

Date: May 05, 2006



**TO: Board Members – Vancouver Park Board**  
**FROM: General Manager – Parks and Recreation**  
**SUBJECT: Stanley Park Heronry Management Report**

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## RECOMMENDATION

- A. That the Board receive the accompanying Stanley Park Heronry Management Plan which identifies operational guidelines to be included as part of a developing program of wildlife management for Vancouver Parks;*
- B. That the Board approve in principle the recommendations presented in the plan for management and stewardship of the Stanley Park heron colony, recognizing that the species is protected by federal and provincial legislation.*

## POLICY

The Vancouver Board of Parks and Recreation 2005 - 2010 Strategic Plan Section 1. Greening the Park Board states, “The preservation and enhancement of the natural environment is a core responsibility of the Vancouver Park Board”.

Specific actions include:

- Preserve existing habitat and vegetation;
- Strengthen and expand natural park environments, local wildlife, stormwater management, native biodiversity;
- Promote and improve natural environments in the city through partnerships and public education programs;
- Provide a forum for information on urban wildlife.

## BACKGROUND

A Great Blue Heron (*Ardea herodias fannini*) colony has been present in Stanley Park since the early 1900s. The heron subspecies is listed as a species of concern, protected by federal and provincial legislation. Over the last 5 years the colony in Stanley Park has grown significantly, which has implications for the overall population in the Lower Mainland.

In May 2005, the Park staff met with biologists from the provincial Ministry of Environment and federal Canadian Wildlife Service to discuss ways and means to protect the colony. The Park wildlife staff assumed responsibility for developing a Heronry Management Plan, to be completed in March, 2006. (See Appendix 1). A work team was assembled, including biologist staff of the Stanley Park Ecology Society, Park Board and volunteer biologists who have regularly monitored the colony over the past 5 years. Starting in August 2005, meetings were held to assemble the information and make recommendations.

The work team communicated with wildlife researchers and naturalists connected with heron studies during the preparation of this plan. Management issues were reviewed with the Regional Species at Risk biologist for the provincial Ministry of Environment and the Canadian Wildlife Service biologist specializing in herons. Representatives of both senior levels of government, with jurisdiction for herons in BC, have submitted emails indicating support for the report and endorsement for the recommendations included in the report.

## **PLAN RECOMMENDATIONS**

The following is a summary of the recommendations as outlined in the plan:

### **Habitat Restoration & Enhancement Recommendations:**

- Identify nesting territory boundaries and protected heron nesting trees;
- Identify foraging habitat within the Park and nearby shores;
- Evaluate the effect of the heron colony on the trees and other vegetation (guano and tree damage);
- Perform heronry tree assessments in spring and fall. Plan for tree maintenance outside of the heron nesting season. Information should be logged and filed for future reference;
- Plan for future growth and changes to the heronry. Evaluate areas with similar conditions to the heronry such as tree mix, proximity to food source, and protection from predators and disturbance and public safety.

### **Soil and Tree Rehabilitation:**

- Continue with soil testing at time sensitive stages;
- Conduct soil rehabilitation measures such as application of lime, application of liner and mulching to protect against tree damage. Wash foliage of nest trees and landscape vegetation after the heron colony has been vacated at the end of the season.

#### Recommendations for Minimizing Disturbance:

- Establish a timeline to reduce potential conflict between human activities and the heron nesting season. Park staff to adhere to the Activity Timetable (defined in Appendix 11 of the Management Plan) for operations, maintenance, and recreational activities that involve noise and disturbance;
- Conduct regular review of the fenced areas used by the herons.

#### Recommendations for Site Security, Nest Tree Protection and Human Health:

- Protect nesting habitat and foraging areas from human and domestic animal encroachment. Expand fence enclosures as needed to protect nesting trees and public;
- Remove debris from the ground beneath the heronry at the end of each nesting season;
- Conduct a site review of foraging areas and provide advisory signage for the protection of the heronry and foraging habitats on the Stanley Park foreshore;
- Manage off-leash dogs in foraging grounds or where feeding herons are seen during low tides;
- Continue to follow up with Vancouver Coastal Health Authority to monitor human health concerns for the heronry zone.

#### Recommendations for Activity Monitoring:

- In conjunction with the Stanley Park Ecology Society, recruit monitors to accurately record the heronry activity during peak nesting time, when nests are still being constructed, and eggs are hatching;
- Record factors for disturbance including ambient noise levels to understand tolerances, including vehicular and human traffic counts and activity patterns;
- Conduct surveys of marine life and map foreshore areas used by herons.

#### Heronry Site Management:

- Establish clear lines of communication and a procedure to be followed for reporting and handling of sick, injured or healthy birds on the ground.

#### Public Education and Interpretation Programming:

- Develop and expand a public education program for the heronry and featuring the broader concepts of environmental management and stewardship. Consider options for improved signage, presentations and activities for public awareness.

## DISCUSSION

The Great Blue Heron Colony in Stanley Park has been an important natural feature dating back to the earliest days of the parks creation. There have been two major changes of venue since the first recorded observations in 1921.

