waterbodies are listed in Appendix B)
Wetlands/Tidelands	Mendenhall Flats - Airport Vicinity
Gravel Resources	Mendenhall River corridor, upper part of valley
Flooding	Mendenhall River, Jordan Creek, all coastal areas
Watershed	Nugget Creek
Avalanche	Thunder Mountain

Guidelines and Considerations for Subarea 4 Map:

1. Maintain density of existing neighborhoods.

2. Provide opportunities for medium density development in undeveloped areas with adequate access adjacent to existing multifamily development or where land use conflicts can be minimized.

3. Provide for increased community commercial development close to existing commercial areas in lower valley.

4. Limit airport expansion to area designated in Airport Master Plan and amendments; maintain adjacent publicly owned wetlands and tidelands for public open space.

5. Utilize CBJ-selected lands for residential development, recognizing constraints of sensitive areas.

6. Maintain public access to the wetlands along the northern airport dike.

7. Allow for continued industrial development in existing industrial areas.

8. Provide for pedestrian access to schools, parks and shopping areas.

9. Establish a mixed use area in the Mendenhall Mall vicinity which incorporates general commercial uses and a mass transit node.

10. DOT&PF is working, during the 1995 period, on the Mendenhall Valley Transportation Plan. This plan will determine what improvements will be needed to the Mendenhall Loop Road and to the Riverside Drive and Loop Road intersections with Egan Drive in order to handle future growth. The concept of an interchange at Loop and Egan is being considered. DOT should monitor traffic and install lights when warranted at the intersection of Mendenhall Loop Road with Valley Boulevard and Mendenhall Boulevard.

11. The East Mendenhall Valley is entirely serviced by public sewer and water systems. Additional rehabilitation and enlargement of sewer lines will be required.

12. 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.

13. The following road improvements have been identified: Riverside Drive should intersect Back Loop Road, replacing the connection via Tournure Street. Trinity Street needs some upgrading. Retain Mallard Street collector and Crest Avenue collector, both south of Egan Drive and in need of upgrades. Retain Airport Access

Road collector between Airport and Glacier Highway. Upgrade the Mendenhall Boulevard collector.

14. DOT&PF has a long standing plan of much needed improvements to Glacier Highway from the McNugget Intersection to Del Rae Road. The pedestrian use of this area has increased and the provision of sidewalks is critical. Therefore: Encourage improvements to Glacier Highway. Substantial provision for pedestrian use should be made a high priority for this project.

15. A community park and a neighborhood park are needed in this subarea. Therefore:

    The CBJ should proceed with the Dimond Park master plan for a community park.

    The "bus barn" park site should be developed retaining, as much as possible, the natural condition, with maximum tree retention. Should the Miller house move, this property should be used as a park.

16. Encourage beautification and buffering efforts along major roadways and between conflicting land uses.

Subarea 5: Switzer Creek, Lemon Creek, Salmon Creek

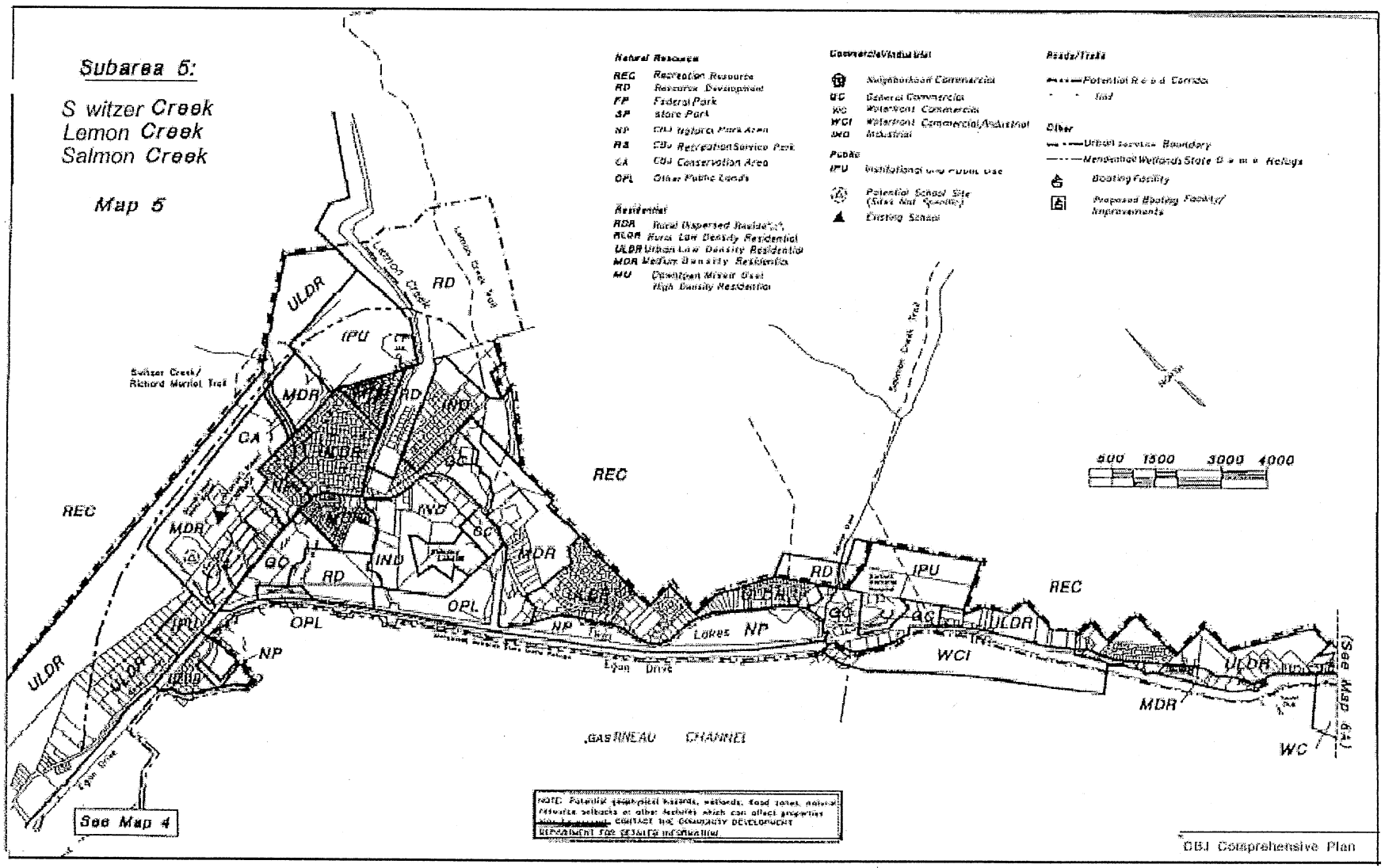
Community Form: Urban

Resources and Hazards:

Type	General Location
Wildlife (Eagle Nests)	Vanderbilt Hill,
Stream Corridors	Lemon, Switzer, and Salmon Creeks; Creek at 7 Mile; Vanderbilt Creek (Additional waterbodies listed in Appendix B)
Wetlands/Tidelands	Mendenhall Flats, Lower Lemon Creek, Switzer Creek
Gravel Resource	Lemon Creek
Landslide/Avalanche	Upper Lemon Creek Valley, White Subdivision
Flooding	Lower Lemon Creek/Switzer Creek, all coastal areas
Watershed	Upper Salmon Creek.

Guidelines and Considerations for Subarea 5 Map:

1. Provide for additional low and medium density residential development in areas with access to arterial roadways and to municipal sewer and water services.
2. Restrict residential development in areas affected by sand and gravel extraction.
3. Protect access to Lemon Creek Trail, Salmon Creek Trail and Heinzelman Ridge Trail.


Subarea 5:
S witzer Creek
Lemon Creek
Salmon Creek
Map 5
Natural Resource
REC Recreation Resource
RD Resource Development
FP Federal Park
SP State Park
NP CBJ Nature Park Area
RS CBJ Recreation/Service Park
CA CBJ Conservation Area
OPL Other Public Lands
Residential
RDR Rural Dispersed Residential
RLDR Rural Low Density Residential
ULDR Urban Low Density Residential
MDR Medium Density Residential
MU Downtown Mixed Use
High Density Residential
Commercial/Visitor Use
NC Neighborhood Commercial
GC General Commercial
WC Waterfront Commercial
WCI Waterfront Commercial/Industrial
IND Industrial
Public
IPU Institutional and Public Use
Potential School Site
(Size Not Specific)
Existing School
Roads/Trails
Potential Road Corridor
Trail
Other
Urban Service Boundary
Mendenhall Wetlands State Game Refuge
Boating Facility
Proposed Boating Facility/
Improvements
800 1600 3200 4000
Switzer Creek/
Richard Marriot Trail
Lemon Creek
Lemon Creek Trail
Salmon Creek Trail
Egan Drive
Lakes
GAS PIPELINE CHANNEL
See Map 4
(See Map 6A)
CBJ Comprehensive Plan

4. Encourage a buffer and beautification effort along all major roads.

5. Reserve wetlands and tidelands in public ownership for open space.

6. Designate area of Bartlett Memorial Hospital including adjacent municipal selection for institutional and public uses to accommodate expansion of hospital and related medical facilities as shown in the Hospital Area Master plan, 1994.

7. Allow for expansion of state office complex facilities adjacent to existing offices within public/institutional designation west of Switzer Creek.

8. Retain Lemon Creek collector to provide second access into the Lemon Creek industrial area but delete second, easterly crossing of Lemon Creek. Extend Glacier Highway beyond current endpoint northwest of Fred Meyer to reconnect at McNugget Intersection of Egan Expressway, and explore the possibility of a signalized intersection at Mapco and Sunny Drive.

9. 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.

10. The area is now entirely served with public water and sewer.

11. A middle school was completed in 1993, built on CBJ lands above the Switzer Village Mobile Home Park. The access road for this school also serves a CBJ water reservoir and could be used to access other lands.

12. The SSG and Glacier Industrial subdivisions offer several dozen acres of industrial building lots most of which are vacant.

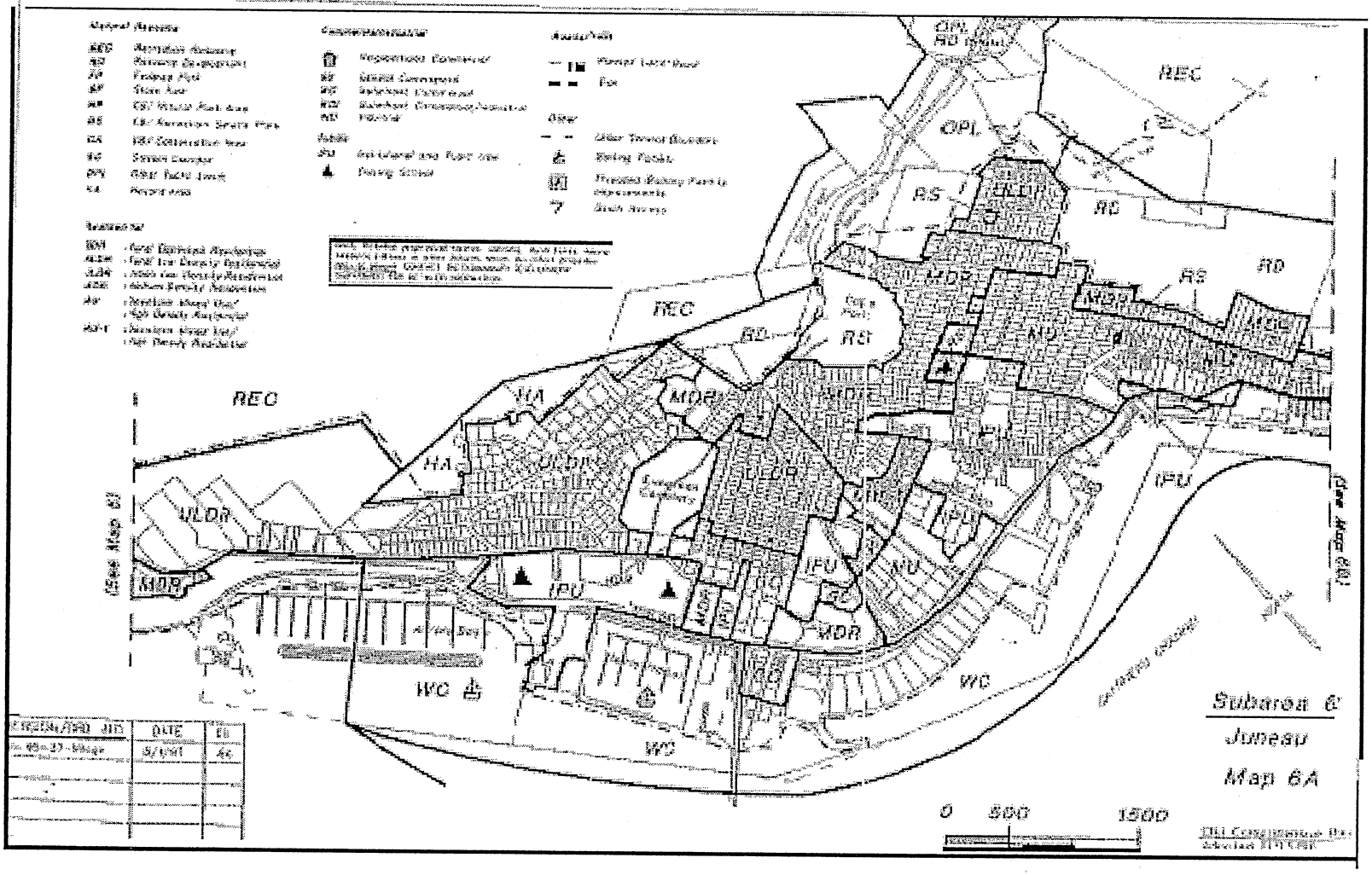
13. All of the existing residential subdivisions are nearly built out. Less than one hundred vacant lots are left in this subarea. Several large parcels of residentially-zoned land are still unplatted but are located in hillside areas that are expensive to develop and, in some locations, difficult to serve with public water unless additional pumps are installed to boost water pressure at the higher elevations. Most of the undeveloped flat land remaining is wetlands.

