

# Anderson-Ketron Islands

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## Community Plan Background

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# Chapter 1: INTRODUCTION

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## OVERVIEW OF THE PLAN AREA

Anderson Island and Ketron Island are located in Puget Sound in southwestern Pierce County, northeast of the Nisqually Reach. Land areas near to Anderson Island include Key Peninsula one mile to the northwest, McNeil Island one-half mile to the north, the main land mass of Pierce County from two to three miles to the east and southeast, and Thurston County two miles to the southwest. Ketron Island is two miles east of Anderson Island, about one-half mile from the main land mass of Pierce County. Steilacoom is the closest municipality to the islands, three miles east of Anderson Island, and one-half mile east of Ketron Island.

Anderson Island has an area of approximately 8.1 square miles, extending 4.3 miles from north to south, with 17 miles of shoreline. Ketron Island has an area of approximately 230 acres, extending 1.4 miles from north to south, with 3 miles of shoreline. They are designated for rural and resource based land uses under the Pierce County Comprehensive Plan. The community plan does not contain an urban area as defined by the Washington State Growth Management Act (GMA).

While the islands share an orientation toward the surrounding marine waters, each has its own distinct character. Anderson Island is characterized by a variety of rural land uses on large lots, with a small portion of the island divided into small residential lots. Residential home sites, agricultural lands, and forest lands dominate the land use pattern, which is interspersed with limited commercial and business development. Anderson Island has a number of community oriented facilities including public parks, community center, museum, and other civic and public facilities.

Ketron Island is primarily forested and undeveloped, with a few homes toward the north end of the island. The central and northern portions of the island are for the most part subdivided into small residential lots, while the southern third of the island consists of a single parcel of over 50 acres. No community or public facilities are situated on the island.

The plan area encompasses portions of Township 19 North, Ranges 1W and 1E, and Township 20 N, Range 1E, and is in Pierce County Council District #6. Anderson Island is located in Census Tract 726 together with Key Peninsula, while Ketron Island is located in Census Tract 721 with other nearby communities in Pierce County, as defined in the year 2000 census. The total population on Anderson Island is approximately 900 people and approximately 20 people on Ketron Island.

## THE ENVIRONMENT

Anderson and Ketron Islands are rural communities with a strong connection to the surrounding shoreline. Views of Puget Sound throughout the area and the quiet, private island character attract people to visit and live on the islands. Substantial stretches of shoreline on both islands are characterized by steep slopes that limit access to the marine shorelines; however, public parks on Anderson Island provide access to both Puget Sound and the lakes on

the island. Developed areas predominantly fall into the medium to low density residential uses, agricultural uses, and small scale commercial uses.

## HISTORY OF ANDERSON ISLAND

The following synopsis of Anderson Island history is liberally borrowed, summarized, and rewritten from “Images of America – Anderson Island” written by Elizabeth Galentine and the Anderson Island Historical Society, published by Arcadia Publishing, 2006.

### EARLY HISTORY

The Nisqually Tribe of Indians used the shoreline of Anderson Island to fish for salmon and inland areas for harvesting berries. They called the island Kloh-chks. The earliest recorded history referring to the island was documented in 1792, when Peter Puget mapped the island during a trip through south Puget Sound as part of Capt. George Vancouver’s 1791-1794 exploration of the Pacific coast. Charles Wilkes with the U.S. Exploring Expedition named the island in 1841 for Alexander Anderson of the Hudson’s Bay Company. Other names given for the Island between 1846 and 1889 included Fisgard Island and Wallace Island. The name Anderson Island was restored when Washington joined the Union in 1889.

Three brothers from Denmark, John, Andrew, and Christian Christiansen, were the first permanent settlers on Anderson Island. Arriving in the early 1870s, they established a logging operation on the island, and a wharf and wood yard on Amsterdam Bay to service steamships. By 1890 island population had grown to 22.

### EARLY 20TH CENTURY

Life on Anderson Island flourished in the early 1900s. Logging, brickyards, steamship activities at Johnson’s Landing, farms, and growing families all contributed to the prosperity. Settlement first occurred along the shoreline and at two inland communities, Yoman and Vega. Initially, travel from place to place on the island was either by trail or boat. The first main road, Eckenstam-Johnson Road, allowed farmers to bring their produce to Johnson’s Landing to be loaded onto steamships.

Transportation in the Puget Sound region into the early 20<sup>th</sup> century was dominated by steamships, used both for passenger travel and commerce. By the 1930s competition from railroads and highways ended the dominance of the “mosquito fleet” of steamships. Diesel-electric automobile ferries came to Puget Sound in the 1930s, however the first auto ferry began operations from Steilacoom to Anderson Island, McNeil Island, and Longbranch in 1922. By 1921 the population of Anderson Island reached 141, followed by a downward trend resulting from the end of the steamship era, which left the population at 106 in 1950.

### INDUSTRY, COMMERCE, AND SERVICES

As services from the mosquito fleet diminished, local stores opened on Anderson Island. The Ehricke Store at the north part of the island and the Carlson Store at the south provided supplies from the mainland as well as produce grown on the island. Mail delivery served post offices in Yoman and Vega. Telephone service began in 1917, with full service arriving in the 1950s. Electricity arrived in 1961, and the fire district was established in 1979. A range of small businesses began to appear in the 1960s; however, a central business district never became established on the island.

The first community project of the early Scandinavian settlers on Anderson Island was to use ten acres donated by Peter Christiansen to build a school, opened in 1881, and designate a site for a cemetery. When school enrollment dwindled to seven in 1968, the Anderson Island School District became part of the Steilacoom Historic School District. The school building is now part of the Anderson Island Park and Recreation District, together with six parks on 300 acres.

The Utopian Social Club of McNeil and Anderson Islands, formed in 1904, was instrumental in fostering the culture and traditions that exist on the Island. A clubhouse was built in 1930 and remains in use today as the Anderson Island Community Club, a gathering place for island residents.

In the early 1960s a 32-lot vacation home development known as Surf and Sands Estates was established on Lake Josephine. During the 1960s other nearby tracts were developed, and in 1966, following further sales and development of land in the area, the Riviera Community Club, consisting of 3,100 lots and 800 homes, was established. Today, Anderson Island continues on as a community that supports residences, agriculture, recreational activities, and a rural island way of life.

## HISTORY OF KETRON ISLAND

Much of the following synopsis of Ketron Island history is excerpted and rewritten from information in an unpublished pamphlet titled “The Romance of Ketron” with reference to J.C. Morris and Don Morris.

Prior to European settlement Indians are said to have found Ketron to be a popular location for fishing, clamming, and ceremonial dances and celebrations. The Island was unnamed until the Wilkes expedition of 1841, when the expedition party named the Island after William Kittson, a recently deceased resident of nearby Fort Nisqually. The Island was given a variety of spellings on maps and documents over several years until the name Ketron eventually took hold. The first known resident of Ketron Island was Captain Warren Gove, who lived there in the 1850s.

Ownership and activity on Ketron Island was sporadic until well into the 1900s. In 1946, J.C. Morris of Anchorage purchased the island, which at the time was undeveloped except for an unopened resort consisting of 60 cabins, a lodge, and a guest house. After a three year period of operation the resort was closed, and preparations were made to develop a residential community. The first residences were built in the early 1960s. Since that time a small number of homes have been built on the island, and a marina on the east side of the island has at various times provided commerce and recreation opportunities to residents and visitors.

## PLANNING HISTORY

### COUNTY PLANNING

#### 1962 PIERCE COUNTY COMPREHENSIVE PLAN AND ZONING

The first Pierce County Comprehensive Land Use Plan was adopted on April 2, 1962. The Pierce County Zoning Code, which implemented the Comprehensive Plan, was adopted on October 8, 1962. The 1962 Pierce County Comprehensive Plan designated Anderson and Ketron Islands as “Rural Residential.” These rules followed very basic planning principles. Zoning districts were established that dictated the appropriate location for commercial business and residential homes. However, the Plan did not offer much protection from incompatible uses and did not recognize the unique individuality of communities.

#### 1994 PIERCE COUNTY COMPREHENSIVE PLAN

In April 1990, the Growth Management Act (GMA) was passed by the Washington State Legislature. It required Pierce County to update its existing Comprehensive Plan and Zoning Regulations, including community plans. The GMA required Pierce County to develop and adopt a comprehensive plan which would control residential, commercial, and industrial growth. Thirteen goals are listed in GMA to guide policy development in six required elements. The required elements include land use, housing, capital facilities, utilities, rural, and transportation. Pierce County also elected to include four additional elements: environment and critical areas, economic development, community plans, and essential public facilities. Each of the six GMA required elements must conform to specific standards set in the legislation. GMA required cities and counties to plan for growth based on population forecasts. Where growth is allowed, facilities and services must be planned and provided.

In April 1991, interim Growth Management Policies were adopted as a transition between the 1962 Comprehensive Plan and the more complex plan developed under the Growth Management Act. In June 1992, the Pierce County Countywide Planning Policies were adopted. The policies provided the framework and process by which Pierce County and the cities and towns within the County would establish urban growth areas, provide infrastructure and services, and preserve agricultural and natural resource lands. In November 1994, Pierce County adopted a new Comprehensive Plan. The 1994 Pierce County Comprehensive Plan replaced the 1962 Pierce County Comprehensive Plan in its entirety. The plan established population projections, urban growth areas, and rural areas. The 1994 Comprehensive Plan identified Anderson and Ketron Islands as a rural area, with predominantly a Rural 10 land use designation.

#### COMMUNITY PLANNING

Pierce County Comprehensive Plan policies located in the Community Plans Element address community autonomy, community character, new community plans, consistency with the

Comprehensive Plan, consistency with the Development Regulations-Zoning, transition strategies, and joint planning agreements.

The Community Plans Element of the 1994 Pierce County Comprehensive Plan envisions a local voice in how the Comprehensive Plan and its Development Regulations will be carried out in communities. Community plans exemplify how the objectives and policies of the Comprehensive Plan play out when applied to detailed and specific conditions. They indicate specific land use designations, appropriate densities, and the design standards that should apply in community planning areas. Preserving and building community character while ensuring an efficient and predictable development approval process is a central theme. Community plans help citizens decide what they want to retain and what they want to change at the local level.

Although the Growth Management Act (GMA) does not require comprehensive plans to provide for community plans, Pierce County Ordinance 90-47s directs County officials to prepare a Community Plans Element of the Comprehensive Plan. The majority of the unincorporated County population resides in community plan areas. The Community Plans Element spells out how to coordinate consistency between community plans and the Comprehensive Plan. Community plans must be consistent with the Comprehensive Plan and the GMA.

## SCOPE OF THE COMMUNITY PLAN

### LEGISLATIVE AUTHORITY TO DEVELOP THE PLAN

The Pierce County Executive and the County Council District #6 Representative coordinated to select a Community Planning Board to develop an update to the 1992 Anderson and Ketron Islands Community Plan. The selection of thirteen Board members, ten from Anderson Island and three from Ketron Island, was executed in a May 2006 letter signed by Executive John Ladenburg and Councilmember Dick Muri.

### PURPOSE AND USE OF THE COMMUNITY PLAN

The Anderson and Ketron Islands Community Plan gives details on how the community wants to develop in the future and what standards could be utilized to create and maintain the look and feel identified in the community plan. In some circumstances, the plan refines the Pierce County Comprehensive Plan to more closely reflect the needs, concerns, and desires of the residents. The plan also identifies actions necessary to implement the community plan, including adopting or revising land use regulations; identifying priorities for use of public funds to develop physical improvements such as roads, ferries, and utilities, sidewalks and street lighting, and residential and commercial development.

### CONSISTENCY WITH THE PIERCE COUNTY COMPREHENSIVE PLAN

The Growth Management Act requires consistency between plans and implementing development regulations. Furthermore, the Pierce County Comprehensive Plan Community

Plans Element contains specific policies that require consistency between the Comprehensive Plan and community plans. The goals, objectives, principles, and standards in the Anderson and Ketron Islands Community Plan are consistent with the provisions in the Pierce County Comprehensive Plan.

## COMPONENTS OF THE COMMUNITY PLAN

### VISIONS

Visioning is the process of defining the expectation of what the community could be in the future. Visioning is typically completed through a series of public meetings or workshops structured to allow the community to articulate hopes for the future. Statements, thoughts, and ideas brought forth in the visioning process become the basis for the visions, goals, objectives, and principles of the community plan.

Vision statements can be either: 1) broad - painting a picture of what the community should strive to be like, physically and socially; or 2) focused - to express how the concerns, values, and hopes of the community should be reflected in various topics.

Goals, objectives, and policies (principles and standards) are used to provide measurable statements to fulfill the vision statements and are an integral part of the visioning process.

### GOALS

Goals describe a desirable future for the community: identifying who, what, why, and how the broad values and hopes set forth in the vision statement will be accomplished. Goals provide the framework from which objectives, policies (principles and standards), and implementation actions and recommendations will be developed.

### OBJECTIVES

Objectives are statements which specifically define goal actions.

### POLICIES (PRINCIPLES AND STANDARDS)

Principles set a particular course of action to accomplish objectives. Standards, quantitative or qualitative, are specific benchmarks or targets to be accomplished in the ongoing development of the community.

### IMPLEMENTATION ACTIONS AND RECOMMENDATIONS

Implementation actions and recommendations are statements that provide changes to policy documents, regulations, capital facility plans, and statements directing agencies and community groups to revise or develop plans, regulations, and non-regulatory measures.

