



# Wetland Resources, Inc.

Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance

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## WILDLIFE STUDY

FOR

### PACIFIC PLACE TOWNHOUSES

*KING COUNTY, WASHINGTON*

*Wetland Resources, Inc. Project #97061*

Prepared By:

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## Wildlife Analysis

### Project Site Description

A wildlife study was conducted by *Wetland Resources, Inc.* in February, 1998 at a site proposed for the Pacific Place Townhouses. The property is approximately 13 acres in size and situated on the west side of Pacific Highway South (Highway 99) between South 279th St. and South 282nd St. in King County, Washington. The site is legally located as a portion of Section 32, Township 22N, Range 4E., W.M.. The objective of the wildlife study was to assess the current functions and values of the wildlife habitat present and determine species presence and potential occurrence.

There exists on the site mixed forest, scrub-shrub wetlands and open water areas. Each of these habitat types and the combinations they form have their own range of values to wildlife. A moderately steep west aspect slope is located on the eastern portion of the site. The sloped area appears to have been disturbed within the last ten years, as indicated by sapling alder, sapling cottonwood, Himalayan blackberry, and an assortment of trash and debris. Near the center of the property is a large depressional area dominated by willows, yellow iris, reed canarygrass, speedwell, and patches of open water (Wetland A). Investigation of aerial photography indicates that the open water areas appear to have been excavated from a scrub-shrub wetland between the years of 1946 and 1960. Remnant islands of the scrub-shrub wetland still exist near the center of the open water area. Site investigations confirmed the excavated nature of the open water area of the wetland. The steep pond side slopes and earthen embankment along the eastern portion of the wetland are all typical of excavated ponds. Himalayan blackberry is well established on pond spoils, which is also typical to disturbed areas in western Washington. This wetland extends off site to the north. The western portion of the property has a slight west aspect slope and is dominated by immature alder, mountain ash, and big-leaf maple in the overstory. Understory vegetation is comprised of salmonberry, oso-berry, vine maple, swordfern and trailing blackberry with patches of Himalayan blackberry. A small linear depressional wetland is located on the property's western boundary (Wetland B). It originates near the property's northwest corner and continues off-site approximately 300 feet south under an existing cyclone fence.

### Methodology

The area was first studied through examination of existing maps and aerial photographs to determine its general habitat layout and relationship to adjacent lands. Once gaining a preliminary overview of the site's condition and possible dynamics, a field reconnaissance was conducted. The area was investigated on foot by walking transects to locate and identify key wildlife components and determine the site's habitat quality, functions, values and species presence. The field study was conducted by visiting all areas of the site and surveying visually with binoculars and listening for auditory indicators.

### Wildlife Habitat Components

Any habitat type will contain a combination of features that give it a particular range of functions and values for wildlife. There exists on this site three habitat types that have value to wildlife. The vegetative and topographic associations they present

dictate in part the densities and diversity of wildlife found. It is these areas and the mosaic they form that deserve attention here.

Mixed Forest: Dominated by deciduous species the mixed forest component makes up approximately half of the vegetation found on site. There are two large contiguous blocks that account for the majority of this habitat type. The first block runs along the eastern edge of the site with an area of approximately 100,000 sq. ft.. The second covers the western half of the site with an area of approximately 219,375 sq. ft.. The mixed forest has a good multi-level canopy structure with a fairly dense understory. The overstory component is comprised of mature red alder, big-leaf maple and scattered evergreens. The understory vegetation is dominated by immature red alder, big leaf maple with salmonberry and Himalayan blackberry. This association provides a good balance of arboreal cover and foraging potential. The mixed forest component is sizable enough to provide a reservoir for some local species and certainly plays a role as a movement corridor through the area. Throughout the mixed forest there are habitat trees (snags) that are important habitat features for wildlife.

Open Water Wetland: This component is found in the north central portion of the site and is approximately 59,010 sq. ft. in size. The open water area with its associated vegetation forms a sizable habitat feature with a diverse vegetative structure. The western and northern edges of the open water are bounded by mixed forest and have a moderately well structured overstory of red alder, cotton wood and willow. The mid-story is dominated by semi-mature red alder and cottonwood, and the understory by salmonberry and Himalayan blackberry. The western edge of the this wetland is dominated by a mixture of scrub-shrub vegetation including sapling willow and cottonwood and Himalayan blackberry. There is a small stand of semi-mature cottonwood and willow along the water's edge. Large patches of broad-leaved cattail are found along the shoreline and in small islands or peninsulas throughout the open water area.

Scrub-Shrub Wetland: This wetland is found in the western portion of the site along the western border and totals approximately 5,990 sq.ft.. The wetland is surrounded by mixed and deciduous forest which provides it with a closed overstory. The wetland vegetation is dominated by salmonberry, sedges and skunk cabbage. As a result, there is not a well developed mid-story component present along the wetland corridor.

