

**TO:** Park Board Chair and Commissioners

**FROM:** General Manager – Vancouver Board of Parks and Recreation

**SUBJECT:** Vancouver Bird Strategy Update and Implementation

#### **RECOMMENDATION**

A. THAT the Vancouver Park Board endorse the updated Vancouver Bird Strategy, as outlined in this report and attached as Appendix A; and

B. THAT the Vancouver Park Board direct staff to report back with revised Bird Friendly Landscape Operational Guidelines once they have been updated, in consultation with Park Operations staff and the Vancouver Bird Advisory Committee, to ensure they reflect the most effective bird friendly management practices in parks and other public open spaces.

#### REPORT SUMMARY

The goal of the Vancouver Bird Strategy, first approved in 2015, is to create the conditions for native birds to thrive in the city and across the region. This report recommends that the Vancouver Park Board endorse the updated Vancouver Bird Strategy (attached as Appendix A), which will also be presented to City Council for approval. The proposed updates include the recommendation that the Bird Friendly Landscape Operational Guidelines be updated to ensure they reflect the most effective bird friendly management practices in parks and other public open spaces.

#### **RELEVANT POLICY / PREVIOUS DECISIONS**

<u>VanPlay</u> (2020), the Parks and Recreation Services Master Plan which sets priorities and provides tools and policies to support the pursuit of equity, connectivity and access to parks and recreation for all. Included are bold directions, which support the Bird Strategy, to weave the city together by protecting and enhancing connected ecosystems and waterways and to connect people with nature.

On July 23, 2019, Council adopted recommendations to promote responsible outdoor lighting practices on public and private properties which constitute the <u>Outdoor Lighting Strategy</u>. The report also recommended that Park Board investigate opportunities to pursue an <u>Urban Star Park</u> designation for Stanley Park.

In March 2019, the Park Board approved a motion titled <u>Assessment of Pest Control Policies</u>, which requested that staff review pest control management strategies for wildlife and rodents at Park Board facilities, including how and where rodenticide/lethal control/relocation are used, and the cost of existing contracts. Staff were also to assess the viability of including BC SPCA AnimalKind wildlife and rodent control standards into pest control contract language.

The <u>Vancouver Bird Strategy</u> (2015), celebrates the importance of birds in Vancouver, and provides voluntary landscape and architectural guidelines to enhance urban bird habitats. The strategy was <u>presented</u> to the Park Board on January 19, 2015, with the <u>recommendations</u> approved by Council on January 20, 2015.

On October 27 2014, the Park Board approved a motion to <u>Ban on Neonicotinoid Pesticides in our Park System</u>, a category of commonly used pesticides that are scientifically found to be toxic to honey bees and some native bees including bumble bees.

On May 27, 2013, the Park Board approved a motion titled <u>Vancouver Bird Friendly Strategy</u>, directing staff to work with the Board's Bird Week partners to expand public education efforts and to report back on the feasibility of developing

On May 16, 2011, the Park Board approved a motion that directed Park Board staff to "to report back on the feasibility of mapping important bird migration, feeding, resting and nesting areas within the City of Vancouver, with the goal of applying this information in Park Board's tree planting and planting arrangements, and in park redevelopment programs, in order to attract and sustain habitat for migratory birds to the city as a source of food, nest sites and shelter".

Together with the <u>Urban Forest Strategy</u> (updated 2018), the <u>Biodiversity Strategy</u> (2016), the <u>Rewilding Vancouver Action Plan</u> (2014), and <u>Greenest City Action Plan</u> (2011), the Vancouver Bird Strategy contributes to supporting biodiversity in parks, and on other public and private lands, across Vancouver and the region. Collectively, these strategies will improve and enhance experiences of and access to nature for all.

#### **BACKGROUND**

#### Birds in Vancouver

Birds bring Vancouver to life with their songs and flight: chatty Black-capped Chickadees, trilling Song Sparrows, soaring Bald Eagles, and colourful Rufous Hummingbirds animate our city and connect our residents to nature. The high visibility and audibility of birds makes them an experiential link between people and local biodiversity. Birds also provide ecosystem services in the form of pest control, pollination and seed-dispersal. Birding tourism increasingly contributes to local economies and accounted for approximately \$41 billion in expenditure in the United States in 2016. For the citizens of Vancouver, experiencing birds can be a daily activity that creates a physical and emotional link with nature.

Vancouver is particularly important for bird populations given the city's location on the Fraser River delta, a major stop along the Pacific Flyway that extends north to Alaska and south to Central and South America. The variety of rich habitats from estuary shorelines to mature coniferous and deciduous forests creates a haven for weary migratory birds, as well as resident birds that live in the region year round.

There are four Important Bird and Biodiversity Areas (a worldwide conservation initiative coordinated by BirdLife International) in Metro Vancouver comprising an area over 1400 km<sup>2</sup>:

- Fraser River Estuary;
- English Bay, Burrard Inlet, and Howe Sound;
- Greater Vancouver Watershed; and
- Pacific Spirit Regional Park.

Vancouver's proximity to these internationally recognized Important Bird and Biodiversity Areas present a major opportunity to encourage the greatest diversity and abundance of native birds and thereby enhance access to nature for Vancouver's residents and visitors. In addition, the region supports the highest density of wintering birds anywhere in Canada, and the impressive numbers provide wildlife viewing opportunities throughout the winter months. The urban tree canopy, private property yards, and public greenspaces are critical resources that extend the urban forest to support wintering and migrating birds.

#### Context for a Bird Strategy

Vancouver is a leader in Canada when it comes to celebrating birds and the Park Board has played an instrumental role in the development of the Vancouver Bird Strategy. It began in 2010, when a Park Board Commissioner read an article on the annual migration and decided Vancouver should celebrate its bird life by participating in World Migratory Bird Day, a United Nations sponsored initiative that recognizes the importance of birds as key indicators of the health of our environment.

In 2011, the Board unanimously approved a motion that included a number of directions for Park Board staff to pursue in order to attract and sustain habitat for migratory birds to the city. Additionally, World Migratory Bird Day was first proclaimed in Vancouver that year, and Park Board partners planned bird walks in Stanley Park and Queen Elizabeth Park. In 2012, World Migratory Bird Day was once again proclaimed and more walks across the city were held. Based on its growing success, the partners began to develop a conservation and restoration program for the city and in 2013, the first Bird Week was proclaimed with the City, Park Board, Stanley Park Ecology Society, Birds Canada, Nature Vancouver, Vancouver Public Library, Tourism Vancouver and other organizations partnering in a week-long series of events.

In May 2013, noting that several North American cities had successfully established bird-friendly strategies, the Park Board approved the <u>Vancouver Bird Friendly Strategy</u> motion, which directed staff to work with Bird Week partners to expand public education efforts and to report back on the feasibility of developing landscape design guidelines to enhance bird habitat values for landscapes across Vancouver.

Since the city's first World Migratory Bird Day in 2011, the scope of bird celebrations in Vancouver has rapidly expanded. Bird Week in 2014 included a highly-publicized City Bird competition in which over 700,000 votes were cast for an annual City Bird. Vancouver elected a permanent official City Bird in 2017, Anna's Hummingbird, and hosted the 27<sup>th</sup> International Ornithological Congress and the first Vancouver International Bird Festival in 2018. Bird Week 2020, which ran from October 3 to 10, largely with virtual programming due to the COVID-19 pandemic, was the tenth year for Vancouver to formally celebrate birds in the city and across the region. Moving forward, Bird Week will become an integral part of a national Bird Celebration, which will coordinate events, promotions, and information sharing with other organizations across Canada.

