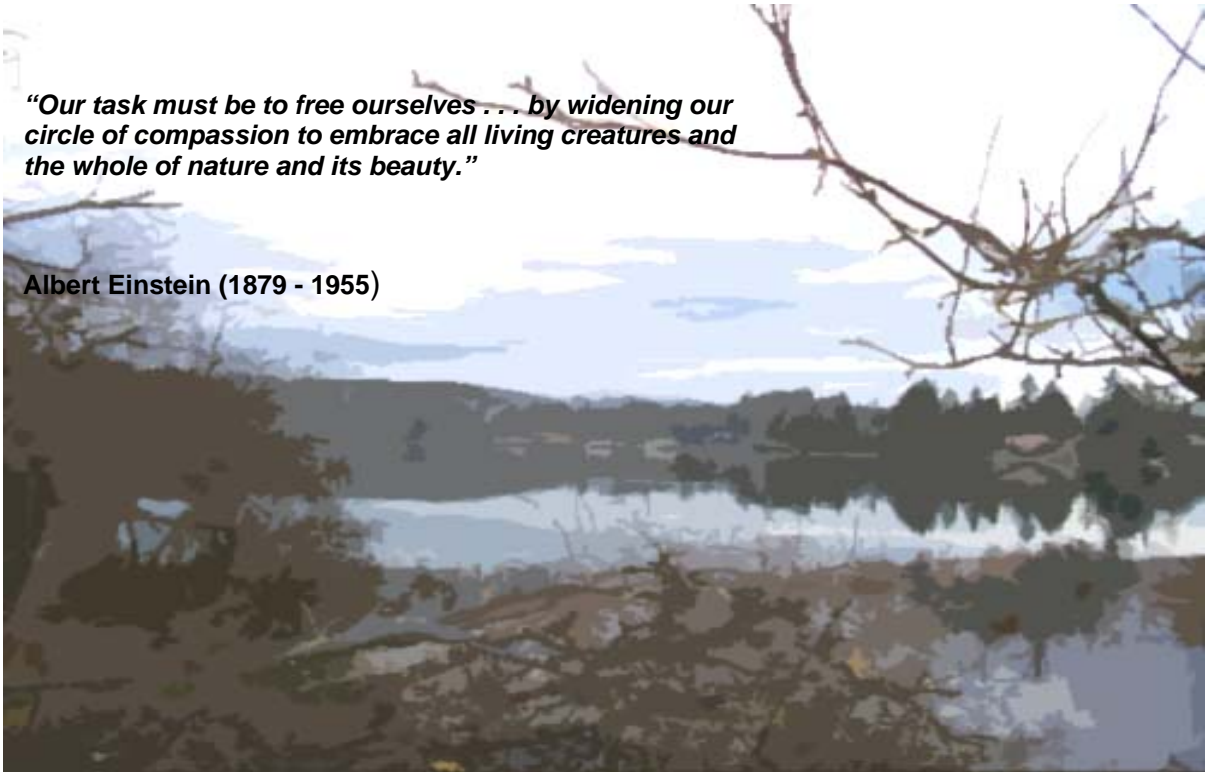


*“Our task must be to free ourselves . . . by widening our circle of compassion to embrace all living creatures and the whole of nature and its beauty.”*

Albert Einstein (1879 - 1955)



## **CHAPTER 6: NATURAL ENVIRONMENT / PARKS & RECREATION**

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### **6.1 Natural Environment**

The Keyport natural environment includes many general natural habitat ecosystems, all of which, whether forest, estuary, stream, or grassland, depend on dependable water quality and availability. Protection of these habitats has been determined to be beneficial to both wildlife and water quality.

The Keyport land area contains specific natural wildlife habitats that support a variety of plant, animal, and bird communities. The Keyport salt and freshwater habitats also support a number of fish and amphibian communities. Additionally, the Keyport habitat areas are home to significant or protected species. Finally, the Keyport natural environment discussion would encompass impacts to critical aquifer recharge areas, air quality, and frequently flooded areas.