The vision and all of the goals, objectives, policies, and implementation actions and recommendations are developed through citizen comment and represent the will of the people

translated into decision-oriented statements. When applying the policy statements, each should be afforded equal weight and consideration.

## PUBLIC INVOLVEMENT

### COMMUNITY PLANNING BOARD

The development of the Anderson and Ketron Islands Community Plan could not have been accomplished without the Anderson and Ketron Island Community Planning Board (AIKI CPB). The AIKI CPB consisted of a 13-member group, with ten members representing Anderson Island and three representing Ketron Island. Members represented a variety of interests and geographic locations on the islands. Members interests included: community boards and commissions, local emergency services, business and real estate representatives, historic preservation interests, environmental interests, property owners, and long time residents.

The AIKI CPB was charged with five main responsibilities: 1) serving as a sounding board for the community; 2) developing a vision statement and community-wide goals for the community plan area; 3) developing policies and implementing actions related to various topics; 4) guiding the development of policies and map changes that address community concerns while remaining consistent with the Comprehensive Plan; and 5) forwarding a draft updated Anderson and Ketron Islands Community Plan to the Pierce County Planning Commission and Pierce County Council.

In early 2006, public outreach on the community plan process began with recruitment of members to serve on the Community Planning Board (CPB). The first CPB meeting was held in August 2006. The CPB first developed a draft vision statement and goal statements for each of the four elements of the plan. An open house was held in November 2006 to give the community an opportunity to review and comment on the vision and goals. Meetings of the CPB were held monthly and occasionally twice monthly through November of 2008. The CPB worked on developing an overall vision for the community, and goal statements and policies for each element of the community plan. Open houses were held on November 5 and 6, 2008. These open houses gave the public an opportunity to review and comment on the draft plan prior to its transmittal to the Pierce County Planning Commission and County Council. The CPB used the open house forum to solicit important community feedback regarding their proposed recommendations for final AIKI CPB consideration.

### SURVEY

#### BACKGROUND

In August 2006, Pierce County Planning and Land Services (PALS) mailed 2,500 questionnaires to households and property owners within the Anderson and Ketron Islands Community Plan area. The survey was developed by PALS staff and based on a format used in various communities throughout Pierce County in previous land use planning efforts. The survey was intended to help PALS staff and community planning board members assess the community's

views regarding a variety of topics including quality of life, natural environment, land use, the economy, community character, and public facilities and services.

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## METHODOLOGY

Mailings were sent to all property owners on both islands as identified in Pierce County Assessor-Treasurer's records. At the time of cut-off for tabulation, 474 questionnaires were returned completed for a return rate of 19%, which is a higher return rate than for surveys for most other community plans in Pierce County. The results were produced in a cross-tabulation format showing how results break out by place of residence: Anderson Island, Ketron Island, or off-island. Of the 474 completed surveys, 212 respondents lived on Anderson Island, 10 lived on Ketron Island, 190 lived off-island in other locations but own property on one of the islands, and 62 did not indicate place of residence.

The results of the survey were used by the PALS staff and the Anderson and Ketron Islands Community Planning Board to assess community views regarding a variety of issues and was used as an aid in the development of the community plan.

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## SURVEY SUMMARY

The survey asked questions regarding quality of life; condition of the built and natural environment; economic development; land use planning and related controls; community character; and levels of support for a variety of public facilities and services. The survey results reflected a general satisfaction with the state of the community. The questions attempted to identify and anticipate certain issues such as ferry services, home occupations, and groundwater quality in order to gauge community sentiment.

For quality of life questions addressing current conditions on the islands, presence of woodlands, open spaces, streams, wetlands, shorelines, and other natural features received the highest rating, followed by land use patterns, and then parks, while the lowest ratings were given to jobs, architectural design, and housing.

For questions regarding the natural environment, the highest rates of agreement related to balancing growth with environment, preventing groundwater contamination, maintaining tree cover, and protecting natural resources. There was less agreement that current stormwater facilities are adequate, and that wetlands need better protection.

On economic issues, there was a high level of agreement that the intersection of Lake Josephine Boulevard and Eckenstam-Johnson Road should continue to be the focal point of business on Anderson Island. There was the greatest level of disagreement to the idea that contractor's yards and outside storage yards should be considered home-based industries.

On community character issues, the statement that new developments should be designed to maintain and promote the rural character of the area received the highest level of agreement, while the least agreement was given to the statement that there should be more residential growth in the area.

On transportation issues, no statements received 50% or more agreement, however the highest level of agreement was with the statement that ferry trips should be increased. There was very little agreement that roads should be widened to accommodate more cars or that new roads should be constructed.

Regarding the provision of public facilities, the highest priority was given to fire protection, ferry services, paramedic staff, and enforcement of illegal junkyards, while the lowest priority was given to a senior center, transit services, and maintaining stormwater facilities.

The survey results were used by the Community Planning Board as an aid in the development of the community plan.

## SUMMARY OF THE ANDERSON AND KETRON ISLANDS COMMUNITY PLAN

The Anderson and Ketron Islands Community Plan contains policies and implementing actions for four major subject areas or elements: Land Use and Economic, Community Character and Design, Natural Environment, and the Facilities and Services.

### LAND USE AND ECONOMIC ELEMENT

The Land Use and Economic Element addresses issues such as what land uses should be allowed in the various designations and the appropriate intensity of land use in various areas in the community. Rural residential land use designations should maintain a low density rural land use pattern, preserve the rural character, protect environmentally sensitive features, and encourage agricultural and forestry activities within the plan area. On Ketron Island, tourism facilities such as bed and breakfast houses should be allowed, and where new lodging facilities are developed on shoreline locations, provisions for public access to the shoreline should be encouraged. On Anderson Island, priority should be given for developing a community museum or library. Also on Anderson Island, appropriately sited and designed storage facilities should be allowed. Direct marketing of agricultural products should be encouraged on Anderson Island. On both islands aquaculture activities should be mitigated to reduce visual and noise impacts and best management practices should be applied. Processing of aquacultural goods should not be allowed. Forestry is recognized as a historical and desirable land use within the plan area. A Rural Neighborhood Center designation in the vicinity of the marina on the east shore of Ketron Island should be established, and the existing Rural Neighborhood Center on Anderson Island at the intersection of Eckenstam-Johnson Road, Camus Road, and Lake Josephine Boulevard should continue. Open space corridors should include Anderson Island Parks and Recreation properties and County-owned properties.

### COMMUNITY CHARACTER AND DESIGN ELEMENT

The Community Character and Design Element focuses on guidelines for residential and commercial development in the area. Existing places and structures of historic and cultural significance should be preserved, thereby strengthening the area's character and sense of

place. Residential design should respond to the existing character and conditions of the site and evoke a rural character. Where territorial views exist, developments should minimize obstruction of views from nearby properties through appropriate landscape design, building placement, height, and setbacks. Site designs should be encouraged which contribute to the aesthetic value of the area, by retaining resources such as clusters of trees and historic features. All of Ketron Island may be considered prone to wildfire, so new developments on the island should enact measures to minimize danger of wildfire to the development and surrounding properties. The visual qualities and resources on Ketron Island are identified as a vital component of that which comprises the area's special character and identity and should be protected and enhanced. Requirements for building facades and lighting for residential and commercial development, and building design for commercial development are intended to support this intended character and identity for Ketron Island.

## NATURAL ENVIRONMENT ELEMENT

The natural environment includes consideration of the natural resources found on Anderson and Ketron Islands. Natural resources such as wildlife, clean water, parks, and open spaces are an integral and valued part of the community. The policies contained within the Natural Environment Element promote protection of critical areas, encourage preservation of natural vegetation, and address special topics such as the marine shorelines, wetlands, and fish and wildlife habitat.

## FACILITIES AND SERVICES ELEMENT

The Facilities and Services Element addresses services such as public safety services (emergency and stormwater), and facilities such as roads, parks and schools. Transportation policies emphasize ferries and road improvements. Police services should be enhanced through effective law enforcement that addresses community concerns for life safety, vandalism, and personal property protection. Effective fire protection and emergency services to the islands should include reliable access to the islands to help to ensure prompt emergency and police response when services are needed. Services and programs to Ketron Island residents and property owners to discourage illegal dumping, storage of junk, and burning need to be addressed. Management of groundwater withdrawal rates should be done so as to not exceed recharge rates in order to preserve the high quality and supply of groundwater resources. Measures should be enacted to improve water conservation.

On transportation issues, an appropriate level of ferry services should be provided to both islands. Opportunities include coordination with other agencies, civic groups, and the public to address ferry issues and concerns, and preparing a feasibility study to identify parking areas in or near Steilacoom for Island residents. The rural character of the Anderson Island roadway system should be preserved, while at the same time the roadway system enhances safety and facilitates access to community facilities. The roadway system on Anderson Island should be made safer and more convenient to pedestrians and other nonmotorized users. The roadway

system on Ketron Island should accommodate existing and future residents, and there should be a primary emphasis placed on funding the improvement of existing roadways on the Island.

## PLAN MONITORING

The Plan Monitoring Section addresses how to measure the effectiveness and impacts of the plan over time.

## IMPLEMENTATION

The plan also contains proposed actions, located at the end of each element, which serve to implement various plan policies. These actions are grouped into short-term, mid-term and long-term endeavors. Short term actions should occur immediately or within one year of plan adoption. Mid-term actions should be completed within 1-5 years. Long term actions should be completed within 5-10 years of plan adoption. The party or parties responsible for leading the effort to complete the action item is listed in parenthesis following the action. Actions are assigned to a lead entity or entities as the primary responsible party to complete.

## ANDERSON ISLAND VISION STATEMENT

- Anderson Island is a historic and rural residential community with an attractive and compact central commercial node.
- Growth on the Island is managed to retain the Island's historic and caring character, foster a sense of community and diversity, and preserve the natural forested and marine environment and ecosystems.
- Residential and commercial development is designed to be visually pleasing and integrated into the natural surroundings.
- The Island contains well planned public infrastructure and services to support a diversity of residents' needs including safe walking areas, recreational opportunities, parks and open space, schools and a transportation system coordinated between the local ferry and regional mass transit.

## KETRON ISLAND VISION STATEMENT

- Ketron Island reflects a unique rural island character that promotes growth opportunities within the carrying capacity of the Island, while maintaining the integrity of the natural environment.
- Unique natural features such as sandy beaches, lagoons, wetlands, and ravine areas are preserved.
- Environmentally sound solutions are applied to provide facilities and services.
- A functional transportation system, including an enhanced marina facility and ferry service, supports all ages and accommodates future growth.
- And limited commercial services are available to meet the needs of tourists and Island residents.

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## Chapter 2: LAND USE AND ECONOMIC ELEMENT

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### INTRODUCTION

The Land Use and Economic Element of the Anderson and Ketron Island Community Plan provides policies regarding the location of preferred land uses (residential, commercial, resource lands, etc.) and the density of intensity related to those uses (i.e., how many dwelling units are permitted, how big structures can be, etc.).

This element serves to refine the policies contained in the Pierce County Comprehensive Plan, specifically the Land Use Element 19A.30 and Economic Development Element 19A.50. The community plan provides more specific guidance and criteria regarding land uses than is provided in the generalized Pierce County Comprehensive Plan. In cases where this plan does not provide specific guidance, the policies in the Pierce County Comprehensive Plan shall be used to determine land use objectives and standards. The policies contained in this element provide the foundation for changes to Pierce County’s Development Regulations including the zoning maps and land use regulations.

The main issues related to economic development in the area focus on home occupation and cottage based industry and tourism. Most of the goals and policies reflect land use related efforts to achieve this. As such, what would normally be two elements in other community plans have been combined into one element.

### DESCRIPTION OF CURRENT CONDITIONS

Anderson Island is primarily characterized by a variety of rural land uses on large lots. Residential home sites, agricultural lands, and forest lands dominate the land use pattern. One small commercial area is located along the main arterial, Eckenstam-Johnson Road.

Ketron Island is primarily undeveloped. There are 16 housing units built on Ketron Island. Of these homes, 13 are within the plats of Ketron Sunrise, Ketron Sunset, and Ketron Island Estates. There are 259 vacant residential parcels on Ketron Island. Over 90% of the platted parcels on the Island are vacant, but cannot be built on until an adequate method of sewage disposal system is installed.

### EXISTING LAND USES

The Pierce County Assessor-Treasurer’s Office classifies how parcels are used for purposes of calculating assessed value for taxation. The Pierce County Planning and Land Services Department routinely uses this information to determine the distribution of land uses within specific areas. The Assessor’s information is known to periodically contain errors, but is considered accurate for planning purposes. The Assessor’s information reflects only how land is currently being used and does not reflect zoning.

