

TO: Park Board Chair and Commissioners

FROM: General Manager - Vancouver Board of Parks and Recreation

SUBJECT: People, Parks & Dogs Strategy

RECOMMENDATION

A. THAT the Vancouver Park Board approve the "People, Parks & Dogs Strategy", as outlined in this report and attached as Appendix A, to guide the planning and design for people and dogs in Vancouver parks;

- B. THAT the Vancouver Park Board approve the "People, Parks & Dogs Implementation Guide: Considerations for Delivery", as outlined in this report and attached as Appendix B, to guide the implementation of the People, Parks & Dogs Strategy; and
- C. THAT the Vancouver Park Board approve the "Implementation Plan" for the People, Parks & Dogs Strategy, as outlined in Appendix C, to guide planning and resourcing implementation projects.

BOARD AUTHORITY / PREVIOUS DECISIONS

As per the <u>Vancouver Charter</u>, the Park Board has exclusive jurisdiction and control over park land use in the City of Vancouver, including any structures, programs and activities, fees, and improvements that occur within parks.

The Park Board Strategic Framework, includes four strategic directions:

- Parks and Recreation for All: Accessible, diverse and quality amenities and services that encourage participation and meet current and future needs.
- Leader in Greening: Through our actions we demonstrate leading green and horticultural practices and preserve, protect and create green space.
- Engaging People: Working openly together to understand and achieve goals and strengthen relationships.
- Excellence in Resource Management: Use existing resources effectively and efficiently, and be innovative in developing additional resources to deliver best value for money and meet community needs.

In July 2012, the Park Board approved <u>Dog Off-Leash Area Guidelines</u> and directed staff to report back on next steps for identifying priority projects and improvements to the off-leash area network.

In February 2016, the Park Board approved the <u>Biodiversity Strategy</u>, which promotes the protection of wildlife and environmentally sensitive areas from urban impacts.

BACKGROUND

The Vancouver Board of Parks and Recreation has long contemplated dog off-leash areas, and initiated the first dog off-leash area pilot project in Vancouver parks in 1997 with dog off-leash areas created at Balaclava, Hillcrest (Queen Elizabeth), Nelson, and Killarney Parks. Over time, the Park Board has developed more off-leash areas, and user groups and the public have been very engaged in how to address opportunities and challenges with dogs in parks.

In 2015, the Board received a presentation on the development of a new strategy that would:

- assess and evaluate the existing off-leash areas, including their condition, attributes, and level of use;
- assess the current distribution of off-leash areas as it relates to dog ownership and licence data;
- address the service level, design, and maintenance of off-leash areas balancing the needs of dog-owners and the general public for access to parks throughout the city;
- use data gathered in the process to help guide future decision-making regarding the expansion, integration and distribution of off-leash areas in Vancouver based on sound evaluation criteria and metrics; and
- identify key issues related to public safety, enforcement and monitoring, accessibility, and distribution

DISCUSSION

People, Parks & Dogs: A strategy for sharing Vancouver's parks

Many Vancouverites value the opportunity to take their dogs to parks for exercise and socialization, a healthy activity for both dogs and dog owners. Dog owners are some of the city's most frequent park users, often using parks at off-peak hours providing valuable 'eyes' on our parks, and creating and strengthening social networks around a shared outdoor activity. As many dog owners particularly value the opportunity to exercise their pets off-leash, Vancouver, like many other North American cities, provides designated 'off-leash areas'. As with many other major North American cities, Vancouver's urban dog population is rising along with its human population. This growth and increased density results in greater competition for space and activities in our parks and public spaces.

Vision

The vision of the Park Board's People, Parks & Dogs Strategy is to promote the comfort and safety of all park users by fostering responsible dog ownership and clarifying rules, boundaries and etiquette for dog off-leash activity in parks. Additionally, the strategy seeks to integrate a variety of appealing and safe dog off-leash spaces in our parks that are easily accessed by local residents who directly support their success.

Strategy

The Vancouver Park Board's People, Parks & Dogs Strategy provides an evidence-based and data-driven plan and policy for developing and managing our city's parks for both people with and without dogs. The proposed strategy (see Appendix A) provides guidance and Vancouver-specific recommendations under four themes. Following is a summary of these themes and recommendations.

Park Board Meeting: October 23, 2017

1. Access

- 1.1 Establish two classifications of dog off-leash areas to support service level planning: Neighbourhood and Destination.
- 1.2 Provide access to Neighbourhood dog off-leash areas within an approximately 15-minute walk of most residents.
- 1.3 Provide access to Destination dog off-leash areas within an approximately 35-minute walk or short drive for most residents.
- 1.4 Add new dog off-leash areas and prioritize underserved and densely populated neighbourhoods.
- 1.5 Improve access to existing off-leash areas by removing time-of-use restrictions where possible.

2. Design

- 2.1 Provide a variety of dog off-leash areas.
- 2.2 Provide space and amenities to make dog off-leash areas more appealing to use and universally accessible.
- 2.3 Design dog off-leash areas to be durable, with suitable surfacing.
- 2.4 Design dog off-leash areas to minimize environmental impacts.
- 2.5 Locate dog off-leash areas adjacent to more compatible land and park uses, and mitigate those that are less compatible.
- 2.6 Restrict dog activity from a greater range of park areas.
- 2.7 Clearly mark dog off-leash area boundaries and setback distances where needed.
- 2.8 Assess existing site features and adjacent uses to determine appropriate boundary tools.
- 2.9 Ensure dog off-leash area signage is concise, clear and consistent.
- 2.10 Expand the separated dog waste program and promote initiatives to effectively manage dog waste.

3. Stewardship

- 3.1 Formalize residents' role in dog off-leash area stewardship.
- 3.2 Engage local residents in establishing, changing, or eliminating dog off-leash areas.
- 3.3 Establish etiquette guidelines for all people and dogs using off-leash areas.
- 3.4 Consider developing dog off-leash area maintenance, monitoring, and evaluation guidelines.
- 3.5 Promote educational initiatives to improve the safety and success of dog off-leash areas.
- 3.6 Investigate potential partnership and funding opportunities to support dog off-leash areas.

4. Enforcement

- 4.1 Increase dog licensing compliance rates.
- 4.2 Ensure consistency, enforceability, and relevance of by-laws for dogs in parks.
- 4.3 Consider increasing resources and powers for enforcement.
- 4.4 Work with City of Vancouver staff to develop educational resources to increase public knowledge about licensing and by-laws.
- 4.5 Develop specific requirements for commercial dog walkers.

These elements represent the core concepts where the Park Board, working with its partners, can take steps to improve how parks spaces are shared by people, with and without dogs.

Consultation

The process to develop the People Parks & Dogs Strategy included a robust consultation program. Through this 18 month process, the planning team had more than 7000 interactions with stakeholders and the public to inform the recommendations. This included a statistically-sound phone survey of 400 Vancouver residents, eight (8) in-person events, and two (2) online surveys with a combined total of over 6,400 responses, with roughly half coming from dog owners.

In addition to the online and telephone-based interactions, the planning team also worked with a 22-member Advisory Committee made up of individuals from a diverse range of interests including sports, the environment, animal health and behaviour, persons with disabilities, tourism, and others.

Implementation

The many recommendations included in the People, Parks & Dogs Strategy go above and beyond what many existing parks and off-leash areas provide. Staff have reviewed the Park Board's current off-leash areas to identify locations and features where changes are needed to implement the new recommendations, specifically around surfacing and boundary conditions. Included as Appendix B is the "People, Parks & Dogs Implementation Guide: Considerations for Delivery", which will guide the thoughtful approach to executing the strategy.

The People, Parks & Dogs Strategy "Implementation Plan" (see Appendix C), lists the Vancouver parks with existing dog off-leash areas that the Park Board could consider updating in line with the new strategy. The Implementation Plan also includes a high-level cost estimate to resource engagement with park users and local residents where appropriate to address potential deficiencies. The Implementation Plan also suggests timing for action based on current priorities, and estimates a total cost of \$1,520,000 to \$6,375,000 to take action in 35 parks. The proposed priorities are based on a careful weighing of various factors, including ongoing challenges between multiple park user groups. Staff will begin work on the quick start priorities this fall, and initiate new pilot projects in 2018, with the \$200K funding available in the 2015-2018 Capital Plan.

While some of the elements in the Implementation Plan can be addressed with existing resources or current projects underway, much of the Plan will require additional funding over time. Additional funding to support the first phase of implementation will be sought through the 2019-2022 Capital Planning process.

Operations and Maintenance

The many recommendations contained in the People, Parks & Dogs Strategy also have significant implications for planning and resourcing park maintenance in these areas. Staff will request operating budget from the City of Vancouver to support the implementation of the strategy.

Park Board Meeting: October 23, 2017

Monitoring and Evaluation

To monitor the progress and success of the strategy, staff propose establishing performance indicators and reporting back to the Park Board and the public every two years. Indicators include:

1. Access

- Decrease the number of residential city blocks that are more than 1km from dog offleash areas.
- Identify and update the number of licensed dogs within 1km of each dog off-leash area.
- Identify and update the amount of parkland allowing dog off-leash use, as a percentage of the total park area, and evaluate against other cities.

2. Design

- Increase Universal Design features in dog off-leash areas.
- Minimize the amount of area designated for dogs off-leash within 30m of environmentally sensitive areas.
- Decrease the number of dog off-leash areas with boundaries that overlap with non-secure areas that are less than 50m away from less compatible park uses.

3. Stewardship

- Increase participation in formal dog off-leash area stewardship.
- Increase the guidance materials available for in-park workers that aim to improve maintenance, monitoring, and evaluation.
- Increase research into partnership and funding opportunities in support of dog offleash areas.

4. Enforcement

- Increase the number of dogs licensed in Vancouver.
- Increase dog licencing compliance rates.
- Increase educational information and resources available on the City of Vancouver website and on in-park signage related to dog activity in parks and beaches.

Ouick Starts

The strategy also identifies 'quick starts' where action can be taken in the next 12 to 18 months to improve conditions and service levels. These include:

- Initiate the stewardship program and invite Vancouver residents to engage with the Park Board on how to structure and operate this program.
- Develop a new off-leash area at Renfew Park, including pilot testing new surfacing materials.
- Upgrade the off-leash area at Sunset Park.
- Pilot a new morning hours only off-leash area within George Wainborn Park.
- Upgrade the VanConnect mobile app to collect a broader range of input from park users, and offer expanded resources for people looking for information related to dogs in the city.
- Remove time-of-use restrictions at New Brighton Park dog off-leash enclosure.
- Expand the 'red bin' separated dog waste program.
- Install new signage at existing dog off-leash areas.