## General Keyport Natural Habitats

Habitat communities in the Keyport area include ecosystems consisting of five primary habitat types including; westside lowlands conifer-hardwood forest, herbaceous and riparian wetlands, bays & estuaries, marine nearshore, and urban environments. Each of these habitat types contain common plant and animal species that generally occur in these areas or regularly migrate through these areas.

Historically, most of the Kitsap peninsula consisted of *westside lowlands conifer-hardwood forest habitat* areas. Some blocks of these second-growth areas still exist throughout the Keyport area, predominately the shoreline around Dogfish Bay and the upland areas south of Keyport Trace. The habitat area primary includes conifer tree communities consist of Douglas fir, western hemlock, and western red cedar. Deciduous trees include big-leaf maple, black cottonwood, and red alder along stream corridors and in cleared areas. Hardwood trees are actually not a dominant tree in this habitat and are usually cultivated. Non-woody species include fern, salal, rhododendron, and various berries. Common animals associated with this habitat are brown bats, Douglas squirrels, beaver, black-tailed deer, rabbit, skunk, and chipmunk. Common birds include crow, robin, bald eagle, barn owl, wren, warbler, heron, and woodpecker.

*Herbaceous and riparian wetlands* habitat include freshwater aquatic beds and streambeds and the surrounding land. These habitat drainage areas, streams, and wetlands have historically been the most affected by filling, channeling, dams, or changes in hydrology. The habitat types occupy relatively small areas in Keyport, mostly south of Highway 308 and are often identified as critical areas in Kitsap County. The habitat area often include water loving trees such as big-leaf maple from the forest habitat in addition to semi-aquatic plant communities such as devils-club, elderberry, sedges, cat-tails, reeds, and many grass species. Common animals include beaver, muskrat, raccoon, river otter, frogs, salamanders, and newts. Common bird species include blue heron, widgeon, bufflehead, Canada goose, and various ducks.

*Urban environment* is a habitat type that is primary developed property including residential, commercial, industrial, and institutional buildings. Common animals associated with this habitat type include domesticated dogs & cats, rodents, raccoons, and opossum. Common birds include starlings, gulls, finches, sparrows, crows, and doves. Most of “downtown” Keyport could be considered an Urban habitat environment.

*Bays & estuary habitats* are areas with significant mixing of salt and freshwater, include intertidal sand and mud flats, saltwater and brackish marshes, and open-water portions of associated bays. Examples of these habitats are Dogfish Bay and the south lagoon on Naval Base Kitsap, Keyport. Legend has it that Dogfish Bay was so named because its waters were so thick with dogfish that the pioneers could literally rake them onto shore. Plant communities in these habitat areas include bog laurel, eelgrass and similar salt tolerant species. Common animals include beaver,

muskrat, raccoon, river otter, frogs, salamanders, and newts. Common bird species include blue heron, loon, kingfisher, osprey, cormorant, gulls, grebe, terns, Canada goose, and various ducks.

*Marine nearshore* environments are marine water habitat areas along shorelines not significantly affected by freshwater inputs. Examples of these habitats in Keyport are shorelines of Liberty Bay and Port Orchard Inlet. Marine mammals include steller sea lion, harbor seals, and occasional visits from gray or orca whales. Bird species include gulls, grebe, merganser, cormorant, and scoter. Aquatic fish species include salmon, steelhead, herring, sole, smelt, dogfish skates, and sculpins.

### Significant Species

The Keyport area is home to a number of priority and significant species and species that may be threatened or classified as endangered by Washington State or Federal Agencies. This section includes discussion of some of these species, their habitat, and possible impacts.

The national bird, the *bald eagle*, which was recently de-listed as threatened both federally, is protected within the state, makes it's home in the Keyport area habitat. The eagle is a fish eater, hunts and locates their nests in tall conifers near expanses of salt water such as Dogfish Bay and Liberty Bay. Eagle habitat areas are designated in a two tier system with Priority 1 habitat areas within 400 feet of an eagle nest and Priority 2 habitat areas within 800 feet of nest sites or a combination of shoreline within ½ mile of a nest site. Keyport area nests are located on Virginia Point and the southern portion of the Naval Undersea Warfare Center. Priority 2 eagle habitat areas in Keyport have been identified along the causeway shoreline of Dogfish Bay, the southeastern shoreline of the Naval Undersea Warfare Center, and the western tip of the Keyport peninsula.

