

ORDINANCE NO. 1840

1
2
3 AN ORDINANCE relating to wildlife habitat
4 establishing County Open Space Policies;
5 amending Chapter E, Open Space Development
6 Policies of the Comprehensive Plan for
King County under the provisions of
Ordinance 263, Article 2, Section 3 of
KCC 20.12.030.

7 PREAMBLE. The Council of King County declares it to be in the
8 public interest to protect their heritage of wildlife within a system
9 of open space. The inclusion of wildlife habitat in the open space
10 system is recognized as making an essential contribution to the citi-
11 zens of King County by providing a variety of recreational opportuni-
12 ties. The presence of wildlife enhances human enjoyment and adds
13 diversity to human existence. In addition, the protection of wild-
14 life is essential in maintaining an ecological balance and serving
15 as a barometer of environmental change. Furthermore, wildlife species
16 must be provided the privilege of survival with other organisms if we
17 view their right to co-exist as an ethical assumption.

18 The policies in the accompanying report will serve as one basis
19 for evaluating changes in land use proposed for areas that are recog-
20 nized as wildlife habitat. This evaluation shall be made in conjunc-
21 tion with other adopted and appropriate Comprehensive Plan Policies.

22 BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

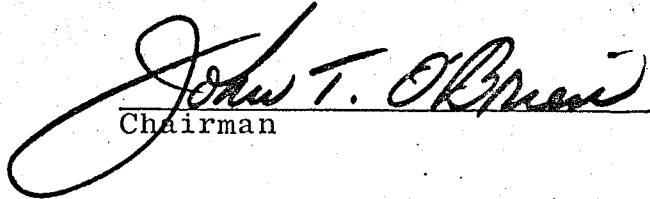
23 SECTION 1. NEW SECTION. "Wildlife Habitat as Open Space"
24 attached hereto is hereby adopted as an addendum to the Comprehensive
25 Plan for King County under the provisions of Ordinance 263, Article 2,
26 Section 3, KCC 20.12.030. As an amplification and augmentation of the
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1 Comprehensive Plan, the Wildlife Habitat as Open Space Element shall
2 supplement Chapter E, Open Space Development Policies.

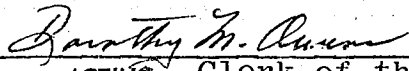
3 INTRODUCED and read for the first time this 13th day of
4 August, 1973.

5 PASSED by the Council at a regular meeting thereof on the
6 5th day of November, 1973.

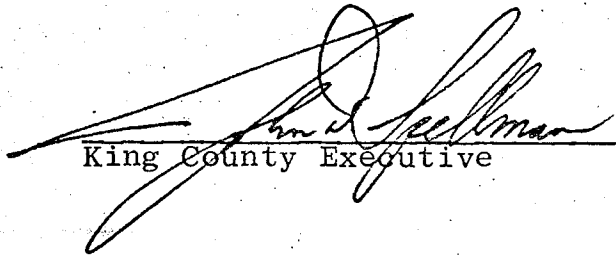
7 KING COUNTY COUNCIL
8 KING COUNTY, WASHINGTON

9 
10 Chairman

11 ATTEST:

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14 ACTING Clerk of the Council

15 APPROVED this 8th day of November, 1973.

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17 
18 King County Executive

WILDLIFE HABITAT AS OPEN SPACEINTRODUCTION

The wildlife habitat of King County is remarkable. It ranges from the marine waters of Puget Sound to the Arctic-Alpine Life Zone of the Cascade Mountains. The variety of animals¹ that reside in King County would fill many pages if listed. Thus, only a sample of resident species will be discussed as they occur in each type of habitat.

The basic habitat requirements for the survival and propagation of all species of animals are the proper combinations of food, water cover and reasonable protection for the rearing of the young.² Elimination of any one of these elements will result in intolerable conditions for resident species. A negative alteration of habitat is often the result of development, although natural factors, such as fire and floods, may have the same affect temporarily. Urban development, however, is the most debilitating alteration. In addition to physically changing habitat elements, man inadvertently destroys many animals through the application of pesticides and a variety of pollutants.