SUMMARY

Vancouver Parks are shared by residents with and without dogs. As the number of people grow, so do the number of dogs. A new data-driven approach is needed to help improve the access, design, stewardship, and enforcement of dog activity in parks to meet the needs of all residents.

The completion of the People, Parks & Dogs Strategy marks a significant milestone in advancing the Vancouver Park Board's aim to promote the comfort and safety of all park users. The strategy's implementation will achieve this aim through fostering responsible dog ownership and clarifying rules, and establishing boundaries and etiquette for dog off-leash activity in parks, while integrating a variety of appealing and safe dog off-leash spaces in Vancouver parks that are easily accessed by residents who directly support their success.

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

Prepared by:

E. Embley, Park Research and Planning

/EE/clc

Appendix A: People, Parks & Dogs - A strategy for sharing Vancouver's parks

Appendix B: People, Parks & Dogs Implementation Guide: Considerations for Delivery

Appendix C: Implementation Plan - People Parks & Dogs Strategy

PEOPLE PARKS&D®GS

A strategy for sharing Vancouver's parks

PROPOSED

Park Board Meeting: October 23, 2017



Prepared for the Vancouver Park Board, October 2017 by space2place design inc.



in collaboration with:

Kirk & Co Consulting Ltd.

PUBLIC Architecture + Communication

MountainMath Software

Pet Welfare



EXECUTIVE SUMMARY

A 10-Year Framework Recommendations Overview	2
INTRODUCTION Purpose of the Strategy Process Overview BACKGROUND	5 6
What's Working Well (and not) Existing Dog Off-Leash Areas Population and Licensing Service Analysis Analysis of 3-1-1 Calls	8 11 11 12 13
RECOMMENDATIO	N
RECOMMENDATIO O1 Access O2 Design O3 Stewardship O4 Enforcement Considerations for Other Agencies	16 21 33 39 43
O1 Access O2 Design O3 Stewardship O4 Enforcement	16 21 33 39

COMPANION DOCUMENTS

Appendix

Implementation Guide - Considerations for Delivery Round 1 Consultation Summary Report Round 2 Consultation Summary Report

EXECUTIVE SUMMARY

As in many other major North American cities, the number of people and dogs in Vancouver is growing. With population growth and people living in smaller spaces, it's now more important than ever to balance different uses of parks and public spaces.

A 10-Year Framework

The Vancouver Park Board's People, Parks & Dogs Strategy provides a framework for the next ten years and beyond, to deliver well-planned and designed parks that accommodate park users with and without dogs and minimize conflict. Recommendations fall into four themes: Access, Design, Stewardship and Enforcement, each designed to promote the comfort and safety of all park users. These recommendations outline a variety of attractive and easy-to-access dog offleash areas that reduce off-leash activity outside of designated areas, clarify the rules and etiquette for using dog off-leash areas, manage dog waste, protect the environment, promote responsible dog ownership, and foster the health and well-being of all park users:

Recommendations Overview

方法

1.0 ACCESS

- 1.1 Establish two classifications of dog off-leash areas to support service level planning: Neighbourhood and Destination.
- 1.2 Provide access to Neighbourhood dog off-leash areas within an approximately 15 minute walk of most residents.
- 1.3 Provide access to Destination dog off-leash areas within an approximately 35 minute walk or short drive for most residents.
- 1.4 Add new dog off-leash areas and prioritize underserved and densely populated neighbourhoods.
- 1.5 Improve access to dog off-leash areas by removing time-of-use restrictions where possible.

2.0 DESIGN

- 2.1 Provide a variety of dog off-leash areas.
- 2.2 Provide space and amenities to make dog off-leash areas more appealing to use and universally accessible.
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- 2.9 Ensure dog off-leash area signage is concise, clear and consistent.
- 2.10 Expand the separated dog waste program and promote initiatives to effectively manage dog waste.



3.0 STEWARDSHIP

- 3.1 Formalize residents' role in dog off-leash area stewardship.
- 3.2 Engage local residents in establishing, changing, or eliminating dog off-leash areas.
- 3.3 Establish etiquette guidelines for all people and dogs using off-leash areas.
- 3.4 Consider developing dog off-leash area maintenance, monitoring, and evaluation guidelines.
- 3.5 Promote educational initiatives to improve the safety and success of dog off-leash areas.
- 3.6 Investigate potential partnership and funding opportunities to support dog off-leash areas.



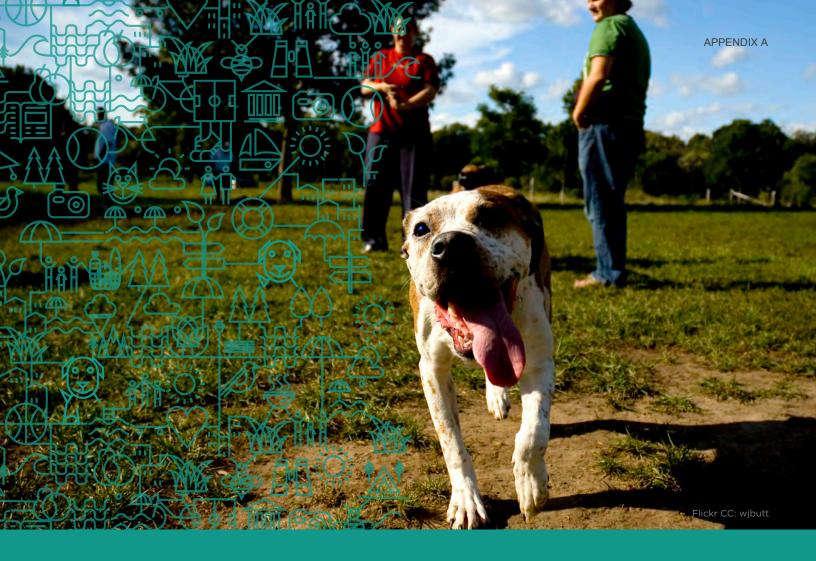
4.0 ENFORCEMENT

- 4.1 Increase dog licensing compliance rates.
- 4.2 Ensure consistency, enforceability, and relevance of by-laws for dogs in parks.
- 4.3 Consider increasing resources and powers for enforcement.
- 4.4 Work with City of Vancouver staff to develop educational resources to increase public knowledge about licensing and by-laws.
- 4.5 Develop specific requirements for commercial dog walkers.

A robust multi-round public and stakeholder consultation process with more than 7,000 stakeholder and public interactions informed these recommendations. The process included a statistically-sound phone survey of 400 Vancouver residents and two online surveys with over 6,400 respondents, evenly represented by dog owners and non-dog owners.

Recommendations are also guided by an Advisory Committee, with members representing a broad range of interests including sports, the environment, animal health and behaviour, persons with disabilities, tourism, and others. Input from the public, stakeholders, Park Board and City staff and the Advisory Committee is complimented by mapping and analysis of existing dog off-leash areas and the distribution of people, licensed dogs and off-leash areas across the city. Additionally, field studies and intercept surveys from eight of Vancouver's off-leash areas, and precedent research also inform the recommendations.

The People, Parks & Dogs Strategy is an opportunity for the Vancouver Park Board and the City of Vancouver to lead the successful integration of dog off-leash areas into parks and public spaces. While ultimately dog owners are responsible for their dogs, and not the City of Vancouver or the Vancouver Park Board, working together, Park Board and City staff and residents can develop and support parks that are well-loved and effectively shared by a diverse community of park users.



INTRODUCTION

Purpose of the Strategy Process Overview

INTRODUCTION

With Vancouver's growing population, our parks are increasingly shared by many different users to socialize, exercise and play. Delivering well-planned and designed parks with dog off-leash areas is key for the comfort and safety of all park users.

Purpose of the Strategy

As in many other major North American cities, Vancouver's urban dog population is growing. Estimates suggest there are now more households in the United States with dogs than households with children: 2010 US Census data identified 38 million American households with children, and 43 million with dogs.¹ This growth is directly influencing park development. In US cities, dog off-leash areas are one of the fastest growing types of parks, with an estimated 34% increase in dog parks between 2005 and 2010, while urban parks had grown by 3% during that same period. ²

In North American cities, as dog populations grow so does the demand to recreate with dogs off-leash in city parks and public spaces. Many municipalities across Canada, including Metro Vancouver Regional Parks, formally recognize that "Recreating with a dog is a legitimate park use", and are exploring opportunities to support the needs of people with and without dogs in our parks.

The development of dog off-leash areas presents benefits and challenges; these areas can foster community, healthy activity and social well-being. In addition, the provision of designated areas for off-leash activity can reduce unsanctioned off-leash activity in more sensitive sites. However, off-leash areas can contribute to conflict with other park uses and increase wear and tear on parks. Moreover, dog waste management is a key concern for people with and without dogs. Careful analysis and the development of effective strategies are necessary to guide the design and implementation of dog off-leash areas, in order to ensure their benefits outweigh their challenges.

- 1 2010 US Census data identifies 38 million American households with children, compared to 43 million households with dogs, as reported by USA Today, June 2, 2011.
- 2 Trust for Public Lands (personal communication, 2016.05.20)

Process Overview

This strategy is informed by precedent research, stakeholder workshops, field observations, and two rounds of public consultation and engagement, in order to develop a comprehensive understanding of current dog activity, existing dog off-leash areas in Vancouver parks, establish a clear vision for the integration of these spaces in Vancouver's parks, and develop strategies for successful implementation. The work informing this strategy is summarized below:



Workshops with Park Board and City of Vancouver staff, and an online staff survey: Park Board staff and City of Vancouver staff participated in workshops and completed a survey clarifying their views on the challenges and opportunities associated with dog activity in Vancouver parks.



Advisory Committee meetings: The Park Board created a representative stakeholder group in June 2016 to elicit focused feedback on the consultation process and issues related to dogs in parks from a range of stakeholders. This Advisory Committee is a valuable resource for sharing information between the Park Board and stakeholder groups, and has shaped the *People, Parks & Dogs* strategy through feedback provided in the four committee meetings that were held through the planning process.



