



WILDLIFE MEMO

411 108th AVENUE NE, SUITE 1800
BELLEVUE, WA 98004-5571
T. 425.458.6200 F. 425.458.6363
www.parametrix.com

MEMORANDUM

Date: May 25, 2012
To: Deborah Munkberg
From: Michael Hall
Subject: Potala Village – potential effects on bald eagles
cc:
Project Number: 557-6920-001
Project Name: Potala Village EIS

This memorandum assesses the potential for construction of the Potala Village development in Kirkland, Washington, to affect bald eagles. Discussions in this document (1) review the regulatory status of bald eagles, (2) identify the habitat requirements and other aspects of bald eagle life history that are relevant to the potential effects of the proposed development, (3) summarize available information about bald eagle habitat in and use of the proposed development site and adjoining areas, and (4) evaluate the potential effects of proposed site development on bald eagles and their habitat.

Status

The bald eagle (*Haliaeetus leucocephalus*) is among the largest predatory birds in North America. In response to population declines largely attributable to environmental contaminants and widespread loss of nesting habitat, bald eagles in Washington State were listed as threatened under the federal Endangered Species Act in 1978. Following the federal ban on DDT and the implementation of increased protection for bald eagles and their habitat, populations nationwide staged a dramatic recovery. In 2007, the U.S. Fish and Wildlife Service removed the bald eagle from the list of species protected under the Endangered Species Act.

Bald eagles continue to receive protection under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. The Bald Eagle and Golden Protection Act protects eagles, as well as their eggs and nests, from injury or harassment. Under the Act, people are not allowed to “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb” bald eagles (16 USC 668-668d). “Disturb,” for the purposes of the Bald and Golden Eagle Protection Act, is defined as follows: “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior” (50 CFR 22.3). The Migratory Bird Treaty Act provides similar protections for birds and bird nests and eggs, but does not prohibit disturbance of individual birds.

The U.S. Fish and Wildlife Service (2007) has issued guidelines for the management of bald eagles. These guidelines specify protective measures for bald eagle nest sites and communal roosting areas, and provide recommendations for avoiding disturbance at foraging areas and communal roost sites. At the state level, bald eagles are listed as a sensitive species. The Washington Department of Fish and Wildlife considers species with

this status to be at risk of becoming endangered or threatened in a significant portion of their range within the state, unless threats are removed or cooperative management is implemented.

Habitat Requirements

Bald eagles use large trees for nesting, roosting, and perching. In Washington, nearly all bald eagle nests are within 1 mile of a lake, river, or marine shoreline (Stinson et al. 2007). Watson and Pierce (1998) found that bald eagle nests in western Washington are typically in the largest, tallest trees in a stand, with an average nest height of 115 feet (± 30 feet) and nest tree diameter at breast height of 45 inches (± 18 inches).

Nesting, foraging, and perching habitat for bald eagles is typically associated with water features such as rivers, lakes, and coast shorelines, where eagles prey upon fish, waterfowl, and seabirds (Stalmaster 1980, 1983, 1987). During winter, particularly during extreme weather, bald eagles may spend nights together in communal roosts. Such roosts are typically located in large trees in stands of dense, uneven-aged forest that provide protection from the weather, away from human activity (Hansen et al. 1980).

Bald eagles most often forage from perch trees near to shorelines; areas of shallow water may be preferred because the limited depth brings fish closer to the surface (Buehler 2000). Within nesting territories, bald eagles tend to favor suitable perch trees that are closer to their nest sites, compared to those farther away (Caton et al. 1992).

Perches from which nesting bald eagles forage are distributed throughout their nest territories along shorelines and prominent points that provide a commanding view of foraging areas. Nesting eagles exhibit consistent daily foraging patterns and often use the same perches (Stalmaster 1987). Important attributes of a preferred perch may include proximity to potential prey, isolation from disturbance, good visibility of surrounding terrain, and accessibility for landing and departing (Stalmaster 1987). Typically, foraging perches are stout enough to support the weight of a perching eagle; they are often found at sites that offer some degree of isolation from human activity, such as boating and other water-related recreational activities (McGarigal et al. 1991, Watson et al. 1995). Wintering eagles along the Nooksack River have shown a preference for big-leaf maple, black cottonwood, and Sitka spruce, which are generally much taller than the more abundant red alder (Stalmaster and Newman 1979).