In spite of the habitat alteration brought about by a population of 1.2 million people, most of the County still retains much of its natural characteristics. Furthermore, some areas of King County have

¹Any living organism typically capable of moving about but not of making its own food by photosynthesis which includes such taxonomic groups as mammals, birds, fish, reptiles and insects.

²Constitutes the definition of wildlife habitat.

the proper combination of elements and circumstances that result in exceptional wildlife habitats.

Remaining wildlife habitats can perform a tangible function not often associated with the resident species. Besides the usual recreational values associated with wildlife, animals can tell us something about our future. They respond rapidly to environmental changes both natural ones and those resulting from technology. Coal miners knew something about this when they took canaries into coal mines.

Perhaps the most awesome prospect that our wildlife habitat laboratories portray is genetic changes in man. Denzel Ferguson rationally points out that "In a resistant species living in a habitat highly contaminated with pesticides, the genes conferring resistance assume a vital importance at the expense of other genes concerned with adaptation to the environment. Thus, natural selection favors resistance above all else and as long as high levels of pesticides persist other characteristics related to fitness and niche selection are relegated to lesser importance."³ Elsewhere in his article Ferguson relates this process and result to. . "even man himself." Local studies of the harbor seal are an example of what wildlife can tell mankind. Scientists are finding that PCB,⁴ a man-made chemical is being absorbed by the harbor seal, but little decomposition takes place. When the animal dies the PCB is released again and the chemical increasingly concentrates. PCB seems to be responsible for an inordinant amount of still births, malformation and desease in the harbor seal. Through a

³Ferguson, Denzel E., "The New Evolution" Environment, Vol. 14, No. 6, July/August, 1972, p. 33.

⁴PCB is the commonly accepted designation for Polychlorinated biphenyl, a synthetic organic compound.

a natural water-borne process, PCB is being passed on to man.

HABITAT AREAS

Wildlife habitat is lost or altered in many different ways. Different ways of alteration are constantly being employed in King County in different places at different times and for different reasons. Some wildlife habitat is destined for alteration and destruction for the sake of development, economic progress and associated recreation facilities. Habitat alteration results from the development of subdivision and shopping centers, new road and highway construction, logging, dams, utility rights-of-ways, ski-lifts and associated clearing, campgrounds and parks--the list is endless. Greater attention is being paid, however, to the impact of development on wildlife habitat than previously. Here are a number of examples of what's happening: they are a little different than what's happened or what will happen.

- A. Highways. New road construction obviously destroys habitat outright. I-90 for example will consume a wide swath of habitat area between Echo Lake and North Bend. In addition, it will further interrupt the migration route of many animals that drink and feed in the vicinity of the Snoqualmie River. Now, animals may cross the existing highway at some risk. The new facility would present a China Wall except that a tunnel with lead fencing will be incorporated to offset this factor to some extent.
- B. Parks. The State of Washington is planning for more intensive use and development of Lake Sammamish State Park. Their plans portray the loss of 30 acres of wildlife habitat outright and impacting a considerably larger area.
- C. Subdivision. Approximately 1,626 acres of undeveloped property

is proposed for residential, business, school, commercial and associated uses in the Federal Way Area. Much of the area is forested or wooded and represents a significant wildlife habitat area in the urbanizing sections of the County. There is no evidence that wildlife habitat is being considered in the planning process for this area.

It is important to remember that some of this alteration is inevitable, but sometimes not necessary. In order to better understand some of the basic ingredients of King County's multiplicity of wildlife habitat, a generalized description follows.