14. Substantial private and publicly owned sand, gravel and rock resources remain and will continue to be mined for several more years.

15. The CBJ is developing a master plan to be implemented over the next ten years which would locate all CBJ public works functions on one site in this subarea.

16. Several waterbodies in the subarea are listed as "impaired." Therefore:

    Carefully review all future development which could affect the water quality of these streams.


REC
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Subarea 6
Juneau
Map 6A
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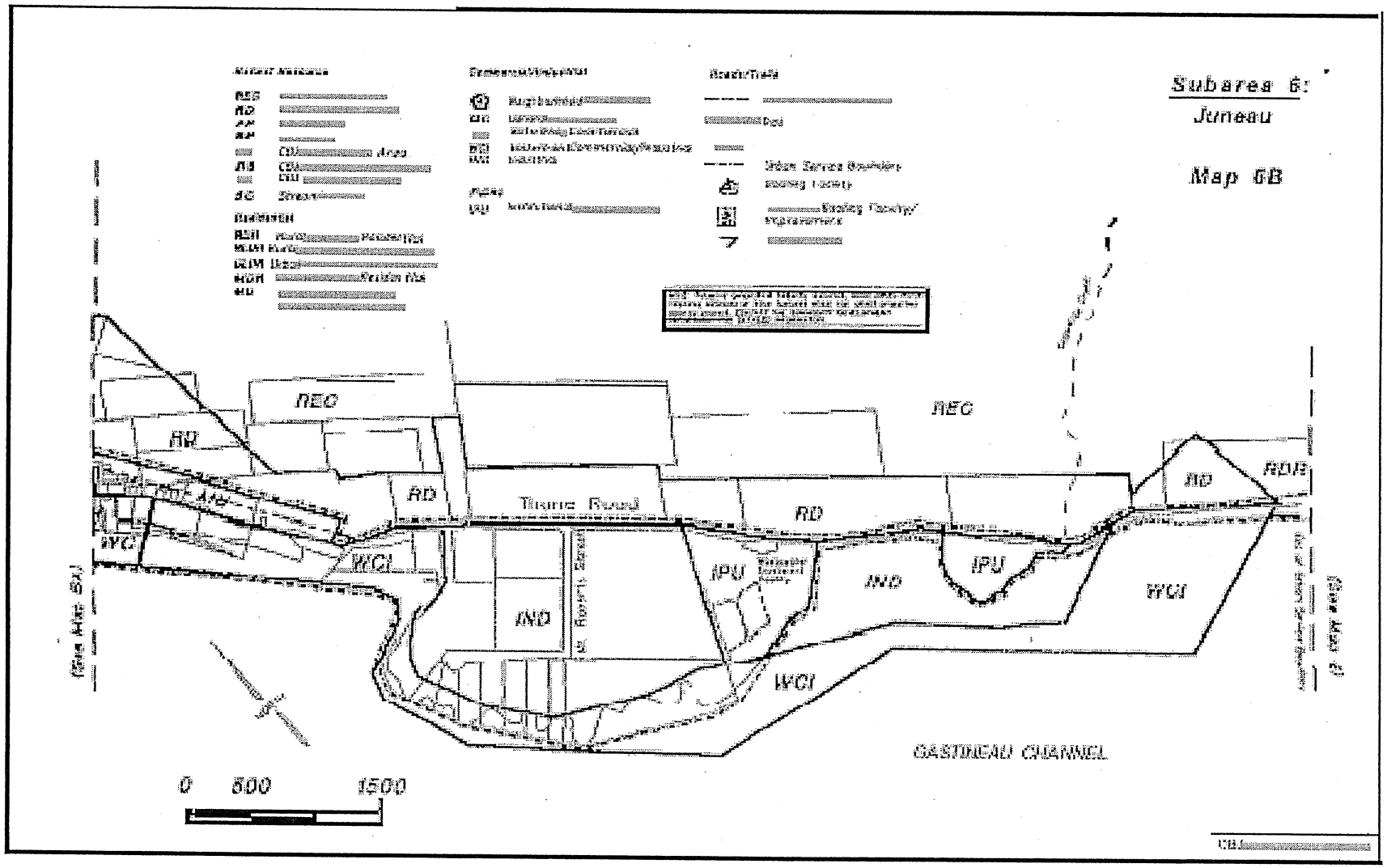

Subarea 6:
Juneau
Map 6B
REC
RR
RD
IND
IPU
WCI
Tidal Inlet
Thane Road
Gastineau Channel
0 500 1500

Subarea 6: Juneau (Map 6A & 6B)

Community Form: Urban

Land use designations include a range from RR, Resource Reserve to WC/I, Waterfront Commercial/Industrial.

Resources and Hazards:

Type	General Location
Stream Corridors	Gold Creek upstream from Cope Park (Additional waterbodies listed in Appendix B)
Wetlands/Tidelands	Gold Creek Tidelands
Landslide/Avalanche	Mt. Juneau, Mt. Roberts, Gold Creek Basin
Flooding	Gold Creek
Watershed	Gold Creek

Guidelines and Considerations for Subarea 6 Map:

1. Provide for orderly expansion of central state government facilities in the vicinity of the state capital and the State Office Building.

2. Provide additional parking and alternative transportation opportunities.

3. Promote mixed uses downtown. Encourage small retail residential services and increased multifamily development within the urban center.

4. Provide for public access, open space and water-dependent and water-related uses on downtown waterfront via the "seawalk" and connections to the existing pedestrian system.

5. Limit development in landslide/avalanche hazard areas; designate publicly owned land in hazard area as open space.

6. Encourage use of downtown waterfront area as a mixed use waterfront serving recreational, tourist, and industrial uses. Encourage safe integration of industrial port facilities.

7. Provide for redevelopment of downtown residential areas to accommodate higher residential densities in combination with retail and office uses. However, maintain existing densities in the single family neighborhoods of Star Hill, the highlands and the vicinity of the federal building.

8. Protect access to Mt. Juneau and Mt. Roberts trails.

9. Reserve view corridors through height restrictions and building spacing on downtown waterfront.

10. Virtually the entire Downtown and Highlands areas are served by the public water and sewer systems. Numerous improvements have been made over the past several years and more are needed to separate storm from sanitary sewer and to replace aging water and sewer lines.

11. Thane Road has become a major transportation corridor with development of the Rock Dump area and will become more critical with future development, such as the AJ Mine. Therefore:

    Encourage DOT&PF to make reconstruction of Thane Road a high priority.

12. Parking areas in the downtown remain insufficient despite a parking garage constructed some ten years ago. Given the scarcity of downtown land and the cost of parking structures, it appears that Juneau has reached the point where serious effort is

needed to address commuter transportation by alternative means. Therefore:

Consider the development of a convenient transportation terminal near downtown which would help to relieve traffic congestion in the downtown core, provide additional parking, and encourage the use of alternative transportation modes. The transportation terminal would feature shared longer term parking for residential and office uses while providing shorter term parking for retail, cultural, and recreational users.

The terminal would provide a hub for mass transit where commuter busses, and possibly a light rail system would connect to shuttle busses for localized distribution. Commuters could park their automobiles at the terminal, and catch a shuttle to the downtown core. The feasibility of the transportation terminal depends on finding a suitable site. A planning effort should be undertaken to study the transportation terminal concept. Two sites for consideration are the Bill Ray Center/Goldbelt area or the Federal Building/Old Tank Farm area.

13. A "fee-in-lieu-of' parking requirement should be considered to increase downtown development while encouraging alternatives to automobiles. The funds generated would be used to develop alternative transportation options for the downtown area. Under such a program, a developer may pay a one-time fee based on the number of parking spaces needed. The fee would be put in an account and used to fund a downtown shuttle bus. Or, a developer may be required to pay an annual "fee-in-lieu-of' in an amount based on the number of spaces needed. This tax would be put toward operational expenses of a downtown shuttle bus. A "fee-in-lieu of system could enhance downtown development, therefore:

    Establish a "fee-in-lieu-of' parking requirement for the downtown area for non-residential development, and implement following firm CBJ financial commitment to an alternative transportation option.

14. The lack of parking downtown is one of the primary impediments to additional growth in the downtown area, and may in fact contribute to the decline of the area. The Downtown Parking Advisory Committee recommends considering the construction of a 400 to 500 car parking facility at "Telephone Hill" to address the parking shortage. Therefore:

    Consider construction of a 400-500 car parking facility at the Egan and Main area ("Telephone Hill") to serve the downtown and future Capital Hill development. Such a facility should be designed so as not to interfere with the future use of the top of the hill for a new capitol building and related structure. An analysis of the current projected parking need should precede project design.

15. 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 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.

16. Another suggestion related to parking is to eliminate the parking requirement for multifamily housing in the downtown core area. The intent is to move toward the mixed use concept, generating more downtown housing which would in turn create more demand for resident service businesses downtown. This concept may not work for all residential units developed, thus a "fee-in-lieu-of" or "tax-in-lieu-of" as described above may be more beneficial, especially for larger projects.

17. The Land Use Code requires that parking be provided for most new development. Downtown, the land area often does not exist to provide both the parking and the new development, therefore:

    Re-examine the parking requirements for development of residential units and for tourist-related services in the downtown area.

    Amend Land Use Code to provide an alternative for 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.

18. There are numerous transportation problems to address in the downtown area. They include congestion, pedestrian/vehicular conflicts, parking, transit, loading for tour operators, and crowded sidewalks. Problems exist year round but become acute during the summer tourist season.

19. There is a significant threat of fire in the Downtown because of the current condition and age of most of the 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 piling 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 economy of Juneau as one of its key tourist attractions is the history of the town. A fire could spread through these wooden buildings very quickly and despite the best efforts of fire fighters, probably could not be controlled. Therefore:

    Develop a working relationship with downtown building owners and tenants as well as insurance, legal, design, and construction professionals for continuing education, policy development, and implementation of an economical and effective method of lessening the threat of structural fires in and near the downtown historic district.

20. Gastineau Avenue offers a location close to the downtown core, but development should only occur in concert with roadway improvements. Parking opportunities are scarce. Therefore:

    Consider mechanisms to encourage and allow carless development on Gastineau Avenue.