The following table summarizes the current uses of land on the Anderson and Ketron Islands based upon Assessor-Treasurer’s information:

TABLE 1. EXISTING LAND USES		
Land Uses	Acreage	% of Plan Area
Single-Family	1,248.92	23.82%
Mobile Homes	81.61	1.56%
Residential Outbuildings	207.87	3.96%
<b>TOTAL-RESIDENTIAL</b>	<b>1,538.4</b>	<b>29.34%</b>
Commercial/Service	11.24	0.21%
Transportation/Communication/Utility	82.62	1.58%
Education	40.64	0.78%
Public Facilities	1.03	0.02%
Quasi-public facilities	2.84	0.05%
<b>TOTAL-NONRESIDENTIAL</b>	<b>138.37</b>	<b>2.64%</b>
Open Space/Recreation	496.64	9.47%
Resource Lands	642.70	12.26%
Vacant Lands	2,338.73	44.60%
<b>TOTAL -VACANT/RESOURCE/OPEN SPACE</b>	<b>3,478.07</b>	<b>66.33%</b>
Other/Undefined or Unknown	15.62	0.30%
Water Bodies	73.15	1.39%
<b>TOTAL – OTHER</b>	<b>88.77</b>	<b>1.69%</b>
<b>GRAND TOTAL</b>	<b>5,243.61</b>	<b>100%</b>

#### CURRENT COMPREHENSIVE PLAN DESIGNATIONS AND ZONING CLASSIFICATIONS

The Pierce County Comprehensive Plan established three land use designations within the community plan area.

The following table summarizes the land use designations and zoning classifications prior to adoption of the community plan in terms of acreage and percent of plan area.

TABLE 2. EXISTING LAND USE DESIGNATIONS AND ACREAGE		
Land Use Designation	Acreage	Percent of Plan Area
Rural Ten (R10)	4,054.31	77.69%
Rural Neighborhood Center (RNC)	10.31	0.20%
Agricultural Resource Land (ARL)	1,153.94	22.11%
<b>TOTAL</b>	<b>5,218.56</b>	<b>100%</b>

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## RURAL TEN (R10)

The Rural Ten (R10) designation provides for a range of low density residential uses. The intent is to accomplish a rural land use pattern that promotes rural uses, while not requiring urban level services. Cluster development is encouraged within rural residential designations and zones and density bonuses are provided within developments for the dedication of permanent open space. One accessory dwelling unit is also allowed on a residential lot where an existing single-family dwelling exists. The designation and zone number (e.g., 10) represents the base number of acres required for each primary dwelling unit. The R10 designation accounts for 4,054.31 acres of land, totaling approximately 77.69% of the plan area.

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## AGRICULTURE RESOURCE LAND (ARL)

Lands designated as Agricultural Resource Land (ARL) are distinct from rural lands and include agricultural lands that have been designated as having long-term commercial significance. The Comprehensive Plan identifies criteria and guidance for protection, management, and future development of lands designated ARL. The key criterion for defining ARL is the presence of the County's most productive agricultural soil types and their associated production yield. The ARL designation accounts for 1,153.94 acres of land, totaling approximately 22.11% of the plan area.

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## RURAL NEIGHBORHOOD CENTER (RNC)

The Rural Neighborhood Center (RNC) designation serves the everyday needs of local rural residents. The RNC provides limited convenience shopping and services, is limited in size, and retains a scale and intensity that is appropriate for maintaining the rural character. The RNC designation accounts for approximately 10.31 acres of land, totaling less than one percent of the plan area.

## DWELLING UNIT CAPACITY

Under current plan zoning, it is estimated that a maximum total of 2,723 acres of vacant and underdeveloped land is currently available for residential use on Anderson Island. These lands have the capacity to accommodate approximately 3,989 dwelling units based upon the housing densities allowed in each zone. It is estimated that 10,670 persons would be accommodated within this housing (based on an average of 2.675 persons per household). In addition, each residential lot may accommodate an accessory dwelling unit. Accessory dwelling units are not included in residential capacity calculations. Dwelling unit capacity numbers for Ketron Island are not currently available.

## COMMERCIAL AREA CAPACITY

There is one rural commercial center within the plan area and will be retained as a result of the community plan. The Rural Neighborhood Center is located on Anderson Island at the intersection of Eckenstam-Johnson Road and Lake Josephine Boulevard.

The following table provides information on the size and basic land use activity in the Rural Neighborhood Center based on the Pierce County Assessor-Treasurer’s records from December, 2007. This table shows the amount of commercial development, underdeveloped land and vacant land in each center.

TABLE 3. EXISTING COMMERCIAL CENTER LAND AREA STATISTICS			
Eckenstam-Johnson Road Rural Neighborhood Center			
Total acres	Commercial Development	Underdeveloped (single-family residence)	Vacant Land
9 acres	5 acres	0 acres	4 acres

### DESCRIPTION OF DESIRED CONDITIONS

One of the most significant issues addressed within the community plan is land use. How land is utilized within a community directly affects the community’s character and quality of life perceived by its residents. The land uses within the plan area should reflect a rural character while providing for growth and development that maintains a single-family, recreation, agricultural, and forestry land use pattern. The following section describes in greater detail the proposed land use designations and zoning classifications as recommended in this plan.

### PROPOSED LAND USE DESIGNATIONS AND ZONING CLASSIFICATIONS

The Anderson and Ketron Islands Community Planning Board (CPB) analyzed a variety of information to recommend plan designations and zoning classifications on the Islands. First, limited areas of more intense rural development (LAMIRD) criteria were utilized to designate commercial areas (based on the Growth Management Act and Central Puget Sound Growth Management Hearings Board decisions). Second, the Pierce County Comprehensive Plan policies for rural commercial areas and resource lands were evaluated. Finally, individual landowner requests for rezones were considered at a series of community planning board meetings.

The following text, tables, and maps illustrate the proposed changes in land use designations and zone classifications contained within the community plan and correlating acreage changes for each.

### PROPOSED COMPREHENSIVE PLAN DESIGNATIONS AND ZONING CLASSIFICATIONS

The following table summarizes the proposed land use designations and zoning classifications in terms of acreage and percent of plan area.

TABLE 4. PROPOSED LAND USE DESIGNATIONS AND ACREAGE		
Land Use Designation	Acreage	Percent of Plan Area
Rural Ten (R10)	4,051.50	77.64%
Agricultural Resource Lands (ARL)	287.68	5.51%

**TABLE 4. PROPOSED LAND USE DESIGNATIONS AND ACREAGE**

Land Use Designation	Acreage	Percent of Plan Area
Rural Farm (RF)	866.19	16.60%
Rural Neighborhood Center (RNC)	13.19	0.25%
<b>TOTAL</b>	<b>5,218.56</b>	<b>100%</b>

**RURAL TEN DESIGNATION AND ZONE**

The Rural 10 (R10) designation primarily accommodates low-density single-family residential, agricultural, forestry, and recreational uses. Some types of civic uses and recreational uses, such as parks and trails, are also permitted in this designation. Home occupations are encouraged as an accessory use to a single-family dwelling unit. The residential densities within the R10 are one dwelling unit per 10 acres. Bonus densities are allowed only on Ketron Island. Existing parcels that are less than 10 acres and are zoned R10 can be built upon as long as other development criteria such as septic, water, critical areas, and other County requirements are met. Approximately 4,051.50 acres of the plan area have been designated R10. This represents 77.64% of the total plan area. The Rural 10 zoning classification implements this plan designation.

**AGRICULTURAL RESOURCE LAND DESIGNATION AND ZONE**

The Agricultural Resource Land (ARL) designation is intended to preserve parcels that contain prime agricultural soils for long-term agricultural activities. These properties are identified through a Countywide process. The criteria that are evaluated to implement this designation will stay the same as is currently established through the Pierce County Comprehensive Plan. This designation allows for a variety of agricultural uses. Approximately 287.68 acres of the plan area have been designated ARL, all on Anderson Island. This represents 5.51% of the total plan area. The Agricultural Resource Lands zone implements this plan designation.

**RURAL FARM DESIGNATION AND ZONE**

Approximately 866.19 acres of the plan area have been designated Rural Farm. This represents 16.60% of the total plan area. The Rural Farm zone implements this plan designation.

**RURAL NEIGHBORHOOD CENTER**

The Rural Neighborhood Center (RNC) designation serves the everyday needs of Island residents. The RNC provides limited convenience shopping and services, is limited in size, and retains a scale and intensity that is appropriate for maintaining the rural character. One Rural Neighborhood Center is located on Anderson Island at the intersection of Eckenstam-Johnson Road and Lake Josephine Boulevard. An analysis of this RNC area was conducted as part of the community planning process. The logical outer boundary of the area was inventoried based on the built environment as of July 1, 1990. Similarly, the type of uses existing in each commercial area on July 1, 1990 was identified. Based on this information, the boundaries of the

commercial areas and types of uses permitted within the RNC has been refined. The RNC designation accounts for approximately 13.19 acres of land, totaling less than one percent of the community. A second RNC is located at the site of the marina on the east shore of Ketron Island. This RNC is approximately four acres in size. The Rural Neighborhood Center zone implements this plan designation.

## COMMUNITY PLAN DEVELOPMENT POTENTIAL

The potential number of dwelling units allowed on Anderson Island will decrease under the community plan proposed zoning. In the Rural 10 zone classification, residential densities will be limited to one dwelling unit per ten acres, compared to the current zoning which allows for increasing residential density to two dwelling units per ten acres when open space is provided. Residential development potential in the Agricultural Resource Land and Rural Farm zone classifications will remain unchanged at one dwelling unit per ten acres. Residential development potential on Ketron Island will remain unchanged.

## OTHER LAND USE CONSIDERATIONS

### AQUACULTURE

Anderson and Ketron Islands have extensive marine shorelines containing high bluffs, bays and lagoons, sand spits, mud flats, sandy beaches, and many other features. These shoreline areas have historically offered locations for aquaculture, primarily conducted for residential purposes. Recently geoduck farmers have discovered that certain tidelands provide prime habitat for the cultivation of their product. This new aquaculture industry has the potential to create land use conflicts with upland home owners as the beaches used for geoduck farming alter the visual appearance of the shoreline and create a new use that have the potential to be incompatible with traditional uses on the shoreline. **GOAL**

The land use pattern on Anderson and Ketron Islands is intended to provide a rural ambiance highlighted by the natural attributes of the area, including the extensive marine shorelines, native forests, and large areas of open space. New land uses will reflect this rural environment emphasizing residential home sites on large lots, resource uses including working farms, and forestry practices. Commercial services for local residents will remain at a level conducive to the needs of Island residents. Encourage economic development that is responsive to the needs of the community.

## IMPLEMENTING ACTIONS

The following actions need to be completed in order to implement the policies contained within this plan. They are arranged according to the timeframe within which each should be completed: short, medium, or long term. Short-term actions should occur within one year of plan adoption. Mid-term actions should be completed within 1-5 years. Long-term actions should be completed within 5-10 years of plan adoption. The entity or entities responsible for

leading the effort to complete the action item is listed in parenthesis following the action. Actions are assigned to the Pierce County Planning and Land Services (PALS) and Tacoma-Pierce County Health Department (TPCHD), where appropriate.

#### SHORT TERM ACTIONS (UPON PLAN ADOPTION TO 1 YEAR)

1. Amend the Pierce County Development Regulations – Zoning (Title 18A) to:
  - Establish allowed uses in the various residential zone classifications consistent with community plan policies.
  - Add new levels to use types consistent with community plan policies.
  - Establish allowed residential densities throughout the plan area.
  - Establish structural setbacks and height limitations. (PALS)
2. Amend the Pierce County Zoning Atlas to reflect changes between Agricultural Resource Land and Rural Farm, and to add a new Rural Neighborhood Center. (PALS)
3. Amend Title 18J, Development Regulations-Design Standards and Guidelines to adopt design standards and guidelines for residential and commercial uses within the plan area. (PALS)
4. Provide the Shoreline Citizens Advisory Committee with recommendations for the Shoreline Master Program Update regarding storage facilities and aquaculture. (PALS)
5. Ensure wood chipping activities are consistent with the applicable Pierce County Code Noise Pollution Control regulations. (TPCHD)
6. Amend the County’s current, officially adopted Open Space/Greenbelt map to better reflect on-the-ground physical conditions and community characteristics and values. (PALS)
7. Review current development standards for home-based/cottage industries and reconcile contradictions (such as parking requirements that make a property assume a commercial character as opposed to a residential character). (PALS)

#### MID-TERM ACTIONS (1-5 YEARS)

1. Establish outreach actions to island residents on the opportunities, resources, and requirements for carrying out a home-based or cottage industry business. (PALS)
2. Provide outreach to island residents and property owners on uses and limitations of the County’s Current Use Assessment (tax incentive) program. (PALS)

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## Chapter 3: COMMUNITY CHARACTER AND DESIGN ELEMENT

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### INTRODUCTION

The Community Character and Design Element describes the physical environment that comprises the character of a community: the streets, parks, buildings, neighborhoods, and open space that determine the way the community looks and feels. It is a blending of land use planning, architecture, landscaping, and environmental protection. This element addresses the way buildings, streets, public places, signs, natural features, and other development relate to one another and the people who use them. Improvements such as street construction, park development, commercial, residential, and civic development can be effectively coordinated to promote a unified community image. The Community Character and Design policies are intended to reinforce aesthetic characteristics that the community wants to retain and build upon.

The residents of Anderson and Ketron Islands are interested in preserving the rural character of their community. Historic development has created two island communities with distinct land use issues and local features. Residents have determined that high priority should be given to preserving the sense of privacy that exists on the Islands. The Community Character and Design Element emphasizes Anderson Island's historic and caring character and sense of community and diversity, and preserving the Island's natural forested and marine environment and ecosystems. For Ketron Island, this element emphasizes a unique rural island character that promotes growth opportunities within the carrying capacity of the Island, while maintaining the integrity of the natural environment.