In discussing the wildlife habitats of King County, a general west to east orientation will be maintained which also encompasses a gradual increase in elevation. Basically, the following habitat areas can be distinguished in King County:







1. The Puget Sound
2. The Developed/Settled Areas
3. Undeveloped Areas
 - A. Humid Transitional Life Zone
 - B. Canadian Life Zone
 - C. Hudsonian Life Zone
 - D. Arctic-Alpine Life Zone

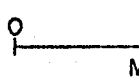
1. The Puget Sound

Puget Sound is considered by many authorities as an outstanding mid-latitude marine habitat that supports a variety and abundance of fishes and mammals. King County's political boundaries encompass roughly 100,000 acres of off-shore Puget Sound. The boundary extends approximately three miles into the Sound from Northwest 205th Street and then continues



WILDLIFE HABITATS OF KING COUNTY

- MARINE LIFE ZONE 
- URBAN/RURAL (and HUMID TRANSITIONAL LIFE ZONE) 
- HUMID TRANSITIONAL LIFE ZONE 
- CANADIAN LIFE ZONE 
- HUDSONIAN LIFE ZONE 
- ARTIC-ALPINE LIFE ZONE 



southward at a mid-point between Kitsap and King County to Pierce County.

There are six distinct species of whale that find Puget Sound to be a suitable habitat for various periods of time. The presence of these unique mammals distinguishes Puget Sound as extraordinary wildlife habitat and open space resource. In addition, the threat of local extinction that hovers over most of the whales found here, especially those exceeding 40 feet in size, gives their presence a special recreational value.

The killer whale is perhaps the most discussed and best-known mammal that visits the Sound. It is considered medium-sized with males reaching a maximum length of 28 feet. It is found in King County primarily in the spring and fall.

The little piked whale is also considered common to Puget Sound and is also referred to as the "minke whale." This animal may reach a length of 33 feet.

The humpback whale is one of the larger mammals utilizing the County's marine habitat. This species may reach a length of 50 feet. At one time the humpback was a common visitor to Puget Sound in spring and early summer. Unfortunately, the humpback was once considered the most commercially important and abundant species of whale. As a result the whaling industry reduced the numbers to a point where they are now rarely seen in the Puget Sound areas.

The largest species of whale ever recorded in the Sound is the Finback. This animal may reach a length of 70 feet. Its numbers have been so severely depleted, however, that it would be stroke of good fortune to sight one locally.

The gray whale once was a common visitor to Puget Sound. This species may reach 45 feet in length. Whaling for the gray was once so extensive that it was feared extinct. It was given complete protection back in 1937 and is making a slow, but remarkable comeback; someday it may be seen again in the Sound.

The smallest whale reported to be a visitor (but a very rare one) to the County's marine habitat is the North Pacific white sided dolphin. Its rare presence in Puget Sound is not due to its commercial value, as yet, but rather due to its timid nature. Total length of this mammal is 8 to 10 feet and like other dolphins, it is credited with exceptional intelligence.

A number of seal species also reside, or occasionally may be found, in King County's marine habitat. The harbor seal is the best known and the only species really common to this area although its numbers were drastically reduced in the past. This animal often suffers the wrath of commercial fishermen due to a diet of fish and crustaceans, especially crabs. Recently however, they are enjoying greater interest and protection. Total length of this mammal is 4 to 6 feet. In addition, there has been one recorded sighting of a northern elephant seal and it is reported that immature northern fur seals may rarely wander into Puget Sound.

There are a large number of birds that breed in the Puget Sound Area and an even larger number that migrate through or spend the winter in the waters and rivers of King County. Many sea birds such as the common murre, rhinoceros and cassin's, auklets, marbled murrelet, cormorants and shorebirds make extensive use of the waters and offshore rocks in the Sound. In winter and during migration many species of waterfowl rest and feed

in the Sound, Lake Washington, and Lake Sammamish.