Surveys in dog off-leash areas: We conducted field surveys in selected dog off-leash areas to better understand how people and dogs use these spaces. Over 200 park users shared their opinions about dog activity in Vancouver parks through these surveys.



Learning from other cities: We conducted interviews with park staff from twelve key cities across North America to better understand what's working well and "lessons learned" by others regarding dogs in parks.



Mapping and analysis: We mapped the distribution of dog off-leash areas, licensed dogs and people across Vancouver to understand where there's demand for more off-leash areas now and in the future. We also compiled an inventory and maps of each of Vancouver's 36 existing dog off-leash areas.



Reviewing records of previous work: Community groups and individuals have made significant contributions over the years on topics related to people with and without dogs sharing parks. We reviewed this material, including work by the Vancouver Dog Strategy Task Force which supported the 2012 Dog Off-Leash Area Guidelines, and previous community-led petitions for new dog off-leash areas. These documents have helped inform this Strategy.



Round 1 consultation: Between September 8 and October 14, 2016, we asked stakeholders and the public to tell us about the successes and challenges related to people with and without dogs sharing park space. Participants were encouraged to participate by attending one of eight consultation meetings, filling out the survey or providing written feedback by email or mail. There were a total of 4,373 public and stakeholder interactions during this consultation period, with roughly equal representation from dog owners and non-dog owners.



Round 2 consultation: Between January 30 to March 10, 2017, we asked the public to provide feedback on the draft recommendations for the planning, design and management of Vancouver's dog off-leash areas. Participation options included attending one of seven consultation meetings, filling out the survey or providing written feedback by email or mail. There were a total of 2,684 public interactions during this consultation period, with roughly equal representation from dog owners and non-dog owners.



Phone survey: 400 Vancouver residents participated in a statistically-sound phone survey, which complemented the Round 1 consultation process and identified support for some preliminary recommendations.



BACKGROUND

What's Working Well (and not)
Existing Dog Off-Leash Areas
Population and Licensing
Service Analysis
Analysis of 3-1-1 Calls

BACKGROUND

A thorough understanding of Vancouver's existing dog off-leash areas provides a foundation to planning and design strategies for the future. Analysis includes public and stakeholder input, research, mapping and evaluating dog off-leash areas.

Vancouver's dog off-leash spaces are used intensively by people with and without dogs. In field studies, people without dogs outnumbered people with dogs at most off-leash areas, most of the time. 74% of Vancouver residents surveyed report having mostly positive or neutral interactions with off-leash dogs in parks (see Appendix F, Phone Survey).

What's working well (and not)

Reviewing successes and challenges in Vancouver's existing parks with dog off-leash areas helps identify what is working well, and where strategies are most needed to facilitate sharing limited park space and to minimize conflicts. The following is a summary of successes and challenges (see Appendix A, Analysis for more information).

What's working well in Vancouver's dog off-leash areas:



Building community: Off-leash areas play an important role in fostering a sense of community, serving as popular gathering places for people with and without dogs. Several sites in Vancouver have regular users that meet up daily to visit and socialize.



Clear boundaries: People with and without dogs share park space more effectively in dog off-leash areas with clearly marked boundaries, since people know where off-leash dogs are allowed and to be expected.



Providing fenced options: Many dog owners, such as those with dogs in training, like having the option to use fenced off-leash areas.



Grass surfacing in larger, less-intensively used areas: Public consultation results indicate a strong preference for natural turf. The quality of grass surfaces is generally in better condition in larger, less-intensively used sites.



Separated Dog Waste: Dog owners and non-dog owners are supportive of the separated dog waste collection pilot project currently being testing in three of Vancouver's parks: John Hendry Park, Charleson Park and Grimmet Park.



Open space: People with dogs value large areas for their dogs to run and play off-leash.



Water access: People with dogs appreciate having access to off-leash areas that provide opportunities for their dogs to swim.

Challenges in Vancouver's dog off-leash areas:



Managing dog waste: Dog waste is smelly, unpleasant to step on or look at, and has health risks if not cleaned up and disposed of properly. It is the number one challenge for dog off-leash areas, according to survey respondents.



Access: There is unequal distribution of off-leash areas across Vancouver, and some neighbourhoods do not meet local demand. Dog off-leash areas in downtown Vancouver struggle with limited park space, given the high populations of people and licensed dogs.



Lack of clarity: Park users have told us that confusing and inconsistent signage and a lack of clear-on-the-ground boundaries make it difficult for them to understand where off-leash activity is allowed and to be expected.



Off-leash activity in on-leash areas: Field observations and public consultation results indicate significant off-leash activity in on-leash areas, and a lack of compliance with time-of-use restrictions. The current low level of enforcement of dog off-leash activity is frustrating for people with and without dogs, and contributes to conflict.



Sharing limited park space: With a limited amount of park space available, people who do not use off-leash areas worry that off-leash areas leave less space for other park uses. Less compatible adjacencies, such as playgrounds, sports fields and multi-use trails, can also contribute to conflict.



Managing noise: The noise from dog off-leash areas, where many dogs and people meet, may disturb other park users or neighbourhood residents.



Lack of amenities: Some dog off-leash areas lack the amenities to support basic needs of site users, making these sites less appealing to use. There is demand for more separated small / shy dog areas to address owner concerns about dog safety.



Surfacing: Dog owners are concerned about gravel surfacing that can be difficult to walk on and may hurt dogs' paws, and dark-coloured surfacing that can get hot. Grass surfacing is in poor condition in smaller, intensively-used sites.



Safety concerns (people and dogs): Aggressive or poorly trained dogs in off-leash areas may scare or injure people or other dogs. Without play features or places to hide, small fenced dog off-leash areas can be intimidating for shy and small dogs, and may lead to conflicts between dogs.



Increased maintenance and enforcement costs: Concentrated areas of dogs off-leash can wear away turf and lead to more conflicts with other park users, leading to higher maintenance and enforcement costs.



Potential environmental impacts: Dogs, and dogs off-leash in particular, have the potential to disturb wildlife, damage sensitive habitat areas, and negatively impact water quality.

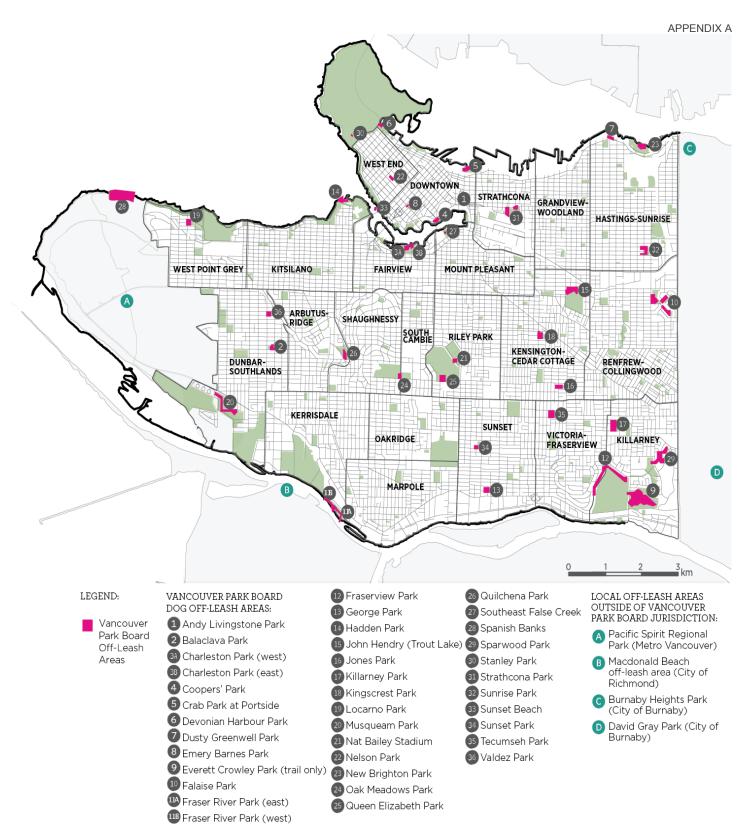


FIGURE 1 - VANCOUVER'S EXISTING DOG OFF-LEASH AREAS

5.9% of Vancouver's park land is dedicated to dog off-leash areas, the second highest percentage among the North American cities reviewed in our study. (see Appendix C)

Existing Dog Off-Leash Areas

Inventory

In Vancouver, there are 36 dog off-leash areas. Six sites are fenced and are typically only used by people with dogs. The remaining 30 sites are unfenced and the park space is shared with other users. Dog off-leash area sizes range from 0.04 hectares at Stanley Park to 2.5 km of off-leash trails at Everett Crowley Park. 18 of the dog off-leash areas have time or seasonal restrictions. An inventory in Appendix D identifies the size, location, adjacent uses and physical features of each dog off-leash area.

Field Study

In the summer of 2016 a field survey (see Appendix B) was conducted to better understand patterns of use at eight selected dog off-leash areas, including how sites were used by people with and without dogs, and to see how these patterns compared over the course of the day and between weekdays and weekends.

Time-of-use restrictions

There are daytime off-leash use restrictions for all or part of the year at 18 of Vancouver's off-leash areas (Appendix Figure A-1). Daytime off-leash use restrictions restrict dog activity to mornings and evenings (e.g. 5 to 10 am, 5 to 10 pm), which allows for other park uses during the day.

Five of these off-leash areas have daytime use restrictions during the summer months only, allowing all-day off-leash activity at park sites that are otherwise not well-used by the general public in the winter months. These sites are: Hadden Park, Charleson Park, New Brighton Park, Killarney Park, and Fraser River Park.

Population and Licensing

Data from the City of Vancouver Animal Services group shows a relatively steady increase in the number of licensed dogs over the last 12 years, with 21,332 licensed dogs in the City in 2016 (see Figure 2, below). The estimated dog population in Vancouver is between 32,390 and 55,947 which translates to a licensing compliance rate between approximately 38% and 66%. Increased licensing would lead to a better understanding of Vancouver's dog population, with information on the number of dogs in the city, their distribution and breed.

The estimated dog population is based on results from a statistically-sound phone survey of 400 Vancouver residents, conducted in 2016 (see Appendix F). Findings show that less than 15% of Vancouver households have dogs, and for those with dogs, there are an average of 1.1 dogs per household. Based on this estimate there is a total of 32,390 to 55,947 dogs in Vancouver (with a \pm 4.9% margin of error).