Watson (2002) found that the average home range (i.e., the area containing the nesting and foraging habitat for a breeding pair) of bald eagles nesting near lakes in western Washington included approximately 1.3 miles of shoreline. Nests were typically centrally located within a core area extending approximately 1,000 feet along the shoreline in either direction from the nest (Watson 2002). Based on the level of human activity and the availability of foraging areas, bald eagles may not use all portions of their home ranges equally.

During the breeding season, bald eagles are sensitive to a variety of human activities. However, not all bald eagle pairs react to human activities in the same way. Some pairs nest successfully just dozens of yards from human activity, while others abandon nest sites in response to activities much farther away. In general, the bald eagle breeding season in Washington State extends from January 1 through August 31 (Watson and Rodrick 2004). Eagles are most sensitive to disturbance between early February and early May, when they are establishing territories, incubating eggs, and tending newly hatched chicks. Another period of heightened sensitivity occurs in early July, when the young may be frightened off the nest before they are able to fly (U.S. Fish and Wildlife Service 2007). In general, management guidelines issued by the U.S. Fish and Wildlife Service (2007) restrict activities within 660 feet of active nests. These guidelines also recommend that potentially disruptive activities and development in the direct flight path between nest sites and important foraging areas should be minimized (U.S. Fish and Wildlife Service 2007).

Occurrence and Habitat in the Project Area

Bald eagles are frequently seen flying along the shoreline in the project area, particularly during the breeding season. Data from the Washington Department of Fish and Wildlife Priority Habitats and Species (PHS) program

indicate the presence of three bald eagle nesting territories within approximately 2 miles of the proposed Potala Village development site. The nearest of these, at Heritage Park in Kirkland, is approximately 0.8 mile from the project site. The others are more 1.5 miles from the project site. Based on the distance from the known nest sites, it is unlikely that the Lake Washington shoreline near the proposed project site falls within the core foraging areas for any bald eagle breeding territories. PHS data do not indicate that any communal roosting sites have been documented within 5 miles of the project area.

Several large cottonwood trees in Marsh Park along the Lake Washington shoreline immediately south of the proposed development site may serve as perch sites for bald eagles. The trees that are present within the parcel proposed for development are smaller, farther from the shoreline, and separated from the lake by Lake Street S. For these reasons, the trees at the project site are less likely to serve as perch sites than those in Marsh Park. None of the trees at the project site falls within the typical height or size range associated with bald eagle nests in western Washington. Based on this, combined with the current high level of human activity surrounding the project area, it is unlikely that bald eagles would use any of the trees at the project site for nesting. The project site also lacks the characteristics of forest stands that support communal winter night roosts.

Potential Effects of Project Activities

Clearing for development of the Potala Village site would not result in the removal of any potential nest trees or communal roosting habitat. Some of the larger trees at the site have the potential to serve as perch sites for foraging bald eagles. However, bald eagles are more likely to use trees in nearby Marsh Park, which are larger and closer to the water. For these reasons, project development is not likely to affect the availability of nesting, roosting, or foraging habitat for bald eagles.

Noise and human activity associated with project construction could disturb bald eagles that are present while construction activities are underway. Any such disturbance, however, would not be expected to substantially interfere with normal breeding, feeding, or sheltering behavior.

Based on the distance to known nest sites, as well as the existing levels of noise associated with traffic and other human activity, construction-related noise is not expected to be audible at any bald eagle nest sites. Notably, the nearest nest is 4,200 feet away from the project site, well beyond the 660-foot distance within which the U.S. Fish and Wildlife Service (2007) recommends activity restrictions to avoid disturbance to nesting bald eagles. Similarly, no communal roosting sites occur within the area where construction-related noise would be audible.

It is possible that bald eagles may perch in the cottonwood trees in Marsh Park or forage along the shoreline nearby while construction activities are underway. Birds that do so could respond to increased levels of noise and human activity by flying away or avoiding the area. If this occurs, the feeding activities of any such birds could be disrupted and the birds could be displaced to less preferred areas (Stalmaster 1980). Such effects would be temporary and limited to a small portion of the total foraging area available in the surrounding area. Any eagles that are displaced from the project area by construction-related activities would find ample foraging opportunities elsewhere along the shoreline of Lake Washington.