### DESCRIPTION OF CURRENT CONDITONS

The Anderson Island and Ketron Island communities, with year-round populations of about 900 residents and 20 residents respectively, are characterized by the privacy and isolation afforded by island living. Prominent on the Islands are scenic views of Puget Sound and its shorelines and the mountains that surround the region. A number of bays and inlets on Puget Sound and two lakes accent the landscape on Anderson Island. Both Islands have extensive wooded areas. Residential uses at a rural scale are predominant, with Pierce County providing ferry access to the Islands. Both Islands have very limited commercial areas.

Retail uses within the community plan area are primarily limited to the general store and adjacent uses on Anderson Island, and facilities associated with the golf course at the Riviera Community Club. There are also a small number of home-based agricultural operations and associated uses on Anderson Island. Less than 1% of the community plan area is currently zoned for commercial retail and service use and there is very little undeveloped commercially zoned land available for new development.

## RURAL RESIDENTIAL AREAS

The predominant development pattern on both Anderson Island and Ketron Island consists of a mix of residences and vacant land on large parcels. In addition, the Riviera community on Anderson Island and portions of Ketron Island have been divided into residential lots typically smaller than one-quarter acre and one-half acre respectively. A relatively small number of these lots have been developed with residences.

## RURAL COMMERCIAL CENTER

A commercial area is located in the center of Anderson Island at the intersection of two County arterial roads. It consists of a general store, coffee shop, and other businesses. The entire commercial area is zoned Rural Neighborhood Center (RNC), covering ten acres including a vacant parcel to the south of the existing businesses. While outside the RNC, the fire station for Fire District No. 27 is adjacent to and west of the commercial businesses. Ketron Island does not have a zoned commercial area, however there is a marina adjacent to the Pierce County ferry landing.

## HISTORIC AND CULTURAL RESOURCES

There is a strong tradition of community activities and citizen involvement in the community. Anderson Island has active improvement and social clubs that serve as places for community events and information.

The preservation and enhancement of special places that relate to a community's heritage can bring economic benefit to the community by stimulating investment and increasing community awareness and involvement in its history. This can occur through the restoration of an old residence, reuse of a historic schoolhouse or wharf, rehabilitation of an old store or restaurant, and retaining its commercial use through compatible commercial additions. Additionally, the incorporation of historic resources and landmarks into recreational facilities such as trails or scenic bike routes can help achieve this goal.

There are many federal, state, and local laws and programs that apply to historic and cultural resource preservation. Locally, the Pierce County Cultural Resource Inventory provides an indication of those properties or structures that may hold historical or cultural significance. The Cultural Resource Inventory does not necessarily list all of the important historic structures in the area. Additional sites may be added to this list in the future based on additional research.

## DESCRIPTION OF DESIRED CONDITIONS

Policies contained in the Community Character and Design Element should provide for the privacy associated with the rural character of the Islands. Development on Ketron Island should be well designed so as to harmonize with the rural character. Development on Anderson Island should be well designed so that commercial and civic uses are compatible with the surrounding

residential areas, while the cultural, artistic, and scenic resources of the Island are protected and enhanced.

## HISTORIC AND CULTURAL RESOURCES

Preserving and enhancing the historical and cultural resources on the Islands will be a priority. This will occur through protecting the historic rural feel by protecting sacred sites to preserve cultural roots and connections to the past. On Ketron Island, discouraging themed communities will also protect the historic character. Specified sites, buildings, and places will be recognized, protected, and preserved so that they will be integrated into developments that occur on the Islands.

## DESIGN

New developments on the Islands will be designed so as to be compatible with the existing rural character of the uses and conditions in the surrounding area. Mobile homes and manufactured homes will not be allowed to be placed on Ketron Island. Low impact design will be applied as developments occur in order to preserve the existing natural character, functions, and values. Home occupations and cottage industries will utilize landscaping and screening to blend these uses into the existing residential surroundings.

New residential developments on the Islands will be responsive to the existing character and conditions on the Islands. This will occur through minimizing obstructions to territorial views, retaining resources such as clusters of trees and historic features, and, on Ketron Island, establishing architectural guidelines that encourage using architectural features typical of a rural setting, such as porches and verandas.

Residential developments will be situated to avoid wildfire-prone areas. This will occur as homes are sited and landscaping is arranged to maximize protection from wildfire. Because all of Ketron Island is prone to wildfire, such measures will occur throughout that Island.

## VIEWSHEDS AND AESTHETICS

Recognizing that the visual qualities and resources on Ketron Island provide a vital component to the Island's character and identity, existing and new developments will protect these qualities and resources. Development on the Island will occur so that it maintains existing views of mountain ranges and other scenic vistas. Selective tree limbing rather than tree removal will be prevalent in accommodating view creation. Tree removal will typically occur to address blow-down or fire hazards. Enhanced viewing platforms and similar amenities will be established at public gathering spaces to preserve significant views.

Other methods will also be used to enhance the visual landscape on Ketron Island, including screening visual nuisances from view, shielding and limiting lighting to preserve the dark rural night sky, placing utilities underground, and including features that harvest and conserve water into site design.

## IMPLEMENTING ACTIONS

The following actions need to be completed in order to implement the policies contained within this plan. They are arranged according to the timeframe within which each should be completed: short, medium, or long term. Short-term actions should occur within one year of plan adoption. Mid-term actions should be completed within 1-5 years. Long-term actions should be completed within 5-10 years of plan adoption. The entity or entities responsible for leading the effort to complete the action item is listed in parenthesis following the action. Actions are assigned to the Pierce County Planning and Land Services (PALS), Affected Indian Tribes (Tribes), local island historical societies (historical societies), and Washington Department of Archaeology and Historic Preservation (WDAHP).

### SHORT TERM ACTIONS (UPON PLAN ADOPTION TO 1 YEAR)

1. Amend Title 18A, Zoning to address building height standards to address commercial and residential buildings. (PALS)
2. Amend Title 18J, Design Standards and Guidelines to:
  - Establish design standards and guidelines for commercial development on both islands and for residential development on Ketron Island.
  - Address low impact development standards.
  - Minimize outdoor light pollution to ensure light does not impact neighboring properties. (PALS)

### MID-TERM ACTIONS (1-5 YEARS)

1. Apply existing protocols and explore additional methods to protect sacred sites to preserve people's cultural roots and connections to the past. (Tribes, Historical Societies, WDAHP)
2. Develop an inventory of cultural and historic resources, in order to protect and integrate these resources within the development of the plan area. (WDAHP, Historical Societies)
3. Promote the enhancement and maintenance of the historical resources on Anderson Island. (Historical Societies)
4. For Ketron Island, review establish bulk standards and guidelines that respond to the existing conditions and rural character of the island, addressing minimizing view obstructions and impacts from lighting. (PALS)
5. Develop guidelines, and standards as appropriate, to site homes and arrange landscaping to maximize protection from wildfire. (PALS)
6. For Ketron Island, enact measures to minimize danger of wildfire to developments and surrounding properties. (PALS)
7. Review and as necessary update standards for home occupations to ensure the rural residential character is adequately protected. (PALS)

## LONG-TERM ACTIONS (5–10 YEARS)

1. Designate sites, buildings, and places that the community values and considers unique to the community or are significant and worthy of preservation or protection through the community planning process. (WADAHP, Historical Societies)

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## Chapter 4: NATURAL ENVIRONMENT ELEMENT

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### INTRODUCTION

The Anderson and Ketron Islands Community Plan area could be characterized as one of Pierce County's well kept secrets. While much of Pierce County has burgeoned with growth in population and development, Anderson and Ketron Islands have largely enjoyed a steady, rural island atmosphere while welcoming some new residents. This slow growth has allowed the Islands to retain many natural resources and habitats.

The Natural Environment Element addresses the protection and conservation of the natural resources such as water, air, forests, vegetation, fish and wildlife, and other critical areas. The residents of the Islands value the surrounding natural environment and intact ecosystems as an integral part of island living. Protection and preservation of these natural resources are key components of the community's vision.

The Natural Environment policies are proactive in retaining the existing resources. Policies include education, community actions, and regulations, as well as some County funding and actions. The policies focus on sustainable growth and protection of resources that would result in a continued livable environment.

### DESCRIPTION OF CURRENT CONDITIONS

Presently Anderson and Ketron Island residents enjoy a rural, low density atmosphere. Anderson Island has rolling hills with a varied landscape of wooded areas, open space, wetlands, marshes, and some small agricultural lands. It has several coves, inlets, or bays that offer excellent habitat for marine species including a large variety of shorebirds. Anderson Island has a number of wetland complexes, the largest of which is associated with Schoolhouse Creek. The ecosystems of the Island are in relatively good health. The largest threat to the natural environment would be unchecked development.

### EARTH RESOURCES

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#### LANDSLIDE AND EROSION HAZARD AREAS

On both islands the areas most susceptible to landslide and erosion are associated with the shoreline. Wind and water movement contribute to soil erosion. The degree of stability is a function of soils, slope, groundwater, and geology. The steepest slopes on Anderson Island are located along the eastern, southeastern, and western edges of the Island and one steep plateau in the southeastern portion of the Island where there is a canyon. These areas are classified as potential landslide hazard areas. The slopes around the majority of the perimeter of Ketron Island are also classified as potential landslide hazard areas. The entire marine shoreline of both Anderson and Ketron Islands are classified as marine shoreline erosion hazard areas. There are several freshwater erosion hazard areas identified on Anderson Island and one on Ketron Island.

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## SEISMIC HAZARD AREAS

Only one small area on Anderson Island contains soils that have the potential for liquefaction and/or dynamic settlement during a seismic (earthquake) event. This area is located in the vicinity of the intersection of Sandberg Road and Eckenstam-Johnson Road.

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## VEGETATION

The plan area contains a mixture of lowland conifer forests and hardwood/shrubs. A large majority of each Island has more than 50% tree canopy coverage.

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## SOILS

Pierce County groups soil types into hydrologic soil groups that represent varying degrees of water runoff potential:

- Group A – Low runoff potential
- Group B – Low to moderate runoff potential
- Group C – Moderate to high runoff potential
- Group D – High runoff potential

Soils affect infiltration rates, the potential for erosion, and slope stability. Soil types determine the ability of the ground to absorb rainfall. The majority of both Anderson and Ketron Islands are classified as Group C soil type with the marine cliff areas designated as Group C-D soil type. These soil types have moderate to high runoff potential.

Anderson Island contains soils that are slow to percolate and have limitations for septic drainfield suitability. The three main soil types are Harstine Association, Bow Association and Kitsap Association. Ketron Island contains several different soil types. The most dominant are the Neilton, Kitsap, and Xerochrepts. The Neilton soils comprise nearly one half of the southern end of the Island. The Kitsap soils have slow permeability and septic drainfield limitations. The Xerochrept soils are on steep slopes and may be subject to landslide and erosion hazards.

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## WATER RESOURCES

The Islands are located within the Kitsap Water Resource Inventory Area (WRIA# 15) and within the Islands watershed basin. The Key Peninsula – Islands Basin Plan analyzes water quality and quantity to identify and prioritize surface water management problems and capital facility needs.

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## STREAMS AND LAKES

Anderson Island has a number of streams and lakes. The two largest lakes on Anderson Island are Lake Josephine and Lake Florence, while Ketron Island does not have any bodies of water that classify as a lake. Anderson Island contains Schoolhouse Creek and many unnamed creeks. There is one unnamed creek on Ketron Island.

Schoolhouse Creek, located on Anderson Island, is less than a mile long. The stream enters Oro Bay on the southeast side of the Island. Its gradient is shallow. Schoolhouse Creek is the only stream on Anderson Island known to support anadromous salmonids. Schoolhouse Creek bisects the Island in a north/south direction and originates northwest of Lake Florence and has a large catchment area. Several wetlands, flood areas, and other small tributaries, wetlands, and flood areas are associated with the creek. The Key Peninsula-Island Basin Plan identifies the existing conditions, problems, and projects or actions necessary to improve the health of the creek.

In the Basin Plan, Schoolhouse Creek was rated with more than 70% of riparian corridor in good condition and with more than 70% of the aquatic habitat in good condition. The creek sub-basin currently has an estimated average impermeable surface area of 6%. Based on current zoning and development patterns this estimate is likely to increase to 13% over the next 20 years.

Schoolhouse Creek is home to Coho, chum, and cutthroat. Three culverts have been identified as fish passage barriers along Schoolhouse Creek. The most downstream culvert is located on Eckenstam-Johnson Road at the mouth of Schoolhouse Creek. This culvert requires further evaluation. The structure is submerged at high tides, but is thought to be passable otherwise.

In the past, portions of Schoolhouse Creek were channelized producing a downcutting of the stream channel. Artificial weirs have been placed in some areas which may impede fish passage. The Basin Plan addresses several projects along the creek to correct existing problems. Refer to the Facilities and Services Element for more information on stream restoration projects.

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## WETLANDS

Wetlands are areas inundated or saturated by water for a time period in an amount that is able to support wetland vegetation and saturated soil conditions. Wetland buffers are areas meant to establish a protection zone between development and the critical functioning area of the wetland (wetland buffers are considered a part of the wetland system). Wetlands provide many critical functions including: water cleansing by filtering surface water runoff and groundwater; flood and storm water storage (i.e., one pound of moss will hold 25 pounds of water); critical habitat for fish and wildlife; and, open space/natural areas. Wetlands naturally may change over time but are often affected by hydrologic or terrestrial changes resulting from development.