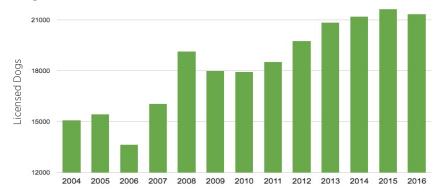


FIGURE 2 - LICENSED DOGS OVER TIME (DATA FROM CITY OF VANCOUVER ANIMAL SERVICES)

See Appendix A for more detailed information on the analysis of Vancouver's existing dog off-leash areas.

Service Analysis

The following assessments were conducted to evaluate existing dog off-leash areas relative to the number of people and licensed dogs in their target service area:

Neighbourhood Comparisons

The population, residential density, number of licensed dogs, and size of dog off-leash areas were compared on a neighbourhood basis. Mount Pleasant was identified as the most underserved neighbourhood according to this assessment (see Appendix A, Table A-1).

Willingness-to-Walk Distance

Identifying each city block's distance from a designated off-leash area. Note that distances shown are "as the crow flies" and not based on actual walking distance to the off-leash sites. Figure 3 (below) identifies areas of the city that are more than 1 km from a dog off-leash area, and therefore the areas shown in blue do not meet the target service level.

Dog Off-Leash Area Size and Time Restrictions

Assessing the distribution of dog off-leash areas across the city, the size of dog off-leash area and time-of-use restrictions. Many East Vancouver neighbourhoods have dog off-leash areas that are only accessible in mornings and evenings (see Appendix A, Figure A-4 and Section A 5.3).

Licensed Dog Population by Neighbourhood

Assessing the concentration of people and licensed dogs was done on a neighbourhood basis. Neighbourhoods with the highest densities of licensed dogs include the West End, Downtown, Kitsilano, Mount Pleasant, Fairview, and Grandview-Woodland (see Appendix A, Table A-2 and Section A 5.4).

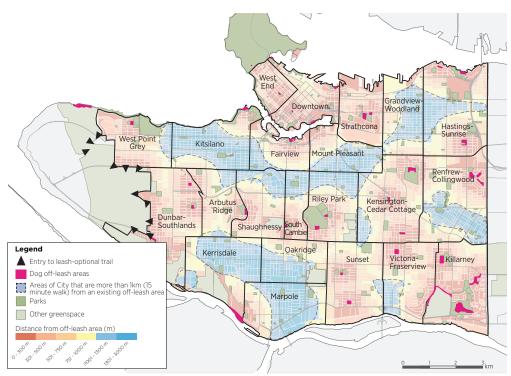


FIGURE 3 - DISTANCE FROM DOG OFF-LEASH AREAS

High density service area

Assessing the number of licensed dogs within a 1 km radius of existing dog offleash areas helped identify sites that have the highest potential usage. Dog offleash areas with the highest number of licensed dogs within a 1 km radius are:

- · Nelson Park off-leash area
- · Emery Barnes Park off-leash area
- Coopers' Park off-leash area
- · Charleson Park off-leash area

(see Appendix A, Table A-2 and Section A 5.4)

Analysis of 3-1-1 Calls

Dog-related 3-1-1 calls received between January 2010 and 2015 were analyzed and mapped (see Figure 4, below) in order to better assess existing challenges. Calls included dog-related complaints, concerns and general inquiries. Areas shaded in orange correspond to the reported location of the incident.

Parks with dog off-leash areas that received more than 100 calls include:

- John Hendry Park
- Emery Barnes Park
- Hinge Park
- Hadden Park

Parks without dog off-leash areas that received more than 100 calls include:

- Kitsilano Beach Park
- · Locarno Beach Park
- George Wainborn Park
- · Area near Guelph Park and Mount Pleasant Elementary
- · Area around Robson Park
- Area west of Granville Loop Park

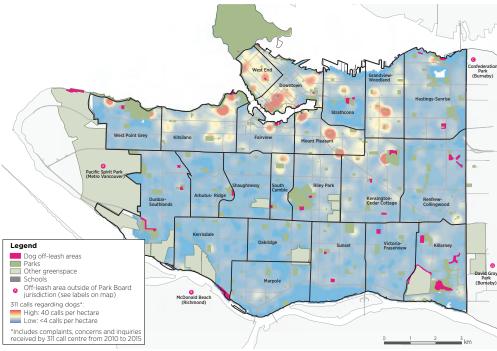
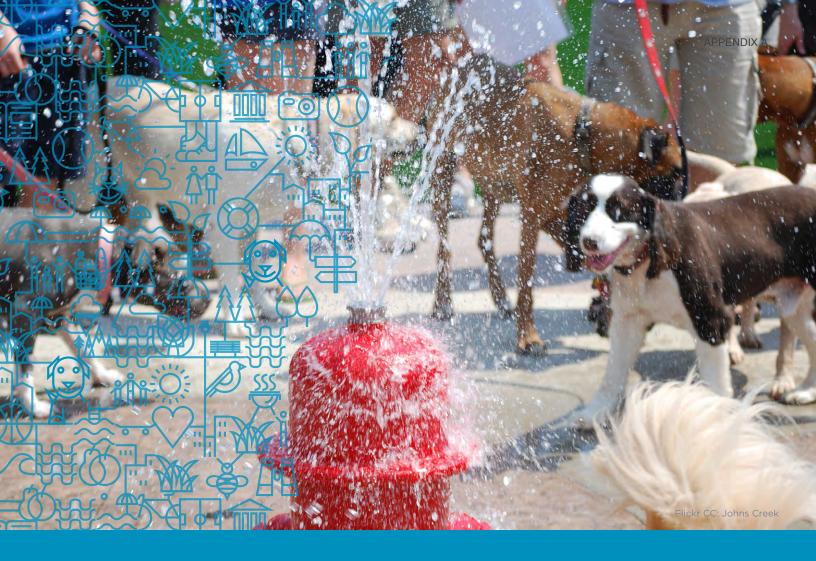


FIGURE 4 - DOG-RELATED CALLS TO 3-1-1 BETWEEN 2010 AND 2015, INCLUDING COMPLAINTS, CONCERNS AND INQUIRIES

See Appendix E for more detailed information on the geographic analysis of Vancouver's existing dog off-leash areas.



RECOMMENDATIONS

- 01 Access
- 02 Design
- 03 Stewardship
- 04 Enforcement

Considerations for Other Agencies

RECOMMENDATIONS

Recommendations fall into four themes: Access, Design, Stewardship, and Enforcement. Each recommendation is designed to promote the comfort and safety of all people and dogs using the park.

While ultimately dog owners are responsible for their dogs, and not the City of Vancouver or the Vancouver Park Board, working together, Park Board and City staff and residents can develop and support parks that are well-loved and effectively shared by a diverse community of park users.

The *People, Parks & Dogs* strategy provides a framework for the next ten years and beyond, to deliver well-planned and designed parks that accommodate park users with and without dogs and minimize conflict. The vision for this strategy is:

To promote the comfort and safety of all park users by fostering responsible dog ownership and clarifying rules, boundaries and etiquette for dog off-leash activity in parks, and to integrate a variety of appealing and safe dog off-leash spaces in our parks that are easily accessed by local residents who directly support their success.

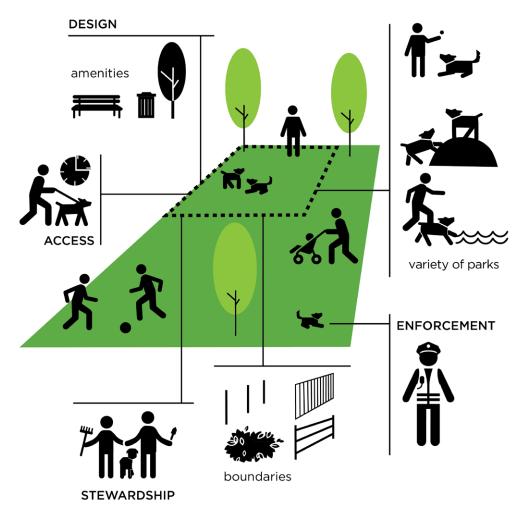
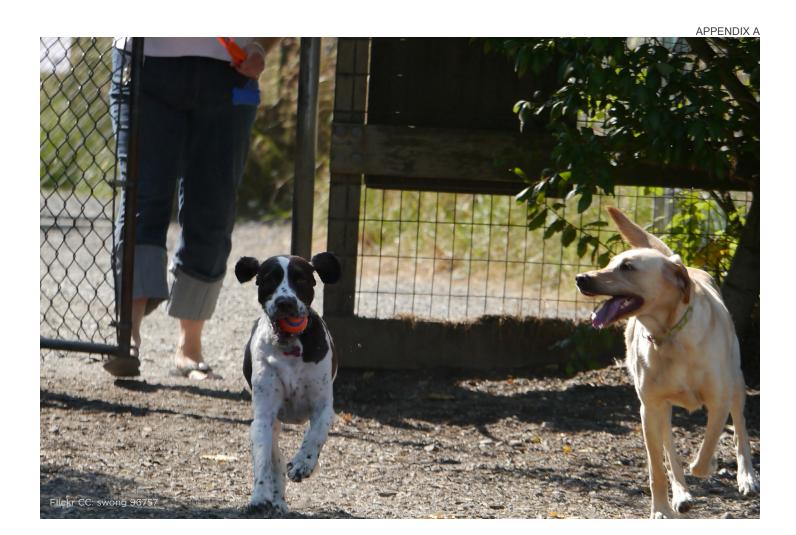


FIGURE 5 - THEMES OF THE RECOMMENDATIONS



01 Access

Improve access to dog off-leash areas throughout the city.



Overview of Access Recommendations

- 1.1 Establish two classifications of dog off-leash areas to support service level planning: Neighbourhood and Destination.
- 1.2 Provide access to Neighbourhood dog off-leash areas within an approximately 15 minute walk of most residents.
- 1.3 Provide access to Destination dog off-leash areas within an approximately 35 minute walk or short drive for most residents.
- 1.4 Add new dog off-leash areas and prioritize underserved and densely populated neighbourhoods.
- 1.5 Improve access to existing off-leash areas by removing time-of-use restrictions where possible.

39% of survey respondents agree that Neighbourhood and Destination dog off-leash areas should be of equal priority.

61% of phone survey respondents support having a dog off-leash space in their immediate area.

1.1 Establish two classifications of dog off-leash areas to support service level planning: Neighbourhood and Destination.