Construction-related disturbance would be limited to a single breeding season. It is unlikely that avoidance of the project area would have a negative effect on the productivity of any breeding pairs in the area. Even if that were to occur, the effects would be short-term and localized, and would not be expected to detract from the ongoing recovery of the bald eagle population in western Washington.

The project site occurs in an urban area with relatively high levels of human activity. Traffic volumes on Lake Street S average approximately 13,800 vehicles per day (City of Kirkland 2008). Additional foot and vehicle traffic associated with the presence of the residential development at the Potala Village site would not constitute a substantial change in the area's character, and bald eagles would be unlikely to respond by avoiding the area over the long term.

References

- Buehler, D. A., 2000. Bald Eagle (*Haliaeetus leucocephalus*). Birds of North America, No. 506. The Birds of North America, Inc., Philadelphia, PA. 40 pp.
- Caton, E.L, B.R. McClelland, D.A. Patterson, and R.E. Yates. 1992. Characteristics of foraging perches used by breeding bald eagles in Montana. The Wilson Bulletin, Volume 104, Number 1, pp. 136-142.
- City of Kirkland. 2008. Traffic count summary—Average Daily Traffic in both directions. Available at <http://www.kirklandwa.gov/Assets/Public+Works/Public+Works+PDFs/Transportation/Traffic+Count+Summary+2007.pdf>.
- Hansen, A.J., M. V. Stalmaster, and J. R. Newman. 1980. Habitat characteristics, function, and destruction of bald eagle communal roosts in western Washington. Pages 221-230 in Proceedings of the Washington bald eagle symposium. R.L. Knight, G.T. Allen, M.V. Stalmaster, and C.W. Servheen, editors. The Nature Conservancy, Seattle, Washington.
- McGarigal, K., R. G. Anthony, F. B. Isaacs. 1991. Interactions of humans and bald eagles on the Columbia River estuary. Wildlife Monograph 115:1-47.
- Stalmaster, M.V. 1980. Management strategies for wintering bald eagles in the Pacific Northwest. Pages 49-67 in Proceedings of the Washington bald eagle symposium. R.L. Knight, G.T. Allen, M.V. Stalmaster, and C.W. Servheen, editors. The Nature Conservancy, Seattle, Washington.
- Stalmaster, M.V. 1983. An energetics simulation model for managing wintering bald eagles. Journal of Wildlife Management 47:349-359.
- Stalmaster, M.V. 1987. The bald eagle. Universe Books, New York, NY. 227 pp.
- Stalmaster, M.V. and J.R. Newman. 1979. Perch-site preferences of wintering bald eagles in northwest Washington. Journal of Wildlife Management 43:221-224.
- Stinson, D. W., J. W. Watson, and K. R. McAllister. 2007. Washington state status report for the bald eagle. Washington Dept. Fish and Wildlife, Olympia. 92 pp.
- U.S. Fish and Wildlife Service. 2007. National bald eagle management guidelines. May 2007. Available online at <http://www.fws.gov/pacific/eagle/regulations.html>.
- Washington Department of Fish and Wildlife. 2012. PHS on the Web: An interactive map of WDFW priority habitats and species information for project review. Available online at <http://wdfw.wa.gov/mapping/phs/>.
- Watson, J. W. 2002. Comparative home ranges and food habits of bald eagles nesting in four aquatic habitats in western Washington. Northwestern Naturalist 83:101-108.
- Watson, J. W., D. Mundy, J. S. Begley, and D. J. Pierce. 1995. Responses of nesting bald eagles to the harvest of geoduck clams. Final Report. Washington Department of Fish and Wildlife, Olympia, WA.
- Watson, J. W., and D. J. Pierce. 1998. Ecology of bald eagles in western Washington with an emphasis on the effects of human activity. Final Report, Washington Department of Fish and Wildlife, Olympia, Washington, USA.
- Watson, J.W. and E.A. Rodrick. 2004. Bald eagle (*Haliaeetus leucocephalus*). Pages 8-1 through 8-20 in Management Recommendations for Washington's Priority Species, Volume IV: Birds. E.M. Larsen, J.M. Azerrad, and N. Nordstrom, editors. Washington Department of Fish and Wildlife, Olympia.