#### **Vancouver Bird Advisory Committee**

When World Migratory Bird Day was proclaimed in 2011 to recognize the importance of this global week of celebration for migratory birds, Park Board staff worked with Birds Canada, Nature Vancouver and the Stanley Park Ecology Society to develop and host associated events. Programming for World Migratory Bird Day in 2012 and for subsequent Bird Weeks grew substantially. The organizing group grew as the scope of bird events increased and a working group, with more organizations and individuals involved in bird conservation, was formed as the Vancouver Bird Advisory Committee.

The role of the Committee, which developed the Vancouver Bird Strategy, includes:

- advising City Council, Park Board, civic staff, and others on implementing the Bird Strategy;
- coordinating Bird Week and other events to raise awareness about birds in the city and across the region;
- acting as a resource to the City, Park Board and to developers and citizens;
- providing reasonable and objective advice and guidance on matters involving bird conservation; and
- being available to meet with City and Park Board management or other civic officials or agencies to discuss common concerns.

#### The Vancouver Bird Strategy

Birds play important ecological, social and economic functions within the city. The actions of the City, Park Board, residents, businesses and institutions within Vancouver have a considerable impact on whether birds thrive within the city. Recognizing the importance of civic actions, other municipalities in North America have adopted bird strategies, including the City of Chicago's Bird Agenda (2006), Toronto Bird Friendly Design Guidelines (2007), Calgary Bird Friendly Urban Design Guidelines (2011) and San Francisco Standards for Bird-Safe Buildings (2011).

In 2014, the Park Board acquired research support through UBC's Greenest City Scholar Program, which proved invaluable to the Committee in researching and writing the Vancouver Bird Strategy. The Committee was able to reflect on and learn from other civic precedents as well as taking advantage of more recent research in the development of the Vancouver Bird Strategy. The Strategy was completed in late 2014, with the majority of the recommendations falling under the responsibility of City of Vancouver departments, particularly Planning, Urban Design and Sustainability. The strategy was presented to the Park Board and approved by City Council in January 2015.

#### Goals and Objectives

The goal of the Vancouver Bird Strategy is to create the conditions for native birds to thrive in the City of Vancouver and across the region by identifying opportunities to protect and restore habitat, incorporate bird friendly development, and support bird watching and tourism, while addressing the biological, social, and economic challenges. Five objectives were identified to achieve this goal:

- 1) Support Habitat: Protect, enhance and create habitats for a diversity of native birds.
- 2) Reduce Threats: Reduce threats to birds in the urban environment;
- Improve Access: Improve access to nature for Vancouver residents and visitors to the city;
- 4) Enhance Awareness: Increase awareness of the importance of birds and their needs; and
- 5) Grow Bird Related Tourism: Encourage bird tourism and economic development opportunities related to birding.

The strategy also identifies the five Key Challenges that lead to bird population declines in British Columbia:

- 1) habitat loss;
- 2) invasive species;

- 3) predation and disturbance by domestic pets;
- 4) building collisions; and
- 5) direct human disturbance.

#### *Implementation*

To support the realization of the Vancouver Bird Strategy's goal and objectives, while addressing the Key Challenges, the Strategy includes five priority Action Areas that provide direction for implementation. Each Action Area outlines specific guidelines and recommendations to create a bird friendly city by protecting birds and enhancing their habitats through:

- 1) landscape design guidelines;
- 2) building design guidelines;
- 3) research and monitoring;
- 4) art, awareness and education; and
- 5) economic development and tourism.

Opportunities are identified for City and Park Board staff, as well as partner organizations and the public to support native birds in the city. The specific activities and recommendations identified for each Action Area are being implemented on many fronts under the leadership of the Bird Advisory Committee. Examples of how they have been implemented since the Strategy was adopted in 2015 are provided below.

#### 1) Bird Friendly Landscape Design Guidelines

The first Action Area calls for landscape design guidelines that provide strategies to protect birds and enhance their habitats to be applied across the city. Actions as simple as placing landscaping in such a way that birds don't collide with nearby windows or doors can significantly reduce the number of bird collisions with glass walls, doors and windows. Since the Landscape Design Guidelines were adopted, their implementation has been readily accepted by the development community. Costs to developers to implement the Landscape Guidelines are relatively low. The Landscape Development team has tracked a compliance rate of 98% for the Bird Friendly planting selection specifically.

There have also been improvements to bird habitat via the implementation of the Urban Forest Strategy within the development application stream. The addition of Rezoning and Development Permit screening for tree retention and industry outreach (including a 'Designing for Tree Retention Guide') has resulted in a significant decrease in tree removals on private property.

#### 2) Bird Friendly Building Design Guidelines

Building Design Guidelines specify strategies to make window glass visible to birds, for example by using fritted glass in areas where birds might fly, thereby drastically reducing fatal bird collisions. They also provide a simple solution to the issue of bird deaths due to entrapment in open pipes. Since the Building Design Guidelines were adopted, all applicable conditional Development Permit and Rezoning applications have a standard bird friendly building design condition of approval which references the applicants to the Bird Friendly Building Design Guidelines. This condition requires the applicants to provide a rationale outlining the applicant's strategies to achieve objectives referenced in the

guidelines. Often these solutions, such as parallel-mounted solar shading devices and fritted window patterns, enhance other objectives for energy efficient building design.

The guidelines are included in all Real Estate and Facilities Management legal agreements with developers for City projects and most projects currently incorporating the guidelines are child cares and on upper floors where glazing affected is perimeter glass barriers (about +/- 1.5 m high).

Some civic buildings have been retrofitted as a result of the guidelines. The Park Board led by example through installing Feather Friendly bird collision deterrent treatment on the upper foyer windows at the Park Board Administration Building at 2099 Beach Avenue in 2014, and then extending the treatment to all of the windows in 2017. "Seeing Spots", a public art participatory project was installed West Point Grey Community Centre in 2015. Both treatments involved the application of markers to the outside surface of glass in a closely-spaced grid pattern which virtually eliminated bird collisions thereafter. Prior to the International Ornithological Congress in 2018, grids of tiny gold hummingbirds were temporarily installed on the doors of City Hall as a way to communicate the issue of collisions with glass and to celebrate Anna's Hummingbird, Vancouver's City Bird.

As part of the City's Outdoor Lighting Strategy, Park Board is pursuing a Royal Astronomical Society of Canada Urban Star Park designation for Beaver Lake in Stanley Park. While an Urban Star Park requires that the skies be usable for astronomy, it also protects the night time environment for ecological benefits. To achieve designation, the lighting consultants recommended retrofitting existing lighting in the adjacent Works Yard parking lot to be Dark Sky compliant to minimize impacts on the large Barn Swallow colony located in the horse barns and that it should only be turned on when required during the evening.

#### 3) Research and Monitoring

The primary organizations that monitor birds in Vancouver include Birds Canada, Stanley Park Ecology Society, WildResearch, Vancouver Avian Research Centre and governmental agencies such as the Canadian Wildlife Service, Environment and Climate Change Canada, and the Province of BC. Although there is much known about birds in Vancouver and across the region, more could be done to centralize access to this information. The Vancouver Bird Advisory Committee has taken a lead in tracking and coordinating the data generated by these partner organizations. In addition, a number of high profile civic buildings were monitored to determine which windows were considered problematic for bird collisions. Several facades at the VanDusen Botanical Gardens Visitor Centre and the Vancouver Maritime Museum will be targeted for mitigation of birdwindow collisions.