The Pierce County wetland maps are general inventories and do not include all wetlands; however, they do provide a source of information. Anderson Island has numerous identified wetlands, many of which are in conjunction with streams and the entire marine shoreline of both Anderson and Ketron Island is designated as a wetland. Schoolhouse Creek is part of a larger hydrologic system that encompasses many wetlands. No wetlands are mapped on Ketron Island.

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## WATER QUALITY

There are several factors that affect water quality. Older, poorly maintained neighborhoods generally have higher levels of pollutants due to more traffic, greater impervious surface, accumulation of debris, failing waste disposal systems, and deteriorating housing stock. Pollutants accumulate on impervious surfaces and enter conveyance systems during rainfall/storm events. Agricultural activities may affect water quality from livestock waste and application of pesticides. Denser population can contribute to increased pollution from sources such as pet waste, vegetative matter, litter, plant fertilizers and pesticides, and automobile and small machine petroleum products. Typical contaminants affecting water quality include: suspended sediments, nutrients, bacteria, oxygen demand, oil and grease, and trace metals.

Water quality on Anderson and Ketron Islands is considered relatively good; however, this determination is provisional because it is based on limited water quality sampling data. On Anderson Island, pollution from residential development, especially nutrients and pesticides from the many small home lots on the lakeshores, the golf course, and parks, is likely. Also, failing septic tanks and construction impacts are probable causes of degraded water quality. Impacts due to local logging operations are also a potential source of pollution. Seawater intrusion is a known concern for the whole southwestern portion of Anderson Island.

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## AQUIFER RECHARGE AND WELLHEAD PROTECTION AREAS

Gravelly, well-drained soils (Group A&B) facilitate a high percentage of groundwater recharge. Wellhead protection areas include the area within the 10-year time-of-travel zone boundary of a Group A public water system well. The 10-year time-of-travel zone boundary is the maximum distance around a pumping well from which a contaminant, hypothetically present in groundwater, could travel to the well within a 10-year time period. There are three wellhead protection areas on Anderson Island and one wellhead protection area on Ketron Island.

Seawater intrusion is always a consideration for communities along marine shorelines. A study of the issue on Anderson Island was prepared by the Department of Ecology in 2001. The study showed that seawater intrusion is not a widespread problem on the Island, although there are three areas near the shoreline where it appears to be occurring in the sea level aquifer.<sup>1</sup>

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## SHORELINES

The shorelines are varied on Anderson Island and include high and low bank, bay and lagoons, and salt marshes. Shorelines are designated by the Washington State Department of Ecology and are classified as watercourses with a mean annual flow greater than 20 cubic feet per second (cfs) and lakes greater than 20 acres. Designated shorelines on Anderson Island are along the Puget Sound marine shorelines and Florence and Josephine Lakes. Most of the marine shoreline is designated as Conservancy Environment with a portion designated Rural Environment. Lake Florence is designated as Conservancy Environment and Lake Josephine is designated as Rural Residential Environment. The entire marine shoreline of Ketron Island is designated as Conservancy Environment.

Approximately 14% of the Anderson Island shoreline planning area is mapped as wetland. Several small wetland areas are mapped along the northern and eastern shoreline of Anderson Island. A large wetland complex extends from Oro Bay to the north across the center of the Island; this wetland is associated with the marine shoreline. Substantial wetland areas are also present near Otso Point. Several small wetland areas are mapped along the northern and eastern shoreline of the Island. Wetland habitat types in the shoreline planning area on the Island include palustrine forested, scrub-shrub, emergent, and estuarine.

Eelgrass is found in a few limited locations along the Anderson Island shoreline, primarily on the north at Otso Point, in the south at Thompson Cove, around Oro Bay and Cole Point, and on the east from Sandy Point north to Yoman Point. With the exception of beds at Otso Point, much of the eelgrass is patchy in distribution here and does not form extensive contiguous beds.

Documented forage fish spawning for surf smelt and sand lance is limited to a few locations on Anderson Island, along the western and southern shorelines. Waterfowl concentration areas occur near Thompson's Cove on Anderson Island.

Geoduck habitat is mapped along the northwestern side of Anderson Island and near Oro Bay. Hardshell clams occur near Otso Point and in Amsterdam bay on Anderson Island. In addition to geoduck and clams, Dungeness crab areas are mapped in Oro Bay, and Pandalid shrimp areas occur along the Nisqually reach and between Anderson and Ketron Islands.

On the bays and protected shorelines such as Oro Bay and Amsterdam Bay, shoreline development has resulted in removal or alteration of riparian vegetation. The exception within sheltered bays includes relatively intact riparian occurring at the head of Oro Bay and at Carlson Bay. The open shorelines of Anderson Island tend to have relatively intact riparian vegetation and support active feeder bluffs and large woody debris recruitment. Areas of intact riparian vegetation occur along Drayton Passage from Otso Point to Amsterdam Bay, from Treble Point to east of Carlson Bay, along Thompson Cove, and from Cole Point north to Yoman Point.

Water quality is generally good and most of the area is categorized as approved shellfish growing area although Oro Bay is categorized as prohibited shellfish growing areas.<sup>2</sup>

Marine Shoreline Critical Salmon Habitat was designated by Pierce County for portions of the Islands shoreline planning area and is defined as having a high quality habitat for marine salmonid species. Carlson and Oro Bay are designated Marine Shoreline Critical Salmon Habitat. This marine critical area is subject to a 100 foot vegetative buffer from the ordinary high water mark.

## AIR RESOURCES

Puget Sound has a marine climate influenced by moist air from the Pacific Ocean traveling inland and releasing precipitation as the air masses rise over the Cascade Mountains. The Puget Sound airshed is influenced by the dual set of mountain ranges (Cascades and Olympics), the Pacific Ocean, and the weather. In general, air flows enter the central Puget Sound region via the Strait of Juan de Fuca to the north and the Chehalis Gap to the south. Onshore winds can effectively serve to mix and disperse air pollutants. When onshore air flow is interrupted

air can become inverted and stagnate which traps air pollutants between the set of mountain ranges.

The Puget Sound Clean Air Agency (PSCAA) and Washington Department of Ecology (DOE-Air Quality Program) monitor air quality for Snohomish, King, Pierce, and Kitsap Counties. Air quality elements that are monitored include: Particulate matter (PM2.5 and 10), Carbon monoxide (Co), and Ozone (O3). Areas classified as non-attainment areas (experienced persistent air quality problems) and maintenance areas (areas redesignated to attainment areas which have met air quality standards and have a 10-year maintenance plan). Pierce County is currently classified as maintenance for ozone and carbon monoxide categories, however is likely to go out of attainment by the end of 2008 for PM2.5.

Clean air is affected by emissions caused by industry, transportation, and wood smoke from outdoor burning, slash burns, fireplaces, and wood stoves. On the Islands the greatest threat to air quality results from indoor or outdoor burning. Smoke from fireplaces and woodstoves and from backyard burning and land-clearing piles is composed of fine particles and a toxic mix of carcinogens hazardous to human health. Fine particles are associated with serious health effects, as the tiny size of these pollutants allows them to be easily inhaled, bypassing the immune system and proceeding deep into lungs, where they can cause respiratory and cardiovascular problems, including premature death.<sup>3</sup>

## OPEN SPACE

The Pierce County Comprehensive Plan contains policies addressing open space. The Open Space Corridors map identifies the designated open space corridors throughout Pierce County, which is based upon high priority open space categories (fish and wildlife habitat, wetlands, rivers, streams, creeks, marine waters, and wooded areas). These designated open space areas serve as an overlay in which more detailed land use regulations can be applied to accomplish the preservation of open space corridors. For example, special requirements and standards contained within Title 18A, Zoning and Title 18J, Design Standards and Guidelines can be utilized within open space corridor overlay areas. In addition, several County programs address open space preservation, including the Conservation Futures Program (fair market value acquisition of properties and conservation easements for open space purposes) and the Current Use Assessment Program-Open Space (tax reductions given to retain property in an open space condition).

Open space corridors are based upon five high priority categories including: fish and wildlife habitat; wetlands; rivers, streams, creeks; marine waters; and wooded areas. All of Ketron Island is designated within the open space corridor. Open space corridor areas on Anderson Island are located along marine shorelines, creeks, and in identified fish and wildlife habitat areas. Other community plans have typically developed policies related to special development standards within open space areas and connectivity of open space areas with parks and trail systems.

## FISH AND WILDLIFE RESOURCES

Pierce County regulates critical fish and wildlife species and their associated habitats. Critical fish and wildlife species are either federally or state-listed as endangered, threatened, sensitive, candidate, or monitored. Associated habitats may be identified by either point locations (such as a nest or den) or by broader habitats that support some stage of the species life-cycle (such as oak woodlands or river systems). All anadromous fish species are considered critical because of the recent listing of the Chinook salmon and bull trout under the Federal Endangered Species Act (ESA) and the importance of these species to the various indigenous Native American Tribes throughout the region.

Schoolhouse Creek on Anderson Island is identified as supporting salmonids (Coho, chum, and cutthroat trout). Anderson Island also contains several areas identified Priority Habitat areas for wildlife and locations for bald eagles and osprey. Biodiversity Management Areas and corridors reflect those areas in Pierce County that support species richness and representation. All Ketron Island is identified as a Biodiversity Management Area with the marine shorelines of both Anderson and Ketron Island identified as biodiversity corridors.

## DESCRIPTION OF DESIRED CONDITIONS

The residents of the Islands would like to focus on preserving the existing natural features and precious shoreline ecosystems for future generations. The community plan policy direction is to recognize the natural constraints such as unstable slopes, soil constraints, flooding, wetlands, shorelines, and poor drainage and to ensure new growth and development is constructed around those constraints. New growth should be directed toward those areas least environmentally constrained.

The community would also like to see improvements to the existing environment. Improving air quality through education about indoor and outdoor burning, retaining soil function and reducing erosion through low impact development techniques, addressing failing septic systems, and restoring portions of Schoolhouse Creek are a few examples improvements residents would like to achieve in the future.

Many of the actions the community would like to implement to ensure development occurs in a more harmonious pattern with the natural environment is to be accomplished through community outreach and education as well as partnerships with universities and not-for-profit organizations.

## EARTH RESOURCES

The community plan strives to utilize low impact development techniques to retain soils and to reduce the impacts of impervious surfaces on water quality and quantity. Vegetation retention is also a priority action within the community plan promoting native vegetation and removing invasive species while working with landowners to plant fire resistant species at appropriate distances from homes and other structures.

## WATER RESOURCES

The communities would like to maintain the quality and quantity of surface water bodies within the plan area by supporting non-chemical methods to control milfoil, noxious weeds, or other types of algae blooms in the lakes; providing public education and outreach information on stewardship particularly regarding fertilizer and pesticide usage in and around water bodies; and, controlling leaking septic systems around the lakes. The plan also promotes low impact development techniques and vegetation plantings to improve water quality.

The community plan asks the community and County to be proactive in protecting the marine environment and calls for establishing "shellfish protection districts" in areas that are affected by a shellfish downgrade. The plan policies support enhancing hazardous spill response coordination in environmentally sensitive areas and wellhead protection areas.

The community plan policies also seek to further protect the shoreline environment through appropriate shoreline designations in the update of the Shoreline Master Program and requests consideration of options to restrict shellfish (e.g., geoduck, oysters, etc.) farming in the marine shoreline areas of Anderson and Ketron Islands. The community would also like to restore the natural shoreline process where degradation has occurred and to work to identify shoreline restoration projects and obtain potential funding to complete these projects.

## AIR RESOURCES

The Island communities would like to improve localized air quality by reducing burning activities that may negatively impact air quality including the burning of garbage, woodstoves, or stumps and debris as the result of land clearing.

## FISH AND WILDLIFE

Policies and actions within the Anderson and Ketron Islands Community Plan strive to preserve aquatic and fish species and their habitats and requests the restorations project identified in the Key Peninsula, Gig Harbor, and Islands Watershed Nearshore Salmon Habitat Assessment, Final Report, July 2003 be implemented. The plan carries specific recommendations for restoration projects for Oro Bay estuary.

The community plan policies also strive to preserve wildlife species and their habitats and promote the possibility of establishing wildlife sanctuaries on Anderson and Ketron Islands. Finally, it is important to the residents of Ketron Island to develop and implement management recommendations that control nuisance animals such as raccoons and coyotes.

## OPEN SPACE

The Island communities encourage public and private organizations and private property owners to conserve, maintain, and restore open space areas. The acquisition and retention of open space is to be accomplished through a variety of strategies including partnering with local

land trusts and public agencies to promote acquisition of high priority parcels on Anderson Island. County-owned properties, which serve as good fish and wildlife habitat, should be protected from conversion to other uses and integrated into the open space system. The plan calls for an inventory of properties on Anderson Island which may be utilized as open space and incorporated into a greenbelt park trail system.

The plan policies encourage public education and outreach efforts on the conservation and restoration of open space areas.

## CITATIONS

<sup>1</sup>Washington State Department of Ecology, Investigation of Water Resources, Water Quality, and Seawater Intrusion, Anderson Island, Pierce County, Washington, October 2001

<sup>2</sup>ESA Adolfson, Pierce County Shoreline Inventory and Characterization Report, October 2007, Chapter 7.2.4.1 South Key Peninsula and Islands.