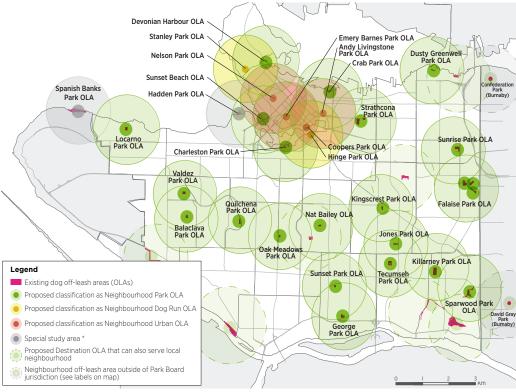
Establishing two classifications of dog off-leash areas will help distribute a variety of dog off-leash areas equitably across the city. Neighbourhood Classification: smaller dog off-leash areas (less than 1.2 ha or 3 acres), that are more widely available, and Destination Classification: larger dog off-leash areas (minimum 1.2 ha or 3 acres) and trails that offer off-leash opportunities in a more natural setting.

1.2 Provide access to Neighbourhood dog off-leash areas within an approximately 15 minute walk of most residents.

Survey respondents (44%) are willing to walk up to 10 minutes, and an additional 42% are willing to walk up to 20 minutes to access a dog off-leash area. We recommend providing Neighbourhood dog off-leash areas within an approximately 15 minute walk of most Vancouver residents. Figure 6, below, indicates in green shading a 1.2 km radius from each of Vancouver's existing dog off-leash areas, which translates to a 15 minute walk at an average speed of just under 5 km per hour.

Developing a service radius¹ for each Neighbourhood dog off-leash area helps assess distribution of dog off-leash areas across the city. However, walkability is also influenced by an individual's physical ability, the availability of sidewalks, crosswalks, street crossing signals, and topography (e.g. steep slopes). Neighbourhood composition (e.g. seniors, persons with disabilities etc.) is also important to consider when evaluating the service level of dog off-leash areas.

1 Assessing a 1.2 km service radius for each dog off-leash area identifies general distribution patterns across the city. See 'Service Analysis' on page 12 for an evaluation of priority underserved neighbourhoods.



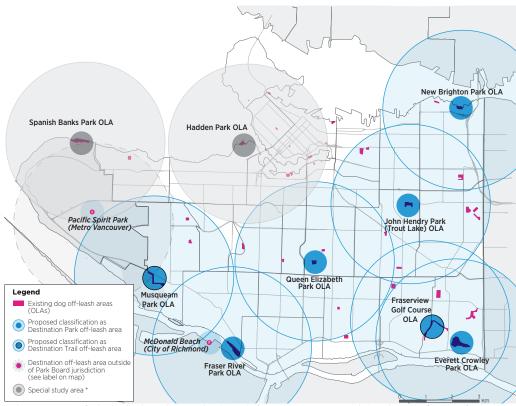
^{*}These areas require further localized consultation and evaluation before making any recommendations about classification or future use. Hadden Park is unique due to the specific terms of the gift of the site to the City, and the location of Spanish Banks West Park creates a legal and jurisdictional situation that requires further research and consultation with other government agencies.

56% of survey respondents are willing to drive 10 minutes or more to reach a dog off-leash area

1.3 Provide access to Destination dog off-leash areas within an approximately 35 minute walk or short drive for most residents.

There are several well-distributed, larger dog off-leash areas in Vancouver that could qualify as 'Destination dog off-leash areas' based on their size (>1.2 ha or >3 acres), parking availability, and special amenities (i.e. these sites either provide dog access to water for swimming, or have diverse conditions that help provide a range of off-leash experiences).

Blue shading in Figure 7, below, indicates a 3 km radius from existing dog off-leash areas that are recommended as Destination classification. The location and distribution of these sites shows that most Vancouver residents can access Destination dog off-leash areas within a 10 minute drive or approximately 35 minute walk (at an average walking speed of 5 km per hour, noting the restrictions to walking estimates identified in Recommendation 1.2).



^{*}These areas require further localized consultation and evaluation before making any recommendations about classification or future use. Hadden Park is unique due to the specific terms of the gift of the site to the City, and the location of Spanish Banks West Park creates a legal and jurisdictional situation that requires further research and consultation with other government agencies.

FIGURE 7 - EXISTING DOG OFF-LEASH AREAS RECOMMENDED FOR 'DESTINATION' CLASSIFICATION

1.4 Add new dog off-leash areas and prioritize under-served and densely populated neighbourhoods.

Mapping and analysis identifies areas of the city that are more than 1 km or a ~15 minute walk from an existing dog off-leash area (see Figure 3). In order to provide more equitable access across the city, it is necessary to also assess which neighbourhoods have the greatest number of licensed dogs¹, the highest residential population density, and projected population growth.

Highest priority neighbourhoods for new or enhanced dog off-leash areas based on combined assessments, and ranked in order of priority by survey respondents:

- 47% Kitsilano
- 45% Mount Pleasant
- 35% Downtown
- 33% West End
- · 32% Grandview-Woodland
- 19% Fairview
- This methodology, while sound, is limited by low licensing compliance for dogs in Vancouver.

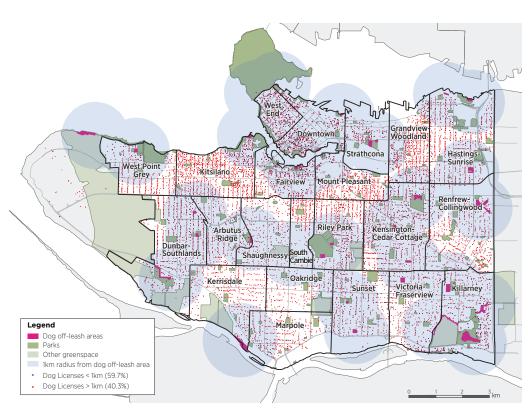


FIGURE 8 - LOCATION OF DOG LICENSES AND 1 KM BUFFER ZONE AROUND EXISTING DOG OFF-LEASH AREAS

80% of dog off-leash areas east of Main Street have time restrictions.

1.5 Improve access to existing off-leash areas by removing time-of-use restrictions where possible.

Eighteen of the city's 36 dog off-leash areas currently restrict dog off-leash activity to select morning and evening hours, and five of these restrict dog off-leash activity during summer months only (See Appendix, Figure A-1). Removing time-of-use restrictions will provide a higher and more reliable level of dog off-leash service across the city, reduce confusion among users, and make the City's enforcement resources available for other dog-related activity.

Hours of off-leash access should be standardized across most parks, from 6am - 10pm (night-time restrictions would still apply).

Removing time-of-use restrictions would require modifying the size of some dog off-leash areas. For example, where the existing dog off-leash area currently occupies the entire park, the Park Board would redesign the shared space to designate a portion of the park as a full-time dog off-leash area, in consultation with the surrounding neighbourhood. In addition, sites adjacent to schools or sites with other time-related constraints (e.g. wildlife activity) will require additional study to evaluate their suitability for allowing all-day access.



02 Design

Provide a variety of dog off-leash areas with clear and effective boundaries, and support the needs of people with and without dogs in parks with dog off-leash areas.



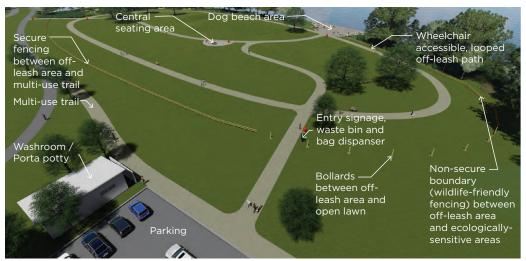
Overview of Design Recommendations

- 2.1 Provide a variety of dog off-leash areas.
- 2.2 Provide space and amenities to make dog off-leash areas more appealing to use and universally accessible.
- 2.3 Design dog off-leash areas to be durable, with suitable surfacing.
- 2.4 Design dog off-leash areas to minimize environmental impacts.
- 2.5 Locate dog off-leash areas adjacent to more compatible land and park uses, and mitigate those that are less compatible.
- 2.6 Restrict dog activity from a greater range of park areas.
- 2.7 Clearly mark dog off-leash area boundaries and setback distances where needed.
- 2.8 Assess existing site features and adjacent uses to determine appropriate boundary tools.
- 2.9 Ensure dog off-leash area signage is concise, clear and consistent.
- 2.10 Expand the separated dog waste program and promote initiatives to effectively manage dog waste.

2.1 Provide a variety of dog off-leash areas

The following five types of dog off-leash areas are recommended to provide a variety of off-leash opportunities. Recommendations are identified for the size, surface materials, amenities, boundary tools and circulation patterns for each of the five proposed types of dog off-leash area.

2.1.1 Destination Park dog off-leash area





2.1.2

Size: larger than 1.2 ha (>3 acres)

Surfacing: Grass and

fine crushed gravel



Boundaries: fencing (secure / non-secure), bollards, vegetation Adjacencies: Flexible



Circulation: Separated offleash looping paths



Standard amenities and special amenities such as washrooms, water access, drinking water, and parking







Size: No size target



Boundaries: fencing (secure / non-secure), bollards, vegetation



Circulation: Off-leash path



Surfacing: Gravel path, planting



Adjacencies: Flexible



Standard amenities: waste bins, open space, shade, bag dispensers, seating.

2.1.3 Neighbourhood Park dog off-leash area





Size: From 0.4 to 1.2 ha (1-3 acres)

Surfacing: Grass and

fine crushed gravel



Boundaries: fencing (secure / non-secure), bollards, vegetation



Circulation: Separated offleash looping path

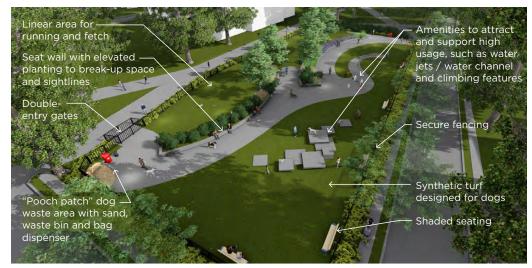


Adjacencies: More compatible adjacencies



Standard amenities: waste bins, open space, shade, bag dispensers, seating. Special amenities on caseby-case basis.