#### 4) Arts, Awareness and Education

Arts and awareness programs can engage and educate people about birds in the city in a fun and creative way. Educating the public about threats to birds is an important step towards protecting birds in Vancouver and activating citizens. Awareness projects and celebrations, like Vancouver Bird Week, the City Bird competition, the live web-cam on the Stanley Park heron colony, and artist-led engagement projects like Birds on Parade in 2018 have been integral parts of the public engagement strategies of many of the Committee's partner organizations. Past community art projects such as Mainly for the Birds, Strathcona Pavilion Frieze, and Bird Project fieldhouse residencies, including

Words Rising, Birds Rising, a Coast Salish artists' residency directing a local Indigenous lens at birds of the Northwest Coast, engage people in the creative process to further increase awareness.

The BCSPCA and Stewardship Centre for BC (SCBC), with funding and support from Environment and Climate Change Canada, Birds Canada, and the University of British Columbia, continue to collaborate on an awareness campaign to educate people about the impact of domestic pets, especially cats, on birds. This included Canada's first Cat Count using 34 motion-activated cameras, moved to new locations every three weeks by UBC student Jaylen Bastos, collecting millions of photos to try to determine the number of cats that roam the city's streets and alleys, data that will be used to guide policies to protect birds and possibly the cats themselves. Another project of the SCBC is the Greater Vancouver Urban Landbird Count being conducted by UBC researcher Harold Eyster, who is resurveying all the bird surveys conducted by Stephanie Melles and others in the late 1990s.

#### 5) Economic Development and Tourism

Increasing awareness of Vancouver as a significant destination for the emerging birding market and growing interest in nature tourism offer new economic opportunities. Tourism Vancouver's bid to bring the 27<sup>th</sup> International Ornithological Congress to Vancouver in August 2018 was successful. There were over 1700 delegates from around the world with events being held in tandem with the first Vancouver International Bird Festival and kicked off by Birds on Parade! led by T'satsu Stagaya from Musqueam. The congress brought \$5-8 million to the city. The Stanley Park Ecology Society, VanDusen Botanical Garden, Nature Vancouver and other groups offer bird-walking tours in Vancouver. And although not native species, the Bloedel Conservatory provides a unique climate-controlled experience to visit more than 120 free-flying exotic birds.

The BC Bird Trail is a new online resource and trip-planning tool that connects locals and visitors with information on birdwatching destinations and activities in BC. It is intended to engage birders at all experience levels, making it easier to plan engaging trips throughout the province to discover the joys and benefits of birdwatching. The BC Bird Trail, launched in September 2020, is supported by Destination BC in partnership with Tourism Richmond and seven other central Vancouver Island and Fraser Valley civic destination marketing organizations, Indigenous Tourism BC and Birds Canada. Vancouver Tourism has not yet participated in this recent initiative designed to grow bird tourism.

#### DISCUSSION

Updates to the Vancouver Bird Strategy (see Appendix A) are being proposed for a number of reasons, including to:

- highlight the achievements made since it was adopted in 2015 and replace photos with new Vancouver images from key projects including the Birds of False Creek banner under the Granville Bridge; application of bird collision deterrent at 2099 Beach Avenue; and the 2018 Birds on Parade;
- reinvigorate recommendations to reflect emerging concerns, such as rodenticide use:
- update targets, dates, and references;

- include concepts of reconciliation, connectivity and equity from VanPlay, the Parks and Recreation Services Master Plan; and
- feature Anna's Hummingbird, chosen in 2017 as Vancouver's permanent City Bird.

Additionally, staff are recommending that the Bird Friendly Landscape Operational Guidelines be updated, in consultation with Park Operations staff and the Vancouver Bird Advisory Committee, to ensure they reflect the most effective bird friendly management practices in parks and other public open spaces. The proposed updates will apply current research and best management practices in the planning, design, stewardship, and protection of bird habitat areas in parks and for street trees. The updated guidelines could be utilized by park and urban forest maintenance staff, park development project managers, as well as external consultants and contractors to ensure that the implementation and timing of capital projects and maintenance work protects and enhances bird habitat.

The guidelines would also ensure that park capital and operations projects comply with federal regulations including the <u>Species at Risk Act</u> and <u>Migratory Bird Convention Act</u> as well as the <u>BC Wildlife Protection Act</u> and the BC <u>Guidelines for Raptor Conservation</u>. Implementation tools, such as bird breeding schedules, VanMap GIS map layers with important bird areas and protected nests, staff-training resources, visual "how-to" guides, and decision making flow charts can make the operational guidelines more user-friendly and relevant to park projects.

The updates would be grounded in operational practices and guided by the expertise of the Vancouver Bird Advisory Committee, as well as Musqueam, Squamish, and Tsleil-Waututh traditional knowledge. The resources created would demonstrate international leadership for the City of Vancouver and the Park Board in becoming a bird-friendly city.

The proposed strategy updates outlined in this report, along with additional recommendations that fall within the City of Vancouver's jurisdiction, will also be <u>presented to City Council</u> for approval on December 9, 2020.

#### CONCLUSION

The goal of the Vancouver Bird Strategy is to create the conditions for native and migratory birds to thrive in the city and across the region. This report seeks Vancouver Park Board endorsement of the updated Vancouver Bird Strategy (attached as Appendix A), and approval of the recommendation for staff to revisit and report back on bird-friendly regulations to improve building and landscape design.

General Manager's Office Vancouver Board of Parks and Recreation Vancouver, BC

Prepared by

Alan Duncan, Environmental Planner – Planning and Park Development

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# Vancouver Bird Strategy

January 2015 (proposed December 2020 Updates)