The *great blue heron* is listed as uncommon and a state monitored species. Heron rookeries are commonly found in large groves of red alder, usually in wetlands, and near open water. No specific heron rookeries have been identified in Keyport, but individual heron nests may exist in the habitat areas of Dogfish Bay and the south lagoon of the Naval Undersea Warfare Center. Similar habitat is also used by the *marbled murrelet* which is a state and federally listed threatened species.

In the nearshore marine habitat, a number of aquatic fish species have been listed by state and federal agencies as threatened species. These fish species include *Chinook Salmon*, *Puget sound Bull Trout*, and a proposed listing of the *Puget Sound Steelhead*. Additionally, *Coho salmon* and *Steelhead* have also been listed as a species of concern. The waterfront environment of the entire Keyport peninsula would be the critical habitat areas possibly affected by these ecosystem protections and may be addressed further in Section 6.2 Kitsap County Critical Areas.

Marine mammals such as *grey whales*, *orca whales*, and *steller sea lions*, although rare visitors to the Keyport local waters and marine nearshore environment, are also

federally and state listed species as endangered or threatened and may be impacted by non-point pollution, stormwater outflows, and habitat damage. Protections relating to these species may be more related to regulations of water borne activity when the animals are sighted locally, such as safe approach distances and similar measures.

Liberty Bay historically has been an important feature in Washington's commercial oyster industry for more than 40 years with as much as 200 acres of dedicated tidelands producing approximately 20,000-25,000 gallons of oysters annually. As recently as until 1993, commercial oyster production in Liberty Bay was an important component of the local and regional economy, but was reduced and eventually eliminated due to deteriorating water quality. Significant efforts to improve water quality have resulted in Dogfish Creek in the Liberty Bay watershed near Poulsbo showing remarkable improvement and the Lemolo area as having a upgraded and may already be removed from the restrictions for certain shellfish harvesting. Although oysters are not a listed or endangered species, recent efforts to return oysters within Liberty Bay have been conducted and are an ongoing effort.

#### Aquifer Recharge Areas

The Keyport community contains portions of two types of aquifer recharge areas, Category I and Category II. Critical Aquifer Recharge Areas are those land area that contain hydrogeologic conditions that facilitate aquifer recharge and/or transmit contaminants to an underlying aquifer. Factors considered in the identification of critical aquifer recharge areas include depth to water table, presence of highly permeable soils, presence of flat terrain, and the presence of more permeable surface geology.

Category 1 critical aquifer recharge areas are those areas where the potential for certain land use activities to adversely affect groundwater is high. Keyport has Category 1 critical aquifer recharge areas located at the eastern shoreline of Dogfish Bay and adjacent to the south lagoon on the Naval Undersea Warfare Engineering Station.

Category 2 critical aquifer recharge areas are areas that provide recharge effects to aquifers that are current or potentially will become potable water supplies and are vulnerable to contamination based upon the type of land use activity. Category 2 aquifer recharge areas include highly permeable soils, areas above shallow aquifers and areas with high concentration of potable water supply wells. The Category 2 critical aquifer recharge areas in Keyport are predominately adjacent to the western shoreline of Dogfish Bay.

#### Air Quality

The measurement of air quality for the Keyport Village area is dependent on the Puget Sound Clean Air Agency (PSCAA). PSCAA operates under the 1991

Washington Clean Air Act (RCW 70.94). Although there have been no violations of the national ambient air quality standards for this area in the last eight years it has been an area of concern.

Kitsap County initiated a ban on all outdoor burning for its urbanized areas in late 2000. Outdoor burning adds to the pollutants in the air, which has been increasingly problematic in recent years. This ban does not currently apply to the Keyport Community. Questions regarding burning or air quality within the Keyport Community area can be directed to the Puget Sound Air Pollution Control Agency at (800) 552-5365 or the Kitsap County Public Works Department at (360) 337-7121.