The primary purposes of this management plan are to assemble the information concerning the species within Stanley Park and to provide a planning document for this urban colony which is becoming increasingly significant in the BC Lower Mainland. It will also provide a framework to guide the activities of parks staff to reduce interactions that may negatively impact the colony. The document also expands on measures connected with protection of the colony nesting site as well as providing recommendations to safeguard the public. The site also attracts great public interest and the report includes interpretive opportunities with the heronry.

The Great Blue Heron (*Ardea herodias fannini*) is currently a Blue Listed species in the province of BC, indicating that the species is considered vulnerable due to habitat loss and declining productivity. They are protected under the provincial Wildlife Act, which protects both the birds and their nest sites. They also fall under the control of the federal Migratory Bird Convention Act. The Committee on the Status of Endangered Wildlife in Canada lists them as a species of “special concern”.

Hérons are known to habituate readily to urban sites and the factors and human activities that surround them. In 2001, the colony moved from the Zoo/Aquarium site in Stanley Park to the present location near the Park Board office, where it has experienced remarkable growth over the last 5 years. The colony growth provides added safety for the birds and may be in response to the increasing population of eagles living in the Lower Mainland.

The report outlines issues related to the protection of the nesting habitat. The colony is compact in size and density has increased with many nests occupying few trees. Heron nest numbers have increased from 6 in 2001, to over 170 in 2005. This growth has a major effect as nesting habitat in a large colony can become degraded very quickly. The report lists several recommended actions for the attempted protection or remediation of nest trees. The foraging habitat is a major factor in determining the success of a colony. Colony success is also dependent on food supply. Further study is needed to quantify the prey base available to the colony in the foraging locations used by the herons.

Hérons have coexisted with humans and many other species (especially in the days of the zoo colony) and at times they show remarkable tolerance for disturbance, especially in the current site which has a variety of human activities. Despite this, the heronry is susceptible to unusual disturbances or events, which may result in nesting failures or abandonment of chicks, eggs or nests.

In June 2004, the BC Ministry of Environment produced the document “Environmental Best Management Practices for Urban and Rural Land Development.” The report

recommended buffer zones and protective measures for heronries in urban areas. The Stanley Park colony has established in a small area of intense human activity, thus creating an extraordinary situation that must be resolved by other means.

The approach in this plan is to control disturbance by reducing specific activities and events within prescribed timeframes. The report provides guidance for park maintenance crews to reduce potential conflicts. Timelines for regular maintenance activities such as pressure washing, landscaping and roadwork are provided so that park staff can minimize the disturbance factors. (See Appendix 2).

Some preventative actions have already taken effect in 2006. Owing to studies conducted earlier, organizers have already agreed to move the Sun Run (an unusual and prolonged disturbance that could impact the colony). Also this spring, members of the report team conducted instructional sessions with parks and city operations staff to raise awareness of the need for care in the vicinity of the heronry.

Not everyone is pleased with the growth of the heronry. Many apartment dwellers are put off by the persistent noise and smell in the breeding season. There are human health issues associated with the large colony and the excrement created. The measures taken to safeguard the public from the main areas of the colony are considered satisfactory, but follow-up is required seasonally with the Coastal Health Authority.

There are many unanswered questions concerning the choice of site for the heronry, the foraging territories and the tolerances for disturbance by the birds. A well-designed monitoring program directed by the Stanley Park Ecology Society and volunteers connected with the colony is recommended. The monitoring will include nest surveys and mapping and activity monitoring by park wildlife staff and volunteers. Installation of a video camera is also being planned. Directed studies are also recommended, particularly related to the foraging areas of the birds and the factors for disturbance of the colony.

A humane option for response to injured or downed birds is required. Rescue and rehabilitation of some of these young herons is possible in some instances. Currently the system for rescue and recovery is incomplete, involving park wildlife staff, park rangers, Ecology Society staff and volunteers. A more comprehensive response procedure needs to be developed to eliminate the current gaps.

Representatives of the federal and provincial governments have provided written support of the management plan. The final report was reviewed and endorsed by the Canadian Wildlife Service representative. The regional Species at Risk Biologist for the BC Ministry of Environment has also provided conditional support for the report based on recent factors involving protection of species in developed areas.

This report has attempted to resolve the disparities between the requirements of the Ministry for buffer zones around heronries and the rather unique urban nature of the colony. For this reason, Ministry staff will continue to work with Park staff in order to

develop a stewardship agreement that includes federal, provincial and municipal levels of government to effectively manage the colony.

Finally, the Stanley Park heronry provides wonderful opportunities for public education and interpretation. The report recommends improved signage, more interactive opportunities for the public such as web cams, interpretive presentations and fundraising for the program. These will all increase general awareness and appreciation for the surprising world of the Great Blue Herons of Stanley Park.

## **SUMMARY**

The Great Blue Heron subspecies found in Stanley Park is protected by federal and provincial regulations. Colony establishment and occupancy are unpredictable and, with limited numbers and sites, the species is being closely monitored for its protection.

The recommendations included in the Heronry Management Plan will provide guidelines to park staff to reduce the risk that community activities and maintenance projects adversely affect the success of the colony.

The Stanley Park heronry also presents great opportunities for the Vancouver Park Board to showcase stewardship for wildlife and the responsible role we can play as part of the natural world.

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