### **Wildlife Features**

The project site contains three special habitat features that enhance its value to wildlife. These characteristics can either result in the meeting of a specialized need for an individual species, or the fulfillment of a range of functions for entire communities. The presence of some special habitat features may very well dictate whether a species or group of species utilizes the area. Found on this project were three features deserving special mention:

Wildlife Trees (Snags): Wildlife trees described as dead or partly dead trees are one of the most important and productive wildlife features present in a forest ecosystem. Wildlife trees provide a wide range of functions including nesting sites, forage potential and breaks in canopy coverage. Many species use cavities within wildlife trees for over-wintering, including hibernation by mammals. For some avian species the presence of snags are essential to breeding courtship rituals and territory establishment. There are wildlife trees located throughout the site. Of special

interest, are several clusters of wildlife trees, and some larger, heavily used trees found in different locations.

Two of the groups of wildlife trees are found in the eastern band of the mixed forest component between highway 99 and the mid-point of the site. The first group is located approximately 225' south of the Northeast corner and 50' west of the east boundary. The group is made up of four semi-mature red alders, with DBH's (diameter at breast height) ranging from 12" to 18". The second group is located 275' south of the northeast corner and 40' west of the eastern boundary. This group is made up of three larger trees (red alder and big-leaf maple) with a DBH range of 16" to 24". A third group of note is located just west of the open water wetland at 300' east and 100' south of the northwest corner. This, the largest cluster, is made up of six loosely associated trees including red alders and western hemlock. The DBH's range from 14" to 24". All of these groups provide roosting and nesting potential with some break in canopy cover and density. Within every group there were trees that contained one or more cavity nests excavated within them and/or showed sign of woodpecker spp. presence.

There are several solitary wildlife trees found on the site that with their larger size and evidence of heavy usage are of note. The first of these is a large fir snag (DBH 26") with two large excavated cavities and forage sign covering much of its exterior. The cavities are 4" in diameter at the top of the tree (tree height 30'). This tree is located approximately 100' west of the northeast corner along the north boundary. The second wildlife tree is located approximately 150' south and 50' east of the northwest corner. This forked tree stands 25' tall with a DBH of 26". The third tree sits approximately 200' north and 75' east of the southeast corner. This tree is 50' tall with a split at the crown and a DBH of 20". Both of these trees showed signs of foraging and excavation.

Open Water Wetland: This wetland is a rich habitat providing a diverse vegetative complex. The composition provides a significant amount of edge which is beneficial to wildlife. Increased edge is often associated with increased species diversity, this was evident in the range of species detected. The forest component along the edge provides feeding perches for belted Kingfishers, the broad-leafed cattail; roosting and nesting sites for Red-winged Blackbirds and the open water; loafing and feeding sites for Bufflehead. Within the open water portion of the wetland there is a moderately well developed aquatic vegetative element. Such vegetation is necessary as a egg-laying substrate for amphibians. Amphibian egg masses were found attached to aquatic plants at the site.

Talus/Rocky Slope: Found in the northeast corner of the site forming the driveway embankment, this slope has attributes that are beneficial to amphibians and reptiles. Talus or rocky slopes are often utilized by amphibians and reptiles for habitation and egg laying. This embankment is situated in such a manner as to have one portion of it in a cool moist forested area and another in a southwest facing aspect. The cool moist portions of the slope are attractive to salamanders and the sunny southwest face is attractive to reptiles.

### **Condition and Function**

Existing: The study site in its present condition provides habitat for a diverse number of wildlife species. Within it exists a combination of mixed and deciduous forest, open water, shrub-shrub and grass meadow. This vegetative composition forms a mosaic of habitat types yielding a significant area of edge. Diversity of

wildlife species is believed to be closely related to edge area both rising and declining in unison. The area has the capacity to function as a reservoir for some resident communities and provide a movement corridor through the area for more transient species. At present there is evidence of use in the area by a moderate number of avian, mammalian and amphibian species. Use includes feeding, roosting and nesting by avian species and foraging and habitation by some mammalian and amphibian species.

The wildlife habitat on site is good, it is however less than optimal. Some areas have seen a high degree of alteration as a result of human intervention. There have been changes in vegetation and topography that have decreased the functional value of the site. Wildlife usage of the area is therefore held below those levels that would be expected and are possible. A large portion of the central area is a meadow that has been used as a trash dump/playground. This treatment has spoilt this section and compromised portions of those adjacent to it. Sections of the western bank and the northeast corner have been graded and a road put through it. This activity has altered the vegetation composition.