### Frequently Flooded Areas

Frequently flooded areas are lands included on the FEMA flood insurance maps as Flood Zone A, which may be defined as inundated with water during periods of high rainfall, extreme high tides or strong winds. In the Keyport, these areas are located along the shoreline. Property owners wishing to develop in these areas of frequent flooding should be notified of this danger before they receive development approvals.

## **6.2 Kitsap County Critical Areas**

There are four types of critical areas located within the Keyport Community; wetlands, geologically hazardous areas, streams and shorelines (figure 6.2.1). Each type is strictly regulated by the Kitsap County critical areas ordinance (351-2005). Each is described below.

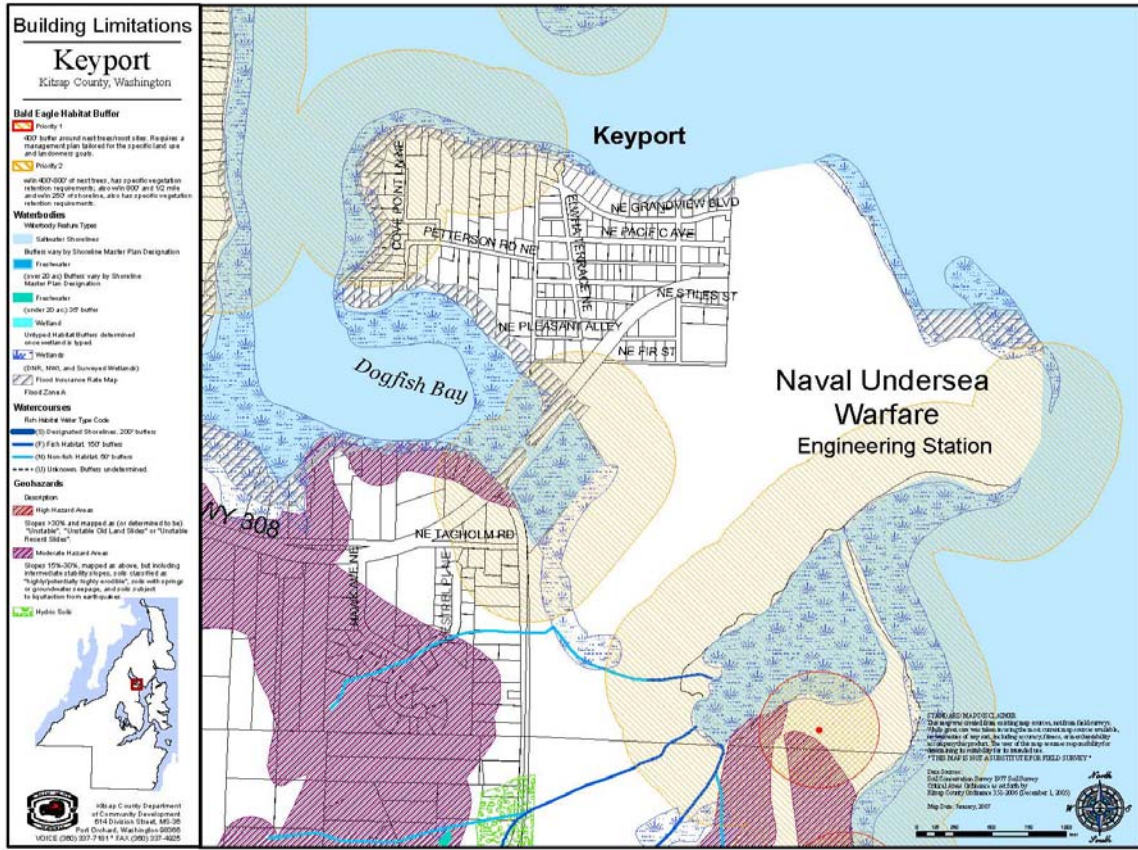


Figure 6.2.1 Keyport Critical Areas and Building Limitations.