Subarea 7: Gold Creek Watershed/ Last Chance Basin

Community Form: Rural

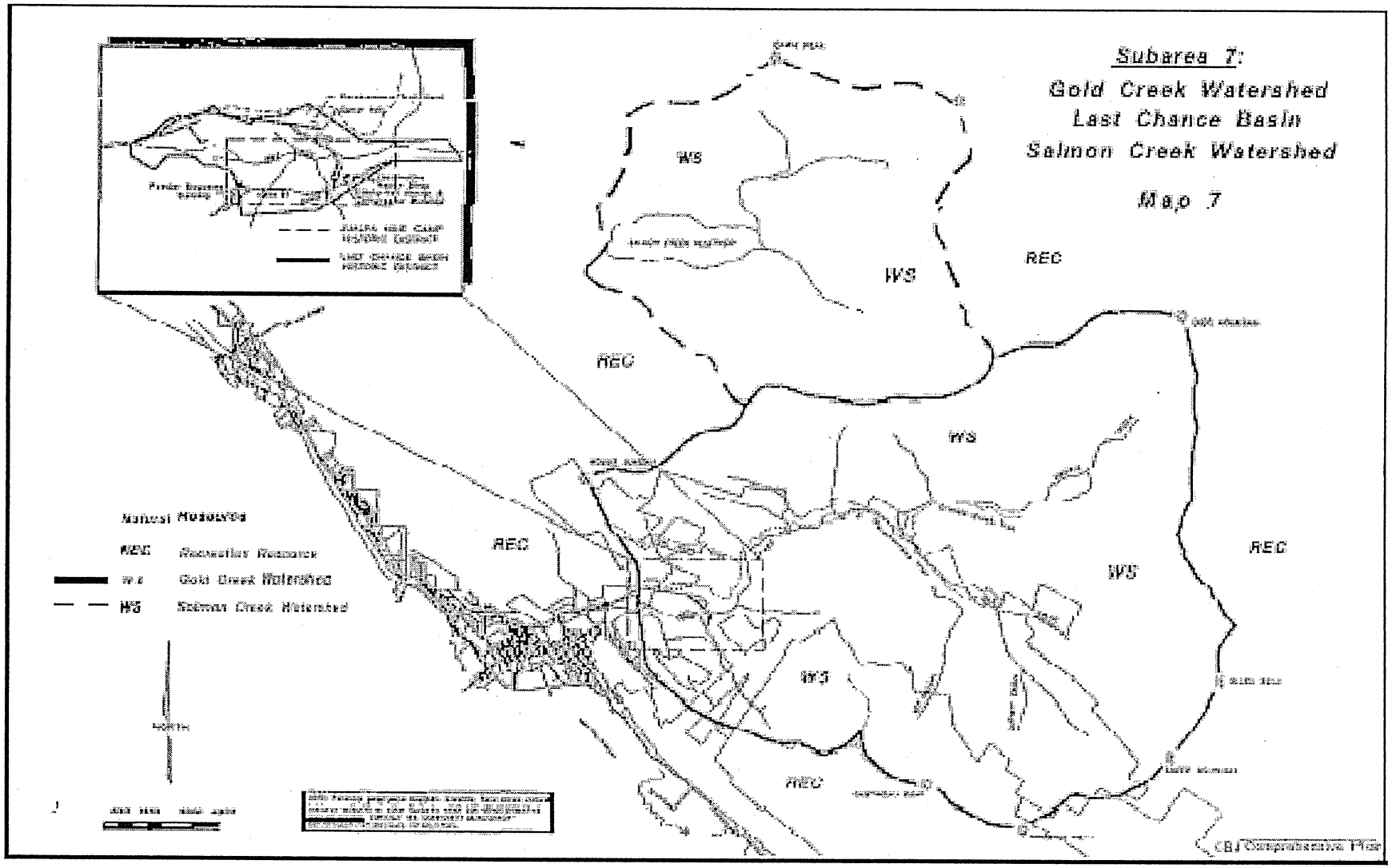
Resources and Hazards:

Type	General Location
Watershed	Gold Creek
Stream Corridors	Gold Creek (Additional waterbodies are listed in Appendix B)
Avalanche	Gold Creek Basin
Historic Site	Last Chance Basin

Guidelines and Considerations for Subarea 7 Map:

1. Protect watershed areas to assure clean, safe drinking water.
2. Identify and protect historic resources.
3. Implement the Watershed Control and Wellhead Protection Program -Gold Creek Source (1994).
4. Implement the 1994 Last Chance Basin Land Management Plan (LCBLMP).
5. 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.


Subarea 7:
Gold Creek Watershed
Last Chance Basin
Salmon Creek Watershed
Map 7
WS
REC
WS
REC
WS
REC
WS
REC
WS
REC
Natural Resources
REC Recreation Resource
WS Gold Creek Watershed
WS Salmon Creek Watershed
NORTH

6. 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:

   ? Protect the high quality of the municipal water supply obtained from Last Chance Basin's vital water resource.

   ? Encourage and enhance resident and visitor appreciation of Last Chance Basin's rich historical heritage.

   ? Maintain the wild, natural, and scenic qualities of Last Chance Basin.

   ? Encourage and enhance resident and visitor enjoyment of casual recreational opportunities in Last Chance Basin.

7. 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.

8. 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. Therefore:

   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.

   Develop a permit and fee system for tourist use of CBJ property.

   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.

   Allow commercial activity of a medium or small-scale on a case-by-case basis under a permit and fee structure. Regulations should also prohibit structures or physical facilities associated with medium-scale visitor activity.

9. The historic buildings in the Basin are a valuable resource and offer a glimpse into the past development of the community. Therefore:

   Maintain an awareness that significant historic buildings and artifacts in the Basin will further deteriorate unless they are maintained.

   Devise an acceptable form of access so that a historic interpretive center may be developed. To be acceptable, the access method must avoid the use of Basin Road.

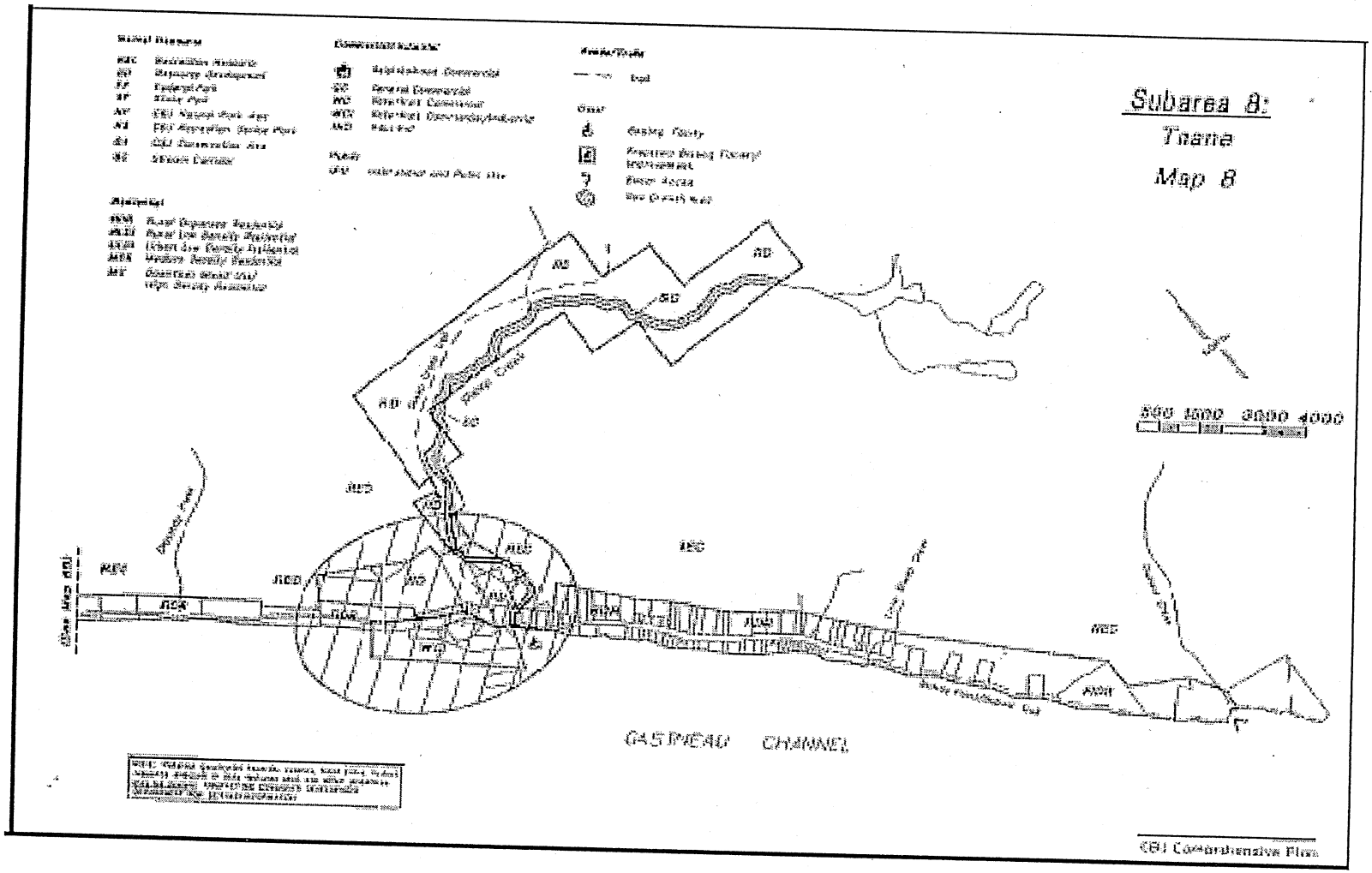
Encourage and assist if possible interim efforts of the Gastineau Channel Historic Society to maintain and stabilize the buildings.

Restore vehicular access to the site of the historic mining buildings at the Compressor Building level for the purpose of maintaining and preserving these historic facilities.

10. 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.

11. 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.


Subarea 8:
Tuana
Map 8
GASPMEAD CHANNEL
500 1000 3000 4000
CBI Comprehensive Plan

Subarea 8: Thane

Community Form: Rural with New Growth Area

Designations on the Subarea map are primarily Rural Dispersed Residential (one dwelling unit per acre) along Thane Road, and Recreation Resource inland of the RDR corridor.

Resources and Hazards:

Type	General Location
Wildlife (Eagles Nests)	Shoreline area
Stream Corridors	Sheep Creek, DuPont Creek (Additional waterbodies listed in Appendix B)
Habitat	Sheep Creek Valley
Gravel Resource	Sheep Creek
Flooding	Lower Sheep Creek
Avalanche	Along Thane Road

Guidelines and Considerations for Subarea 8 Map:

1. Allow for continued rural dispersed residential development along existing road corridor.

2. Provide opportunity for new growth area development at mouth of Sheep Creek.

3. Maintain recreational access to Sheep Creek Basin and minimize impacts on the existing recreational use of the area.

4. Designate a potential road corridor to Bishop Point.

5. Public sewer and water does not extend beyond the Little Rock Dump thus the entire Thane area is served by individual treatment systems and water wells. There are currently no plans for bringing the public services to Thane. The area is outside the Urban Service Boundary.

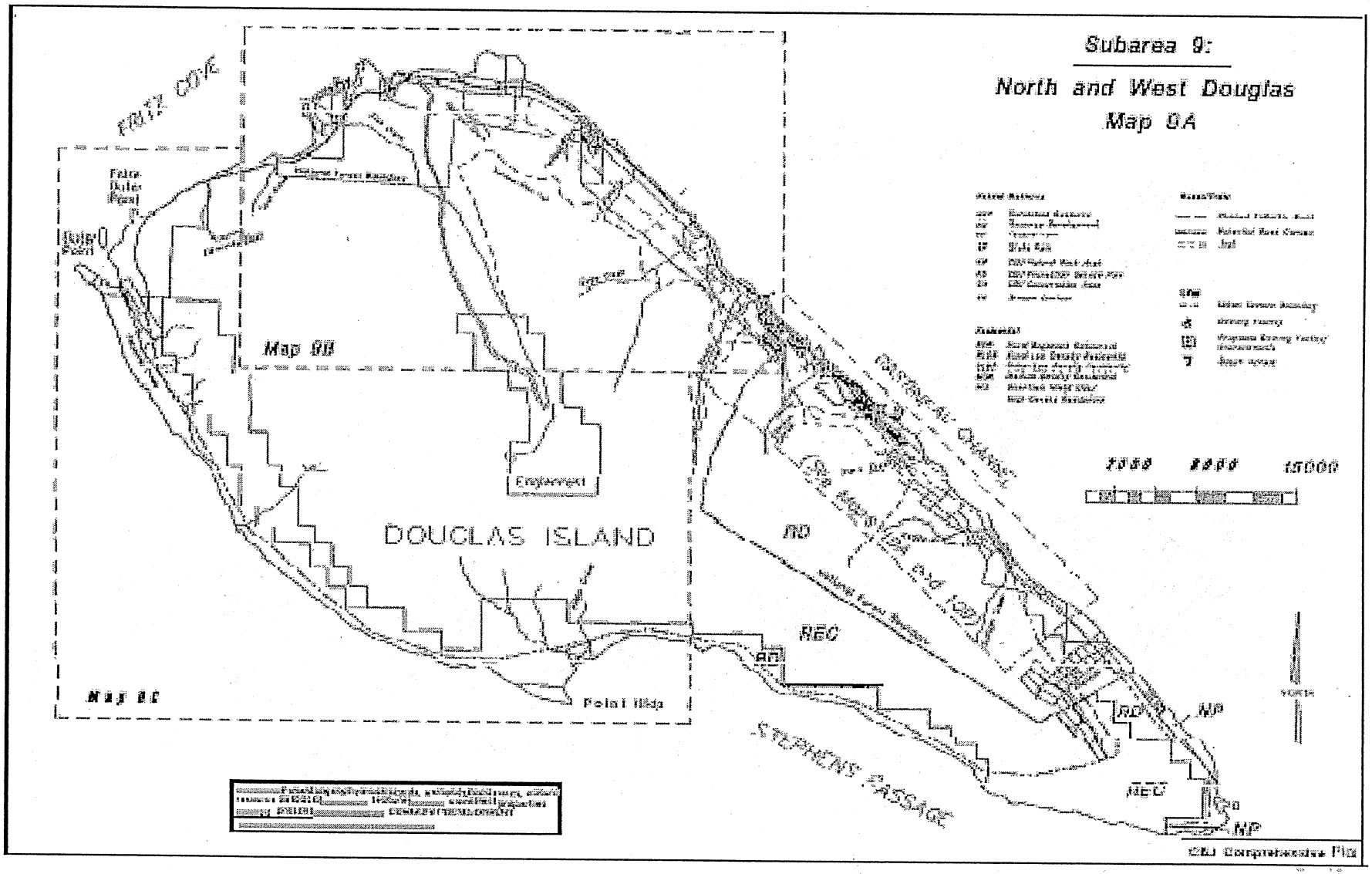
6. The CBJ approved a Large Mine Permit for the AJ Gold Mine in 1993, with surface facilities at Thane. As part of that permit, the CBJ stated its commitment to the following matters which relate directly to Thane:

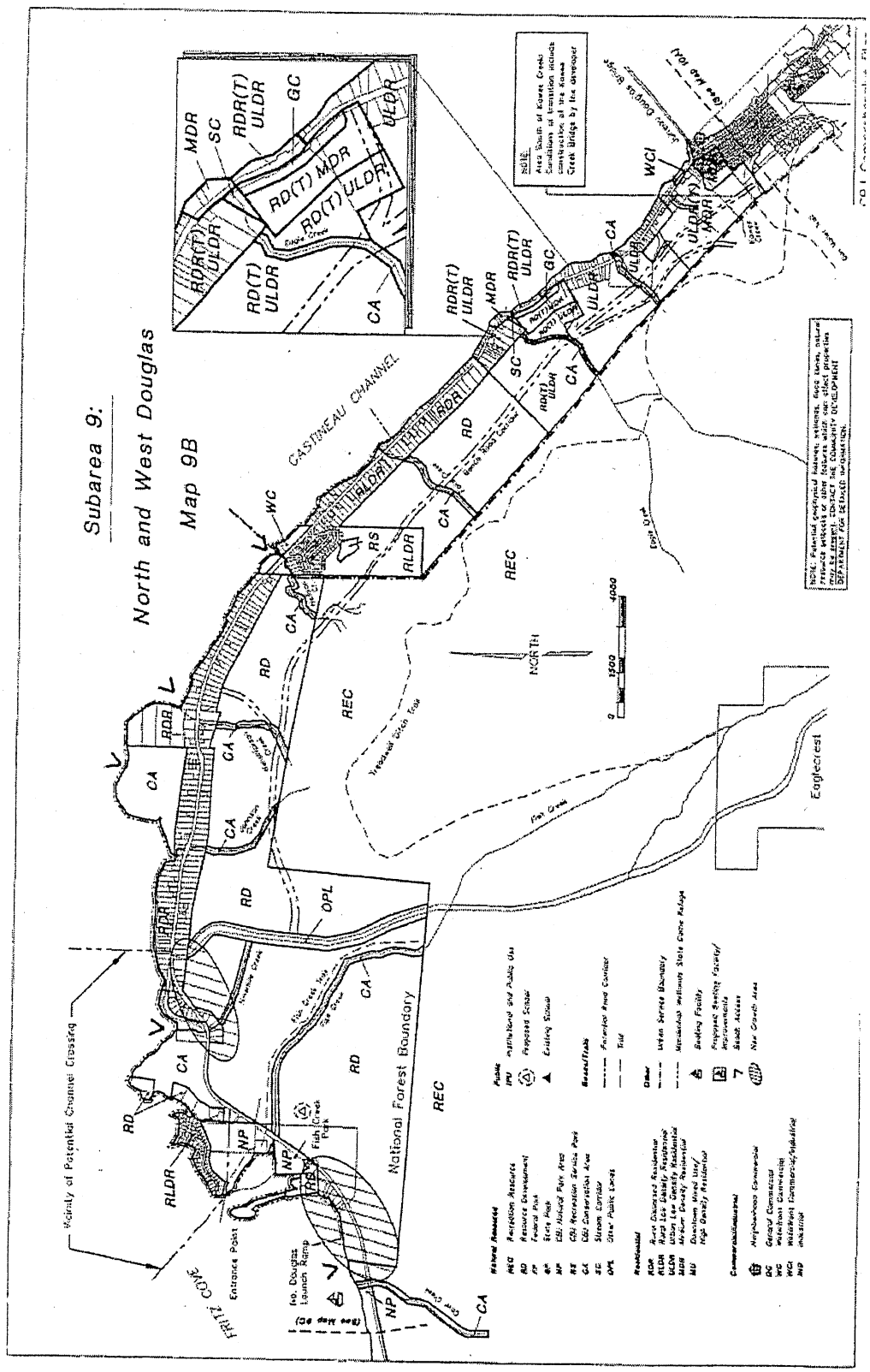
   ? The CBJ will work with the applicant [the permit holder] and the state to try to coordinate the improvement of Thane Road with the installation of an extension to Thane of the areawide water system.

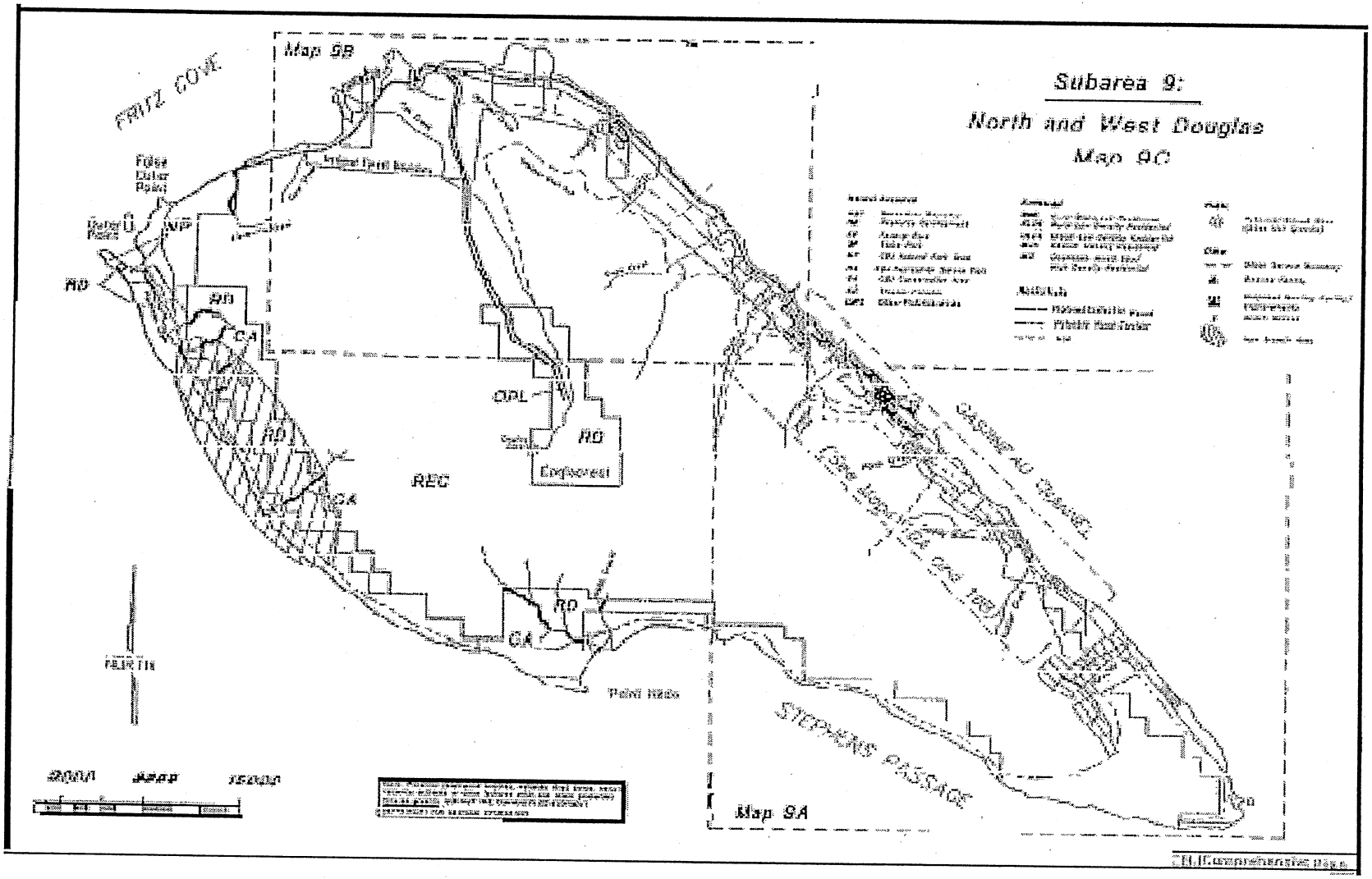
   ? The CBJ will continue to encourage DOT&PF to make the reconstruction of Thane Road between the Old Ferry Terminal and the Rock Dump a high priority.

   ? The CBJ will recommend to DOT&PF that road improvements be planned for the Rock Dump to Sheep Creek section of Thane Road and that a standard road section be developed that takes into account the provision of a separated bike path. The Planning Commission commits to raise this issue to the Assembly to urge that the Thane Road upgrade take highest priority.

   ? The CBJ will request a higher level of road maintenance for Thane Road consistent with the increase in traffic attributable to the mine.


Subarea 9:
North and West Douglas
Map 9A
POINT CADIZ
Map 9B
Map 8C
DOUGLAS ISLAND
Point Hilda
STEPHENS PASSAGE
REC
RD
NP
AD
Comprehensive Plan


Subarea 9:
North and West Douglas
Map 9B
CASTINEAU CHANNEL
Eagle Crest
National Forest Boundary
Fritz Cove
Entrance Point
No. Douglas Launch Ramp
Fish Creek Park
Vicinity of Potential Channel Crossing
NORTH
REC
RD
CA
OPL
NP
RLDR
RDR
RS
WC
WCI
MDR
SC
ADR(T) ULDR
RD(T) MDR
RD(T) ULDR
RD(T) ULDR
GC
ULDR
Fish Creek
Yankee Slough
Twin Lakes
Lake Creek
Lake Dorothy
Lake Dorothy Reservoir
Lake Dorothy Road
Public
Natural Resources
Resource Development
Forest Park
State Park
Multi-Natural Park Area
Recreation Service Park
Conservation Area
Stream Corridor
Other Public Lands
Residential
Rural Dispersed Residential
Rural Low Density Residential
Urban Low Density Residential
Medium Density Residential
Downtown Mixed Use/
High Density Residential
Commercial/Industrial
Neighborhood Commercial
General Commercial
Waterfront Commercial
Waterfront Commercial/Industrial
Industrial
Natural Resources
Public
Multi-Natural Park Area
Proposed School
Existing School
Roads/Trails
Potential Road Corridor
Trail
Other
Urban Service Boundary
Recreational Wetlands State Game Refuge
Building Facility
Proposed Service Facility/
Improvements
Beach Access
Non Conforming Area
NOTE
Area South of Lower Creek
Considered all the Areas
Creek Bridge by the developer
NOTE: Potential geotechnical features; wetlands, flood zones, natural
hazard areas, etc. may exist within the area of this map. Site specific
studies may be required prior to development.
DEPARTMENT FOR DETAILED INFORMATION.
DEVELOPMENT


Map 9B
FRITZ COVE
Subarea 9:
North and West Douglas
Map 9C
RD
RD
CA
OPL
RD
Expressway
REC
CA
RD
CA
CASCADE RD CHANNEL
STEPHENS PASSAGE
Map 9A
Point Hilda
PERTH
2000A
Map 9
15000A

Subarea 9: North and West Douglas Island (Maps 9A, 9B, SC)

Community Form: Rural predominately with New Growth Areas. Urban near the Douglas Bridge.

Resources and Hazards:

Type	General Location
Wildlife (Eagles Nests)	Fritz Cove
Stream Corridors	Eagle, Peterson, Fish and Hilda Creeks (Additional waterbodies listed in Appendix B)
Wetlands/Tidelands	Shoreline between Fritz Cove and Kowee Creek, along and above North Douglas Highway
Gravel Resource	Small area on lower Fish Creek, area near Douglas Bridge, Eagle Creek area
Landslide/Avalanche	Hendrickson Creek, various hillside Areas
Flooding	Lower Fish Creek, Lower Peterson Creek, all coastal areas
Watershed	Upper Fish, Hilda, Middle Point and Peterson Creeks

Guidelines and Consideration for Subarea 9 Map:

1. Preserve shoreline and streamside areas in public ownership as open space.
2. Allow for rural residential densities along North Douglas highway corridor and resource reserve designation in upland areas.
3. Provide for low- and medium-density urban residential development in areas north of Kowee Creek which can be served by extending municipal sewer and water systems.
4. Protect access to Treadwell Ditch trail and beach trails.