Environnement et Changement climatique Canada e Service canadien de la faune



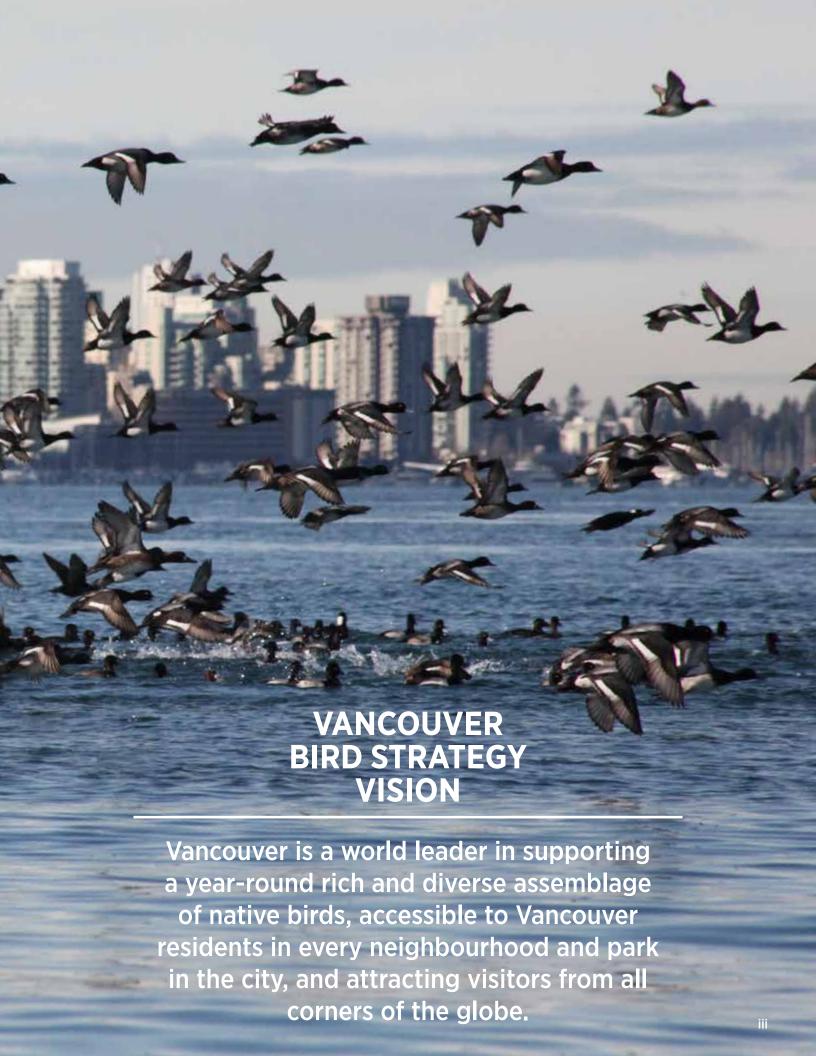








Vancouver Bird Advisory Committee. 2020. Vancouver Bird Strategy. City of Vancouver



### **EXECUTIVE SUMMARY**

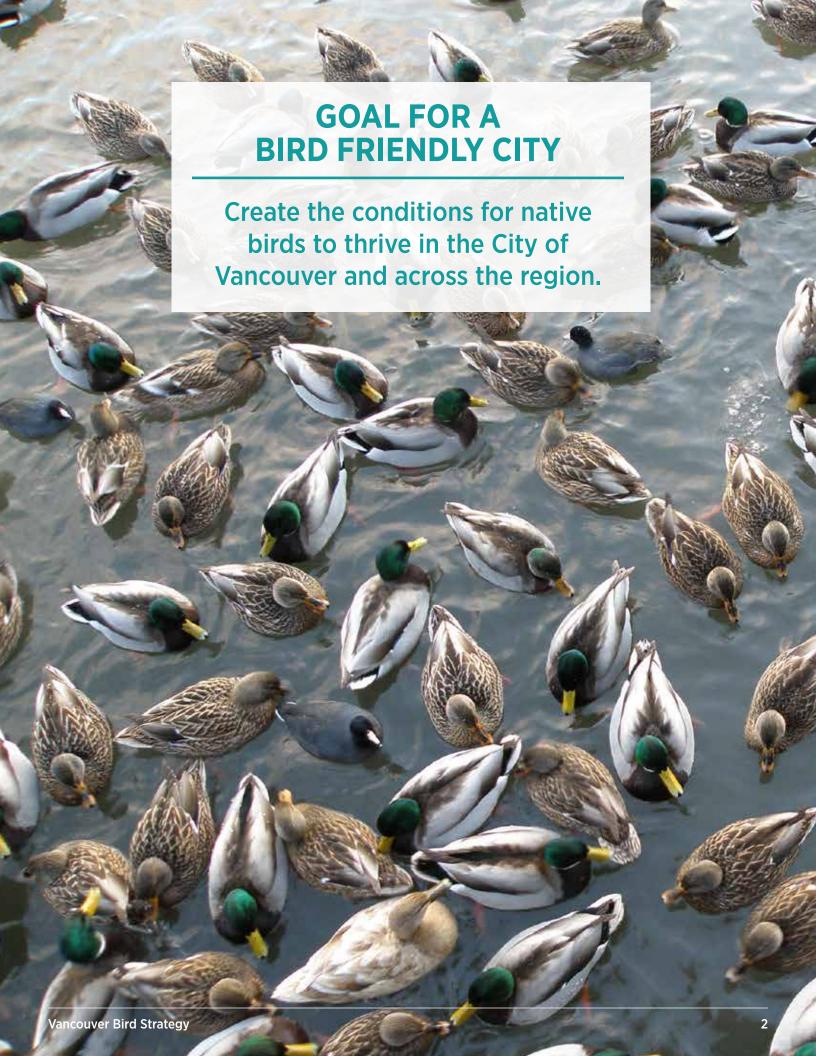
Over 250 species of resident, migratory and over-wintering birds are regularly observed in greater Vancouver. The high visibility and auditory presence of birds creates an experiential link with nature that can foster stewardship of the natural environment and enrich the lives of Vancouver's citizens. Birds also provide important ecosystem services in the form of pest control, pollination and seed dispersal. However, according to *The State of Canada's Birds*, 2019, birds across almost all habitats are in trouble. Shorebirds, seabirds, birds that consume flying insects and forest seedeating birds are in particular trouble and spend more than half of the year in our region. Therefore, Vancouver has a responsibility to reduce the impact that urbanization has on birds along the Pacific Coast.

The goal of the Vancouver Bird Strategy is to create the conditions for native birds to thrive in Vancouver and across the region. The Strategy consists of five action areas that address the biological, social and economic challenges to creating a bird friendly city. Specific activities have been identified for each action area that the City, Park Board or partners are currently implementing as well as recommendations to move forward. In addition, the Strategy identifies key opportunities and challenges to supporting native birds in Vancouver.



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### **OBJECTIVES**

#### **SUPPORT HABITAT:**

Protect, enhance and create habitats for a diversity of native birds.

#### **REDUCE THREATS:**

Reduce threats to birds in the urban environment.

### **IMPROVE ACCESS:**

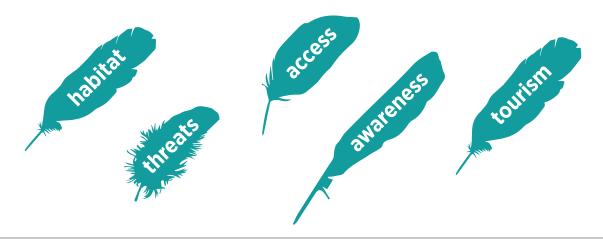
Improve access to nature for Vancouver residents and visitors to the city.

#### **ENHANCE AWARENESS:**

Increase awareness of the importance of birds and their needs.

### **GROW BIRD RELATED TOURISM:**

Encourage birding tourism and economic development opportunities related to birding.



THE FIVE	OBJECTIVES				
ACTION AREAS	SUPPORT	REDUCE THREATS	IMPROVE	ENHANCE AWARENESS	GROW TOURISM
LANDSCAPE DESIGN GUIDELINES					
BUILDING DESIGN GUIDELINES					
RESEARCH AND MONITORING					
ARTS, AWARENESS AND EDUCATION					
ECONOMIC DEVELOPMENT AND TOURISM					

### INTRODUCTION

### WHY ARE BIRDS IMPORTANT IN VANCOUVER?

Birds bring Vancouver to life with their songs and flight: chatty Black-capped Chickadees, trilling Song Sparrows, soaring Bald Eagles, and colourful Rufous Hummingbirds animate our city. The high visibility and audibility of birds creates an experiential link between people and local biodiversity. Social birding has been shown to reduce stress, anxiety and risk of depression. Birds also provide ecosystem services in the form of pest control, pollination and seed dispersal. Birding tourism contributes to local economies and accounted for approximately \$41 billion in travel and equipment expenditures in the United States in 2016. For the citizens of Vancouver, experiencing birds is a daily activity that creates a physical and emotional link with nature.