### Wetlands

The Keyport Community contains few wetlands scattered through the community. The largest wetland would be directly connected to the marine shorelines of Dogfish Bay both East of the causeway, South along the edge of Highway 308, and West along the shorelines of Virginia Point. Other small wetlands may be distributed throughout the community but while several wetlands have been mapped by Kitsap County, there are nearly as many that remain unmapped. The documentation of unmapped wetlands could help protect these resources from damage. The wetlands within Keyport provide wildlife habitat and contribute to the healthy hydrology of the area and would hold amounts of storm water.

### Moderately Geologically Hazardous Areas

Moderately geologically hazardous areas include slopes (between 15% and 30%) and may include intermediate stability slopes, soils classified as “highly or potentially highly erodible”, soils with springs or groundwater seepage, and soils subject to

liquefaction from earthquakes. These areas primarily exist in limited areas along portions of the Dogfish Bay southern shoreline, along Highway 308 and through the Keyport Trace neighborhood. Limited moderately geologically hazardous areas are also located within the Naval Undersea Warfare Engineering Station. Developing in or near these areas may require increased geo-technical analysis, mitigation, or reports to protect wildlife and decrease the likelihood of damage due to geological actions.

### Streams

The primary streams located within the Keyport Area are located south of Highway 308 and the Keyport community and either flow northeast into Dogfish Bay which is part of Liberty Bay or Northeast into the South Lagoon which opens to the Port Orchard Inlet. A number of streams are designated as fish-bearing at their lower elevations and are protected by development requirements such as buffers and setbacks. A number of smaller streams and all the streams at their upper elevations are also designated as non-fish habitat.

Daniels Creek is a small stream approximately two miles in length that flows north from Central Valley Road to its discharge into the west shore of Dogfish Bay near Keyport. Land use in the drainage is a combination of rural residential and agricultural. Daniels Creek is one of nine streams in Kitsap County are so polluted with bacteria that the Health District advises the public to avoid contact with it. The Kitsap Creek and Daniels Creek upstream investigations were initiated in 2005, pollutant sources are still being identified. As Daniels Creek and its wetland headwaters act as part of Keyport, Dogfish Bay, and Liberty Bay hydrology, their protection is of importance to public as well as private wells.



Figure 6.2.2 Daniels Creek monitoring station



Figure 6.2.3 Health Advisory warning sign posted on Daniels Creek

## Shorelines

The shorelines of the Keyport community provide important habitat for many species of fish and wildlife. Salmon, smelt, osprey and eagles all utilize this shoreline for food and shelter. This habitat helps make Keyport unique and the protection of these species is of great importance.

Since development is not prohibited along these shorelines, the least invasive methods should be utilized. Traditional rock and concrete bulkheads should be replaced if possible by those more environmentally-friendly and others only allowed in high erosion areas where existing homes are endangered. A reduction in the use of fertilizers and pesticides by shoreline property owners is another opportunity to diminish environmental impacts. Such methods allow for shoreline development in these areas while maintaining this vital habitat.