The diversities of Puget Sound produce generally cool, well-mixed waters and result in a favorable habitat for a large variety of fish and shellfish. The introduction of fresh waters from the Green-Duwamish Basin and Lake Union result in an excellent habitat for many fish. In addition, a unique feature of these marine waters is a deep (100+ fathoms) mid-sound trench that parallels the shoreline. Marine fish most commonly found in the near shore Puget Sound habitat are species of cod, ling cod, greenling flounder, sole, rockfish, surf-perch, herring, dogfish and ratfish. There is also a varied population of invertebrates such as Dungeness crabs; little neck, butter, horse and Manila clams; geoducks; cockles; blue mussels; pink scallops, pink shrimp; squid; octopi; sea cucumbers; and sea urchins.⁵

The marine habitat of King County is of special importance to anadromous fish that migrate into and emigrate from this area. Currently, there are four species of Pacific salmon and three species of trout that may be found there. These include chum, sockeye, chinook and coho salmon and the steelhead, Dolly Varden and cutthroat trout. Perhaps the portion of the marine habitat deserving the most attention is the estuarine waters of the Duwamish Waterway and environment of Elliott Bay. Young salmon

⁵ Puget Sound Task Force--Pacific Northwest River Basin Commission, Puget Sound and Adjacent Waters: Comprehensive Study of Water and Related Land Resources, Appendix XI, Fish and Wildlife, March, 1970, p. 9-15.

spend considerable time in the brackish estuarine waters as they make the critical adjustment to the saltwater environment in which they will spend the next few years.

Between 400,000 and 600,000 adult anadromous fish migrate annually through the waters of King County and runs could increase significantly in years to come. A complete discussion of anadromous and freshwater resident fishes will not be included in this section since they are covered in Surface Waters.

2. The Developed and Settled Areas

King County's land area totals 1,363,000 acres. Out of this total it is currently estimated that approximately 170,000 acres have been developed to urban densities. Another 100,000 acres are considered settled at rural densities.

All of this area, which is now inhabited by approximately 1.2 million people, was once fine wildlife habitat. Although it no longer retains much in the way of habitat quality, a variety and sizeable population of animals still co-exists with man.

Much of this is due to an abundance of natural water areas with associated vegetation, and a mild climate. The most prevalent form of wildlife still remaining in this area are waterfowl, upland game birds and songbirds. Even in heavily developed portions of Seattle waterfowl may be found. They are concentrated, however, in the Green River Valley, in the vicinity of Auburn, and in the Sammamish and Snoqualmie River Valleys. The majority of waterfowl are

are fall and winter migrants on the Pacific Flyway although there is a sizeable resident population. It is estimated that in King County over 18,000 ducks are harvested annually along with 350 geese.

There are few sources of information that provide a clear description of other animals that thrive or co-exist with man in an urban environment. A long list of mammals could be presented, however, that would include domestic dogs and cats, rats and mice, foxes, squirrels, chipmunks, skunks, raccoons, moles, shrews and bats. One of the few remaining beneficial characteristics of urban environment is its ability to provide habitat for the continued presence of a variety of birds. The future of the waterfowl habitat is grim, however, and steps must be taken to retain permanently what remains.

Along the fringe of the developed areas, especially the remaining agricultural lands, the production of "upland game" is especially important. It is estimated there is a population of 40,000 ruffed grouse, 20,000 blue grouse, 12,000 pheasant and 2,500 quail. In addition, there are undetermined populations of band-tailed pigeons, mourning doves, partridges and rabbits.⁶

3. Undeveloped Areas.

Nearly one million acres in King County are undeveloped and unsettled. Much of this area has the ingredients and prerequisites for a variety of outstanding wildlife habitats.

⁶ Ibid., p. 9-30.

This is best illustrated by examining the four life zones of King County as originally defined by C. Hart Merriam, and variously used in most bio-geographical studies, including some of the references cited at the end of this report.

A. Humid Transitional Life Zone

This is the most extensive life zone, covering approximately 80% of the County. It occupies most of the habitat area discussed previously and extends into the Cascades along the valleys of the White, Green, Cedar, Snoqualmie, and Skykomish Rivers and their tributaries. It ranges in elevation from sea level to approximately 3,000 feet near Snoqualmie Pass--but may extend slightly higher on south slopes and lower on north slopes. Vegetation is dense and includes western hemlock, Douglas fir, and western red cedar as major species. Undergrowth is typically heavy and characterized by many species of plants such as red blueberry, evergreen blueberry, salmonberry, salal, swordfern, and thimbleberry that provide food for a variety of animals. Precipitation ranges from 32 inches annually in the lowlands up to 80 inches or more in the higher elevations. Abundant water supplies, associated vegetation and space, in combination with relatively mild temperatures, are the essential ingredients that make the Humid Transitional Zone an ideal habitat for many species of wildlife.