Birds are particularly important in Vancouver because of its location adjacent to the Fraser River delta, a major stop along the Pacific Flyway that extends north to south from Alaska to Central and South America. The Pacific Flyway is traversed by at least a billion birds every year. In addition, unique to Canada, the region hosts a high abundance and diversity of birds during winter, many of which are in steep decline. The diversity of rich habitats in the region, from estuary shorelines to mature coniferous and deciduous forests, create a haven for weary migratory birds as well as for resident birds that live in the region year-round.

There are also four Important Bird and Biodiversity Areas (IBA) in greater Vancouver: Fraser River Estuary; English Bay, Burrard Inlet and Howe Sound; Greater Vancouver Watershed; and, Pacific Spirit Regional Park, comprising an area over 1400 km<sup>2</sup>. Vancouver's proximity to these IBAs (a worldwide conservation initiative coordinated by BirdLife International) represents a major opportunity to encourage the greatest diversity and abundance of native birds and thereby enhance access to nature for Vancouver's residents and visitors. The Vancouver Bird Strategy is a priority with important economic, social and environmental benefits as we work towards becoming a greener city and region.

### 268 species

of resident, migratory and over-wintering birds are regularly observed in greater Vancouver



### CONTEXT

Vancouver has long recognized the need to incorporate nature in the urban environment, including a diversity of bird life. This has spurred the development of a number of related strategies that build upon the desire to provide access to nature, including the Biodiversity Strategy, Urban Forest Strategy, VanPlay, Green Operations Environmental Framework, the Vancouver Food Strategy, the Healthy City for All Action Plan and the Environmental Education and Stewardship Action Plan.

VanPlay, the 2020 Parks and Recreation Services Master Plan, sets priorities and provides tools and policies to support the pursuit of equity, connectivity and access to parks and recreation for all. Included are bold directions, which support the Bird Strategy, to weave the city together by protecting and enhancing connected ecosystems and waterways and to connect people with nature.

Together with the Urban Forest Strategy (updated 2018), the Rewilding Action Plan (2014), and the Biodiversity Strategy (2016), the Vancouver Bird Strategy (updated 2020) contributes to supporting biodiversity in parks, and on other public and private lands, across Vancouver and the region. Collectively, these strategies will improve and enhance experiences of and access to nature for all.

Vancouver is a leader in Canada when it comes to celebrating birds. World Migratory Bird Day (WMBD) is a United Nations sponsored initiative that recognizes the importance of birds as key indicators of the health of our environment. In 2011 and 2012, the Mayor signed a proclamation recognizing WMBD.

In subsequent years, Bird Week was proclaimed by the Mayor with the City, Stanley Park Ecology Society, Birds Canada, Nature Vancouver, Vancouver Public Library, Tourism Vancouver and others partnering in a weeklong series of events increasing the awareness of birds in the city. In 2018, the Mayor proclaimed August Bird Month in Vancouver in conjunction with the City hosting the International Ornithological Congress.

In May 2013, Vancouver City Council and the Vancouver Park Board directed City staff to develop a Bird Strategy for Vancouver. This was approved by City Council on January 20, 2015 and updated in 2020.

There are also federal and provincial regulations in place that pertain to birds in Vancouver. Species listed under Schedule 1 of the federal Species at Risk Act (SARA) are extirpated, endangered or threatened in Canada and are afforded protection under the law. The purpose of the federal Migratory Birds Convention Act (1994) is to protect and conserve migratory birds and their nests and eggs. For a complete list of the species protected by the Act, refer to the Environment and Climate Change Canada website.

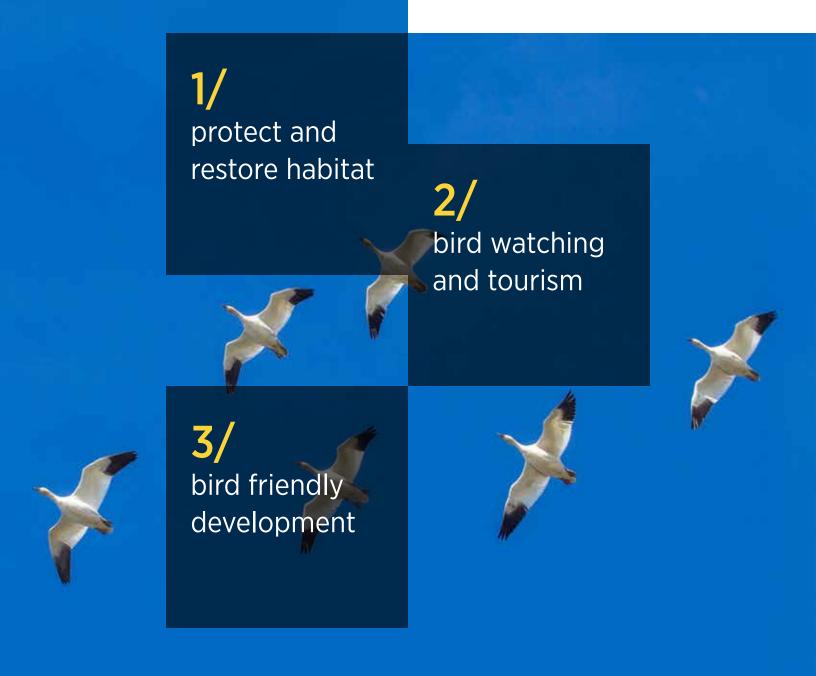
The British Columbia government lists species that are imperilled in the province through the Conservation Data Centre. The BC Wildlife Act protects birds, nests and eggs, and provides year-round protection to a select group of birds' nests including those of Bald Eagles and Great Blue Herons. The Park Board also follows Guidelines for Raptor Conservation during Urban and Rural Land Development in British Columbia developed by the BC Ministry of Environment.

## City of Vancouver's CITY BIRD



"Classy, urban and stylish with the heart of a tiger" describes this recent arrival to Vancouver. With their iridescent emerald feathers and sparkling rose-pink throats, Anna's Hummingbirds are more like flying jewelry than birds. Anna's Hummingbird won the election to become Vancouver's official City Bird with a commanding 42% of the ballots cast in 2017. As our City Bird, this tenacious hummingbird is used to promote environmental issues, to inspire local artists and to act as an ambassador encouraging visitors and welcoming them to Vancouver.

### key opportunities



### KEY OPPORTUNITIES

### PROTECT AND RESTORE HABITAT

Vancouver is known for its proximity to stunning natural environments: mature forests, riparian corridors, coastal shorelines and intertidal zones provide habitat for a diversity of birds and make the city a beautiful place to live. Vancouver's world-class parks such as Stanley Park, Jericho Beach Park and Queen Elizabeth Park attract an abundance and diversity of birds and people.



Stanley Park, Vancouver's largest park, attracts the highest diversity of birds in the city.

Stanley Park, Vancouver's largest park and a national historic site of Canada, is an excellent example of ongoing protection and maintenance of existing bird habitat in an urban centre. Through a partnership between Stanley Park Ecology Society and the Vancouver Park Board, best management practices for species of significance including nesting eagles, small owls, cavity nesting birds and migratory birds, have been developed and implemented. This partnership is a model that is being replicated to promote the protection and restoration of habitat for birds throughout the city.



Habitat Island at Southeast False Creek provides habitat and allows people to experience nature in the city.