5. Prevent development within the Fish Creek Road corridor.

6. Retain Fish Creek Park as designated recreational open space and restrict any development adjacent to the park which would significantly impact the valuable estuarine habitat and recreational use of the area. Designate transition area within which development will be allowed at a higher density once sewer and water are available.

7. Fritz Cove adjacent to the North Douglas boat launch facility may be a suitable location for a small boat harbor, barge docks, and other water-dependent industrial facilities. Careful attention needs to be paid to environmental, demographic, economic, social and engineering factors of such development.

8. Public water serves much of the North Douglas Highway, almost out to the CBJ boat ramp facing Fritz Cove.

9. Plans for public sewer are years, perhaps decades from fruition. Such a sewer would be extremely costly since most of the line would have little change in elevation and many pump stations would be needed. The Urban Service Boundary extends approximately four miles past the Juneau Douglas bridge.

10. North Douglas Highway has been upgraded over the recent years and is a wide, reasonably well-appointed roadway. It is also a local access residential street with hundreds of private driveways accessing directly to the highway. This creates dangers to the local users and those passing through. It also limits the use of the road as an arterial to serve potential new development further north and west.

11. Recognizing the growth potential of both North and West Douglas, it is important to also recognize the limitations of North Douglas Highway.

    Two primary proposals have been studied to improve access in North Douglas. The first proposal is the development of a second crossing of Gastineau Channel in the vicinity of the Airport. The second proposal is the development of a "bench road" which would be a new route located parallel to the existing North Douglas Highway but uphill on a natural bench that is presently undeveloped, The bench road is viewed as technically feasible although the route is crossed by several creeks, small valleys, and wetland areas. It may be possible to route increased traffic associated with new development across a second crossing, thereby eliminating the necessity of a bench road, or both options will be required. Therefore:

    A comprehensive traffic evaluation should be completed before either of the two alternatives is pursued in detail. The study should analyze the efficiency of each option, as well as combinations of the two, in solving projected transportation problems associated with increased development in North and West Douglas.

    The preferred method of meeting transportation needs of North Douglas in the

future should undergo through review including environmental, economic, social and engineering factors.

If a second crossing is determined to be the preferred method of meeting future transportation needs, explore the possibility of using tolls to fund bridge construction and maintenance.

12. There has been a dramatic increase in commercial tourist use of the North Douglas area in recent years. Additionally, a 250-acre parcel of CBJ land is currently under review for the development of an 18 hole golf course.

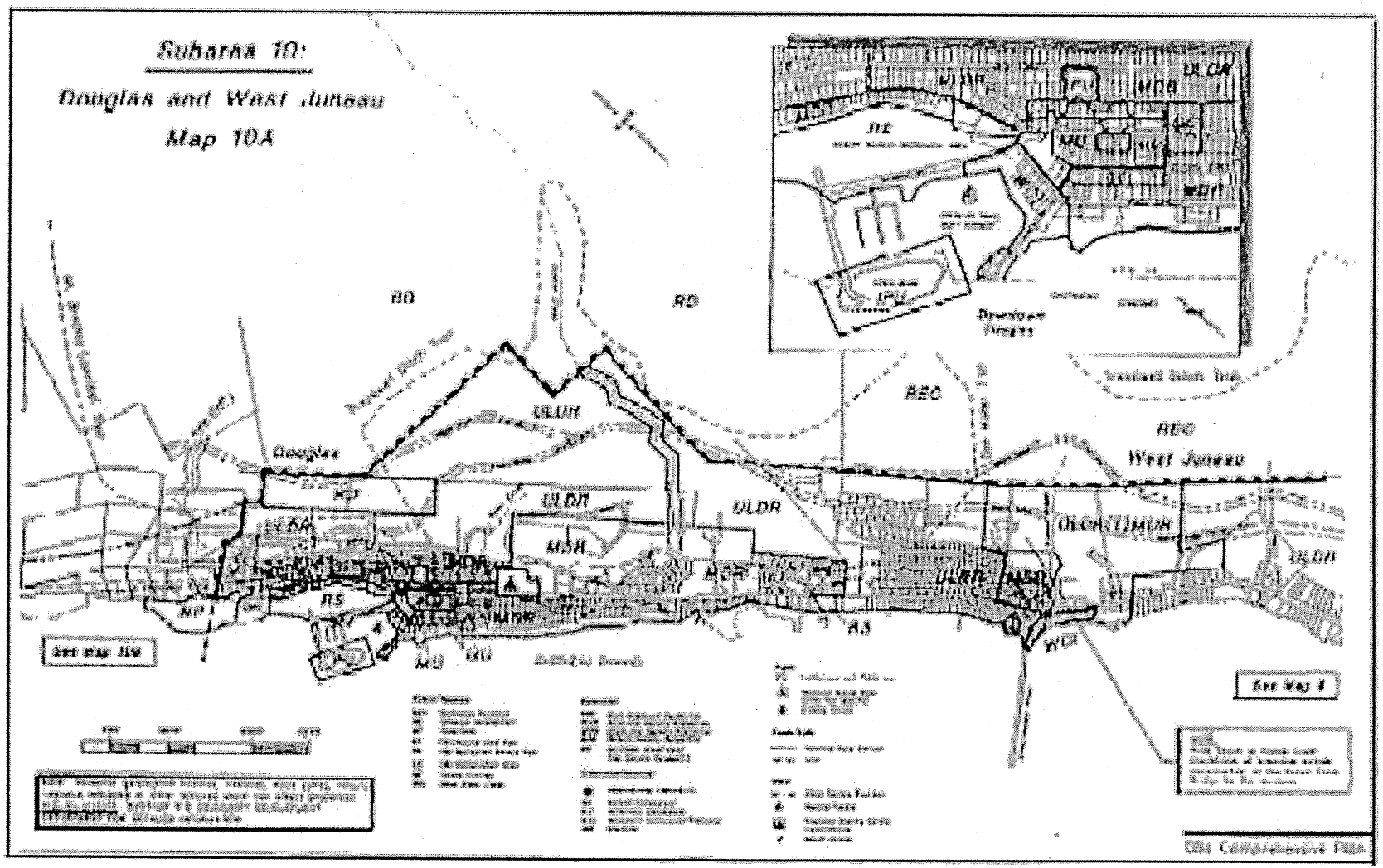
    In its undeveloped current state, north and west Douglas Island are a recreational resource for the whole community. In addition to Eaglecrest, there are miles of shoreline and many acres of unimproved park area. A unique feature is a mile-long stretch of waterfront roadway from the boat launch facility to False Outer Point. Therefore:

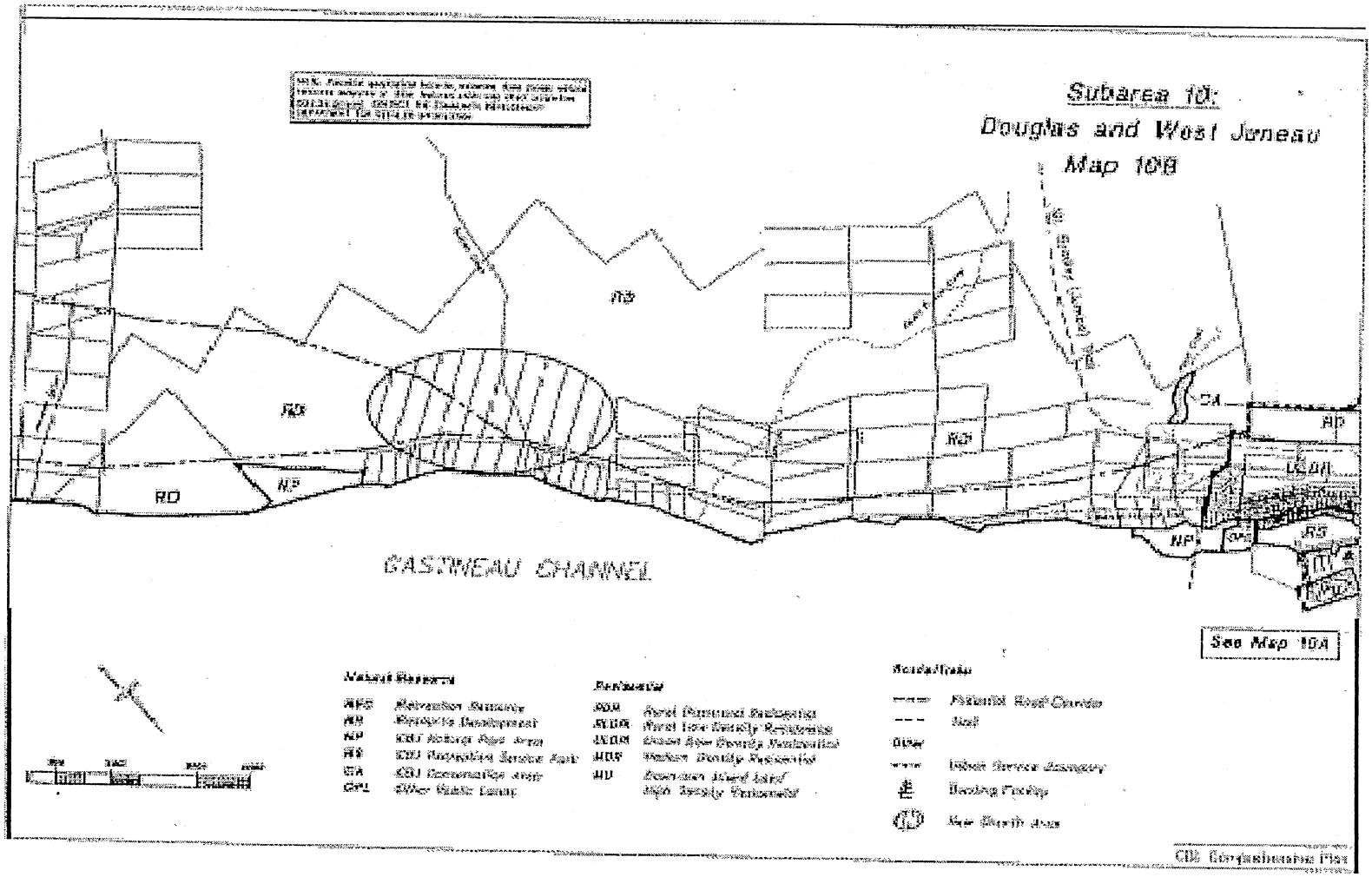
    Minimize the impact of development upon the public's use of the publicly-owned shoreline and the scenic values of the area between Fish Creek and Outer Point.

    With the exception of a boat harbor, prohibit commercial activities along the shore side of the road from Cove Creek to False Outer Point.

13. The un-roaded shoreline on the west side of Douglas Island has still further development potential, both for rural 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 new, joint-planning effort between Goldbelt and the CBJ started in 1995. Therefore:

    Encourage and facilitate the development of a New Growth Area in West Douglas. Minimize adverse impacts on wildlife habitat. Coordinate the state, federal, CBJ, and Goldbelt involvement in development of new growth area.


Subarea 10:
Douglas and West Juneau
Map 10A
Douglas
West Juneau
RD
RED
ULDR
MSR
MRR
MU
WRT
IPU
AS
WCR
MD
BG
JTS
See Map 11W
See Map 9


Subarea 10:
Douglas and West Juneau
Map 10B
RD
RS
RO
NP
GAS/NEAU CHANNEL
See Map 10A

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

Community Form: Urban predominately
Rural, with a potential new growth area, south of Douglas

Resources and Hazards:

Type	General Location
Wildlife (Eagles Nests)	South of Douglas
Stream Corridors	Kowee Creek, Bear Creek, Lawson Creek (Additional waterbodies are listed in Appendix B)
Wetlands/Tidelands	South of Douglas

Guidelines and Considerations for Subarea 10 Map:

1. Provide for increased medium density residential development in areas with access to arterials and served by municipal sewer and water.

2. Maintain the "bridge requirement" for the transition area on upper Kowee Creek, to divert traffic away from Cordova Street.

3. Preserve publicly-owned, undeveloped shoreline areas for public open spaces.

4. Protect access to Treadwell Ditch, Dan Moller and Mt. Jumbo trails and to beaches.

5. Public sewer and water is available throughout the roaded subarea.

6. Douglas Harbor has been the focus of recent development proposals for expansion of the harbor, parking and other facilities for use by harbor and Savikko Park patrons. This harbor has historically been a hub for commercial and transportation activities for Douglas and local mines. Present use includes recreational and commercial boat moorage, park/recreational use, government lab and office (Mayflower Island), boat sales and repair shop, and residential. Therefore:

   Consider expansion of the harbor for increased moorage, transient facilities, grid and more parking, and the feasibility of accommodating cruise ship traffic.