<sup>3</sup>Puget Sound Clean Air Agency Website. Why is Wood Smoke a Concern? [www.pscleanair.org](http://www.pscleanair.org)

## IMPLEMENTING ACTIONS

The following actions need to be completed in order to implement the policies contained within this plan. They are arranged according to the timeframe within which each should be completed: short, medium, or long term. Short-term actions should occur within one year of plan adoption. Mid-term actions should be completed within 1-5 years. Long-term actions should be completed within 5-10 years of plan adoption. The entity or entities responsible for leading the effort to complete the action item is listed in parenthesis following the action. Actions are assigned to the Pierce County Planning and Land Services (PALS), Pierce County Public Works & Utilities (PWU), Tacoma-Pierce County Health Department (TPCHD), Washington State University Cooperative Extension (WSU Extension).

### SHORT TERM ACTIONS (UPON PLAN ADOPTION TO 1 YEAR)

1. During the next substantive update of the County's Shoreline Master Program, Shoreline Management Regulations and Critical Area Regulations, recommend provisions be considered in the update that reflect principles and standards in the community plan. (PALS)
2. Work with the Pierce County Firearms Commission to explore the possibility of designating Anderson and Ketron Islands as "no shooting" areas. (PALS)

### MID-TERM ACTIONS (1-5 YEARS)

1. Provide education and alternatives to burning garbage through notification, exploring garbage disposal options, and cost effective means to eliminate tree debris. (PWU)
2. Provide an education and outreach programs on cleaner heating alternatives such as use of seasoned wood and conversion from uncertified wood stoves to certified stoves, masonry heaters, or gas alternatives. (PWU)

3. Impose conditions on new development activities to limit burn and slash activities and encourage alternative methods. (PALS)
4. Develop incentive programs for use of innovative design techniques that reduce impacts from impervious surface areas associated with specific development projects. (PALS, WSU Extension)
5. Provide guidance to property owners on best management practices for forested areas and standards for tree removal.
6. Develop incentives that encourage the retention of large, mature stands of trees that will resist wind throw from high wind events, provided hazards to people, buildings, and utilities are considered. (PALS)
7. Develop a list of native vegetation types that are fire and pest resistant for planting around structures. Provide these lists to project applicants and make available online. (WSU Extension)
8. Develop incentives for project applicants to encourage restoration of historic plant communities. (PALS)
9. Work with the South Puget Sound Salmon Enhancement group and residents to identify shoreline and habitat restoration projects and obtain potential funding to complete these projects.
10. Develop management recommendations that control nuisance animals such as raccoons and coyotes.
11. Conduct a rapid species inventory “bioblitz” within the Ketron Island Biodiversity Management Area.
12. Develop and make available a brochure on the techniques and strategies available for maintaining open space.

#### LONG-TERM ACTIONS (5-10 YEARS)

1. Promote efforts to remove invasive, exotic plant species and when possible, restore to the historic, indigenous plant community type. (WSU Extension)
2. Distribute educational materials and resources on best management practices for effective site revegetation. (WSU Extension)
3. Provide information on stewardship of surface water bodies including elimination of nutrient loading as caused by the use of nitrogen fertilizer; removal of noxious, non-native or invasive plant species; and maintenance of appropriate lakefront vegetation that serves to filter pollutants. (WSU Extension)
4. Provide public education and programs on appropriate use and disposal of pesticides. (PWU, WSU Extension)
5. Provide public education and outreach on the appropriate maintenance and operation of septic systems. (TPCHD)
6. Provide public education on controlling pet wastes near water courses and water bodies such as lakes, streams, and wetlands. (WSU Extension)
7. Implement the use of non-toxic chemicals or other alternative practices for road maintenance and brush and noxious weed removal, and provide education on alternatives to spraying chemicals to control the spread of noxious weeds. (PWU)

8. Provide educational opportunities on a range of agricultural practices, through the development of farm management plans, that will minimize impacts on natural systems, functions, and processes. (WSU Extension)
9. Initiate and coordinate water quality studies, monitoring, and data collection for water courses and lakes, including enlisting/using trained volunteer groups. (TPCHD, PWU)
10. Conduct education and outreach efforts geared to households and property owners for:
  - reducing impacts to water quality;
  - appropriate pesticide/fertilizer application methods; and
  - farm management techniques. (WSU Extension)
11. Establish "shellfish protection districts" in areas that are affected by a shellfish downgrade.
12. Review wells on Anderson Island and the main well on Ketron Island for designation as a wellhead protection area. (TPCHD)
13. Pursue opportunities to conduct a detailed hydrogeologic study that evaluates the long-term availability of groundwater resources to serve existing residents and future population growth. (TPCHD)
14. Coordinate between Pierce County, TPCHD and State agencies to limit new wells in areas that have been identified as being at risk for seawater intrusion. (PALS, TPCHD)
15. Review open space and other wildlife habitat areas on both islands to determine suitability as a wildlife sanctuary and prioritize these areas in terms of acquisition or application of conservation easements.
16. Conduct a detailed study of the deer populations on Ketron Island to determine if deer levels are above an acceptable ratio for the land area and develop an appropriate response strategy.
17. Work with WDFW to develop management recommendations that control nuisance animals such as raccoons and coyotes.
18. Conduct an inventory of public properties on Anderson Island which may be utilized as open space and incorporated into a greenbelt park trail system.
19. Promote the Current Use Assessment (CUA) Program Public Benefit Rating System (PBRs) within the plan area. (PALS)

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## Chapter 5: FACILITIES AND SERVICES ELEMENT

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### INTRODUCTION

The Facilities and Services Element articulates the need for facilities and services that will implement the visions and goals of the community plan. Facilities and services are collectively considered ‘infrastructure’ and may include public or privately funded projects. The adoption of policy statements regarding infrastructure provide direction to investors and decision-makers about what investments are desired and needed by the community.

Anderson and Ketron Islands are rural communities. Limited availability of infrastructure and services, such as sanitary sewer, will maintain the Islands as rural communities. The element focuses on the two main items important to this rural community: the ferry system and emergency services.

### DESCRIPTION OF CURRENT CONDITIONS

#### PARKS AND RECREATION

Anderson Island has a mixture of public and private park and recreation facilities. The public facilities are provided by the Anderson Island Park and Recreation District and the State of Washington. Private facilities are provided through the Lake Josephine Riviera Country Club. Ketron Island does not have any available land for public recreation.

Anderson Island Park and Recreation District maintains a swimming beach, walking and bicycle trails, picnic facilities, athletic fields, playgrounds and an outdoor tennis court at Lowell Johnson, Andy's, Andrew Anderson Marine, Russ Cammon Park, Wide Awake Hollow, and St. Anne's Park. The district also maintains facilities at Carson Bay, Oro Bay, and Barber Trail.

The State of Washington through the Department of Ecology has identified the eastern side of Anderson Island just north of Yoman Point as Public Beach 8. Access to the beach is only by boat. The upper beach is composed of gravel with very little sand. At low tide, the lower area has sand flats. Only the tidelands of this area are public. Eagle Island State Park is located in Balch Passage between Anderson and McNeil Islands. This park is intended to preserve the natural features of the Island and permits only primitive outdoor recreation.

Anderson Island has several private parks and recreation facilities associated with the Lake Josephine Riviera Country Club. These include a nine hole golf course open to members and their guests, a mooring facility on the Sound with a twelve slip dock and two buoys (the dock is taken down in the winter), tennis courts, and a boat launch on Lake Josephine. There are also two boat clubs and a marina in Oro Bay.

#### LAW ENFORCEMENT

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#### PIERCE COUNTY SHERIFF

The Pierce County Sheriff's Department (PCSD) is the primary law enforcement agency for Anderson and Ketron Islands. The PCSD does not actively patrol either Anderson or Ketron Island. A deputy does patrol the Islands two or three times a month for routine checks. Officers from the South Hill Precinct will respond in an emergency situation. The precinct is located at 271 John Bananola Way East, South Hill.

## FIRE PROTECTION

Anderson Island is served by Fire District No. 27, Anderson Island Fire and Rescue. The station is located at 10111 Lake Josephine Boulevard. The department provides structural fire protection, Basic Life Support (BLS), and Emergency Medical Services (EMS) using a staff of 20 volunteers, with a full time Chief and part time administrative and support staff. The district also provides forest fire protection to the Island under contract with the State of Washington's Department of Natural Resources (DNR). The district currently operates two engines, two tankers, two BLS aid units, a lighting/air support unit, a 4x4 brush/command unit, and a command vehicle. The equipment is partially housed in a two bay fire station centrally located on the Island.

Ketron Island is unprotected and does not belong to a fire district.

## PUBLIC SCHOOLS

The plan area is served by Steilacoom Historical School District No. 1. There are seven school facilities within the district; they include Anderson Island Elementary, Cherrydale Primary, Chloe Clark Elementary, Harriet Taylor Elementary, McNeil Elementary, Saltar's Point Elementary, Pioneer Middle School and Steilacoom High School. Anderson Island Elementary provides K- 5th grade, students attend Pioneer Middle School and Steilacoom High School on mainland for 6th through 12th grade. The Anderson Island Elementary School had an approximate enrollment of 28 students for the 2007 – 2008 school year.

## PIERCE COUNTY LIBRARY SYSTEM

The Pierce County Library System serves all the residents of unincorporated Pierce County. The closest branch library is located in the City of DuPont. Islands' residents may also use the library system's web site to access the online library catalog, use e-sources, place holds, renew items that they have checked out, etc. By requesting books and other materials either online or at their chosen Pierce County Library branch, residents have access to the collection of over 1,000,000 items housed in the system's 17 branches throughout the County.

Anderson Island is one of 50 separate stops that the Pierce County Library System Bookmobile visits at least twice a month. Residents may checkout one of the 3,000 books plus talking books, and films carried on the Bookmobile. Bookmobile staff can also facilitate requests for any item available through the library district.

## SEWER AND WASTEWATER TREATMENT

Sanitary sewer service is not available on Anderson or Ketron Island. Developments within the community plan area are on individual or community septic systems. The primary method of disposal is by individual septic systems.

On-site sewage disposal systems are regulated at the state level by the Department of Social and Health Services and locally regulated by the Tacoma-Pierce County Health Department. These agencies assure that on-site disposal systems do not create a nuisance nor present any potential hazard to public health or environmental quality by regulating the location and type of sewage disposal system.

There are several factors that determine the location and type of a sewage system. These include:

1. Absorption quality of the soil
2. Depth to the maximal seasonal groundwater
3. Lot size and soil
4. Distance to water supply systems
5. Distance to surface waters
6. Area of ground needed
7. Future replacement and expansion of the system
8. Discharge drainage from roof or other curtain drains

New building permits on Anderson Island need to be reviewed for suitability of on-site sewage disposal and have a TPCHD approved design. Most of the lots in the Lake Josephine development have suitable soils. Many of the waterfront lots have soil issues and have more complex systems or are not allowed to build.

Ketron Island originally had a sanitary sewer system. This sewer system was never completed and the Washington State Department of Ecology did not certify the system. Consequently, the homes that were on the system were allowed to install individual septic systems. Any existing vacant lots are allowed to utilize a septic system if the minimum lot size is met and suitable soils are present for disposal. There are areas on the Island with very poor soils that may not be approved. A review of each individual lot is the only avenue to determine septic suitability.

## SOLID WASTE DISPOSAL

The County does not regulate the collection of garbage. The Washington Utilities and Transportation Commission (WUTC) regulates residential and non-residential garbage collection in unincorporated Pierce County area. The State has not granted either County governments nor the residents of unincorporated areas with the right to choose who provides garbage service.

Pierce County is required by State law to develop a comprehensive solid waste management plan that covers not just garbage collection, but also waste prevention, recycling, and transfer and disposal programs. The State-regulated haulers must comply with this locally-adopted

plan. The County is allowed by State law to develop ‘minimum levels of service’ that the private, state-regulated companies must comply with. For example, Pierce County requires the state-regulated haulers to provide curbside recycling service to all subscribing households on an every-other-week basis. Pierce County is also authorized to mandate the collection of garbage in unincorporated areas, although it has not exercised that authority. Currently residents may sign up for garbage service with the state-regulated provider, or self-haul waste to a transfer station. Pierce County is allowed to contract with companies to operate transfer stations and landfill disposal services.

Curbside garbage and recycling service is available on Anderson Island. The regular pickup service is provided by LeMay Enterprises. Residents who do not enroll in the service have the opportunity to dispose of their waste and recyclables at a solid waste transfer drop box located on the Island. The facility located at 9607 Steffensen Road accepts household trash, recyclables and yard waste. Items that are not accepted for disposal include mattresses/box springs, appliances, commercial and hazardous waste. The drop box station operates on a winter and summer schedule. From the beginning of October to the end of March the facilities is accessible on Sundays from 10 a.m. to 2 p.m. and Monday from 1 p.m. to 5 p.m. The remainder of the year operation hours is extended on Sundays and Mondays from 10 a.m. to 6 p.m. to serve residents and summer tourists. The filled waste containers are transported via roll-off truck to the Hidden Valley Transfer Station 30 miles away. Pierce County is currently pursuing language in the solid waste disposal contract that would allow flexibility to change the hours of operation without waiting until the next contract is negotiated. This flexibility is intended to better meet the needs of local residents.