2.1.4 Neighbourhood Urban dog off-leash area





Size: From 0.04 to 0.4 ha (0.1 to 1 acre)



Boundaries: secure, high quality fencing



Circulation: Designed to reduce congestion



Surfacing: Durable, specialty surfacing



Adjacencies: More compatible adjacencies



Standard and special amenities to attract and support high use, such as water play and agility features

2.1.5 Neighbourhood Dog Run off-leash area





Size: From 0.04 to 0.4 ha (0.1 to 1 acre)

standard surfacing, such as

Surfacing: Durable

fine crushed gravel



Boundaries: secure, standard fencing (e.g. chain link)



Circulation: Designed to reduce congestion

Adjacencies: More compatible

Standard amenities: waste bins, open space, shade, bag dispensers, seating. Special amenities on case-by-case basis.

2.2 Provide space and amenities to make dog off-leash areas more appealing to use and universally accessible.

2.2.1 Size



When assessing the target size for a dog off-leash area, available land, adjacent park and neighbourhood uses, and the comfort and safety of all are to be considered. Ideally, the dog off-leash area will be large enough to meet demand without becoming degraded from overuse. It is important to recognize trade-offs between size, durability of surfacing, potential conflict amongst dogs, and budgeting constraints.





0.4 ha

Basketball court 0.04 ha

Two soccer fie 1.2 ha

DESTINATION
Park off-leash area
> 1.2 ha
(> 3 acres)

NEIGHBOURHOOD Park off-leash area 0.4 to 1.2 ha (1 - 3 acres) NEIGHBOURHOOD Dog Run off-leash area and Urban off-leash area 0.04 to 0.4 ha (0.1 to 1 acre)

FIGURE 9 - SIZE TARGETS FOR DOG OFF-LEASH AREAS











FIGURE 11 A - STANDARD AMENITIES

Small, intensively used sites require more durable surfacing and design features to engage dogs in a variety of off-leash activities, helping stimulate dogs and mitigate conflict. At small off-leash areas dog owners tend to be more observant of their dog's behaviour, but there is potential for more conflict amongst dogs if the site is highly used. At large off-leash areas dog owners may be less observant of their dog's behaviour; this can lead to more uncollected dog waste and conflicts developing between dogs if owners or handlers are not paying close attention.

Whether dog handlers are using large or small off-leash areas with secure or permeable boundaries, they must always be in full control of their dog(s). The City of Vancouver and the Vancouver Park Board recognize they cannot control all park users, nor eliminate all risk to park users. It is impossible to fully secure all Vancouver parks and allow multiple park uses.

See 'Amenities' in the Implementation Guide for recommended sizes for each of the five proposed types of dog off-leash area Provide a range of standard and special amenities at parks with dog off-leash areas to support and attract higher intensities of use. This helps keep dog off-leash activity out of on-leash areas. Locate seating and amenities away from entries to discourage people and dogs from congregating at entries.

2.2.2 Standard and Special Amenities



See the 'Amenities' section in the Implementation Guide for recommendations on standard and special amenities (shown in Figures 10 and 11) to be incorporated at all types of dog off-leash areas. Special amenities should be considered in selected types of dog off-leash areas or on a site-by-site basis depending on demand, available resources, and potential partnerships with community groups or private companies for sponsorship.

Drinking water for dogs	41%
Open areas for running and fetch	40%
Secure fencing	37%
More waste bins	34%
Dog bag dispensers	27%
Shade	25%
Separated large and small/shy dog areas	18%
Play features for dogs	11%
Walking paths	11%
Seating	8%
None of the above/ No opinion	6%
Drinking water for people	6%

FIGURE 10 - SURVEY RESULTS: WHAT AMENITIES WOULD YOU LIKE TO SEE IN VANCOUVER'S OFF-LEASH AREAS?





















2.2.3 Site Circulation



Where possible, provide direct access into the dog off-leash area from the park boundary (e.g. parking lot or sidewalk) to reduce instances of dogs being off-leash between the park boundary and the designated dog off-leash area.

Paths encourage people to walk with dogs, thereby reducing congregation of dogs at entries and potentially reducing conflicts from developing. Provide looped dog off-leash paths within Destination Park and larger Neighbourhood Park dog off-leash areas. The majority of paths should be wheelchair accessible and designed in consideration of those with limited mobility.

2.2.4 **Universal Access**



Help meet the needs of persons with disabilities by integrating the following considerations throughout the design process:

- Wheelchair accessible routes to dog off-leash areas
- Accessible seating, including the route leading to it
- Accessible gates for fenced off-leash areas
- Accessible fountains, in consideration of dog-owners who use wheelchairs or other mobility devices
- Wheelchair accessible parking, particularly for 'Destination' classification dog off-leash areas. Provide lay-bys near dog off-leash areas, for drop off and pick up
- Universally accessible washrooms in parks with dog off-leash areas, particularly 'Destination' classification parks that are reached by vehicle.
- Consider adding braille to key in-park signs
- Consider lighting as a special amenity, to improve accessibility

See Recommendation 4.2.5 on clarifying exemptions for dog waste clean-up for people who have physical disabilities that prevent them from doing so.

2.2.5 Gates



New sites with secure fencing should have double-entry gates to reduce the chance of dog off-leash dogs escaping when new people or dogs arrive at the site. Provide multiple entries, including gated access for maintenance vehicles. Other considerations for securely-fenced sites include:

- Ensure gates are accessible for persons with disabilities
- Locate gates away from corners to reduce "pinch points" at entries
- Provide visual obstacles at entry to reduce wide open sightlines between dogs entering the site and dogs already within the site

2.2.6 Vegetation



Plants for dog off-leash areas should be durable and kept low for increased visibility for other park users, where appropriate. Use of native vegetation should be encouraged. Check the ASPCA database of poisonous plants to ensure vegetation in off-leash areas is not toxic to dogs. Negative impacts on existing vegetation by dogs may include digging, urinating, or trampling due to high intensity dog activity.



FIGURE 11 B - SPECIAL AMENITIES









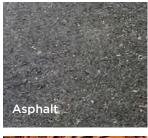






FIGURE 12 - OFF-LEASH AREA SURFACING

Strategies to protect new and existing vegetation in dog off-leash areas include:

- Use raised planters and/or protective edging (e.g. boulders, low post and wire mesh fence) to restrict dog access to planted areas
- Locate higher intensity use areas, such as seating areas and entries, away from existing vegetation
- Maintain a thick layer (~75mm) of wood mulch over any areas of exposed or sensitive root systems
- Use signage to remind owners to discourage dogs from digging in planted areas

Low plantings or areas of taller grasses at dog off-leash areas have several benefits:

- · Breaks up low sitelines, helping reduce conflict among dogs
- Provides seasonal interest, textures and scents
- Enhances biodiversity
- Provides buffer zones between mown grass and adjacent natural area

Ensure dog off-leash areas are kept free of wild grasses with barbed seeds (e.g. 'spear grass') which can harm dogs.

2.3 Design dog off-leash areas to be durable, with suitable surfacing.

2.3.1 Surfacing Materials



The selection of surface materials should be informed by the usage intensity of the site, appeal to park users, comfort and safety for dogs, and cost. It is challenging to find surface materials that are both durable and attractive to users in Vancouver's wet climate; while grass areas are highly desired by park users, they do not withstand high intensity usage and can quickly become muddy. See 'Surfacing' in the Implementation Guide for surfacing recommendations.

2.3.2 Erosion

To reduce drainage and erosion issues, dog off-leash areas should ideally have the following characteristics:

- · Have well-draining soil
- Be relatively flat or have gently rolling terrain
- · Drain toward a suitable receiving area
- · Receive moderate to high sun exposure

2.3.3 Drainage

The selection of surface materials is important to ensure good drainage and durability under wet conditions. Where drainage is poor, engineer the sub-surface to prevent ponding and maintain the quality of the surfacing. Water that is collected from dog off-leash areas should be infiltrated to the ground in a suitable location rather than going into storm sewer system where it can have negative impacts on water quality in receiving waters (e.g. False Creek, Burrard Inlet, Fraser River).

44% of survey respondents rank 'Designated ecologicallysensitive areas' as the most important area to add dog restrictions.

2.4 Design dog off-leash areas to minimize environmental impacts.

Dog off-leash areas should be located away from ecologically-sensitive areas, such as biodiversity hot spots, wildlife corridors, water bodies, and stream corridors. Areas that may primarily have seasonal sensitivity should also be protected, such as sites that attract and support migratory birds, or sites that have ground nesting birds in spring. Buffer zones and wildlife-friendly fencing should be used between dog offleash areas and ecologically-sensitive areas. Minimum setback distances between dog off-leash areas and ecologically-sensitive areas should be determined with professional biologists.

Educational signage should be incorporated into ecologically-sensitive areas to inform dog owners about the importance of keeping dogs out and preventing dogs from chasing wildlife. This should be done for all ecologically-sensitive areas within parks.

Proper dog waste management is important to reduce the transmission of pathogens to wildlife and to surface water, as well as to other dogs and people. Water runoff from dog off-leash areas or parks with high numbers of dogs should be directed to infiltrate in an appropriate location where it will not introduce excess nutrients and pathogens to surface water.

Ecologically-sensitive areas should be monitored for all types of dog activity (onleash and off-leash) and additional mitigation measures implemented if required. Soils and vegetation at dog on-leash and off-leash areas should also be monitored and mitigation measures taken to minimize impacts.



Locate dog off-leash areas adjacent to more compatible land and park uses, and mitigate those that are less compatible.



Optimal adjacencies

When assessing potential new locations for dog off-leash areas, a thorough review of the adjacent land and park uses is recommended to avoid or mitigate conflicts. Dog off-leash areas should be located where they reduce the potential conflict between dog activity and adjacent neighbourhood and park uses.





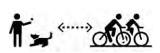
- Municipal
- Institutional
- Light industrial

Compatible park adjacencies (i.e. park uses next to dog off-leash areas with permeable boundaries) include:

- Unstructured (non-programmed) open lawn space
- Other vegetated areas with low ecological sensitivity







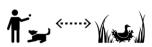


FIGURE 13 - LESS COMPATIBLE ADJACENT LAND AND PARK USES FOR DOG AREAS

2.5.2 Mitigating less compatible adjacencies

Where adjacencies to less compatible land uses cannot be avoided, mitigation measures should be used to reduce chances of conflict. The following adjacencies have been identified through consultation feedback and site evaluations as less compatible with dog off-leash areas. The use of secure fencing or a minimum setback distance of 50 to 75 meters is recommended to separate these park uses from dog off-leash areas:

- · Ecologically-sensitive areas
- Busy roads
- · Multi-use trails
- Playgrounds, wading pools and splash pads
- · Designated sports fields
- · High-intensity park use areas
- · Community Gardens

An assessment of site conditions should inform all mitigation measures. See the 'Mitigation Tools' section of the Implementation Guide for additional recommendations.