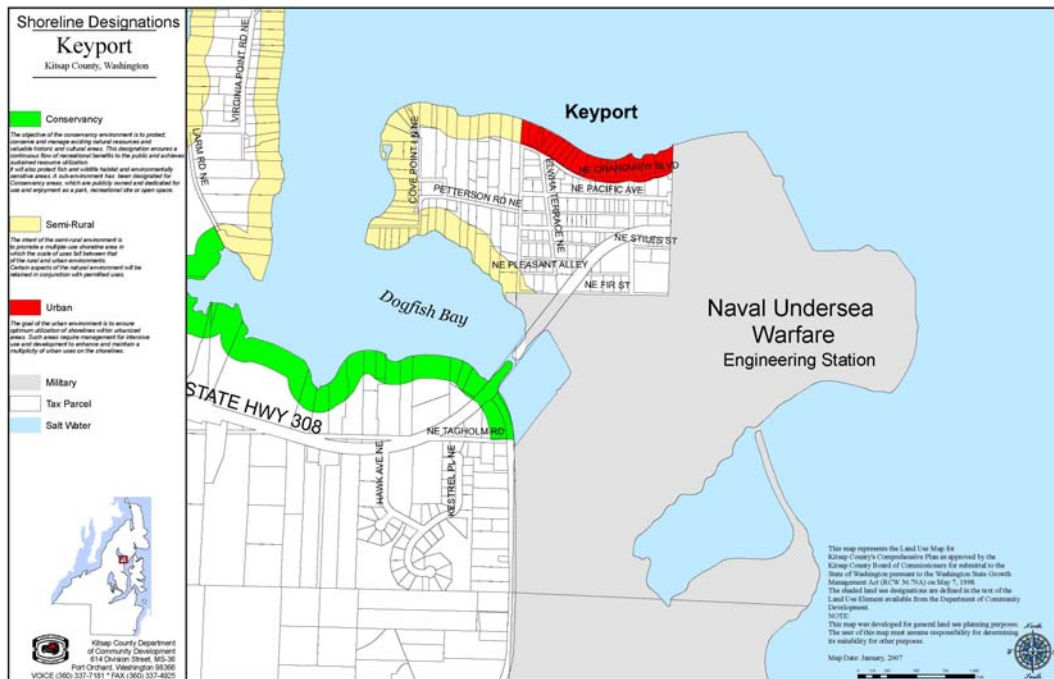


Figure 6.2.2 Kitsap County Shorelines Master Plan, Keyport Shoreline Designations.

The Kitsap County Shoreline Management Master Program developed in 1999 set shoreline designations and development requirements for Kitsap County shorelines. In this program the Keyport shoreline has been designated *Urban* along the north portion of the community, near the Port of Keyport, *Semi-Rural* around the remainder of the Keyport peninsula, and *Conservancy* along the southern shoreline of Dogfish Bay, adjacent to Highway 308. The historical zoning classifications and

historical densities along the shoreline would be consistent with the Program’s policies for these designations.

Kitsap County adopted a revised critical areas ordinance in 2005 which maintained shoreline buffers and setbacks as set forth in the approved 1999 Kitsap County Shoreline Management Master Program. This critical areas ordinance was subsequently appealed. This resulted in revised shoreline buffers and setbacks being adopted in response to the Central Puget Sound Growth Hearings Board decision. The revised shoreline regulations do affect both *Urban* and *Semi-Rural* shoreline designations, which includes most of the Keyport peninsula. The *Natural* and *Conservancy* shorelines were unaffected by this ordinance. The Kitsap County Shoreline Management Master Program is anticipated to be fully updated in 2011 and these regulations will be analyzed and revisited during that effort.

### 6.3 Parks & Recreation

#### Existing Facilities

Keyport enjoys two Kitsap County public parks and the Port of Keyport facilities to provide open space, park and recreation opportunities in the community. These two agencies provide the majority of facilities with in the sub-area, including trails, waterfront piers, boat launches, picnic areas, and playgrounds. Table 6.3.1 below and Figure 6-34 list the different park facilities in the Keyport community.

Facility Name	Managed by	Location	Acres	Recreational Facilities
Keyport Central Park	Kitsap County Partnership Property	Washington Avenue NE	0.1	playground, picnic area, and a lighted horseshoe court
Keyport Saltwater Park	Kitsap County	Highway 308 and McKittrick Road	2.0	Saltwater beach access, playground, picnic area.
Keyport Community Dock	Port of Keyport	North terminus of Washington Avenue NE	n/a	Saltwater access, boat ramp, picnic area.
Future Mosquito Fleet Trail	Kitsap County & State of Washington	Pedestrian Access along Highway 308	n/a	Will serve pedestrian, bicycle, and non-motorized travel.

**Table 6.3.1. Park and Recreational Facilities in Keyport**

### *Keyport Central Park*

Keyport Central Park lies within the heart of the Keyport community, located on the east side midway along Washington Avenue, this tenth acre partnership park provides the community with play equipment and picnic spaces. The park also is the site of sewer pump station number sixteen which provides the capacity and infrastructure that serves not only the Keyport community but also serves the capacity from Poulsbo. The park is an important part of the community and the result of a strong grassroots campaign with Kitsap County to create the public space in 1997 as part of the installation of the new pump station. The park is regularly the site of community gatherings, fourth of July parades, and is the sole location in the community for small children to play that is served by public sidewalks.