Garbage and recycling facilities are not available on Ketron Island. Residents may transport their waste off the Island in their private vehicle to any County solid waste disposal facility.

## DOMESTIC WATER SYSTEMS

Domestic water within the community plan is provided by individual on-site wells and three community water systems on Anderson Island and one on Ketron Island. On Anderson Island the water systems are Lake Josephine Riviera, Anderson Island Water System, and Cole Point Heights. On Ketron Island it is the Ketron Island Water System.

The Department of Ecology issues water rights in Washington State. A water right is a legal authorization to use a certain amount of public water for specific beneficial purposes. State law requires every user of streams, lakes, springs, and other surface waters to obtain a water right permit unless they use 5,000 gallons or fewer each day. A water right will be issued only if it is determined that water withdrawal will not have a detrimental effect on other nearby wells. Water rights are based on anticipated average daily flows from the proposed use and are approved for a specified number of wells.

As required by state law, water service areas are exclusive service areas, which means only the designated system is to provide public water service to properties within the individual service areas. The community plan area also includes a multitude of individual wells and Group B

systems, which are systems serving 2-14 connections. There is not a complete inventory of individual wells or Group B systems available at this time.

## ELECTRICITY

Tanner Electric is a cooperatively owned electric system which has a nine member board elected by members of the co-op. In addition to their North Bend main office there is also a dispatch/shop located on Anderson Island.

## SURFACE WATER FLOODING

Surface water management is the responsibility of Pierce County within the community plan area. The County builds and maintains facilities to alleviate flood events and improve water quality and habitat. Property owners are charged a fee for these services. To ensure that the limited resources for surface water management are properly managed, the County has been assessing the existing conditions and future needs for capital facilities and program within ten drainage basins in the County. Anderson Island and Ketron Island are located within the Key Peninsula – Islands Basin Plan.

The Key Peninsula – Islands Basin Plan was adopted by Pierce County in December 2006. The plan, which encompasses the Key Peninsula, Burley-Minter and Fox Island basins, will be used to set priorities within each basin and revise or supplement existing storm drainage programs outlined in the Countywide Storm Drainage Plan, prepared in 1991.

For purpose of analysis, the KI basin was divided into a number of hydrologic sub-basins. Four sub-basins were identified within the community plan area; Anderson Island East, Anderson Island West, Schoolhouse (AI), and Ketron Island.

Most stormwater runoff in the Basin is routed to streams that flow to Puget Sound. Natural drainage patterns remain largely unaltered, although culverts have been built to carry stream flow under roadways and driveways. Stormwater runoff in rural communities is typically routed to roadside ditches and then in natural streams; there are few curbs, gutters, and underground storm drainage systems.

The flooding problems in the Key Peninsula – Islands Basin are localized and relatively minor. Few have involved floodwater on public roads. In general, the existing drainage system appears to have sufficient capacity to carry stormwater away from structures at the current level of urban development. There have been some reported problems as a result of debris accumulating in culverts and ditches; a few may be the result of design deficiencies in engineered drainage systems. Table 5 identifies the existing areas which are subject to flooding within the Schoolhouse (AI) sub-basin.

TABLE 5. Existing Flooding Problems – Schoolhouse (AI) Sub-basin				
Culvert ID	Culvert Diameter (in)	Culvert Type	Location/Description	Size of Storm When Deficiency Occurs
SC-00	18	2 – 18" CSP	Eckenstam Johnson Rd	2 – Yr Existing
SC-01	18	2 – 18" CSP	Oro Bay Rd	2 – Yr Existing
SC-02	36	36"x57" Arch	Sandberg	100 – Yr Existing
SC-03	36	36" SCP	Eckenstam Johnson Rd	
SC-04	48	48" ADS	Lake Josephine Rd	

Source: Key Peninsula – Island Basin Plan

The Schoolhouse (AI) sub-basin is one of six sub-basins which were determined to have the greatest potential for future development and flooding. This sub-basin was the only one within the plan area to have been analyzed through a modeling exercise to predict future road flooding. The culverts identified below are those which may cause road flooding predicted by the model in 2, 25, and 100 –year return frequency storms.

- Two 18-inch diameter culverts that carry Schoolhouse Creek, Anderson Island, under Eckenstam-Johnson Road, near Oro Bay Rd. (Node SC-00) (CIP AI-CR02)
- Two 18-inch diameter culverts that carry Schoolhouse Creek, Anderson Island, under Oro Bay Rd. (Node SC-01) (CIP AI-CR03)
- 36 x 57-inch diameter culverts that carry Schoolhouse Creek, Anderson Island, under Sandberg Rd. (Node SC-02) (CIP AI-CR08)

Source: Key Peninsula – Islands Basin Plan

A field visit was made to several culverts where a drainage deficiency had been predicted to confirm that the physical characteristics of the culverts and their surroundings were accurately simulated in the model. Several culverts identified as deficient above, did not become capital improvement projects (CIPs) for a variety of reasons. For Schoolhouse Creek on Anderson Island, the culvert at node SC-02 fails at the 100-year existing condition, but this culvert is also a fish passage barrier and it is therefore included in the CIP list for improvement.

The Key Peninsula – Island Basin Plan contains 83 capital improvement projects to solve the flooding, storm drainage, water quality, and related habitat problems. Seven of the projects recommended are within the community plan area. Table 6 identifies the projects and estimated costs.

TABLE 6. Schoolhouse Creek – Anderson Island Recommended CIP Projects					
Project #	Project Name	Cost Estimate	Priority	Problem	Solution
AI-CR02	Schoolhouse Creek/ Eckenstam-Johnson Culvert Replacement	\$43,837	Medium	Existing culvert presents a flood hazard and may be a fish passage barrier	Replace 2 existing 18" diameter culverts with a 30' long 8'x 4' box culvert

**TABLE 6. Schoolhouse Creek – Anderson Island Recommended CIP Projects**

Project #	Project Name	Cost Estimate	Priority	Problem	Solution
AI-CR03	Schoolhouse Creek/Oro Bay Road Culvert Replacement	\$35,070	Medium	Existing culvert presents a flood hazard and a fish passage barrier.	Replace 2 existing 18" diameter culverts with a 24' long 8' x 3' box culvert.
AI-WTRST04	Oro Bay Wetland Restoration	\$294,400	Medium	640 feet of estuarine, tidally influenced habitat has been degraded. Identified within the KGI Nearshore Habitat Assessment.	Restore 640 feet of wetland habitat in reach AI04.
AI-RST04	Reach AI04 Stream Restoration	\$128,000	Medium	Stream survey indicates the presence of 640 feet of poor aquatic habitat and poor riparian habitat.	Restore 640 feet of riparian habitat in reach AI04 of Schoolhouse Creek.
AI-CR08	Schoolhouse Creek/108th & Eckenstam-Johnson Rd. Culvert Replacement	\$190,500	Medium	Existing culvert presents a fish passage barrier.	Replace an existing 36" diameter culvert with a 94' long 10' x 6' box culvert.
AI-CR09	Schoolhouse Creek/Abandoned Logging Rd. North of 108th St. Crossing Culvert Replacement	\$5,000	Low	Fish passage barrier due to slope.	Remove 12-inch diameter culvert to provide fish passage.
AIT-CR01	Sandberg Road/Amsterdam Bay Culvert Replacement	\$154,554	Medium	Flooding of roadway.	Replace existing twin 12-inch diameter culverts with 3 foot by 8 foot three-sided bridge.

Source: Key Peninsula – Island Basin Plan

## CABLE TELEVISION

Cascade Cablevision provides cable television to some Anderson Island residents. This service is not available to Ketron Island residents. Cascade Cablevision's service office is located in Vaughn, Washington.

## TRANSPORTATION

### FERRY SERVICE

While some island residents have their own private watercrafts, the primary transportation access to and from both islands is provided by the Pierce County ferry system. Pierce County began its ferry service between the Town of Steilacoom and Anderson Island in 1938. Ferry service to Ketron Island was added in 1961. Up until 2004, ferry service to both islands was provided by separate direct runs (trips) to each island. In 2004, the direct runs to Ketron Island were replaced with triangular runs to both islands. Based on the normal schedule, there are currently 12 ferry runs to Anderson Island (including three triangular runs to Ketron Island) during the weekdays with additional evening runs provided during the weekends.

Ferry ridership consists of both walk-on passenger and vehicle fares. Island residents can leave their vehicles at either the park-and-ride lot on Anderson Island or at pay parking lots in Steilacoom for up to twelve hours; however, neither of these lots allow overnight parking. In general, ferry ridership (based on total ticket sales) has steadily increased as the population on Anderson Island has grown with ridership increasing by 153% from 1986 to 2006. The use of the ferry is substantially higher during the summer with ridership increasing by more than 50% in the peak month of August compared to the average winter month such as November.

Pierce County uses two ferry vessels (MV Christine Anderson and MV Steilacoom II) to serve the islands. The MV Christine Anderson was put into service in 1994 and can carry up to 54 vehicles ("equivalent automobile units") and 250 passengers. The MV Steilacoom II was placed into service in 2007 and has a capacity of 54 vehicles and 299 passengers. Under normal operations, the MV Christine Anderson and the MV Steilacoom II are run on alternating two-week schedules when both vessels are available for service. In January 2008, Pierce County entered into a vessel charter agreement with the Washington State Department of Transportation (WSDOT) to loan out one of the County ferries for temporary Washington State Ferries (WSF) service, during which time the State will provide one of its smaller ferries to the County to serve as a back-up vessel.

In compliance with the concurrency requirements of the Growth Management Act (GMA), the County has adopted a level of service (LOS) policy for the ferry system to maintain capacity at 100% of the peak winter weekday vehicle demand (i.e. to meet the total vehicle demand on the ferry during each weekday between mid-September and mid-May). With 12 runs per weekday and 54 vehicles per run, the vehicle capacity of the ferry during winter weekdays is 648 vehicles. Based on ridership data collected by Pierce County, the average number of vehicles using the ferry during winter weekdays in 2007 was 444 vehicles, which is significantly below

the vehicle capacity (648) of the ferry. However, vehicle overloads (i.e. vehicles “left behind” on the dock and having to wait for the next ferry run) sometimes occur during the morning or evening peak periods and during the summer, holidays, weekends, and other occasions (e.g. school events).

Further information about the County ferry vessels and other ferry facilities (e.g. waiting facilities, ferry loading/holding lanes, Anderson Island park-and-ride lot, etc.) is included in the Pierce County Fourteen-Year Ferry Program, which is updated on a yearly basis as part of the annual adoption of the Six-Year Transportation Improvement Program (TIP). Ferry operational issues (scheduling, fares, regulations, interagency agreements, etc.) are not covered in this long-range community plan since they are addressed by Pierce County on a case-by-case basis through other existing processes (e.g., annual budget, separate Council hearings, Pierce County Code).

Public input from island residents on ferry improvements and operational issues is obtained primarily from a quarterly ferry advisory committee, which includes representation from the Anderson Island Citizens’ Advisory Board (AICAB), residents from Ketron Island, and other interested parties such as the school district.

It should be noted that the Washington State Department of Corrections (DOC) operates its own ferry service between Steilacoom ferry landing and the McNeil Island Corrections Center. The DOC has its own dock at the Steilacoom ferry landing for its passenger-only ferry boats but utilizes the County dock to load and unload vehicles to and from its barge.

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## TRANSIT SERVICE

Although there is no public transit service on the islands (except for the two school buses for Anderson Island Elementary School), Pierce Transit provides local transit service to the Town of Steilacoom. It operates a fixed bus route (Route 212) that runs between the Lakewood Transit Center, Western State Hospital, Pierce College, and the Steilacoom ferry landing. The closest bus stop to the ferry landing is located near the intersection of Union Avenue and Commercial Street, approximately one block from the ferry landing.

In response to input received from the AICAB, the CPBs, and other island residents, Pierce Transit initiated a new schedule for Route 212 that went into effect on June 1, 2008 that offers more frequent service at the ferry landing and is better coordinated with the ferry schedule. Instead of pick-ups only once every hour, this new schedule provides 30-minute bus service at the ferry landing during the morning and evening commute periods. Pierce Transit also delayed the Route 212 departures from the ferry landing in the morning so that the bus does not leave the dock before the ferry arrives. In the early evening, the bus schedule was also adjusted so that bus arrivals at the ferry dock are 10 to 20 minutes before the ferry departures.

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## ROADWAY NETWORK

The roadway network on Anderson Island consists exclusively of two-lane roadways without shoulders. Many of the roadways, especially those outside of the Riviera development, are very narrow and overgrown with vegetation. Eckenstam-Johnson Road AI is the main north-

south thoroughfare that runs almost the entire length of the island. Yoman Road AI is a key east-west arterial that provides access to the ferry landing. Residents also utilize Guthrie Road AI and Villa Beach Road AI to travel to the ferry landing. Lake Josephine Road AI serves as the primary roadway into the Riviera development, although some motorists also use Country Club Drive AI to access this development. The traffic volumes on Anderson Island are relatively low compared to other parts of Pierce County and fall far below the County's level of service thresholds.

Nonmotorized travel is very common on Anderson Island. Although the island roadways lack shoulders, they are used heavily by pedestrians. Many residents regularly walk or bike to the general store, the community clubhouse, and the ferry landing. There are sidewalks on Yoman Road AI near the ferry landing. Bicycle travel has become more common on weekends and during the summer while equestrian travel occurs primarily in the southern part of the island. The Anderson Island CPB has raised concerns about these nonmotorized users sharing the road with vehicles, which sometimes travel at high speeds.