7. The commercial core of Downtown Douglas includes an auto repair shop, gas/convenience store, bar and restaurant. 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 mixed use designation is shown for downtown Douglas. This designation reflects the current pattern of commercial development and will allow higher density residential development.

8. The area between the commercial core and Lawson Creek has been extensively developed over the 1980-1995 period. This development features a wide array of condominiums and apartment buildings above and below the highway with a smattering of single-family development nearer the shoreline. There are still several parcels of private land that could be further developed into multifamily structures.

9. The Cordova Street and Douglas Highway intersection has been the subject of may studies. Perhaps most notable of these was the West Juneau Traffic Study conducted by DOT&PF. These studies have documented the obvious: a problem currently exists weekday AM peak traffic. The traffic problem is likely to get worse as West Juneau, including the existing Blueberry Hill Subdivision and the proposed Island Hill development, are further developed. Therefore:

Actively encourage and work with DOT&PF to monitor the situation and develop a plan for future improvements. Invite DOT8zPF to participate in the review of all future developments in the area.

CHAPTER 7.
IMPLEMENTATION AND ADMINISTRATION

The findings and policies in this comprehensive plan concern the natural and human factors which will influence Juneau's future growth. They reflect the expressed desire of the citizens 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 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 policy 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 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; 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 citizen involvement in the land use decision making process.

4. Coordinate municipal activities with state and federal agencies with regard to decisions of mutual concern.

COMPREHENSIVE PLAN AS 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, standards and criteria established in the plan. To insure 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 71 policy statements, each of which have a series of "implementing actions" 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 confirm 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 situation.

POLICY 7.1. IT IS THE POLICY OF THE CBJ TO ESTABLISH THIS COMPREHENSIVE PLAN AS THE PRIMARY POLICY DOCUMENT WITH WHICH TO GUIDE FUTURE GROWTH AND DEVELOPMENT AND TO MANAGE THE PHYSICAL ENVIRONMENT.

Implementing actions:

7.1.1. Base Community Development Department annual budgets on implementation needs and priorities; assess staff capacity to prepare implementing measures on a timely basis.

7.1.2. Revise, as necessary, zoning, subdivision and other land development ordinances to insure consistency with the Plan's provisions. Amend the Land Use Code Maps, considering them to be the official application of the Comprehensive Plan Maps to specific sites within the CBJ.

7.1.3. Continue preparation of the six year capital improvements program (CIP). Develop annual budgets which incorporate the transportation and other public improvements recommended in the plan.

7.1.4. Use citizens advisory committees to advise the Planning Commission and Borough Assembly in related planning matters.

7.1.5. Evaluate all ordinances, plans and public programs to insure their consistency with the comprehensive plan. For specific land use decisions, 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 statement regarding compliance/non-compliance with policies into findings of fact which provide the legal basis for determining approval or disapproval of a development application.

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 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 "reviewing" a plan and "updating" a plan. Reviewing is simply a matter of arranging for one or more public sessions of discussion and examination of the Plan. The conclusion of a given session might be that the Plan is holding up well and does not need a more elaborate effort to update it for the next period. Provision should be made for amendments between times, especially in regard to issues affecting individual property owners.

POLICY 7.2. IT IS THE POLICY OF THE CBJ TO REVIEW THE COMPREHENSIVE PLAN EVERY TWO YEARS AND AMEND IT AS NECESSARY TO REFLECT CHANGING CONDITIONS AND NEEDS AND TO CONSIDER AND ENACT AMENDMENTS TO THE PLAN AT ANY TIME THE PLANNING COMMISSION AND ASSEMBLY DETERMINE THAT AMENDMENTS ARE NEEDED.

Implementing actions:

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

7.2.2. Prepare a biennial report which:

- ? indicates public and private development activity in the past period;
- ? identifies problems and deficiencies identified in implementing the Plan; and,
- ? describes environmental, economic, social, demographic and other conditions which may necessitate changes and/or amendments to the plan.

7.2.3. 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.

7.2.4. Establish procedures governing the updating process including roles and responsibilities of staff and public officials, nature and extent of citizen involvement, and public notice and hearing requirements.

7.2.5. Adopt procedures for considering amendments to the Plan initiated by property owners or citizens between major updating, providing that one or more of the following factors can be demonstrated:

- ? original decision was in error because important information available at the time was not adequately considered;
- ? changing conditions and/or new information renders the original decision inappropriate;
- ? proposed change is consistent with other applicable policies of the Comprehensive Plan and coastal management program and any specific subarea plans which apply to the site/area.

7.2.6. Establish an on-going, long-range planning advisory committee to address monitoring and updating the Comprehensive Plan and the concepts of a sustainable community for Juneau.

CITIZEN INVOLVEMENT

Efforts to involve citizens in the formulation and periodic updating of this Plan insure 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 citizens 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 7.3. IT IS THE POLICY OF THE CBJ TO MAINTAIN AN ONGOING CITIZEN INVOLVEMENT PROGRAM IN RELATION TO IAND USE PLANNING.

Implementing actions:

7.3.1. Encourage media coverage of land use activities; provide ample public notification of public meetings and hearings, allowing citizens adequate time to respond to new proposals.

7.3.2. 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.

1. Establish procedures for neighborhood organizations including recognition provisions, meeting and notification requirements, and other factors.

2. Notify neighborhood organizations of proposed land use actions which affect them directly.

3. Submit texts of proposed ordinances and plans to affected neighborhood associations; allow for timely review and comment.

4. Provide technical assistance to neighborhood associations, including analysis of land use issues, and other appropriate activities.

5. Include representatives of neighborhood organizations in the capital improvement and budgeting processes.

7.3.3. Sponsor public outreach meetings, workshops, citizen advisory committees, and/or citizen task forces to advise the CBJ on major issues of community-wide concern such as solid waste disposal, new growth area development and downtown planning.

7.3.4. Explore alternative methods for increasing public participation in the CBJ's decision-making and planning process.

INTERGOVERNMENTAL COORDINATION

There is a continuing need for coordination between the CBJ and state and federal agencies, as the latter governments control nearly 80 percent of the CBJ's land area and have major responsibilities for managing/developing coastal and other natural resources. This Plan is an effective guide for future growth and development in the CBJ only with the cooperation of these entities.

POLICY 7.4. IT IS THE POLICY OF THE CBJ TO FACILITATE INTER-GOVERNMENTAL COORDINATION SO THAT DECISIONS AFFECTING LOCAL PLANNING AND DEVELOPMENT ARE RENDERED IN AN EFFICIENT AND CONSISTENT MANNER.

Implementing actions:

7.4.1. Establish and maintain intergovernmental agreements with those state and federal agencies which have local management/development responsibilities: Alaska Departments of Transportation/Public Facilities and Environmental Conservation, U.S. Forest Service, Bureau of Land Management, and others. Utilize agreements to insure 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.

7.4.2. Notify appropriate state and federal agencies of local actions which affect matters within their jurisdiction.

7.4.3. Assign appropriate CBJ personnel as liaisons with these agencies.

THE CIP PLANNING FUNCTION

A recurring need in any municipality is planning for the execution of capital improvement projects. The work includes gathering the needs and expectations of operating departments into a unified document which sets priorities and is adopted by the Assembly at the same time as the annual operating budget. In Juneau'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 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 7.5. IT IS THE POLICY OF THE CBJ TO DEVELOP A SIX-YEAR CAPITAL IMF'ROVEMENT 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, IMPLEMENTING ACTIONS AND GUIDELINES OF THE COMPREHENSIVE PLAN ARE EFFECTUATED.

Implementing actions:

7.5.1. Prepare annual Six-Year Capital Improvement Program, initiated by the Community Development Department. 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 citizen and special interest groups, other city officials, advisory commissions, and others.

7.5.2. Prepare related subsidiary CIP documents.

7.5.3. Analyze each project list for conformity with the Comprehensive Plan.

7.5.4. 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.

APPENDIX A

FOR DISCUSSION
THE CAPITAL CITY VISIONING PROJECT

The Assembly embarked on a Visioning Project in early 1995 as part of a wider effort to enhance Juneau's role and presence as Alaska's capital city. The goal and process for achieving it has been summarized as follows:

> *Develop a Capital City Vision Statement using an open and representative public process to generate the basic features **of** the vision; the process **for** continuation **of** the project; and then, a special committee **of** citizens to refine it into a formal written and pictorial document. Keep the primary focus **of** the Vision Statement on the downtown area but maintain context and coordination with the Comprehensive Plan to assure that non-downtown related capital city issues are addressed.*

The project is intended to define an image of what Juneau could look like and how it might function in the future as a capital city if a variety of public and private physical improvements are made. The focus is on the downtown core and is primarily structures but the Vision Statement could include provisions for various programs and services as well as capital improvements. The Vision Statement will include one or more pictures to show what the Vision would look like graphically. This effort will be guided by a downtown philosophy, that is, a set of basic concepts for how the downtown area should function and how it should feel to the visitor and resident alike. This philosophy sets directions and limitations for more specific and detailed structural elements of the Vision.

The general philosophy for downtown is that it should be developed and managed to serve three interlocking functions:

- State Government, all three branches;
- Residents, short and long term; and
- The Visitor Industry, business, governmental and recreational.

In general, all three will function better if the primary method of moving around in the core area is by foot. There are a variety of means to *arrive* in the downtown area, but once a person has arrived, he or she should be able to carry out normal business activities without use of a car. This may mean more parking facilities for all-day parking and it may mean a downtown shuttle service. Overall, though, the idea is to have a pedestrian-friendly environment that reinforces a sense of community on a personal and comfortable basis. The following sorts of features are included:

1. More vegetation and landscaping. There is virtually none between Main Street and Franklin Street, except the Sealaska Building.
2. Park cars upon arrival and use feet or mass transit (public and private) to get around within the downtown area.

3. Maximum cover over sidewalks. In addition, look for opportunities for sky bridges between buildings. This, in combination with publicly-accessible elevators, will make the downtown area more accessible to disabled people and make the slopes between 4th and Front less of a barrier. Look for means to ease these elevation changes. Make use of public, or even private, elevators to help lift pedestrians from lower elevations to the Capitol area. (For example, the State Office Building elevator on Willoughby Avenue acts as a conduit between "uptown" and the Centennial Hall area. The State could be asked to add another car to the elevator block, which has an extra shaft available, and also to manage it for use in the evening.)
4. Protect sidewalks from snow and ice - separate from street to avoid use of sidewalks for snow storage.
5. Provide means for rapid snow *removal,* not just storage.
6. The Historic District should be preserved. Remaining vacant spaces in historic area should be allowed and facilitated to develop with buildings that follow the historic design.
7. The "new" area, generally along Main Street need not follow historic themes but should be built at generally similar scale to existing modern development. That is, buildings should not be much taller than 80 feet.
8. In both historic and new areas, buildings should be versatile and able to provide for residential use on upper floors as well as office space or other uses.
9. The owners of new and existing buildings should be encouraged to provide as much residential use as possible. The core of downtown can be modeled somewhat on the basis of more densely developed cities such as New York or the French Quarter in New Orleans where businesses predominate on the first floor of buildings, offices on the second and perhaps third floors, and residential uses on the floors above.
10. Establishing more residential units downtown, perhaps as many as 300, will have the effect of creating more services aimed at residents as well as addressing the legislature-related housing shortage.
11. There is a perception now that too many of the storefront commercial spaces are aimed primarily at tourism uses and are closed in the fall, winter and early spring, giving a lifeless appearance to parts of the downtown area. Some of the tourism service businesses could spread out in a larger area because tourism itself is spreading out. Some could develop multiple product or service lines so that year-round activity can occur.
12. Provide more sense of entertainment to the downtown commercial area for both winter and summer. This could include private and public music events and other activities to increase the sense of vibrancy and enthusiasm for residents and visitors alike. The offerings and opportunities would be different between winter and summer but the goal should be to maintain interest and enthusiasm during both the tourist and legislative seasons.

The philosophical elements could be accommodated in many ways. Design limitations, financial limitations and other practical concerns will have an effect. Nevertheless, there have been a variety of ideas for public and private developments and redevelopments over the last several years. Many, if not most, of these ideas support the pedestrian orientation proposed in the philosophy above.

The Vision Statement will thus be based in large part on ideas that have already been expressed at one time or another. The public projects *could* include:

1. New Capitol Building on Telephone Hill.
2. A parking garage on the face of Telephone Hill designed in a stepped-back sort of layer-cake arrangement that allows use of Main Street for the ramps. Preliminary concepts done by CDD indicate that 400-500 cars could be parked around the face and another 300 cars could be parked *inside* Telephone Hill under the footprint of the new capital building. Sky bridges from this garage could cross Main to other new public or private development.
3. Expanded facilities at Centennial Hall, especially more breakout rooms on a second floor. There could be a skybridge from the State Office Building and/or the Telephone Hill Parking Garage to the second floor.
4. Relocation of the Subport, Armory and Alaska Department of Public Safety facilities to other locations and replacement with more appropriate public or private developments. (The Armory/DPS site is a candidate for a new city hall or a performing arts center.)
5. New city hall somewhere in the downtown area.
6. The proposed upgrade of Thane Road and some other street improvements now in the planning stages at DOT&PF.
7. A skybridge from the Alaska Office Building across Main to the Community Building and/or the Court building. Other such improvements could include a third elevator in the State Office Building to ease travel between Willoughby and 4th.