2.6 Restrict dog activity from a greater range of park areas.

Dogs are currently prohibited from playgrounds and artificial turf fields. To help reduce conflicts in parks and to maintain the safety, health, and comfort of park users with and without dogs, we recommend that on-leash and off-leash dog activity be restricted from the following areas:

- Playgrounds
- Wading pools
- · Splash pads
- · Designated ecologically-sensitive areas
- · Designated sports fields
- · Community Gardens

2.7 Clearly mark dog off-leash area boundaries and setback distances where needed.

A lack of clear on-the-ground dog off-leash area boundaries contributes to dog off-leash activity in on-leash areas, and makes it hard for people to know where dog off-leash activity is allowed and expected. Clearly define dog off-leash area boundaries using a combination of secure and permeable tools depending on the adjacent park uses, land uses and existing site features.

It is recommended that proposed changes to any dog off-leash area boundaries are reviewed to identify potential conflicting adjacencies and potential mitigation measures (see Recommendations 2.5 and 2.6).

Use signage to clearly identify that dogs are restricted from setback zones that separate less compatible park adjacencies (see 2.5.2). For example, dogs are currently not allowed, whether on-leash or off-leash, in or within 15 meters of playgrounds. This setback distance occupies a significant amount of space, making it difficult for dogs on-leash to circulate through parks with playgrounds. It is recommended that this setback distance be reduced to five meters, with signage to clearly identify that dogs are prohibited within this buffer zone around the playground.



FIGURE 14 - 'NO DOGS ALLOWED' SIGN

83% of survey respondents agree that dog off-leash areas should have clear boundaries.













FIGURE 15 - BOUNDARY TOOLS

2.8 Assess existing site features and adjacent uses to determine appropriate boundary tools.

It is recommended that dog off-leash area boundaries are clearly marked using a combination of tools, which can be grouped into secure boundaries and permeable boundaries:

Secure boundaries include different types of fencing that are designed to contain dogs, such as:

- · Decorative Steel Fencing
- Chain Link Fencing
- Post and Rail (with wire mesh infill)

Permeable boundaries include tools that make boundaries visible and legible "on the ground," but are more permeable. These boundaries allow people to move freely through a space, and do not securly contain dogs. Examples of permeable boundaries include:

- Post and Rail (without wire mesh infill)
- Bollards
- Vegetation

See 'Boundaries' in the Implementation Guide for more detailed information about the boundary tools listed above.

The selection of appropriate boundary tools should be based on an assessment of the potential for conflict with adjacent park and neighbourhood uses, existing site features, site circulation, and input from local park users. Securely fenced areas can reduce conflict and provide visitors with a safe enclosure to practice agility, obedience and recall training with their dog.

Site assessment should establish whether secure fencing is appropriate, as fenced areas dedicated to dog off-leash use often exclude other park uses, and fencing introduces physical and visual barriers that break up the park space. Consider the use of bollards and vegetation where a more permeable boundary is preferred.



FIGURE 16 - PROPOSED ENTRY SIGN

2.9 Ensure dog off-leash area signage is concise, clear and consistent.

The boundaries of all dog off-leash areas should be delineated with signage in addition to one or more of the other boundary tools referenced above. Signage content and placement should minimize visual clutter, while providing information for people with and without dogs to help manage expectations about park use. Messaging for in-park signage will vary depending on the type of sign and its purpose, such as identifying boundaries of dog off-leash areas, etiquette, by-laws or educational signage. Elements of successful signage include:

- · Clear and concise messaging
- · Simple, accessible language
- · Graphic symbols in addition to text to increase its accessibility
- Consistent visual language at all sites so that dog off-leash areas are readily recognized from a distance and from site to site

2.9.1 Entry signs

Entry signage should include:

- Etiquette for using dog off-leash areas
- · Map of dog off-leash area boundaries
- Cite relevant by-laws
- Contact information (i.e. for by-law enforcement, reporting damage or maintenance requirements, emergency contact information)
- Notice area for the Park Board and dog owners to share information about dog off-leash area events, training opportunities, services, etc.
- Notices when dog disease cases, including zoonotic diseases, have been identified in the area (e.g. parasites, bacterial infections, kennel cough, etc.)

2.9.2 Boundary signs

Boundary signs should be located regularly in unfenced dog off-leash areas, clearly identifying the extent of the designated off-leash area, and clarifying which side of the boundary marker is on-leash and which side is for dogs off-leash.

2.9.3 Educational signage

Signage can be a valuable tool to educate the public about health and safety concerns related to dogs in public spaces. See Recommendation 3.5 for potential strategies for educational signage in dog off-leash areas, as guided by animal behaviour professionals.

98% of survey respondents agree that dog waste management is the top challenge for dog off-leash areas.



FIGURE 17 - POOCH PATCH

2.10 Expand the separated dog waste program and promote initiatives to effectively manage dog waste.

The City's existing separated dog waste "red bin" pilot project initiated in 2016 has been well-received by dog owners and non dog owners alike, and it is recommended that this project be expanded to all dog off-leash areas. Advantages of the separated dog waste pilot project are that the red bin is highly visible, it reduces the amount of dog waste in regular park bins, and it allows dog waste to be properly treated rather than sent to landfill. An adequate number of dog waste bins (preferably chained to fences or poles) should be well-distributed throughout the park to encourage greater use in locations readily accessible by maintenance staff, such as at entrances.

In order to improve dog waste management, we suggest that Animal Control Services consider a new approach to uncollected dog waste (see Recommendation 4.2.6), in order to improve compliance.

Public input indicated support for providing dog waste bag dispensers in parks. We recommend that these be highly durable, integrated into entry signage, and stocked by park users. The Park Board may also consider partnering with a private contractor to stock bags in dispensers in exchange for sponsorship branding on bags.

We also recommend providing a "pooch patch" at smaller sites with high use, such as Neighbourhood Urban dog off-leash areas. A "pooch patch" is an area designed for dogs to relieve themselves upon arrival to a park or dog off-leash area. It consists of well-draining sand surfacing, a post to attract use, a dog waste bag dispenser, a dog waste bin, and signage. Encouraging dogs to use a "pooch patch" helps limit dog waste to designated areas that are easier to clean.

Education programs are also important for encouraging compliance with dog waste pick up. Many dog owners do not realize the risks that uncollected dog waste present to the public, particularly to young children, or to receiving water bodies. Educational campaigns should encourage dog owners to keep close supervision of their dogs at off-leash areas in order to ensure that they are aware of their dog's waste.



03 Stewardship

Support the success of dog off-leash areas through effective management, communication and education.



Overview of Stewardship Recommendations

- 3.1 Formalize residents' role in dog off-leash area stewardship.
- 3.2 Engage local residents in establishing, changing, or eliminating dog off-leash areas.
- 3.3 Establish etiquette guidelines for all people and dogs using off-leash areas.
- 3.4 Consider developing dog off-leash area maintenance, monitoring, and evaluation guidelines.
- 3.5 Promote educational initiatives to improve the safety and success of dog off-leash areas.
- 3.6 Investigate potential partnership and funding opportunities to support dog off-leash areas.

3.1 Formalize residents' role in off-leash area stewardship.



FIGURE 18 - PROPOSED ORGANIZATION STRUCTURE

People who use dog off-leash areas are interested in ensuring the long-term success of those spaces, "... [as] dog owners are community members who regularly visit parks and have a vested interest in keeping parks clean and safe." The regular visitors to dog off-leash areas play an important role in fostering a sense of community in neighbourhoods. In addition, there is a lot of informal sharing of information and resources among dog off-leash area users.

There is an opportunity to formally recognize this valuable role played by residents by establishing a 'Off-Leash User Coalition' to work in formal partnership with the Park Board. In public consultation for this Strategy, participants supported a model of community stewardship that allows volunteer activity to develop organically, building on the personal investment people feel for their local or favourite dog off-leash area. As groups of volunteers develop at the neighbourhood level, or in association with a specific dog off-leash area, representatives from each of these groups could form a larger, city-wide 'Off-Leash User Coalition'. This Coalition Group could work in formal partnership with the Park Board with a mandate to foster responsible dog ownership through educational initiatives, and to care for Vancouver's dog off-leash areas by helping monitor and maintain these sites.

Having a Coalition Group helps provide long-term continuity, as volunteers from the different off-leash areas may change over time. Moreover, it allows the Park Board to develop a partnership agreement with a single group of representatives, rather than developing agreements for each dog off-leash area in the city.

Volunteer responsibilities could include:

- Peer education on topics such as etiquette, understanding dog behaviour, and responsible dog ownership and licensing.
- Monitoring and reporting on conditions at dog off-leash areas
 (e.g. damage, maintenance), and activities such as instances of
 noncompliance for people not following park etiquette. To avoid
 conflict, the intent should be to simply record noncompliance, not to
 "police" others' behaviour.
- Fundraising for off-leash area special amenities.
- Light maintenance work, such as picking up dog waste and filling in holes dug by dogs (conducted on a regular basis, and/or though organized work parties).
- Facilitating communications between the Park Board and the general public.

Park Board support for local stewardship could include:

- Establishing a simple and direct means of communication between volunteers, the Park Board and the public (e.g. to exchange information about maintenance concerns).
- · Providing meeting space for Dog Off-Leash User Coalition.
- Providing materials and tools for light maintenance work, such as sand to fill in holes.
- Providing free access to dog-related educational seminars.
- Working with Animal Services to provide discounted dog license fees to Coalition members.
- Hosting in-park events such as "Doggie Days" to attract volunteers, build community, and strengthen relationships between Park Board staff and local residents.

¹ Parks Barks official off-leash hours policy, New York City Parks and Recreation, 2007.

3.2 Engage local residents in establishing, changing, or eliminating dog off-leash areas.

The Park Board should undertake a more detailed review of a dog off-leash site when monitoring and evaluation reveals a problem, when a park re-design or development triggers changes to an off-leash area, or when the approved guidelines for dog off-leash areas change. Effort should be made to understand the nature of the problem, and identify the options for resolving the issue.