### *Keyport Saltwater Park*

Keyport Saltwater Park serves as the entrance point to the Keyport Community and is a two acre forested park at the north edge of the causeway across Dogfish Bay at the intersection of State Route 308 and McKittrick Road at the entrance to the Keyport Naval Station. The park is a partnership property with the community and was the result of a property surplus from the federal lands.

The park provides saltwater beach access, a playground, a picnic area and the forested shorelands. A well and pump house that serve the Keyport community were retained through the transfer from federal ownership and are the sole buildings within the park. Access to the park may be provided from unmarked trails at the south end of the Sunset Avenue NE right-of-way or from walking on the shoulders of Highway 308. A stop light is provided at the park entrance for the Keyport Naval Base entrance.

Community requested improvements for the park include safety lighting at the entrance, a pedestrian crosswalk and pedestrian button for the McKittrick Road signal light. The most significant improvement would be a separated safe pedestrian path along Highway 308 from Washington Avenue to the park entrance, continuing on across the causeway (please refer to Mosquito Fleet Trail).

### *Keyport Community Dock*

Liberty Bay and Keyport is popular with boaters and for small craft recreation for many reasons including



**Figure 6.3.1 Port of Keyport Dock**

the protected character of the bay from storms, and the accessibility of the bay to attractive nearby waterfront destinations. The main public waterfront access is the community dock at the Port of Keyport, located at the northern terminus of Washington Avenue. The Port of Keyport and Keyport Community Dock facilities are described fully in Chapter 6: Port Improvements and Waterfront Development.

#### *Mosquito Fleet Trail Plan & Mosquito Fleet Trail*

The Mosquito Fleet Trail generally traces the county's eastern shoreline from Southworth north to Kingston. Created to service the County's recreational and non-motorized transportation needs, this system of lanes and off-road trails will also provide safe pedestrian and bike routes between neighborhoods, schools, parks and retail areas. It is being implemented over time as part of a larger recreational, non-motorized transportation and open space plan for Kitsap County.

A portion of this system includes improvements to and within Keyport, providing access to the Port of Keyport and the Keyport Community Dock. A combination of bike lanes and separated paths are the primary proposals through these areas. The master plan for this system breaks the project into portions and each is prioritized for funding. The Keyport State Route 308 improvements and associated Keyport segments of the Mosquito Fleet Trail one of the top priority for desired community projects.

In addition to the Mosquito Fleet Trail, Kitsap County is currently pursuing "Scenic Byway" status for the Mosquito Fleet corridor, meaning that the route would be designated a scenic driving route for visitors and tourists across the state. Kitsap is pursuing this status to make the corridor and related capital improvements, eligible for funding from additional sources. Development of the Mosquito Fleet Trail may benefit from this designation as well.

The Mosquito Fleet Scenic Byway may be an amazing tool for bringing to light the colorful history of local and trans-Sound ferries that were the Peninsula's main means of transport for over 75 years. While many visitors initially may be drawn to the route for its scenic qualities, the story of early marine travel may quickly unfold and develop through a series of improved interpretive displays. The often rustic surroundings may be drawn into the storyline as well, helping to illustrate the history and nature of early white settlement along the shoreline. The natural setting and terrain, in many areas along the route largely undisturbed, may also be tied into the unfolding story. And, other, later developments in marine exploration and navigation, such as at Bangor, Keyport and Bremerton, illustrate the local area's regional and national significance in marine travel.

Envisioned is a scenic byway that reveals much of the area's history through its rural, rustic character and remnant landscape, interspersed with areas of naturally occurring native vegetation. All this, along a route that traces the eastern shoreline of the Kitsap Peninsula, where the Mosquito Fleet predominated and where many of

its docks and dock sites are still evident and accessible.

Connections to alternative forms of travel, throughout the length of the corridor, are also envisioned. Included will be a contiguous system of bicycle and pedestrian trails along much of the same route, with side loops and alternate corridors established to take advantage of other nearby scenic and historic sites. In addition, a number of these auxiliary routes will be of such a length and location as to provide a recreational alternative for car travelers, as well – letting them get out of their vehicles and stretch their legs for awhile. And, connections to marinas, ferry services and other boating operations will afford opportunities for byway travelers to get out onto the waters of Puget Sound.