Post-Development: Some of the special habitat features lie outside of the areas to be developed and will remain relatively intact and unaffected. The most striking habitat, the open water wetland and its associated vegetation will remain within the protective buffer assigned to it. It appears that all three clusters of wildlife trees will remain as will two or three of the larger solitary wildlife trees. As a result, these areas and features should retain much of their current functions and values. They will continue to provide some nesting, foraging and over-wintering sites for various wildlife species. The mixed forest area will see an increase in fragmentation decreasing some of its role as a species reservoir and movement corridor.

### **Species of Concern**

Washington state and the federal government both have a system of legal designations for species of wildlife, plants and habitats that are seriously threatened with extinction or likely to become endangered within the foreseeable future. Species within these registers receive special considerations within policy and are of prime interest during Wildlife Surveys and Habitat Assessments. A search of state and federal databases for was carried out with the results as follows:

#### **Wildlife**

State: No species of endangered, threatened, sensitive or candidate status were located within the study site.

Federal: No species of endangered, threatened, proposed or candidate status were located within the study site.

#### **Habitats and Plants**

State: No species considered sensitive or habitats viewed as unique were located on or near the study site.

Federal: No species considered sensitive or habitats viewed as unique were located on or near the study site. Still waiting for data search results.

## Mitigation Suggestions

- Select plantings along habitat perimeters to form a hedge and limit intrusion into the areas.
- Select plantings within the development area to create additional habitat.
- Nesting boxes for water fowl and passerines in wetland areas.
- Eradication and Control of invasive species.

## Observed Species

### Avian:

- Red-tailed Hawk
- American Robin
- Northern Flicker
- Ruby-crowned Kinglet
- Dark-eyed Junco
- Hermit Thrush
- Red-winged Blackbird
- Song Sparrow
- Rufous-sided Towhee
- Yellow Warbler
- American Crow
- Belted Kingfisher
- Black-capped Chickadee
- House Wren
- Bufflehead
- Bushtit
- Golden-crowned Kinglet
- Townsend's Warbler
- Bewicks Wren

### Mammalian:

- Douglas Squirrel
- Raccoon
- Opossum
- Aplodontia
- Gopher spp.

### Amphibian:

- Western Treefrog
- Bullfrog
- Northwestern Salamander

## Use Of This Report

This Wildlife Study is supplied to Granville Southern Corporation as a means of determining on site wildlife habitat conditions and the presence of wildlife species, as required by King County during the permitting process. This report is based largely on readily observable conditions and, to a lesser extent, on readily ascertainable conditions. No attempt has been made to determine hidden or concealed conditions. Reports may be adversely affected due to the physical condition of the site and the difficulty of access which may lead to observation or probing difficulties.

The laws applicable to sensitive species and areas are subject to varying interpretations and may be changed at any time by the courts or legislative bodies. This report is intended to provide information deemed relevant in the applicant's attempt to comply with the laws now in effect.

The work for this report has conformed to the standard of care employed by wetland ecologists. No other representation or warranty is made concerning the work or this report and any implied representation or warranty is disclaimed.

*Wetland Resources, Inc.*



Cliff Palmer  
Wildlife Biologist/Wetland Ecologist



March 17, 1998

WASHINGTON STATE DEPARTMENT OF  
**Natural Resources**

JENNIFER M. BELCHER  
Commissioner of Public Lands

Cliff Palmer  
Wetland Resources Inc  
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**SUBJECT: # 97061 Pacific Place Townhouses -T22N, R04E, S32**

We've searched the Natural Heritage Information System for information on significant natural features in your project areas. Currently, we have no records for rare plants or high quality ecosystems in the vicinity of your projects. I have enclosed a list of rare plant species known to occur in the counties in which your projects are located.

The information provided by the Washington Natural Heritage Program is based solely on existing information in the database. In the absence of field inventories, we cannot state whether or not a given site contains high quality ecosystems or rare species; there may be significant natural features in your study area of which we are not aware.

The Washington Natural Heritage Program is responsible for information on the state's endangered, threatened, and sensitive plants as well as high quality ecosystems. We have begun to add information on selected groups of animals of conservation concern, such as freshwater mussels, butterflies, salamanders, and bats. We now make this information available in our reports along with information on rare plants and high quality ecosystems.

The authority for protection of animal species in Washington rests with the Department of Fish and Wildlife which manages and interprets data on wildlife species of concern in the state. To ensure that you receive information on all animal species of concern, please contact Priority Habitats and Species, Washington Department of Fish and Wildlife, 600 Capitol Way N, Olympia, WA 98501-1091, or by phone (360) 902-2543.

If you have the opportunity and technology, visit our new World Wide Web site at [www.wa.gov/dnr](http://www.wa.gov/dnr). If you have any questions, please do not hesitate to call me at (360) 902-1667, or by E-Mail: [sandra.moody@wadnr.gov](mailto:sandra.moody@wadnr.gov).

Sincerely,

Sandy Swope Moody, Environmental Coordinator  
Washington Natural Heritage Program