The settled area of this life zone is generally west of a north-south line just east of Enumclaw. Almost all of the Humid Transitional Life Zone wildlife habitat east of this line is undeveloped and in a natural or semi-natural state. Much of the area is logged and thus semi-natural; logging, however, enhances the Humid Transitional habitat for many animals that are browsers and depend heavily on leafy plant materials for food. This, in turn, increases the food supply for the carnivorous species.

Many species of animals thrive in this life zone. This is the primary habitat for the elk and deer population of the County. They will, however, range into other life zone habitats at higher elevations. The County deer population is best represented around the Cascade foothills from Tiger Mountain south to Enumclaw. A population of 7,000 has been estimated for this area although the State Game Department feels there is a County-wide population of over 10,000 with 1,000 of these animals living in the protected sanctuaries of the Green and Cedar Watershed. These two watersheds also provide a quasi-sanctuary habitat for an estimated 1,000 elk according to the State Game Department. Another 1,000 elk are estimated outside of the watersheds in King County.

Special mention should be made of the unique habitat situation in the Cedar and Green Watershed areas. They comprise approximately 200,000 contiguous acres and are largely within the Humid

Transitional Life Zone. Although they are not an officially designated sanctuary for wildlife, they essentially function as such since they are closed to public hunting. It is probable that all of the animals associated with the Humid Transitional Life Zone habitat are represented here. The special quality imparted is the opportunity for resident species to control their own destiny within the limitations of a natural balance. There are few remaining areas of this size and in this life zone that possess this quality.

Some of the other larger and better known animals of this life zone include:

- (1) Black Bear - (also found equally in the Canadian Life Zone) harvested at an average rate of 217 animals per year in King County between 1964 and 1969.⁷
- (2) Bobcat - no estimate of population.
- (3) Coyote - no estimate of population.
- (4) Beaver - population estimated at 700 with an average trapping of 140 animals per year.⁸
- (5) Mink - population is estimated at 500-600 with an average of 110 trapped annually.

⁷Washington Game Department, Big Game Status Report, 1969-1970, p. 6.

⁸Puget Sound Task Force--Pacific Northwest River Basin Commission, loc cit. (These figures are of the Cedar-Green Basins Only. The subsequent estimates for mink, river otter and muskrat are also taken from this source.)

- (6) River Otter - population is estimated at 75-100 with an average of 10 trapped each year.
- (7) Muskrat - population is estimated at 25,000. This is a prolific animal and a food source for a wide variety of animals.
- (8) Bald Eagle - an endangered and valuable asset.

There is far too much animal life in this zone to enumerate in detail (such as small rodents, bats, birds and fishes).⁹

B. Canadian Life Zone

This area makes up most of the remaining County area and is concentrated in the higher elevations of the Cascades. It is generally defined by a lower elevational limit of 3,000 feet and an upper one of 4,500 feet. The climate is more severe than in the Humid Transitional Zone with longer winters, heavier precipitation and snow pack and shorter growing season for plants. The obvious result is a more restricted habitat condition and a lesser variety and number of animals who are adapted to reside there.

Life is plentiful, however, and the zone supports a variety of trees and smaller plants. Much of it produces commercial growth of Douglas fir and western hemlock in the lower elevation but the characteristic tree is the Pacific silver fir. Many

⁹Freshwater fishes will be covered in the section on Surface Waters.

shrubs and bushy plants are also found here. In the summer, the Canadian Life Zone functions as a resort area for many of the larger animals residing in the Humid Transitional, especially the large game and fur-bearing species such as elk, deer, mink, otter and muskrat.

