

PLAN B Natural Heritage

City of Brantford Waterfront Master Plan Bald Eagle Habitat Management Recommendations - DRAFT

Introduction

In 2009, a pair of bald eagles (*Haliaeetus leucocephalus*) attempted to nest in a large Cottonwood tree, adjacent to the Grand River in the Brant Conservation Area, City of Brantford, Ontario. An old red-tailed hawk nest (*Buteo jamaicensis*) was taken over by a pair of eagles (GRCA Staff, pers. comm.). This nesting attempt was well documented by several observers within the City of Brantford. To protect the nest, the City of Brantford closed a section of hiking trail along the opposite bank of the Grand River, approximately 100 m+ from the nest. This nesting attempt failed and may be attributed to this pair being inexperienced bald eagles attempting their first nest (GRCA Staff, pers. comm.). In 2009 there were 5 active bald eagle nests in the Grand River watershed (i.e. Dunnville Marshes, Caledonia, Brantford and Luther Marsh). With proper protection of suitable nesting and roosting habitats, another nesting attempt within the City of Brantford is highly probable.

The status of bald eagle was recently changed from endangered to special concern. Species listed as threatened, endangered and extirpated on the Ontario Species at Risk List are protected under the *Endangered Species Act* (ESA) 2007. Although species listed as special concern are not afforded any specific protection under the ESA and related habitat regulations, their habitat may be considered as "significant" wildlife habitat under the Natural Heritage policies of the *Provincial Policy Statement* (2005).

The information contained in this report is based on our understanding of the study area, field reconnaissance, our discussions with local activists, bald eagle project volunteers, and GRCA/MNR/City staff, plus a review of the following key references:

- National Bald Eagle Management Guidelines (U.S. Fish and Wildlife Service, 2007);
- Best Management Practices for Raptor Conservation During Urban and Rural Land Development in British Columbia (LGL Limited 2005); and,
- Forest Management Guide for Conserving Bio-Diversity at the Stand and Site Specific Scales (OMNR, Draft 2009); and,
- New York City Parks and Recreation Department Bald Eagle Release Program – Inwood Park, Manhattan Island (NYCPRD 2007).

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The management guidelines put forth at the end of the report are a hybrid of the recommendations contained in the above documents, as it relates to bald eagles in urban environments, and have been tailored to fit the City of Brantford setting.

Eagle Sensitivity

Breeding

The sensitivity of nesting bald eagles can vary greatly between each pair. Some pairs nest within urban environments close to significant human activities, while others will abandon their nest with very little human interactions. Until there have been a few years of successful nesting within the City of Brantford, it would be prudent to view these nest(s) as quite sensitive to most activities. Once a pair of bald eagles successfully breed, they have an increased site fidelity and may accommodate more passive occasional traffic (i.e. hikers, birdwatchers, canoeists, anglers) passing near (i.e. <100m) of their nest.

Existing roads, homes, and other routinely used facilities, which predate the bald eagle nesting attempts are quite unlikely to disturb nesting at their current intensities. Irregular and occasional uses after the start of nest building may disturb bald eagles enough to impact the success of the nest. Any outdoor events planned within 200m of the nest or 300m of the line of sight of the nest should be moved to avoid possible abandonment.

Bald Eagle Nesting Chronology for Southern Ontario

Courtship and Nest building: December to March

This the most sensitive period: a time when birds tend to respond negatively to human disturbance. Nest abandonment is common during this period, especially for pairs with newly established nests/territories.

Egg Laying & Incubation: February to May

Also a critical sensitive period, human disturbance can lead to the disturbed birds being away from the nest too long and the death of the egg(s) and nest abandonment.

Hatching & Raising Young: March to July

Abandonment is less likely by adults however disturbances that cause adults to leave the nest could lead to cooling/death of the eggs or loss of young during early nestling period. After 4-8 weeks, the potential of abandonment decreases significantly as the young become visible to the observer from the nest. Too much disturbance could discourage the adults from returning to the nest with food and miss feeding the young.

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Fledging Young: May to August

Can be a very sensitive time as disturbance may cause the young to leave the nest prematurely and die.