### BIRD FRIENDLY DEVELOPMENT

Vancouver intends to become a global leader in bird friendly development. Habitat Island and Hinge Park at Southeast False Creek, created as part of the Olympic Village, is a model for sustainable urban development that integrates nature into the city. A stormwater-fed freshwater wetland and rocky intertidal zone create valuable habitat for waterfowl. Bald Eagles have been spotted perching on the branches of the Douglas Fir snags at Habitat Island.

Another example of a large-scale development that incorporates bird habitat is the River District, showing how Vancouver is taking steps towards incorporating bird friendly design principles into urban development. New Brighton Park, Queen Elizabeth Park and the Arbutus Greenway also provide significant opportunities to improve habitat for birds.

### BIRD WATCHING AND TOURISM

Bird watching is one of the fastest growing leisure activities in North America, estimated to generate billions of dollars in tourism and recreation industries. According to a 2006 study, more than 1.8 million Canadians participated in a multi-day bird watching activity within the previous two years. The Vancouver area is recognized internationally as a year-round hotspot for birds and a desirable destination for bird watchers. Although there is very little research on the current economic impact of bird watchers or birders living in or visiting Vancouver, opportunities exist to increase the awareness of Vancouver as an important destination in the birding market.

A 2011 report released by the U.S. Fish and Wildlife Service which focuses specifically on birders in the U.S. revealed that bird watching continues to grow in popularity and bird watchers spent annually up to \$41 billion on travel and equipment to see birds. Promoting bird watching in Vancouver has economic, social and environmental benefits that contribute to increasing awareness and stewardship of birds while simultaneously growing the green economy.

For a list of birds that can be seen in greater Vancouver, please refer to *Seasonal Check List* – *Birds of Greater Vancouver* (2018) on Nature Vancouver's website (https://naturevancouver.ca).



\$41 billion was spent by bird watchers.

### key challenges

1/ habitat loss due to urbanization

2/
invasive species

5/

**5/**direct human disturbance

predation and disturbance by domestic pets

**4/** building collisions

### KEY Challenges

### HABITAT LOSS DUE TO URBANIZATION

Habitat loss is the leading cause of bird population declines in British Columbia. According to *The State of Canada's Birds*, 2019 report, habitat loss due to human settlement, industry and forestry has caused a 35% decline in characteristic bird species in the Pacific Coast region of Canada since 1970. In Vancouver, it is estimated that approximately 87% of the forest cover has been replaced with urban development since the 1850's. As urban development increases, habitat loss is expected to become the single largest driver of bird extinction in this century.

Scientists have been increasingly interested in the effects of urbanization on birds and the relationship is complex. An early study, conducted in Vancouver in 1979, found that the total bird density is actually higher in urban areas than rural areas, but species richness is lower, due to the dominance of a few introduced species. Therefore, the Vancouver Bird Strategy focuses on creating the conditions for native birds to thrive.

A study performed in Vancouver in 2003 found that species richness declined in relation to increasing urbanization. The same study found that site-scale habitat features, like mature trees and fruit bearing plants, are correlated with increased bird diversity. When site-scale habitat features are multiplied across the landscape, the result is a greener, bird friendly city.



Stanley Park is a forest remnant; approximately 87% of Vancouver's forest cover has been replaced with urban development since the 1850's.

This issue is now being studied on a global scale. A 2001 study using the largest existing global dataset for birds in cities revealed that, although urbanization has caused declines in bird populations, urban areas still retain endemic native species. Researchers found that cities retain about 8% of their native bird species. On a global scale, cities support close to 20% of the world's bird species. This study suggests that the conservation and restoration of vegetation within urban landscapes could support higher concentrations of native bird species and provide opportunities for urban wildlife to thrive.

## Habitat loss has caused a **35% decline**

in characteristic bird species in the Pacific Coast region of Canada since 1970.

### INVASIVE SPECIES

Invasive plants and animals are non-native organisms that spread quickly and pose a threat to local ecosystems and species, further contributing to habitat loss. Native birds and plants are adapted to each other so when invasive plants are introduced in urban landscapes they thrive on disturbed sites and outcompete native plants. Because of this they pose a threat to native birds less adaptable to change. Native bird species are less abundant within urban landscapes where non-native understorey vegetation is more common than a diversity of native vegetation. Invasive plants must be actively managed if native vegetation is to be maintained and native birds are to thrive in our urban forests.

The management of invasive plants is a complex issue as it can pose a threat to birds if it disturbs nest sites. Bird breeding windows must be considered to reduce operational impacts on breeding birds and their nests and must ensure they conform to the federal Migratory Birds Convention Act (1994) or the BC Wildlife Act. In addition, some invasive plants, particularly Himalayan Blackberry, can provide food and shelter for some birds, and research should inform urban landscape management practices.

Invasive and nuisance birds out-compete native birds, thereby causing overall bird diversity to decline, but it can be very difficult to exclude invasive birds. More research is needed to investigate the complex problem of invasive plants and animals and how they impact Vancouver's native bird populations.



A House Finch eating invasive blackberries. Invasive plants must be managed with care as some birds will use them for nesting and foraging habitat.



English ivy is an invasive plant and will outcompete native plants that provide ideal habitat for native birds.

### PREDATION AND DISTURBANCE BY DOMESTIC PETS

Predation by feral and house cats is considered to be the largest source of direct human-related bird mortality, with an estimated loss of 100-350 million birds per year in Canada. The extent of the problem is currently under investigation by partners of the Vancouver Bird Advisory Committee, in order to prioritize outreach and education targeting cat owners and communities.

Options to mitigate this loss are complex and can be controversial. For example, trap, neuter and release programs for feral cat colonies are considered to be largely ineffective in reducing colony size and can be unpopular among local residents. However, many stewards of these cat colonies and others concerned with cat welfare believe this is an acceptable option. Feral cat colonies aren't prevalent in Vancouver primarily due to predation by coyotes.

Licensing owned, free-ranging cats is an option which has been undertaken by other municipalities in Canada. However, cat licensing has not been evaluated for its effectiveness in term of administrative and enforcement costs or for its overall benefit to urban bird populations. Keeping cats indoors can help reduce the threat of bird predation from cats and is safer for cats. The BCSPCA and the Stewardship Centre for BC strongly recommend keeping cats indoors to protect them from traffic accidents, contagious disease and predation from wild animals.

Dogs also pose a threat to birds when they are allowed to run off-leash, causing disturbance, injury or even death to birds. Dogs should be kept on leash except in designated off-leash areas as per the Animal Control Bylaw No. 9150. More cost-effective and humane solutions to minimize predation and disturbance of birds by domestic pets are needed.



It is estimated that

## 100 - 350 million birds

die every year in Canada due to predation by feral and house cats.

In Canada, an estimated

## 16-42 million birds

collide with glass on buildings every year.



### BUILDING COLLISIONS

An estimated 16-42 million birds collide with clear and reflective glass on buildings and structures of all sizes each year in Canada. Of the top ranking sources of mortality, bird collisions with buildings is a threat for which there are well-documented solutions; Vancouver can play a clear role by implementing *Bird Friendly Building Design Guidelines*.

Recent research indicates that collisions occur in Vancouver year-round, and can be very high in winter, in addition to the migratory periods. A 2017 study looking at patterns of collisions across North American, found that the problem is particularly acute at buildings near greenspace, so increasing plantings for birds needs to be considered with window treatments.