Some of the larger animals indigenous to the Canadian Life Zone habitat include:

- (1) Canadian Lynx - no population estimates, but considered rare and possibly endangered.
- (2) Marten - no population estimates available. This animal is also found in the next higher Hudsonian Life Zone.
- (3) Fisher - no population estimates, in fact it would be fortunate if there are any remaining in King County. This animal is considered endangered and is under a total protection policy.
- (4) Wolverine - no population estimates, but considered rare everywhere.

The beaver and black bear may also be found as residents of this zone. A multitude of other species are also residents of the Canadian Life Zone habitat, but the variety and number continuously decrease with increasing elevation.

C. Hudsonian Life Zone

Only a relatively small area of King County is above 4,500 feet in elevation, the general contour boundary between the Canadian and Hudsonian Life Zones. Most of the Hudsonian Life Zone wildlife habitat is found near the Cascade Crest between the Snoqualmie and Skykomish corridors where some of the mountains exceed 7,500 feet in elevation. Small habitat areas above 4,500 feet may be found south of the Snoqualmie corridor in the Cedar and Green River Watersheds.

The upper limit of the Hudsonian Life Zone Habitat is approximately 6,000 feet. Within this 1,500 vertical feet of habitat, climatic conditions become quite severe. As much as 160 inches of annual precipitation is estimated in the higher elevations resulting in a tremendous accumulation of snow that may last for eight or nine months. This is an obvious deterrent to the density and variety of plant life and, as a result, tree size and numbers decrease with elevation and are gradually replaced by quick blooming plants that form alpine meadows.

Trees that are characteristic of this habitat include the mountain hemlock (considered the predominant species), alpine larch, alpine fir, and white barked pine. Some of the characteristic meadow plants include pink and white heather, dwarf

blueberry, wild currant and the white rhododendron.

There are few mammals adapted to the residential rigor of the Hudsonian Life Zone Habitat. Larger mammals, such as bear and deer, may wander into this area when certain plants are in bloom, but they are there for the harvest only. The only large animal that might be considered a resident at this altitude is the mountain goat of which there are a number in King County. Mountain goats, however, are generally associated with the Arctic-Alpine Life Zone which extends upwards from 6,000 feet. In reality they are residents of both zones depending on the alpine plants found in each. During the winter they may descend into lower zones during the severest weather.

Both the marten and fisher spend considerable time in this habitat when weather conditions permit. They are attracted here by the presence of the cony, or "rock rabbit" and species of squirrels, shrews, mice and gopher that are permanent residents. These small rodents also attract the summer residence of eagles, hawks and owls whose diets are primarily carnivorous.

D. Arctic-Alpine Life Zone

There is a very limited area within the County that falls with this habitat. It is found in the vicinity of LaBohn Gap along the crest of the Cascades and extends northward to the Mt. Daniels Area where the maximum elevation of the County reaches

7,986 feet. This is a true arctic habitat with severe and extended winters and freezing temperatures that occur even during the middle of the summer season. All of the area is above timberline and is generally totally devoid of any tree species. There are, however, a surprising variety of the delicate flowers, ferns and grasses found in the lower elevations of this zone during the short summer period between snows. These plants provide enough nourishment for a number of rodents, such as the cony and the marmot, which eats gluttonously for a few months and then hibernates most of the year. These animals, in turn, attract birds of prey and the cycle completes. Perhaps the most distinguishing characteristic of this habitat is its near freedom from the destructive actions of man. The few people invading the life zone are generally not there to alter the habitat nor searching for game animals but to observe. The impact of this is brought home by the presence of the unique white-tailed ptarmigan. This animal is a grouse that breeds and survives in the most severe climatic conditions and delicate habitat possible. Its colors change according to the season, from snow-white in winter to a camouflaged plumage in summer. It is slow, not shy, and can be easily captured or killed by hand; its meat is considered to be the most delicate and tasteful of the grouses. In spite of this susceptibility, its existence has yet to be threatened.

CONCLUSION

The variety of wildlife habitat and species found in King County are amazing and very special. To have such diversity and size of habitat in an "urban" County is a unique situation in this country. Nationally there is a growing concern emerging for the welfare of wildlife, much of it is stemming from desperate situations. King County is in the fortunate position of a favorable situation: where the habitat is still plentiful and the problem is conservation, not re-creation.