Wintering Eagles

With open water (waterfowl habitat) during the winter, mature riparian forests, islands, secluded valleys, and an active nearby landfill site, the Grand River within the City of Brantford is quite attractive for bald eagles to spend the winter. Wintering bald eagles prefer secluded areas with mature trees and protection from inclement weather for their winter roosts. Within Brantford, the northwest area along the Grand River and adjacent forest blocks may have some significance for roosting eagles during the winter to early spring. Areas of mature riparian forests in Waterworks Park west of the dyke and nearby islands, may also provide a roosting location during the winter if human disturbance is low and the eagles present have a higher tolerance of urban areas.

The attached figure depicts areas of open water and winter roosting sites along the Grand River.

Management Recommendations

- If a nesting attempt is occurring, close the area and provide signage/fencing to prevent/discourage human entry to within 100m of the nest. In the current nesting situation the Grand River (a navigable waterway) is located between the nest tree and the existing tree, and acts as a buffer. In this scenario, a trail closure or re-route is not recommended. With the trail elevated on the dyke through Waterworks Park any nest adjacent to the Grand River in the park area would be well setback and could be safely seen from that trail, thus not needing onlookers to enter the area and disturb the nest. Each situation should be reviewed on a case by case basis to determine the most appropriate action. The U.S. Fish and Wildlife Service guidelines for bald eagles indicate that the minimum buffer/setback to a particular human activity should be based on documented examples within the study area setting. The Guidelines also acknowledge that when birds choose a nesting site within an existing urban area that it is not always possible to provide large setbacks, shut down an activity or close off an area. Bald eagle has a moderate-high tolerance to human activities and urban areas and will develop site fidelity over time. The key to maximizing bald eagle presence in urban areas is to protect existing habitat, enhance/restore habitat where feasible, manage for long-term sustainability of feeding, nesting and roosting areas, and encourage public stewardship and education. The New York City Parks and Recreation Department has recently initiated a bald eagle release program within Inwood Park (Manhattan Island) along the Hudson River and Harlem Ship Canal. The eagles have been

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released into an urban waterfront environment similar to Brantford but on a much larger scale in terms of the potential interaction with humans and urban land use.

- Construction or trail maintenance should not be permitted to within 200 m - 300m from a nest tree until after the nesting attempt is complete. Only emergency trail maintenance should be completed within the buffer zone, and if possible on good weather days.
- Continue to survey the Grand River within the City of Brantford to locate wintering communal roosts and potential roosts using consistent routes with trained volunteers 1-2 times per month (December through March).
- Fully map suitable roost and nesting habitat.
- Locate and map eagle foraging areas (done by qualified observers and records from volunteers).
- Educate the Public; Use interpretative materials such as signs and brochures to make the public aware of the need to protect bald eagle habitat and to prevent disturbances to nesting and roosting sites. Promote the ownership and pride in having the eagles chose the City of Brantford.
- Provide signage at canoe in/out points advising people to stay on the opposite of the river channel from a nest tree. Inform local outfitters of potential eagle activity along the Grand River and appropriate protocol around nest trees and at portages.
- Any larger scale maintenance or construction projects (e.g. road/bridge construction, housing developments) within site of the nest or roosting areas or less than 400m should be undertaken post- fledging and pre-wintering period (August to December).
- Provide a central location from which the public can readily see wintering eagles from a distance to avoid disturbing the birds, while providing an enjoyable experience. This location can then be promoted and could increase visitation of non residents to the City. This could be undertaken once a clearer picture of the movements of wintering bald eagles and the locations of nest(s) are known.
- Plant and enhance riparian areas along the Grand River in Brant Conservation Area, Waterworks Park and the area south of Birkett Lane. Species similar to those found in the riparian area of Waterworks Park should be planted (e.g. cottonwood, willow, bur oak, and silver maple). In time these trees will provide additional nesting and winter roosting locations.

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- Forest management plans for City owned natural areas should be reviewed by a qualified ecologist/ornithologist to ensure that bald eagle habitat protection and enhancement are accounted for in the implementation of the plan. The City should endeavor to maintain regular recruitment of mature trees in the forest canopy, particularly in floodplain areas along the Grand River.
- If existing nest or roost trees succumb to natural disturbance (flood, ice storm, wind pruning) consideration should be given to erecting a nest platform or roosting structure in proximity to the previously existing tree. Nesting platforms and man-made structures such as hydro towers and bridge abutments/piers are often used by raptors for nesting and roosting.
- Since the eagles within the City of Brantford are part of a larger population, habitat management and volunteer activities should be coordinated with the other stakeholders along the Grand River (i.e. OMNR, GRCA and Bird Studies Canada).