### DIRECT HUMAN DISTURBANCE

Human activity is not always compatible with bird habitat. Activities like off-trail hiking and biking can cause disturbance to birds, particularly ground nesting birds, and trail networks can fragment habitat patches. Humans are perceived as a threat by many birds and when humans approach, birds will move away, resulting in less time for feeding and tending to their young. Direct human disturbance is also a common issue along shorelines and beaches where recreational users can conflict with resting and feeding waterfowl and shorebirds. Even overly aggressive wildlife photographers can be problematic for birds.

Adopting strategies that simultaneously increase recreational users' appreciation of the parks they enjoy and the birds and other nature around them, and minimizing disturbance impacts at key times of year, can cultivate voluntary stewardship and protect important habitat patches from direct human disturbance.

Secondary poisoning of owls and other raptors is a serious problem, especially since rats are a significant part of urban owl diets. Rodents are both a health issue and a structural threat (damage to wiring, insulation, membranes) so rodenticides are widely used to control them. However, most rat poisons are blood thinners that cause rats who consume them to become sick and slowly die. In that time, they often become prey to other animals, including pets, passing the toxins up the food chain. To prevent unintended secondary poisoning, alternative but effective control methods are needed.

### Vancouver Bird Strategy action areas





### LANDSCAPE DESIGN GUIDELINES

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The Bird Friendly Landscape Design Guidelines (refer to the City webpage for the guidelines and the explanatory note are intended to protect, enhance and create bird habitat in the city, as well as reduce threats to birds in the urban environment. The guidelines are targeted towards developers, planners and designers and public and private landowners. These guidelines provide strategies to protect birds and enhance their habitats and are for use when developing new public and private landscapes. These documents will draw from existing best management practices, relevant scientific literature and emerging strategies.

### **CURRENT ACTION**

- Park Board manages parks and street trees which include a variety of habitats and natural and naturalized areas, and supports non-profit societies to manage natural habitats across the city.
- The Park Board has had an integrated pest management program (IPM) in place since 1987 and banned the use of neonicotinoids in parks in 2014.
- The City requires or promotes bird habitat on private property through various by-laws (e.g. tree by-law), guidelines (e.g. waterwise landscape guidelines), and awareness programs.
- Best Management Practices for Species of Significance in Parks are intended for the management of certain wildlife species including most bird groups and species at risk.



Hinge Park at Southeast False Creek is a model for sustainable urban development that integrates nature into the city.

- Vancouver Park Board staff are increasingly collaborating with people from Musqueam, Squamish and Tsleil-Waututh in ecological restoration and management projects that create habitat for native birds.
- Stanley Park Invasive Plant Management Plan outlines an invasive plant species management approach including priorities and activities used in Stanley Park which are transferrable to other Vancouver parks.
- Stanley Park Forest Management Plan includes guidelines for wildlife, invasive species, tree disease, etc.
- Bird habitat is being created in parks such as Hinge, Creekway, Jericho Beach, New Brighton and the Arbutus Greenway.
- The City encourages the construction of green roofs and walls in new developments.

### RECOMMENDATIONS

- 1.1 Apply and promote *Bird Friendly Landscape*Design Guidelines for developers, planners and designers and public and private landowners.
- 1.2 Apply the Bird Friendly Landscape Design Guidelines and Bird Friendly Landscape Operational Guidelines to parks, school grounds and other civic properties, working with City staff and Vancouver School Board to address potential challenges.
- 1.3 Provide residents greater access to nature by creating more diverse habitat for birds and other wildlife in neighbourhood parks and other open spaces.

- 1.4 Apply and integrate *Bird Friendly Landscape Operational Guidelines* into public land operations and maintenance for staff, stewardship groups and landscape industry personnel.
- 1.5 Encourage homeowners to access online resources, such as the *growgreen* guide to ecofriendly lawns and gardens in greater Vancouver (growgreenguide.ca), Audubon's *Plants for Birds* (audubon.org/plantsforbirds) or Environmental Youth Alliance's *A Guide to Birdscaping* (eya.ca) to increase the number and mix of native plant species.





Example of habitat enhancement for birds at a pond in Vanier Park



### BUILDING DESIGN GUIDELINES

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Collisions with glass are considered to be one of the largest sources of direct human-related mortality for birds in North America. Awareness of this problem is growing and the *Bird Friendly Building Design Guidelines* (refer to the City webpage for the guidelines and explanatory note) will help reduce bird deaths caused by collisions with buildings. Birds collide with clear and reflective glass on buildings and structures of all sizes, including homes, bridges and guardrails. Collisions occur day and night and throughout the year.

The *Bird Friendly Building Design Guidelines* are intended to be used by planners, architects, designers, builders and homeowners to provide a basic understanding of bird friendly building design and to offer practical solutions that can be applied to new buildings and retrofit existing structures.

### CURRENT ACTION

• The City's Rezoning Policy for Sustainable Large Developments requires all large development projects to review opportunities to support urban agriculture, trees and other green initiatives through the rezoning process.



An example of a bird friendly design in Vancouver.



An example of a bird friendly retrofit in Vancouver.

- "Seeing Spots" a public art participatory project was installed at Aberthau (West Point Grey Community Centre) by the Department of Bird Safety collective in 2015.
- In 2017 Park Board head office windows had Feather Friendly treatment applied which virtually eliminated bird collisions thereafter.

### RECOMMENDATIONS

- 2.1 Apply and promote *Bird Friendly Building Design Guidelines* for planners, architects, designers, builders and homeowners to provide a basic understanding of the issue of bird collisions and bird friendly building design.
- 2.2 Initiate pilot projects on existing civic facilities to reduce the threat of bird collisions and further integrate guidelines into all new City-owned developments such as child cares, community centres and libraries.
- 2.3 Explore solutions to the impact of light pollution on birds and select City-owned buildings and infrastructure of special concern to demonstrate light pollution reduction.
- 2.4 Promote Royal Astronomical Society of Canada Dark Sky Urban Star Park designation for Beaver Lake in Stanley Park.











### RESEARCH AND MONITORING

Research and monitoring of birds in Vancouver has been pursued by a number of researchers and organizations, however more research and monitoring is required. Local naturalists groups and post-secondary students have been collecting data, and national initiatives such as Christmas Bird Counts have been ongoing for many years.

Data on birds in the city have been increasing with the growing trend of birders recording sightings through online resources such as eBird. The primary data management location for monitoring and sightings in Vancouver is Birds Canada's Nature Counts website. Research is pursued by a variety of groups and stored in a variety of places, so although there is much known about birds in Vancouver, more could be done to centralize access to this information.



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#### **CURRENT ACTION**

• The primary organizations that monitor birds in Vancouver include:

Birds Canada - Christmas Bird Counts, Breeding Bird Atlas, Beached Bird Survey, Important Bird and Biodiversity Area program (with BC Nature), Coastal Waterbird Survey

Stanley Park Ecology Society - English Bay, Burrard Inlet and Howe Sound IBA caretaker, Stanley Park Bald Eagle and Great Blue Heron nest monitoring, various other Stanley Park bird monitoring programs

WildResearch runs a number of monitoring programs including a Nightjar Survey, an Urban Raptor Monitoring Program and the Iona Banding Station in Richmond

Vancouver Avian Research Centre runs a banding station at Colony Farm

Previous research on urban bird diversity has been conducted by UBC Geography Department

eBird online resources (www.ebird.ca), run by Cornell Lab of Ornithology

Governmental agencies such as the Canadian Wildlife Service, Environment and Climate Change Canada and the Province of BC have extensive data on bird populations

### RECOMMENDATIONS

- 3.1 Develop and review data collection and reporting protocol with the Bird Advisory Committee's bird research and monitoring advisory group.
- 3.2 Use e-Bird hotspots for a city-wide research and monitoring program to conduct and compile data from bird surveys to prioritize bird habitat protection and enhancement projects.
- 3.3 Continue to evaluate City-owned buildings for bird collisions to assess the extent of the problem.
- 3.4 Monitor and assess the effectiveness of the *Bird Friendly Design Guidelines* and update them as appropriate.



thousands of volunteers has found clear trends in bird populations in Canada. Barn Swallows, previously a common bird in Canada, have declined by over 70% across the country and by over 90% in our Pacific Coast region since the early 1970s. One of the the largest colonies in BC is in Stanley Park which had 48 active nests in 2019.