In the past, the planning profession has given little formal consideration to wildlife habitat in arriving at land use decisions. If wildlife is going to be given a chance to cohabit with man in this County, then it must have some area for an equal, not special chance. Planning can help in doing this only if it uses the existing information, obtains more when necessary and assumes the responsibility for bridging the habitat gap between man and animal. This effort could be considered worthwhile for some of the above and following reasons:

1. Wildlife fulfills a critical role in maintaining an ecological balance on this planet. Animals both distribute and fertilize plants; they consume each other and are consumed by man; and some recycle waste.
2. The condition of wildlife is a barometer of environmental change. Page 2 of this report points this out and additional discussion of this concept is included as an appendix.
3. There is a concept or philosophy that believes we must share the privilege of survival with other organisms viewing their right to co-exist as an ethical assumption.

Their mere existence enhances human enjoyment and adds diversity to human existence.

Although King County Government is restricted in exercising much control in wildlife management, there are many land use decisions made that impact habitat. Much of the welfare of wildlife is in the hands of state and federal agencies who control wildlife populations for wildlife is the property of all the people and never an individual. The following body of policies relate to those areas in which the County could influence, both directly and indirectly, the future of wildlife habitat.

POLICIES FOR WILDLIFE HABITAT PRESERVATION

GOAL: To insure that animals and their habitat requirements become a factor in the planning process.

GENERAL POLICIES

- WH-1 The County shall protect and preserve the marine wildlife habitat values of Puget Sound to the extent of its jurisdiction.
- WH-2 Whenever the environmental circumstances are appropriate, wildlife habitat shall be retained and protected including taking whatever steps are necessary and feasible to retain the remaining water fowl habitat found in the developed and developing areas.
- WH-3 The County shall encourage, whenever practical, individuals who provide for and/or improve their properties as wildlife habitat.
- WH-4 The County shall encourage the continuance of the wildlife

sanctuary status in both the Green and Cedar Watersheds.

- WH-5 The County shall strive to protect and maintain wildlife habitat in the Humid Transitional and Canadian Life Zones in land use decisions.
- WH-6 The Hudsonian and Arctic-Alpine Life Zone areas north of Snoqualmie Pass should be reserved as wildlife habitat.
- WH-7 A wildlife habitat improvement program should be emphasized within the Open Space Program.
- WH-8 Wildlife habitat shall be retained, protected, and improved whenever it is found on County properties.
- WH-9 The County shall encourage discrimination in the use of fertilizers, poisons and biocides.

CRITERIA FOR PRESERVATION AND PROTECTION OF WILDLIFE HABITAT AREAS

The critical ingredients of wildlife habitat provide for one or more of the following:

1. food
2. water
3. cover and protection from enemies including proper and safe conditions for the rearing of young.

The following types of areas to be designated for preservation and protection are:

1. An area that provides any ingredient utilized by rare or endangered species.
2. Areas that provide all ingredients for diminishing species further prioritized by number of species and population of each.

3. Wildlife habitat areas within urban areas where the urban population can view or become knowledgeable about wildlife.

Priorities for preservation of other habitat areas can be assigned as the three ingredients, number of species and population of animals decrease.

IMPLEMENTATION POLICIES AND ACTIONS

- WH-10 The County shall utilize the services of persons of recognized expertise in the field of wildlife when land use conflicts concerning habitat arise.
- WH-11 In order to help protect and preserve aquatic wildlife habitat the County will:
- a. Carefully evaluate uses proposed for any County-owned shorelands to determine their impact on marine life habitat.
 - b. Examine Shoreline Management Permit applications in relation to their impact on habitat.
 - c. Acquire wherever possible, shorelands of wildlife habitat value and retain them in their natural state.
 - d. Encourage the state to retain in public ownership its tideland properties.
 - e. Work with other agencies in the control of pollution where it will adversely affect aquatic habitat such as from boats, industrial and municipal wastes and storm water outfalls.
 - f. Continue to discourage oil drilling and other enterprises in Puget Sound waters that could adversely affect the marine habitat.