As part of its discussions on transportation, the Anderson Island CPB also identified several traffic operational and safety concerns (e.g., requests for traffic signs, crosswalks, traffic counts, roadway reclassifications, etc.). However, it should be noted that these safety related issues are not usually included in the long-range community plans since they are typically addressed by Pierce County on a case-by-case basis as they arise.

On Ketron Island, all of the roadways are currently privately owned. Similar to the roadways on Anderson Island, these private roads do not have shoulders to accommodate pedestrians and other nonmotorized users. The main roadway on Ketron Island is Morris Boulevard, which runs in a north-south direction along the eastern portion of Ketron Island and serves as a connection between the other private roads and the ferry landing. Although a portion of it was previously paved in the late 1960s, Morris Boulevard is currently an unimproved roadway that is owned by the Ketron Island Water District.

## DESCRIPTION OF DESIRED CONDITIONS

The community plan focuses on improving parks and trails; the transportation system, particularly the road network; and emergency management. The community hopes to improve park facilities; ensure roads and traffic are in keeping with the rural and agricultural lifestyle; and educate the public about evacuation routes and procedures.

## LAW ENFORCEMENT, FIRE PROTECTION, AND EMERGENCY MANAGEMENT

The community plan envisions improving the emergency services available on Anderson and Ketron Islands. This includes increasing the Sheriff Department's presence on the Islands and pursuing opportunities to establish a public dock on Anderson Island which facilitates an effective transportation service in the case of emergency situations. The plan also focuses on educating residents on strategies to minimize potential fire hazards on the Islands. There is also a desire to be more prepared to respond to potential disaster events such as earthquakes and tsunamis that may occur in the future.

## DOMESTIC WASTER SUPPLY

The community plan envisions the implementation of best management practices for the preservation of a high quality and supply of groundwater resources. Water purveyors should pursue actions to monitor the amount of water being withdrawn from water sources. Residents should be proactive in conserving water through identifying existing water leaks in the water system and using existing vegetation or drought tolerant native vegetation in landscaping plans.

The community plan addresses the potential threats of saltwater intrusion to the Islands' water supply. Water conservation measures are encouraged in the summer at the time water supplies are most susceptible due to high pumping rates and low aquifer recharge rates. The location of new wells is encouraged in areas that are not likely to have saltwater intrusion occur.

## SURFACE WATER FLOODING

The community plan envisions a minimization of impacts to residents from stormwater flooding events. Existing stormwater culverts and ditches should be upgraded for flow capacity. New culverts should be sized to ensure future surface flooding events do not occur due to inadequate infrastructure. Upgrading stormwater culverts and ditches financed through the locally collected stormwater management fees should be pursued.

## SOLID WASTE DISPOSAL

The community plan envisions residents on Anderson and Ketron Islands utilizing regular garbage and recycling pickup services. The expansion of services augmented with a referral service for large equipment removal is aimed at curtailing the amount of waste illegally dumped and/or burned.

## CABLE TELEVISION

The community plan envisions a television cable service that allows residents to view public stations broadcasting local government meetings, activities, and forums.

## TRANSPORTATION

### FERRY SERVICE

To address future ferry needs through the year 2025, Pierce County prepared the Waterborne Transportation Study in 2003 as an update to a previous study completed in 1989. This study predicted that the increasing number of occupied households and the increasing number of working families on Anderson Island will intensify vehicle demand on the ferry and will eventually increase the number of vehicles "left behind" at the ferry landings during the

morning and evening commute periods. To accommodate this anticipated vehicle demand, Pierce County implemented key service changes recommended in this study, including replacing the previous direct ferry runs to Ketron Island with triangle runs to both islands, adding evening runs to Anderson Island, and replacing the smaller MV Steilacoom ferry with the larger MV Steilacoom II ferry, which can carry 149 additional passengers and 20 more vehicles than its predecessor.

Pierce County is currently in the process of updating its long-range Transportation Plan to address its transportation needs over the next twenty years. As part of this update, the County will reevaluate the level of service (LOS) policy for the ferry system to take into account the ferry service throughout the year. There was community support from both islands to include a policy in this community plan to request that the County consider changes to the ferry LOS policy to focus on the peak commuting periods (e.g., summer, holiday weekends) when vehicle overloads are more commonly occurring. Additional public input will be sought on the proposed changes to this LOS policy as part of the Transportation Plan Update (TPU) process.

Notwithstanding any potential changes to the ferry LOS policy, vehicle overloads on the ferry are projected to regularly occur during the morning and evening commute periods by the year 2030. Since the population on Anderson Island is expected to increase by over 60% by the year 2030, it is assumed that the vehicle demand on the ferry will also increase at a rate comparable to the population increase on Anderson Island. In order to increase ferry service to meet this future vehicle demand, the construction of a second landing ramp (slip) at the Steilacoom dock would likely be required since the current landing ramp can not accommodate both the existing Department of Corrections (DOC) barge runs to McNeil Island and any additional County ferry runs. In addition to serving additional County ferry runs or the dual use of the two County ferries during high demand periods (e.g., holiday weekends), a second landing ramp would serve as a back-up slip in the event of an emergency (e.g., boat repairs) at the existing landing ramp. It would also help avoid any scheduling conflicts with the DOC barge service and would reduce the need for other improvements such as extending the ferry loading lanes. The construction of a second landing ramp at the Steilacoom dock has been identified as a major capital improvement project in the Pierce County Fourteen-Year Ferry Program subject to future funding availability.

The ferry policies in this community plan encourage Pierce County to implement ferry improvements and strategies to encourage walk-on passenger ridership in order to reduce vehicle demand on the ferry. It is recommended that the County prepare a study to identify overnight parking areas in or near Steilacoom for island residents so that they do not need to bring their vehicles on the ferry when returning home. Other policies recommend that access and driveway improvements be considered at the Anderson Island park-and-ride lot and that the County explore the feasibility of a dock for emergency service vessels at the Anderson Island ferry landing. Several policies emphasize the importance of continued coordination with island organizations (e.g., AICAB, Ketron Island Homeowners Association) and regular consultation with other agencies (Town of Steilacoom, DOC, Washington State Ferries).

The new schedule changes for Bus Route 212 implemented in June 2008 are intended to address longstanding community requests for better passenger connections between the Pierce County ferry system and the local transit service provided by Pierce Transit. The new 30-minute bus service at the ferry landing in Steilacoom during the morning and evening commute periods will increase opportunities for island residents to use the bus to travel to destinations such as Pierce College, Western State Hospital, and the Lakewood Transit Center, where passengers can transfer onto other bus routes to Tacoma and Fort Lewis and can also take the express bus service to the Seattle-Tacoma (Sea-Tac) International Airport. This service change is also consistent with the ferry policies in the community plan to enhance or encourage walk-on passenger ridership in order to relieve vehicle demand on the ferry. Other transportation policies in this community plan call for continued coordination with Pierce Transit and request that Pierce County explore opportunities for sharing bus service and parking areas with the Town of Steilacoom and the Department of Corrections (DOC).

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## ROADWAY NETWORK

The transportation policies for the Anderson and Ketron Islands Community Plan emphasize the desires of both island residents to preserve the rural character of the roadway system while enhancing safety and facilitating access to community facilities. In general, there is support for improving the existing roadway system but not necessarily widening (i.e., adding lanes) the roadways or constructing new roadways. Making the roadway system safer and more convenient for pedestrians and other nonmotorized users is considered a high priority. Roadway improvements to the ferry landings are also emphasized by both island residents.

On Anderson Island, nonmotorized improvements (e.g., paved shoulders or roadside trails) are highly recommended along Eckenstam-Johnson Road AI and Yoman Road AI to improve safety and to facilitate nonmotorized travel to the general store, the community clubhouse, and the ferry landing. Traffic flow and safety improvements are also supported on Yoman Road AI and Villa Beach Road AI since residents use these local roadways to access the ferry landing. The transportation policies for Anderson Island in this community plan emphasize the need for continued and closer coordination with other island agencies (e.g., the school, park, and fire districts) and local civic groups.

On Ketron Island, there is support for upgrading Morris Boulevard and other connecting roads as paved roadways to support future development and to facilitate access to the ferry landing. In addition, paved or soft (gravel) shoulders are recommended for any new roadway construction. The Ketron Island CPB also inquired about whether private roads on the island could be converted into County-maintained public roads. However, pursuant to Pierce County Code Section 17B.30.030, it should be noted that Pierce County only considers accepting private roads into the County road system after the roads have been brought up to the County's current standards. Even if a private road was brought up to standards, Pierce County would still need to weigh the benefits and costs of operating and maintaining any new public roads.

A listing of the transportation project recommendations for both islands is included in Appendix A. Implementation of these projects is contingent upon funding availability and more detailed analysis.

## IMPLEMENTING ACTIONS

The following actions need to be completed in order to implement the policies contained within this plan. They are arranged according to the timeframe within which each should be completed: short, medium, or long term. Short-term actions should occur within one year of plan adoption. Mid-term actions should be completed within 1-5 years. Long-term actions should be completed within 5-10 years of plan adoption. The entity or entities responsible for leading the effort to complete the action item is listed in parenthesis following the action. Actions are assigned to the Pierce County Planning and Land Services (PALS), Pierce County Public Works and Utilities (PWU), Tacoma-Pierce County Health Department (TPCHD), Pierce County Department of Emergency Management (DEM), Pierce County Sheriff (Sheriff), Pierce County Fire District #27 (PCDF#27), and Pierce County Fire Prevention Bureau (FPB).

### SHORT TERM ACTIONS (UPON PLAN ADOPTION TO 1 YEAR)

1. Amend the Pierce County Manual on Accommodating Utilities to include provisions for the undergrounding of overhead utility lines within the County right-of-way. (PWU)
2. Consider amending the annual updates to the Six-Year Transportation Improvement Program (TIP), the Fourteen-Year Ferry Program, and the Capital Facilities Plan (CFP) to include the ferry improvements recommended in the Anderson and Ketron Islands Community Plan. (PWU)
3. Continue to coordinate on a regular basis with the Anderson Island Citizens' Advisory Board (AICAB) and the residents of both islands on ferry improvements and operational issues (scheduling, fares, interagency agreements, ferry information and documents). (PWU)
4. Prepare a parking study in consultation with the Town of Steilacoom, the Department of Corrections, and Pierce Transit to identify parking areas for island residents. (PWU)
5. Coordinate with Pierce Transit to improve passenger connections between the County ferry system and Bus Route 212 that serves the Steilacoom ferry landing. (PWU)
6. Work with Pierce Transit to provide more frequent bus service at the ferry landing in Steilacoom in order to facilitate bus ridership to Pierce College and the Lakewood Transit Center. (PWU)
7. Consider amending the annual updates to the Six-Year Transportation Improvement Program (TIP) and the Capital Facilities Plan (CFP) to include the roadway projects recommended in the Anderson and Ketron Islands Community Plan. (PWU)
8. Coordinate with the Steilacoom School District, the local park district, the local fire district, the Anderson Island Citizens' Advisory Board (AICAB), and the residents of both islands on transportation issues and roadway safety concerns. (PWU, Sheriff)

### MID-TERM ACTIONS (1-5 YEARS)

1. Pursue opportunities to establish a dock to provide prompt emergency and law enforcement access to Anderson Island. (DEM, Sheriff)
2. Investigate adding patrols and improve response times to the islands. (Sheriff)
3. Coordinate with Fire District #27 on Anderson Island to provide effective fire and emergency services to the Island. Pursue opportunities to improve fire and emergency services to Ketron Island. (DEM, PCFD#27)
4. Disseminate information to residents and property owners that addresses forestry stewardship to minimize forest fire hazards, proper maintenance of chimneys, and other ways to minimize fire hazards. (FPB)
5. Pursue grant funding to develop emergency plans and provide information to the public to prepare for earthquakes, tsunamis, storms, and other disaster events that could affect the Islands. (DEM)
6. Provide information, training, and programs on managing solid waste through reduction, recycling, composting, and other methods. (PWU)
7. Limit new wells and development activities that require water withdrawals in any areas that are identified as being at risk for saltwater intrusion. (PALS, TPCHD)

#### LONG-TERM ACTIONS (5-10 YEARS)

1. Upgrade existing stormwater facilities within the plan area that are undersized and causing flooding problems. (PWU)
2. Develop programs and provide information to enhance domestic water conservation. (TPCHD)

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## Chapter 6: PLAN MONITORING

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The 1990 State Growth Management Act (GMA) requires jurisdictions to report on progress made in implementing the Act, and to subject their comprehensive plans to continuing evaluation and review. As a component of the County’s Comprehensive Plan, the Anderson and Ketron Islands Community Plan is subject to this requirement. Generally, community plans are updated every five years and monitored yearly. The monitoring process includes evaluating the development standards, regulations, actions, and other programs called for in the plan for the purpose of determining their effectiveness in fulfilling the vision of each of the five elements of the plan.

Monitoring actions steps includes the development and implementation of regulations and design standards, coordinating the provision of facilities and services, developing educational programs and handouts, acquiring parks, preserving open space, and other actions. Information obtained from the monitoring program can be used to offer recommendations to decision makers as to what changes to the community plan may be needed in order to attain specified goals and meet the visions in the plan.