As part of this vision, a network of routes will connect to cross-bay ferry connections, as demand warrants. This element will create an especially evocative experience for the area tourist, as it revisits the activities of the Mosquito Fleet. There are foot ferries currently running between Port Orchard and Bremerton – additional runs potentially may be added connecting dock landings across narrower inlets and along the peninsula's eastern shore.

## MEETING FACILITIES

Three facilities are available for meetings or may be rented for meetings within the Keyport Limited Area of More Intense Rural Development boundary.

Facility	Location	Meeting Accommodations
<b>Keyport Bible Church</b>	15270 Washington Ave NE Keyport, Washington 98345 Ph: 360-779-4235	<b>Available by Appointment</b> Large Meetings Small Meetings
<b>Fire Station #73</b>	1863 NE Pacific Avenue Keyport, Washington 98345 Ph: 360-779-3456	<b>Available by Appointment</b> Small Meetings
<b>Keyport Mercantile</b>	103 Washington Ave NE Keyport, WA 98345 Ph: 360-779-7270	<b>Available by Appointment</b> Small Meetings
<b>Keyport Undersea Warfare Museum</b>	1 Garnett Way Keyport, Washington 98345 Ph: 360-396-5547	<b>Available by Appointment</b> Large Meetings Small Meetings

## **6.5. NATURAL ENVIRONMENT / PARKS & RECREATION GOALS AND POLICIES**

### **Goal 17      Protect, restore, and enhance the natural and shoreline resources that add to the unique character of the Keyport Village.**

Policy Key-29 Encourage public ownership and permanent preservation of lots with significant critical areas or wildlife habitat.

Policy Key-30 Monitor private septic systems and immediately respond to any failed system within Keyport that may flow into Dogfish Bay or Liberty Bay.

Policy Key-31 Encourage the replanting of native tree and plant species on all properties, especially those publicly-held.

Policy Key-32 Encourage creation of Keyport natural greenways, vegetated pathways, backyard natural habitat corridors, and street plantings.

### **Goal 18      Maintain current public facilities, parks, and port facilities, and add new facilities when determined by the community.**

Policy Key 33 Coordinate with the Keyport Village community on any development plans for public facility improvements and additions.

Policy Key 34 Pursue creative funding strategies, grants, and opportunities to leverage federal, state, local, and volunteer sources for maintenance and capital improvement budgets.

### **Goal 19      Provide facilities to serve the variety of ages and needs in the community.**

Policy Key 35 Explore the planning and construction of a community center within the Keyport Village boundary.

## **6.6. Natural Environment / Parks & Recreation Key Projects**

### Public Access Improvements to Keyport Saltwater Park.

The Keyport Saltwater Park is the most visible public facility in the entire Keyport community and serves as the entrance gateway to the Keyport Rural Village. Providing safe public access to the park through a separated pedestrian path along

State Route 308, connecting Washington Avenue NE with the park and then across the Dogfish Bay causeway to the entire Kitsap peninsula would have the greatest beneficial impact while accomplishing multiple goals of the community, the county, the state, and the adjacent federal installations. This pathway would not only serve the “Safe routes to schools” goals for Washington State and Kitsap County, but would also provide an important link in the completion of the Mosquito Fleet Trail.

Pedestrian access improvements projects include a cross walk, pedestrian signal buttons, and park entrance lighting at the Highway 308 / McKittrick Road intersection signal light, resolving the current unsafe crossing conditions. The intersection improvements would link the excellent existing pedestrian access to the Keyport Naval Base and the Naval Undersea Museum with the public park. The park entrance lighting would be able to serve multiple uses by illuminating the Keyport community entrance signage, assist in discouraging criminal activity, and provide visibility for the pedestrians waiting to cross State Route 308. These projects would be key catalysts for meeting Keyport transportation, recreation, & economic development goals. Funding for this and other Keyport Parks projects would be from a Transfer of Development Rights Pilot project and other sources.