- g. Encourage enterprises and legislation that are concerned with research and knowledge regarding Puget Sound marine life; and how it can best be protected and enhanced within an urban county.

WH-12 In order to help protect and preserve significant wildlife habitat areas on land areas within King County, the County will:

- a. Examine the wildlife habitat value of any County-owned properties, particularly parks, and develop measures for protecting that habitat where feasible.
- b. Work with appropriate public and private entities to acquire and permanently protect significant wildlife habitat areas, within King County.
- c. Evaluate County capital improvement projects in terms of their impact, if any, on wildlife habitat areas, and take appropriate steps to minimize or avoid any adverse impact on these areas.
- d. Where significant wildlife habitat area exists within a proposed plat or planned unit development, the required open space should include as much areas as possible of that habitat and be dedicated to the County. Whether turned over to the County or retained in private ownership, conditions should be attached so that the ingredients necessary for the habitat's preservation are not destroyed.
- e. Actively encourage property owners of significant wildlife habitat areas within the urbanizing area of the County to file for tax relief under the current use assessment law.

- f. Foster the retention of development rights in the public domain for that portion of tax title land which is significant wildlife habitat.
- g. Encourage the development and collection and utilization of the planning process of additional information pertaining to wildlife habitat areas within King County.
- h. Cooperate with public and private entities in determining those significant wildlife habitat areas within which detrimental uses should be prohibited.

REFERENCES

1. Advisory Committee on Predator Control, Predator Control - 1971: Report to the Council on Environmental Quality and the Department of the Interior, N.P.N.L., January, 1972.
2. Bailey, Vernon. The Mammals and Life Zones of Oregon, North American Fauna No. 55, USDA, Bureau of Biological Survey, Washington, D.C., 1936.
3. Larrison, Earl J. Washington Mammals, Their Habits, Identification and Distribution, The Seattle Audubon Society, 1970.
4. Puget Sound Task Force--Pacific Northwest River Basin Commission, Puget Sound and Adjacent Waters: Comprehensive Study of Water and Related Land Resources, Appendix XI, Fish and Wildlife N.P.N.L., March, 1970.
5. Taylor, Wilton P. and Shaw, William T. Mammals and Birds of Mount Rainier National Park, United States Government Printing Office, Washington, D.C., 1927.
6. Washington State Game Department, Big Game Status Report 1969-1970, Washington State Game Department, Olympia, Washington, 1970.

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6/8/73:PT:jk

APPENDIX IWILDLIFE AS AN ENVIRONMENTAL BAROMETER

The following words are excerpts selected from: the third annual report on the Council on Environmental Quality, dated August, 1972, from the section entitled: Wildlife.

1. "Species of wildlife can benefit man in many ways-- for recreation, aesthetic enjoyment, food, and natural pest control. Wildlife can also provide important scientific data and help regulate and stabilize particular ecosystems."
2. "Wildlife are a continuous early warning system which can alert man to the first signs of danger in the environment. Death and illness of herons, fish, shellfish, and cats preceded the deaths of over a hundred humans from mercury poisoning in Minamata and Niigata Bays in Japan. Death of seed-eating birds in Sweden warned of the mercury problem in that country. Deaths and eggshell thinning in hawks, pelicans, and many other birds warn of high levels of pesticides. Any rapid, major change in species populations should be a warning to search out the cause. Also, the variety of species which exists in a given area may be a significant indicator of

environmental problems."

3. "The Council also will encourage greater use of State and local data, a valuable source of information often not adequately tapped by the Federal Government. Common methods of data collection and analysis by Federal, State, and local agencies would facilitate exchange of information and add significantly to the amount of usable information on environmental conditions."

APPROVED BY THE ENVIRONMENTAL DEVELOPMENT COMMISSION AND RECOMMENDED
TO THE KING COUNTY EXECUTIVE, AND THE KING COUNTY COUNCIL, MAY 24, 1973.