The process to develop the Vision Statement will take most of 1995 and will result in a graphic depiction of the capitol complex/downtown core of the future. The result will be added to the Comprehensive Plan at the same time it is adopted in final form by the Assembly. Other parts of the Comprehensive Plan are related to the Vision Project and these parts will affect the development of the Vision and the Vision will influence the implementation of other policies. See, in particular, Policy 2.10 State Capital, Policy 2.11 Downtown Juneau, in Chapter 2 and Subarea 6: Juneau, in Chapter 6.

APPENDIX B

CREEKS, RIVERS AND LAKES WITH ANADROMOUS FISHERY RESOURCES IN THE CBJ

Stream or Lake	Approximate Location	ADFG Catalog No.
Antler River	Berners Bay	115-20-10300
Gilkey River	Antler River Trib.	115-20-10300-2004
Unnamed Creeks	Berner's River Trib.	115-20-10100-2006 115-20-10100-2006-0010 115-20-10100-2009 115-20-10100-2015
Berners River	Berners Bay	115-20-10100
Lace River	Berners Bay	115-20-10200
Unnamed Creek	Lace River Trib.	115-20-10200-2016
Sherman Creek	Lynn Canal, North	115-31-10330
Sweeny Creek	Lynn Canal, North	115-31-10350
Unnamed Creek	Lynn Canal, North	115-31-10300
Taku Lake Creek	Taku Harbor	111-31-10050
Taku Lake	Unnamed Creek Trib.	111-31-10050-0010
Sawmill Creek	Berners Bay, East	115-20-10520
Johnson Creek	Berners Bay	115-20-10070
Bridget Cove Trib.	Bridget Cove	115-10-10230
Unnamed Creek	Echo Cove	115-20-10590
Cowee Creek	Echo Cove, West	115-20-10620
Cowee Creek, S. Fork	Cowee Creek Trib.	115-20-10620-2006
Davies Creek	Cowee Creek Trib.	115-20-10620-2003
Unnamed Creek	Lynn Canal	111-50-10600
Eagle River	Lynn Canal	111-50-10070
Boulder Creek	Eagle River Trib.	111-50-10070-2009

Stream or Lake	Approximate Location	ADFG Catalog No.
Unnamed Trib.	Eagle River Trib.	111-50-10070-2012
Unnamed Creek	Eagle River Trib.	111-50-10070-2018
Herbert River	Lynn Canal	111-50-10070-2004
Unnamed Lake	Herbert River	111-50-10070-2004-0010
Unnamed Creek	Amalga Harbor	111-50-10070-2004-3002
Unnamed Creek	Herbert River Trib.	111-50-10070-2004-3002-4007
Unnamed Creek	Herbert River Trib.	111-50-10070-2004-3002-4007-5004
Unnamed Creek	Herbert River Trib.	111-50-10070-2004-3002-4007-5010
Unnamed Creek	Herbert River Trib.	111-50-10070-2004-3002-4007-5010-6003
Unnamed Creek	Herbert River Trib.	111-50-10070-2004-3002-4007-5010-6009
Unnamed Creek	Herbert River Trib.	111-50-10070-2004-3002-4007-5010-6009-7003
Unnamed Creek	Herbert River Trib.	110-50-10070-2004-3002-4017
Unnamed Creek	Herbert River Trib.	110-50-10070-2004-3002-4017-5004
Unnamed Creek	Herbert River Trib.	110-50-10070-2004-3002-4017-5008
Unnamed Creek	Herbert River Trib.	110-50-10070-2004-3002-4017-5008-6011
Unnamed Creek	Herbert River Trib.	110-50-10070-2004-3002-4021
Windfall Creek	Herbert River Trib.	110-50-10070-2004-3002-4021-5004
Windfall Creek	Herbert River Trib.	111-50-10070-2004-3006
Unnamed Creek	Herbert River Trib.	111-50-10070-2004-3006-4003
Windfall Lake	Windfall Creek	111-50-10070-2004-3006-4006
Peterson Creek	Amalga Harbor	111-50-10070-2004-3006-0010
Unnamed Creek	Salt Chuck Trib.	111-50-10100
Shrine Creek	Near Shrine Island	111-50-10110
Tee Creek	Tee Harbor	111-50-10140
North Tee	North Tee Harbor	111-50-10200

Stream or Lake	Approximate Location	ADFG Catalog No.
Lena Creek	Lena Beach	111-50-10300
Unnamed Creek	Lena Beach Rec. Area	111-50-10310
Auke Nu Creek	Auke Bay	111-50-10350
Waydelich Creek	Auke Bay	111-50-10370
Bay Creek	Auke Bay, Inner	111-50-10390
Auke Creek	Auke Bay, Inner	111-50-10420
Auke Lake	Auke Bay Vicinity	111-50-10420-0010
Unnamed Creeks	Auke Lake	111-50-10420-2002
Unnamed Creeks	Auke Lake	111-50-10420-2006
Lake Creek	Auke Lake	111-50-10420-2010
Lake II Creek	Auke Lake	111-50-10420-2008
Unnamed Creek	Auke Lake	111-50-10420-2013
Unnamed Creek	Auke Lake	111-50-10420-2013-3003
Unnamed Creek	Auke Lake	111-50-10420-2015
Bessie Creek	Lynn Canal	115-10-10250
Unnamed Creeks (Casa del Sol Cr.)	Mendenhall Peninsula	111-50-10490-2013 111-50-10490-2020 111-50-10490-2020-3005
Montana Creek	Mendenhall River, North	111-50-10500-2003
McGinnis Creek	Montana Creek	111-50-10500-2003-3060
Unnamed Creek	Montana Creek	111-50-10500-2003-3060-4011
Mendenhall Lake	Upper Mendenhall Valley	111-10500-0020
Nugget Creek	Mendenhall Lake	111-50-10500-0020-2010
Steep Creek	Mendenhall Lake	111-50-10500-2006
Glacier Lake	Upper Mendenhall Valley	
Morraine Lake	Upper Mendenhall Valley	
QT Lake	Upper Mendenhall Valley	

Stream or Lake	Approximate Location	ADFG Catalog No.
Louie Lake	Upper Mendenhall Valley	
Norton Lake	Upper Mendenhall Valley	
Crystal Lake	Upper Mendenhall Valley	
Dredge Lake	Upper Mendenhall Valley	
Dredge Lake Creek	Upper Mendenhall Valley	111-50-10500-2004
Marshall Pond	Upper Mendenhall Valley	
Mendenhall River	North Gastineau Channel	111-50-10500
Unnamed Creeks	Montana Creek Trib.	111-50-10500-2003-3014 111-50-10500-2003-3018 111-50-10500-2003-3024 111-50-10500-2003-3042 111-50-10500-2003-3054
Unnamed Creeks	Dredge Lake Area	111-50-10500-2004 111-50-10500-2004-3011 111-50-10500-2004-3011-4003 111-50-10500-2004-3011-4003-5002 111-50-10500-2004-3011-4007 111-50-10500-2004-3011-4013 111-50-10500-2004-3020
Duck Creek	Lower Mendenhall Valley	111-50-10500-2002
Unnamed Creek	Duck Creek Trib.	111-50-10050-2002-3014
Unnamed Creek	Duck Creek Trib.	111-50-10050-2002-3030
Jordan Creek	Lower Mendenhall Valley	111-50-10620
Unnamed Creek (West Creek)	Gastineau Channel, NE	111-40-10050
Unnamed Creek (West Creek)	Gastineau Channel, NE	111-40-10060
Switzer Creek	Gastineau Channel, NE	111-40-10070
Unnamed Creek	Switzer Creek Trib.	111-40-10070-2001
Unnamed Creek	Switzer Creek Trib.	111-40-10070-2003
Unnamed Creek	Switzer Creek Trib.	111-40-10070-2006
Unnamed Creek	Switzer Creek Trib.	111-40-10070-2013

Stream or Lake	Approximate Location	ADFG Catalog No.
Lemon Creek	Gastineau Channel, NE	111-40-10100
Unnamed Creek	Lemon Creek Trib.	111-40-10100-2029
Vanderbilt Creek	Gastineau Channel, NE	111-40-10125
Twin Lakes	Gastineau Channel, NE	
Salmon Creek	Gastineau Channel, NE	111-40-10150
Salmon Creek Reservoir	Salmon Creek	
Gold Creek	Gastineau Channel, East	111-40-10200
Sheep Creek	Gastineau Channel, East	111-40-10280
Little Sheep Creek	Gastineau Channel, East	
Peterson Creek (Outer Point Creek)	Douglas Island, NW	111-50-10750
Unnamed Creek	Douglas Island, NW	111-50-10750-2027
Unnamed Creek	Peterson Creek Trib.	111-50-10750-2033
Unnamed Creek	Peterson Creek Trib.	111-50-10750-2035
Unnamed Creek	Peterson Creek Trib.	111-50-10750-2039
Unnamed Creek	Peterson Creek Trib.	111-50-10750-2042
Eleven-mile Creek	Douglas Island, North	
Cove Creek	Douglas Island, North	
Fish Creek	Douglas Island, North	111-50-10690
Cropley Lake	Fish Creek	
Nine-mile Creek	Douglas Island, North	111-50-10670
Johnson Creek	Douglas Island, NE	111-50-10660
Hendrickson Creek	Douglas Island, NE	111-40-10980
Neilson Creek	Douglas Island, NE	111-40-10960
Falls Creek	Douglas Island, East	111-40-10940
Eagle Creek	Douglas Island, East	111-40-10920
Grant Creek	Douglas Island, East	111-40-10910

Stream or Lake	Approximate Location	ADFG Catalog No.
Kowee Creek	Douglas Island, East	111-40-10900
Lawson Creek	Douglas Island, East	111-40-10890
Bear Creek	Douglas Island, East	
Ready Bullion Creek	Douglas Island, West	111-40-10860
Bullion Creek	Douglas Island, West	111-40-10850
Nevada Creek	Douglas Island, West	
Middle Creek	Douglas Island, West	111-40-10600
Hilda Creek	Douglas Island, West	111-40-10700
Unnamed Creek	Douglas Island, West	111-40-10690
Unnamed Creek	Slocum Inlet	111-32-10990
Unnamed Creek	Unnamed Creek Trib.	111-32-10990-2005
Carlson Creek	Taku Inlet	111-32-10130
Unnamed Creek	Tracy Arm	111-21-10040
Whiting River	Port Snettisham	111-35-10050
Unnamed Creek	Port Snettisham	111-35-10050-2035
Crescent Lake	Whiting River	111-35-10050-2035-0010
Unnamed Creek	Whiting River Trib.	111-35-10050-2035-3007
Unnamed Creek	Whiting River Trib.	111-35-10050-2035-3013
Unnamed Lake	Crescent Lake	111-35-10050-2035-0020
Unnamed Lake	Whiting River	111-35-10050-2032-0010
Unnamed Creek	Whiting River	111-35-10050-2032
Unnamed Creek	Taku River	111-33-10080
Speel River	Tracy Arm	111-33-10300
Prospect Creek	Taku River	111-33-10100
Unnamed Creek	Speel River Trib.	111-33-10300-2014
Unnamed Creek	Speel River Trib.	111-33-10300-0010

Stream or Lake	Approximate Location	ADFG Catalog No.
Prospect Creek	Port Snettisham	111-22-10100
Unnamed Creek	Port Snettisham	111-34-10200
Unnamed Creek	Port Snettisham	111-34-10220
Unnamed Creek	Port Snettisham	111-34-10240
Unnamed Creek	Port Snettisham	111-34-10280
Limestone Creek	Limestone Inlet	111-90-10050
Unnamed Creek	Limestone Inlet Creek Trib.	111-90-10050-2005
Turner Creek	Taku Inlet	111-32-10800
Davidson Creek	Taku Inlet	111-32-10780
Unnamed Creek	Davidson Creek	111-32-10780-2010
Taku River	Taku Inlet	111-32-10320
Unnamed Creek	Taku River Trib.	111-32-10320-2004
Fish Creek	Taku River Trib.	111-32-10320-2052
Wright River	Taku River Trib.	111-32-10320-2032
Yehring Creek	Taku River Trib.	111-32-10320-2024
Unnamed Creek	Taku River Trib.	111-32-10320-2024-3004
Moose Creek .	Taku River Trib	111-32-10320-2021
Unnamed Creek	Moose Creek Trib.	111-32-10320-2021-3012
Unnamed Creek	Moose Creek Trib.	111-32-10320-2021-3008-4004
Unnamed Creek	Moose Creek Trib.	111-32-10320-2021-3008
Twin Glacier Creek	Taku River Trib.	111-32-10320-2019
Unnamed Creek	Taku River Trib.	111-32-10320-2019-3006
Twin Glacier Lake	Unnamed Creek	111-32-10320-2019-0010
Unnamed Creek	Twin Glacier Lake	111-32-10320-2010-0010-2006
Johnson Creek	Taku River Trib.	111-32-10320-2016
Unnamed Creek	Johnson Creek Trib.	111-32-10320-2016-3005

Stream or Lake	Approximate Location	ADFG Catalog No.
Sockeye Creek	Taku River Trib.	111-32-10320-2013
Unnamed Creek	Sockeye Creek Trib.	111-32-10320-2013-3004

APPENDIX C

EXAMPLE SUSTAINABILITY KEY INDICATORS, MEASURES, AND QUESTIONS

During the neighborhood meetings in preparation for the update of the Comprehensive Plan, a Task Force of the Juneau Sustainable Community Roundtable, associated with the Juneau Chamber of Commerce, was challenged by the Planning Commission to develop a series of questions which would incorporate the concept of sustainability into the process of reviewing and approving policies and activities for our community. The resulting work of the Task Force is presented here in the Appendix of the Comprehensive Plan for discussion purposes in order to encourage and enlarge the public dialog regarding sustainability.

