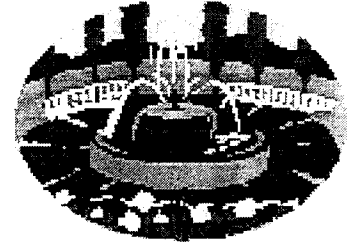


CHAPTER TWO: BENEFICIAL USES

Water is necessary for survival, recreation, and other uses. The *Key Peninsula/Gig Harbor/Islands (KGI) Watershed Management Committee* developed a list of beneficial uses that are occurring within the *KGI Watershed*. APPENDIX "T", MAPS— KGI WATERSHED, is a map of the watershed showing major features and subwatershed boundaries. The following 11 uses were derived from a brainstorming session and were agreed on by those in attendance. The descriptions of the beneficial uses are meant to define those uses to a greater extent and incorporate elements of the discussion that occurred about each item. Following the description of each beneficial use is an explanation of the extent to which that use is occurring within the *KGI Watershed*.



AQUATIC AND UPLAND ECOSYSTEM

This use of water is necessary for abundant fish and wildlife populations, a high degree of species diversity, and a high-quality habitat. This use benefits more than just aquatic animals but also upland and wetland animal communities. The committee agreed that these communities need high-quality water in order to be healthy.

The *KGI Watershed* supports a variety of fish and wildlife species that are described at length in CHAPTER FOURTEEN: BIOLOGICAL CONDITIONS of this watershed characterization. Although there is diversity of fish species in the watershed, there are declining runs of *Coho*, *Chum*, and *Chinook salmon* and *Steelhead* and *sea-run Cutthroat trout* generally in *Puget Sound* and these species are considered at risk. Macroinvertebrate samples found that most of the creeks tested were rated as moderate.

Significant fish and wildlife habitat areas within the watershed may be found in and along many of the creeks in the watershed; in the wetlands, lakes, and estuaries; on the cliffs; on the small islands, many of which serve as seal and sea lion haul out areas; along many of the shorelines; and in the marine waters.

The Tacoma-Pierce County Health Department recently completed a community assessment which included numerous interviews with area residents. One interview said, "It would be nice to try to find a balance between progress and natural beauty... the wood, fox, and bear could stay."

RECREATION

The uses under this category generally include fishing, swimming, and boating. However, there are a variety of additional recreational uses of water taking place within the watershed such as jet skiing, windsurfing, kayaking, and clamming.

A significant amount of business is created by *Washington* state's 400,000 sport salmon fishermen. Some of this business is generated in the *KGI Watershed*. Watershed-specific statistics are not available; however, in 1991, retail sales on fishing equipment totaled \$69.8 million in *Washington* state. An additional \$19.7 million was spent by recreational anglers on camping equipment, rain gear, and fishing apparel. In 1991, *Washington* residents spent over \$106 million on boats and \$24 million on outboard engines for the purpose of recreational fishing. Boats used for fishing account for almost 80 % of boat sales in *Washington*. Moorage, storage, maintenance, and accessories of boats cost recreational fisherman \$38 million in 1991. Fishermen spent \$40 million on boat fuel. The average angler spent \$295 in 1991 on trip costs such as travel, lodging, and rental fees. These trip costs generated a total of \$285 million in 1991. In 1991, sportfishing supported 27,200 jobs, created \$802 million in retail sales, and generated \$1.4 billion in total economic effects (*National Marine Trade Association* 1992).

In addition to fishing, wildlife viewing is an important economic asset in *Washington* state. More than a third of the state's population participates in wildlife viewing. Wildlife watchers in the state spent almost \$1.7 billion in 1996 on equipment purchases, trip-related expenses, land-use fees and rentals, and for magazines, books, membership dues, and other items. The *KGI Watershed* offers many excellent opportunities to view both upland and marine birds and mammals, which is not only a benefit to watershed residents who participate in wildlife watching, but also adds to the local economy (*Washington State Department of Fish and Wildlife*, July 16, 1998).

Important water-related recreational opportunities occur within the watershed. Boating takes place on *Puget Sound* and on a number of the lakes. Fishing occurs in *Puget Sound*, in lakes (many of which are stocked) and in streams. There are 11 public recreational shellfish beaches in the watershed (Locations are listed in CHAPTER FOURTEEN: BIOLOGICAL CONDITIONS). Public swimming opportunities are available at *Horseshoe Lake* and the public *Puget Sound* beaches.

POTABLE WATER SUPPLY

The potable water supply is used for human consumption. Water is also used in preparing a variety of foods and beverages.

