

# Ecology + Nature

## INTRODUCTION

Vancouver is a coastal city at the foot of the North Shore Mountains, situated between the Strait of Georgia and the Fraser River.

The city's parks and natural areas support a wide range of ecosystems from tidal marshes to towering forests. First Nations, Inuit and Metis people have lived here and cared for the land and water since time immemorial. Vancouver is within the unceded and traditional territories of the Musqueam, Squamish and Tsleil-Waututh First Nations. Since incorporation, however, much of the city's canopy cover, wetlands and streams have been replaced with urban development. Today, the Park Board manages most of the remaining natural areas in the city and its greatest ecological assets, while also planning for and responding to many pressures, mainly from climate change and the increasing pace of development.

The Vancouver Board of Parks and Recreation is developing Vancouver's Playbook, a new master plan to guide the delivery of vibrant parks and recreation over the next 25 years. The Park Board is collaborating with the Musqueam, Squamish and Tsleil-Waututh First Nations

and a coalition of other partners to better steward local ecosystems and enable people to connect to themselves, each other and nature.

## BACKGROUND

The Park Board manages over 1,275 hectares of parkland in the City of Vancouver.

From large natural areas like Stanley Park to small neighbourhood parks, nature takes many forms in the City and its benefits touch all parts of the system. Parks connect neighbourhoods, provide vital habitat and allow us to disengage from a busy world. According to the 2016 Vital Signs report by the Vancouver Foundation, "natural beauty" is the number one reason people give for choosing to live in BC. As a city, Vancouver has made strategic plans for biodiversity, climate resiliency and stormwater management, among others. VanPlay offers an opportunity to advance key objectives of these plans through a variety of avenues, such as environmental education, green operations and rewilding.



*There are over 250 species of resident, migratory and over-wintering birds in Metro Vancouver.*

83  
GREAT BLUE  
HERON NESTS  
IN 2015

SEEING TREES  
REDUCES MUSCLE  
TENSION & BLOOD  
PRESSURE  
SIGNIFICANTLY

## URBAN FOREST TREES

62% PRIVATE    11% STREETS    27% PARKS

STANLEY  
PARK

SEA  
LEVEL  
RISE

91.4%  
OF VANCOUVER'S  
ORIGINAL STREAMS  
ARE BURIED!

BUT SALMON  
HAVE RETURNED TO  
STILL CREEK  
SINCE 2012

+1M 2100  
+ 50CM 2050



Van  
Play

# Ecology + Nature

## OBJECTIVES

- To enhance connectivity and expand **natural areas** across the City that encourage wildlife back into the urban environment
- To measure **ecological health**, diversity and resiliency in parks and natural areas
- To manage natural areas and recreation spaces in the face of **climate change**, and the accompanying sea level rise
- To grow the **urban forest** in parks and through partnerships
- To invest in **green infrastructure** and operations
- To increase access, education and **engagement with nature**

## CHALLENGES

- **Historic habitat and species loss:** Much of Vancouver was planned before environmental regulations, so many of the historic ecologies are gone, including the majority of coastal wetlands and inland streams. At present, native frogs, forage fish, many native birds and native bees are declining. Intertidal shorelines are stable but under threat and subtidal habitats are stable but poorly surveyed. Direct impacts to wildlife, including roadkill, human-induced accidents and predation by domestic animals, all threaten species diversity and abundance.
- **Invasive species:** There are a number of urban-adapted species that are invasive in Vancouver, including English ivy, Japanese knotweed, Himalayan blackberry, American bullfrog, common carp, varnish clam, European rabbit and eastern gray squirrel.
- **Disruption and contamination:** Suppression of natural ecological processes —including flooding, fire, windstorms, insect outbreaks and disease — negatively impacts biodiversity and natural succession. Environmental contaminants in air, water and soil impact wildlife, including oil spills, pest control and stormwater runoff.



*'Play in natural environments has been linked with language... independence and improved creativity.'*

URBAN DESIGN  
FOR HEALTH

# Ecology + Nature

- **Climate change:** With rising sea levels, ocean acidification, increased air and water temperatures and changes in precipitation, climate change will impact urban ecologies. Scientists predict increased severity of rain storms as well as prolonged summer droughts.

## OPPORTUNITIES

- **Biodiversity and health:** Manage biodiversity at a citywide scale, focus on habitat protection and restoration, and support ecological system health. Incorporate climate change predictions, use sound science and measure changes to monitor the park system over time. Promote and execute key projects of citywide environmental initiatives, such as the Urban Forest Strategy and Biodiversity Strategy.
- **Partnerships and community:** Leverage park board leadership and engage community organizations, academic institutions and other public and private partners. A large proportion of city land is single family or duplex zones with gardens and yards. These spaces present an opportunity to educate and enable landowners to convert their outdoor spaces into more natural areas or plant trees which will have a considerable impact on urban ecology.

- **Education and engagement:** Promote nature as a cultural asset, increase access to nature and facilitate nature play and environmental education. Engage the strong culture of environmentalism and love of the outdoors, for which Vancouverites are well-known.

## RELATED INITIATIVES

- Vancouver Parks & Recreation Master Plan — 1982
- Vancouver Parks Management Plan — 1992
- Park Land Acquisition Strategy — 2006
- Greenest City 2020 Action Plan — 2011
- Metro Van Ecological Health Action Plan — 2011
- Climate Change Adaptation Strategy — 2011
- City of Reconciliation — 2014
- Park Board 11 Reconciliation Strategies — 2014
- Urban Forest Strategy — 2014
- Rewilding Vancouver — 2014
- Healthy City Strategy — 2015
- Blvd Strategy — 2015
- Biodiversity Strategy — 2016



*The City of Vancouver is partnering to plant 150,000 trees in parks, on streets and private property across the city by 2020.*