### ARTS, AWARENESS AND EDUCATION

Arts and awareness programs can engage and educate people about birds in Vancouver in a fun and creative way. As a public engagement tool, the Arts can draw attention to the importance of birds, bird habitat and urban biodiversity. Art makes ideas accessible by representing them in alternative and creative formats, whether visual, auditory or tactile. Raising awareness of issues through creative mediums can stimulate discourse and an appreciation for birds in people of all ages.

Educating the public about threats to birds is an important step towards protecting birds in Vancouver and activating citizens. Education about native birds and their needs within the urban environment is essential for the successful implementation of the Vancouver Bird Strategy and for the conservation of birds in the city. Awareness about birds among Vancouverites is growing due in part to an increasing interest in birding as a recreational activity as well as through concerted efforts by non-governmental organizations to raise awareness of bird conservation.

Residents of Vancouver and across the region would benefit from information about what they can do for birds in their own backyards. City staff and developers should be made aware of threats to birds and their habitat requirements to ensure that birds are considered during new developments as well as within existing operational regimes.





#### **CURRENT ACTION**

- In 2011 and 2012, Mayor Gregor Robertson signed a proclamation that recognized World Migratory Bird Day. In subsequent years, Bird Week has been proclaimed by the Mayor featuring a week-long series of events in Vancouver and across the region.
- Awareness projects and celebrations have been integral parts of the public engagement strategies of many of our partner organizations.
- Past community art projects such as Mainly for the Birds, Strathcona Pavilion Frieze and Bird Project fieldhouse residencies, including Words Rising, Birds Rising, a Coast Salish artists' residency directing a local Indigenous lens at birds of the Northwest Coast, engage people in the creative process to further increase awareness.



#### RECOMMENDATIONS

- 4.1 Increase awareness through the continuation and expansion of events celebrating birds in Vancouver and across the region and the country.
- 4.2 Develop a communication strategy to support the Vancouver Bird Strategy Objectives.
- 4.3 Promote educational programs and online materials to inform different audiences about bird conservation (e.g. how to reduce bird collisions with windows).
- 4.4 Promote residential bird habitat programs and online educational materials to engage the public in bird conservation on private property.
- 4.5 Engage artists and the creative community in highlighting, profiling and involving the larger community in discussion and awareness of birds.

- 4.6 Continue to use Vancouver's City Bird to increase public awareness and generate a high profile for birds.
- 4.7 The Bird Advisory Committee's cats and birds subcommittee continue to collaborate on an awareness campaign to educate people about the impact of domestic pets, especially cats, on birds.
- 4.8 Promote the use of cat exclusion fencing, catios and other means to make yards safe for birds.
- 4.9 Continue to explore rodent control solutions that don't use rodenticides.









## ECONOMIC DEVELOPMENT AND TOURISM

There is very little research at the present time on the economic impact of bird watchers or birders living in or visiting Vancouver.

A 2016 report released by the U.S. Fish and Wildlife Service which focuses specifically on birders in the U.S. revealed that bird watchers spent an estimated \$15 billion on trip expenditures and \$26 billion on equipment expenditures. According to the agency, in 2011 48 million people in the U.S. age 16 or older watched, fed, and/or photographed birds. Relatively equal numbers of women (54%) and men (46%) participated. Almost 42 million watched, fed, and photographed birds around the home, with around 20 million traveling away from home to enjoy birds (an increase of 8% over the 2001 survey).

As the report suggests, this increasing interest in nature tourism offers new economic opportunities for Vancouver.

#### **CURRENT ACTION**

• Tourism Vancouver's bid to bring the 27th International Ornithological Congress to Vancouver in August 2018 was successful. There were over 1,700 delegates from around the world with events being held in tandem with the first Vancouver International Bird Festival and kicked off by Birds on Parade, led by T'satsu Stagaya from Musqueam. The congress brought \$5-8 million to the city.



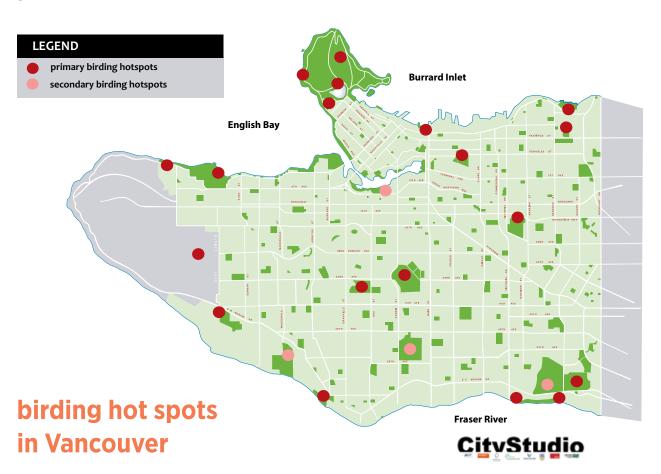




- Stanley Park Ecology Society, VanDusen Botanical Garden, Nature Vancouver and other groups offer bird-walking tours in Vancouver.
- Although not native species, the Bloedel Conservatory provides a unique climatecontrolled experience to visit more than 120 free-flying exotic birds.

### RECOMMENDATIONS

- 5.1 Seek opportunities to host more large bird conferences in Vancouver in the future.
- 5.2 Establish a comprehensive resource inventory for Vancouver's birding products and experiences by beginning an audit of existing contacts, products, locations, venues and programs.
- 5.3 Develop Vancouver-specific birding resources geared towards tourism.
- 5.4 Increase the awareness of Vancouver as a destination for the emerging birding market and build content about birding for marketing materials including websites, blogs and visitor guides.
- 5.5 Expand birding offerings for visitors to Vancouver, increase awareness of them and encourage longer tourist visits through strategic partnerships with tour operators in Vancouver and across the region.



### PARTNERS

The City of Vancouver partnered with a number of organizations to form the Vancouver Bird Advisory Committee to develop and update as necessary the Vancouver Bird Strategy, and recognizes the need to continue to build partnerships as we move forward towards a more bird friendly city. The Committee and its partners have changed and expanded over the decade Vancouver has been celebrating birds. The Committee continues to advise and co-ordinate on issues related to birds in Vancouver and across the region and oversees the implementation of the Vancouver Bird Strategy.

### VANCOUVER BIRD ADVISORY COMMITTEE MEMBERS AND PARTNERS

- Birds Canada
- Environment and Climate Change Canada
- Nature Vancouver
- Pacific Wildlife Foundation

- Stanley Park Ecology Society
- Stewardship Centre for BC
- Tourism Vancouver
- Vancouver Board of Parks and Recreation
- Various City of Vancouver departments

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