There are over 50,000 people residing within the watershed who depend on the potable water supply. Groundwater is the source of the domestic water supply with the exception of *McNeil Island*, which relies on surface water from the island. At present, groundwater quality in the watershed is generally good. The most significant known quality problem is seawater intrusion. As development continues in the coastal areas of the watershed, the potential for problems with seawater intrusion can be expected to increase, since increased withdrawal from wells draws seawater into the groundwater. Efforts resulting from the GIG HARBOR GROUND WATER MANAGEMENT PLAN may help to reduce the increase of seawater intrusion and to prevent deterioration of groundwater quality. However, in parts of the watershed outside the *Gig Harbor Peninsula*, groundwater has not been extensively studied nor is there a groundwater management plan.

Drinking water as a beneficial use is only slightly impaired at this time. The area with the greatest potential for groundwater contamination is the *Gig Harbor Peninsula* because it has the most intense and largest variety of land uses. Implementation of the GIG HARBOR GROUNDWATER MANAGEMENT PLAN should prevent the further impairment of this use.

RAISING DOMESTIC PLANTS AND ANIMALS

Water is widely used for watering domestic livestock, pets, gardens, lawns, and ornamental plants. This use refers to noncommercial activities. The *Watershed Committee* determined that although domestic water supplies used for human consumption are often used for watering plants and animals, there are a number of instances where water of lower quality can be used for this purpose.

The *KGI Watershed* is home to many people with noncommercial farms who keep domestic livestock and other animals and grow gardens.

QUALITY OF LIFE

The use of water for quality of life refers to aesthetic, spiritual, and enjoyment impacts that people experience when they see, hear, and feel water. In addition to direct contact with water, the temperate climate and greenery caused by the area's rainfall and water were also identified as important to the quality of life. The community assessment by TPCHD collected comments such as "...as close in as we are, I feel like we're in the country... The water all around and trees." and "People feel a sense of relief, of escape [as soon as they cross the Narrows Bridge]."

The *Department of Ecology* lists a number of the lakes in the watershed as supporting the use of aesthetic enjoyment. These include *Bay, Carney, Crescent, Florence, Horseshoe, Josephine, Minterwood, and Stansberry Lakes*. This use is clearly supported throughout the watershed.

AQUACULTURE

Aquaculture recognizes the beneficial commercial use of water for the shellfish and fishing industries. Aquaculture in the form of commercial shellfish growing takes place in *Burley Lagoon*, *Rocky Bay*, and other marine areas in the watershed. The *Minter Creek Hatchery* is another example of aquaculture within the watershed.

CLEANSING

Cleansing was identified as an important beneficial use of water. The *Watershed Committee* felt that cleansing referred to a variety of operations, but typically focused on its transportation properties. There was the feeling that rain washes away pollutants and dust from surfaces and the leaves of plants. The group also identified the use of water for laundering, washing cars, cleaning, and other common household uses. The *Committee* discussed the role of water in handling sewage.

With the exception of the *Gig Harbor* urban area and a few small community systems, the watershed depends entirely on on-site septic systems for sewage treatment. However, most potable water supplies are also used for cleansing.

COMMERCIAL/INDUSTRIAL

The commercial and industrial uses of water were identified separately to measure the importance of clean water to a healthy, local economy. Some industrial processes need water of a higher purity than is needed for safe consumption by people.

The watershed supports some commercial activity and limited amounts of industrial land uses. Contamination of groundwater could threaten certain commercial and industrial uses of water in the watershed in the same way that it could threaten potable water supply.

Other aspects of the local economy that depend on water include boating and fishing. There are currently a number of businesses selling bait and fishing tackle within the watershed. There are at least seven marinas in the watershed that offer a variety of services. Some supply gas to boats, bait, fishing tackle, and boat maintenance services as well as basic moorage. The fishing industry in *Washington* state is a major economic factor. Commercial fishing generates about \$90 million annually and employs 2,000 to 3,000 people (*The News Tribune*, December 26, 1994). *Gig Harbor* is a major home port for commercial fishing in *Puget Sound*.

AGRICULTURAL AND FORESTRY USES

This is defined as commercial use of water for the purpose of raising crops, livestock, and timber.

Agricultural land uses within the watershed are significant although characterized by smaller lot sizes (often under 20 acres) and often “hobby” (second income) farming. Most agricultural activities are centered on livestock, but there are also people who grow Christmas trees, nursery items, and vegetables in small plots. Timber growing is significant although most plots are small by *Pacific Northwest* standards, and these plots are not typically irrigated. (There are no large forest land owners or large commercial forestry operations.)

FIRE PROTECTION

This use notes the significant role water plays in suppressing fires and is supported in the watershed through the water supply systems, purveyors, and private wells.

TRANSPORTATION

Water enables boat travel and the transport of goods through the watershed, particularly in the deep salt water of *Puget Sound*.

Most aquatic transportation occurring within the watershed is supporting recreational and commercial fishing uses. The marine waters around the watershed are used for shipment of products to and from ports in the south sound area.