To put together the lists of questions and indicators, the Task Force analyzed the work of other communities and groups, and found that indicators:

1. help communities judge progress toward their long-term vision, and adjust policies, programs, and personal behavior accordingly;

2. are tools to track sustainability over time;

3. are "vital signs" revealing the status of large systems, helping us focus on long-term planning for the vitality and integrity of local and global systems;

4. are understood and accepted by the community as revealing something fundamental to the social, governmental, ecological, or economic health of Juneau's community over many generations;

5. are practically measurable, specifically about the community of Juneau, and facilitate comparison of Juneau to other cities and communities worldwide.

The Task Force found that Measures are data. Measures:

1. are tools to quantify and objectify values, qualities, and concepts that may be intangible or subjective;

2. allow us to compare and track indicators--over time, and among communities worldwide;

3. may be derived from multiple measures in order to adequately quantify an indicator.

FOR DISCUSSION

KEY INDICATORS AND MEASURES OF SUSTAINABILITY FOR JUNEAU

Indicator	Measure
Dimension: Social / Ethical	
Population	Total Net natural biological growth; births less deaths Seasonal Population
Family	Percent of families with children considered at risk Percent of families experiencing domestic violence Percent of families on several "public assistance" programs
Human Service Delivery	Percent of population being served Percent of served reaching reasonable outcomes for their identified needs
Public Safety	Total violent and property crimes per 10,000 population per year
Education	Percent of 9th graders who graduate from high school
Wellness	Percent babies below average birth weight Subjective well-being: Individual sense of happiness, safety, optimism
Cultural Vitality	Non-profits: number of entities, members, volunteer hours, annual budgets
Dimension: Governmental / Political	
Land Use Strategy	Annual raw land acreage and coastline footage changed by development Percent of developed land within quarter mile of public transit stop

Community Participation	Percent of registered voters who voted in last election
Government Effectiveness	CBJ cost per capita for basic public services such as education, transportation, fire protection, police service Number of agencies which use performance measures
Planning Horizon	Years: legally used horizon, commonly used horizon Do we consider global implications of Juneau decisions and actions?
Dimension: Ecological	
Outdoor Air Quality	Annual total emissions of carbon dioxide (CO_2): Juneau plus support Number of good air quality days per year: Mendenhall Valley; Lemon Creek; Downtown
Indoor Air Quality	Percent of homes with HRV's (heat recovery ventilators) Air changes per hour: offices and commercial buildings
Water Quality/Quantity	CBJ municipal system (Gold + Salmon Creeks): Quality: Total contaminate load Supply-demand ratio: minimum, maximum Percent of fresh and marine waters acceptable for hatchery, fishery use
Contaminated Site	List known contaminated sites
Hazardous Wastes	Household and industrial waste brought to "collection"
Sewage	Volume and quality of municipal wastewater discharge Number of untreated outfalls: residential, commercial, Ships
Solids: Consumption And Disposition	Annual consumption of solids: total mass, per capita mass Percent of imports: recycled or reused; incinerated; landfilled
Bioadversity and Geographic distribution	Number of extant species, total population of each; baseline data

	Number of CBJ streams with wild salmon run, total returning salmon population to each stream
Noise	Man-made ambient noise by season and locality: spectral analysis
Dimension: Economic	
Energy Consumption: local economy; total including "support"	Per capita annual consumption, all sources Percent of annual total consumption from local, renewable sources Remaining years of world conventional, recoverable oil and gas (USGS estimate)
Employment and Income	Expected longevity (years) of job base: distribution Percent real unemployment, including discouraged workers Ratio of personal income to cost of living
Depth and self-sufficiency	Percent produced and used in Juneau: food, building materials Outside dollar turnover: number of times spent within local economy
Capital	Private-sector capital available: personal; institutional Public-sector capital available: CBJ, Alaska: reserves; debt ratios (per capita, per assessed value)
Transportation	Public transit annual total ridership Percent of transportation by private vehicle; by public transit Gallons petroleum fuel used: private transit: public Transit
Housing	Average life-cycle cost per dwelling unit Vacancy rate by dwelling type Average rent by dwelling type[1]

See also: Juneau Trends, December 1993, McDowell Group for CBJ and JEDC: about 30 key measures plus hundreds of economic detailed measures

FOR DISCUSSION

QUESTIONS FOR EVALUATING SUSTAINABILITY

When considering a proposed project or activity, one would ask, for example, these questions:

Social / Ethical dimension:

1. What needs does it meet?
2. Does it compromise the needs of others or the basic needs of future generations?
3. Does it foster strong relationships within and among families, neighborhoods, schools, cultures, and community?
4. Does it compromise our diverse community make-up?

Political / Governmental dimension:

1. What are its public benefits and costs?
2. When will this decision need review and re-approval? Who will do it?
3. Are there policy issues that need discussion and resolution before this activity can be approved?

Ecological dimension:

1. Does it encourage efficient use of renewable resources, or the investment of non-renewable resources into a lasting or recyclable form?
2. What are its impacts on our community and on natural systems?

Economic dimension:

1. What are its likely effects on employment and business, both existing and new opportunities?

2. Does it spend income, or does it spend capital?

3. What public or private infrastructure is needed? Who pays for this? For
   capital projects: do we value with "life-cycle costs", including replacement?

4. Does it affect the cost of living?
   Does it affect the ratio of (personal income)?
   (cost of living)

GLOSSARY

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

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.

AVALANCHE: Rapid fall or slide down a mountainside of a large mass of snow, rock or other material.

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.

BUFFER ZONE: Strip of land, identified in the zoning ordinance, which protects one type of land use from another with which it is considered incompatible.

CAPITAL IMPROVEMENT: Any public acquisition of real property, major construction, or purchase of expensive equipment with a lifetime of more than one year.

CAPITAL IMPROVEMENTS PROGRAM: 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.

COASTAL DEVELOPMENT: Development which includes industrial, port and harbor, 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 shorelands.. .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 and services and private and public offices.

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 preserved. 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.

CONSERVE: Manage and utilize in a manner which avoids waste or destruction now and in the future.

CONSERVATION: Act of conserving.

DENSITY: Average number of families, persons or housing units per unit of land. 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 uses.

DENSITY BONUS: In planned 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, 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: The act, process or result of developing.

DEVELOPMENT RIGHTS: Broad range of land ownership interests. In legal terms, land is seen as encompassing a "bundle" of rights which can be separated and sold individually or as a whole.

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.

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.

ESTUARY: 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.

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 streamflows, 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.

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 shoreland jutting out into the ocean, generally sloping abruptly into the water.

HISTORICAL RESOURCES: Areas, sites, buildings, structures, and artifacts which have a relationship to events or conditions of the past.

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 economic, social and fiscal factors.

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.

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.

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 maps.

LANDSLIDE: Dislodging and rapid or gradual movement of a mass of earth and rock.

MEAN HIGH WATER: Is the average elevation of the high tides. (2003 Revision)

MOBILE HOMES: A unit designed for use as a residence constructed on a chassis to facilitate its movement to its permanent site, but not designed and built to the specifications of the Uniform Building Code for conventional structures.

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 areas potentially suitable for urban/suburban residential development--characterized by urban densities and a full complement of services and facilities, including water and sewer, recreational, educational and neighborhood commercial services. Non-residential uses such as port facilities or resource-related industrial development, e.g. a lumber mill or fish processing plant, may also be appropriate.

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 interdune areas.

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. (2003 Revision)

OVERLAY ZONE: Zoning requirements imposed in addition to those of the underlying district. Development within an overlay zone must conform to both requirements or to the more restrictive.

PERMITTED USE: Use of land specifically authorized in a particular zone.

PERFORMANCE STANDARD: Minimum requirement or maximum allowable limit on the effects or characteristics of a use. For example, specifications regarding the amount of pollution allowed an industrial use without specific reference to how that level is to be achieved.

PLANNED UNIT DEVELOPMENT (PUD): Form of housing development usually characterized by a unified site design and approval. May include clustered buildings, common open space, 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 City and Borough of Juneau.

STUDY AREA: Smaller area which includes all land around existing urban and rural development generally considered developable due to ownership and /or physical suitability.

FOCUS AREA: Area which contains land most suitable for future urban development due to its proximity to existing uses, physical characteristics, and ownership.

PLANNING PROCESS: Procedure related to land use by which a community sets goals, collects information, reviews alternatives, and approves a plan and implementation process.

PREFABRICATED HOUSING: Factory-manufactured dwelling unit constructed to uniform building code specifications which is transported to a site and assembled on a permanent foundation. Does not include mobile homes, which are subject to less stringent construction 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 permanently retained and managed for recreational and scenic values.

RESIDENTIAL LAND: Used for housing or dwelling units. The following relate to the provisions of this comprehensive plan.

> RURAL RESIDENTIAL: Dispersed, very low density development not served with municipal sewer. Densities are intended to permit one dwelling unit per acre, but larger lot sizes may be appropriate based on the ability of the area to accommodate on-site septic systems and wells.
>
> LOW DENSITY RESIDENTIAL: Urban/suburban residential land for detached single family units, duplexes and zero lot line units at densities under seven units per acre; rural residential land for detached single family units at densities of one to three units per acre.
>
> MEDIUM DENSITY RESIDENTIAL: Urban/suburban residential land for multifamily dwelling units at densities from 7 to 20 units per acre; may include subdivisions or parks of manufactured housing.
>
> MIXED USE (INCLUDES HIGH DENSITY RESIDENTIAL): Urban residential land for multifamily dwelling units at densities or more than 20 unites per acre; may include retail/office uses on lower floors.

RIPARIAN: Of, pertaining to, or situated on the edge of the bank of a river or other body of water.

RURAL AREAS: All land outside an urban service area which contains natural resources in need of protection from development or areas unsuitable or not needed for more intense 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 characterized by few public facilities and services; no public water and sewer, and limited police and fire protection.

SENSITIVE AREA: In the CBJ, areas with significant natural resource value or natural hazards 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.

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.

SPECIAL USE; SPECIAL USE PERMIT: In regard to land, refers to uses which require special approval or conditions.

STREAM CORRIDOR: Except on heavily modified streams, a 200-foot corridor on either side of a stream in which development is controlled carefully or, if necessary, prohibited to protect valuable habitat, scenic and/or recreational values.

SUBDIVISION: Four or more parcels of land treated as a unit. It 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 or for public purposes and prescribing procedures for review.

SUBTIDAL: Below the level of mean lower low tide (MLLT).

TIDAL MARCH: 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 unvegetated area which is alternately exposed and covered by the falling and rising of the tide.

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.
>
> 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.

LOCAL: Street designed to provide vehicular access to abutting properties and discourage through traffic.

MASS TRANSIT: Land used 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 (bus, light rail, rapid transit).

UPLAND: Drainages, aquifers (that is, underground water-bearing strata), whose development has a direct and significant impact on coastal waters.

URBAN/SUBURBAN DEVELOPMENT: In the CBJ, residential, commercial, industrial, and public uses which require and support a full complement of public services and facilities.

URBAN SERVICE AREA (USA): In the CBJ, site of existing urban development plus adjacent vacant land needed and appropriate for future urbanization; designation based on proximity to sewer, water and other public facilities, ownership and physical suitability.

WATER-DEPENDENT: 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.

WATER-RELATED: 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.

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).

ZONING: Regulation of the use of land and the improvements on it for the protection of the public health, welfare and safety. Zoning regulations establish standards for development and create different zoning districts or classification of land.