Sites with problems should be given "probationary" status for a period of time in order to let users know about the issues and the timeline for review of the site.

Depending on the nature of the problem, possible options for addressing the issue may include:

- In-park education programs to ensure park users understand etiquette and relevant by-laws
- Revision to dog off-leash area boundaries
- Clearer delineation of dog off-leash area boundaries, with possible addition of secure fencing to separate dog off-leash activity from less compatible adjacencies
- · Increased enforcement activity at the site
- Relocation of the dog off-leash area to another more suitable site nearby
- Site closure (decisions regarding closure of dog off-leash areas should be clearly communicated to all users.)

3.3 Establish etiquette guidelines for all people and dogs using off-leash areas.

A consistent dog off-leash area etiquette is recommended to set expectations for both dog owners and non-dog owners in dog off-leash areas. The etiquette will complement the Parks Control By-law and Animal Control By-law.

The proposed draft etiquette is as follows:

For people with dogs using dog off-leash areas:

- Pick up after your dog
- Keep dogs from being aggressive with people and other animals
- · Keep dogs within sight and under voice control
- All dogs must be licensed
- · No persistent barking
- No digging
- Maximum 3 dogs per handler
- Dogs must be on leash when entering and exiting off-leash area

For all people using dog off-leash areas:

- Be prepared to encounter dogs off-leash
- · Supervise children closely
- Limit open food
- Do not approach a dog without owner permission

Proposed signage highlights the most important etiquette guidelines as identified in our survey.



3.4 Consider developing dog off-leash area maintenance, monitoring, and evaluation guidelines.

Regular monitoring and inspection of dog off-leash areas informs maintenance needs (e.g. capacity of garbage bins, presence of uncollected dog waste) while periodic inspections could identify signs of overuse, damaged or malfunctioning site elements (e.g. drinking fountains), vandalism, or other issues. Consider developing an electronic log of observations and reports for dog off-leash areas in order to track the following information on an ongoing basis:¹

- Number and nature of by-law and etiquette infractions
- · Number and severity of risk management safety issues
- Extent of wear / damage to turf, planting, natural areas, and amenities
- · Number and nature of interactions with wildlife
- Number and nature of injuries to animals and people
- Number and nature of noise complaints
- Extent of uncollected dog waste
- General observations about user patterns

Maintaining records can help track trends at individual dog off-leash areas over time and help identify persistent issues that could be addressed through site redesigns, upgrades, or education initiatives.

Park users and volunteers can play an important role in helping document and report observations. Users are currently encouraged to report incidents to 3-1-1, but can also use the City's "VanConnect" mobile app to report the following:

- General dog complaints
- Dogs dog off-leash in parks
- Noise complaints in parks
- Garbage in parks
- Park maintenance concerns
- · Vegetation issues in parks
- · Other park concerns

Consider expanding "VanConnect" to collect a broader range of input from park users, and offer expanded resources for people looking for information related to dogs in the city. The app could include maps of dog off-leash areas, so people can readily locate the nearest one. In addition, it could include links to educational resources related to dog behaviour, dog interactions with wildlife, dog-related by-laws etc. App users could report on activity in off-leash areas, including positive feedback (e.g. reporting that a park had no uncollected dog waste) as well as concerns (e.g. interactions between dogs and wildlife).

"VanConnect" could also be used as a means for the Park Board to communicate with volunteers associated with off-leash areas, such as the proposed Off-Leash User Coalition (see Recommendation 3.1). For example, app users could report when dog waste bag dispensers are empty, and the message could be relayed to local volunteers. App upgrades could help track volunteer activity associated with the off-leash areas, build momentum for continued community stewardship, and foster responsible dog ownership.

¹ Modeled after the City of Calgary's checklist for evaluating off-leash areas, City of Calgary 2011

91% of survey respondents agree that education of dog owners and dog training is important.

3.5 Promote educational initiatives to improve the safety and success of dog off-leash areas.

Educational in-park signage and online resources can play a valuable role in helping educate dog owners about dog behaviour, dog recall, minimizing impacts to wildlife and ecology, and other dog-related subjects. In-park educational signage and short video clips could be developed by the Park Board in consultation with animal behaviour experts, for educational messaging on a variety of topics, such as:

- Dog behaviour, such as understanding dog body language, recognizing stress responses, and responding to conflicts between dogs
- Managing aggression in dogs
- Dog training resources, such as formal courses and in-park educational sessions with professional trainers.
- Protection of wildlife (e.g. explain how dog activity and poor dog waste management can impact ecologically-sensitive areas)

Additional educational strategies should be considered for implementation in Vancouver parks and community centres to improve dog owners' and non-dog owners' understanding of dog behaviour, safe ways of interacting with dogs in public, and dog off-leash area etiquette, among other topics. Ideas for educational programs to consider include:

- Offering low-cost dog off-leash training courses through Park Board programming at community centres across the city.
- Offering low-cost or free dog training sessions in dog off-leash areas
 on topics that will help improve the functioning of dog off-leash areas
 for all users, such as recognizing and responding to signs of stress
 and aggression in dogs, dog obedience, and responding to conflict
 between dogs. Training could be offered in partnership with private
 training companies and/or non-profit organizations (e.g. BC SPCA).
- Developing a Vancouver Park Board "curriculum" for dog off-leash area usage, to be provided to private dog trainers to incorporate into dog training sessions.
- Encouraging the Park Board and the City to work together to develop
 a shared education strategy for dog owners across the city in order
 to increase compliance with by-laws and improve the relationship
 between park users and City and Park Board staff.
- Providing incentives for dog owners to participate in dog training sessions, such as by providing discounted annual license fees.
- Supporting the existing "Yellow Dog Project", promoting the use
 of a yellow ribbon or bandanna to provide a visual marker to
 communicate that the dog needs space, and may have special needs
 or considerations.

The City of Calgary Off-Leash Ambassador program offers free in-park training on dog recall.

3.6 Investigate potential partnership and funding opportunities to support dog off-leash areas.

Establishing new dog off-leash areas or renovating existing dog off-leash areas is currently funded through the Park Board capital budget. It is recommended that the Park Board explore additional funding tools and resources in order to implement the recommendations within this strategy. Potential funding sources include:

- Explore the feasibility of transferring a portion of license fees from the City to the Park Board for dog off-leash area improvements. This would provide greater incentives for dog licensing.
- Work with Off-Leash User Coalition to fundraise for special amenities or other upgrades at dog off-leash areas. (see Recommendation 3.1)
- Develop Corporate Sponsorship policies within the Park Board that can be used to guide the development of a private sponsorship program for dog off-leash areas.
- Explore funding mechanisms for an Off-Leash User Coalition. One
 possibility is to allocate a portion of dog license fees collected from
 licensing to the Coalition to support dog off-leash areas across the city.



04 Enforcement

Improve compliance and enforcement for dog-related by-laws.



Overview of Enforcement Recommendations

- 4.1 Increase dog licensing compliance rates.
- 4.2 Ensure consistency, enforceability, and relevance of by-laws for dogs in parks.
- 4.3 Consider increasing resources and powers for enforcement.
- 4.4 Work with City of Vancouver staff to develop educational resources to increase public knowledge about licensing and by-laws.
- 4.5 Develop specific requirements for commercial dog walkers.

The City of Vancouver receives over 30,000 calls every year to the city's 3-1-1 line regarding dogs. Dog activity in Vancouver parks is currently regulated by both the Animal Control By-law and the Parks Control By-law. Enforcement activity is led by the City of Vancouver's Animal Services group in partnership with the Park Board.

Through consultation with park users, we have heard that the current level of compliance with existing Animal Control and Park Control By-laws is frustrating for people with and without dogs. Specific concerns focus on dog off-leash activity and dog waste left behind. Our surveys told us that a large number of residents feel there is not enough enforcement of dog activity in Vancouver parks, and that increased by-law enforcement is needed.

In order to support all park users, including people with and without dogs, everyone's compliance with by-laws is essential. The City of Vancouver's Animal Control By-law and the Park Board's Parks Control By-law regulate where dogs can and cannot be off-leash and require all dog handlers to manage their dog's behaviour. Opportunities for improving enforcement of by-laws are described below.

4.1 Increase dog licensing compliance rates.

Although it is required in the City of Vancouver to license dogs, many people do not. Dogs three months and older (including service dogs) must have a dog licence for identification. Beyond by-law requirements, there are many practical reasons for owners to license their dogs, including:

- · Reuniting dogs with their owners if dogs go missing.
- Emergency protection: Licensed dogs are listed on the emergency pet registry so emergency responders know to look for them in an emergency.
- The cost of the licence (currently \$42 annually) is far less than the penalty for being caught without one (up to \$250).
- Dog facilities and the level of services (e.g. off-leash dog parks) are assessed and planned for using dog licensing statistics.

Many dog owners would like to see dog licensing revenues directly and transparently supporting dog activity in the city. They feel this would increase public support for licensing, and likely increase licensing compliance. Potential tools for increasing licensing compliance include:

- 4.1.1 Explore the feasibility of transferring a portion of licence fees to the Park Board for dog off-leash area improvements. This could provide greater incentives for dog licensing if a direct link between license fees and off-leash area improvements were clearly communicated to the public.
- 4.1.2 Encourage veterinarians to offer dog licensing in combination with annual vet checkups.
- 4.1.3 Develop a "rewards" program so that owners of licensed dogs can access discounts at participating pet stores, or access training resources.
- 4.1.4 Explore discounted licence fees for dog owners in need (possibly link to leisure access card program) and link fines or penalties to licensing fees for dogs deemed aggressive.
- 4.1.5 Provide auto-renewal options for licence fees.

4.2 Ensure consistency, enforceability, and relevance of by-laws for dogs in parks.

A number of updates are recommended to make the Vancouver Park Board Park Control By-law and City of Vancouver Animal Control By-law no. 9150 consistent and relevant to dog activity in parks. Ensure all requirements of the Park By-law and Animal Control By-law are clearly written, specific, and enforceable with the offence, value of the ticket, and dispute resolution process included in the by-law.

By-law Coordination

In the Park By-law and Animal Control By-law update and make consistent the following:

- 4.2.1 Determine maximum leash length: currently listed as 2.2m-long in the Park Control By-law and 2.5m-long in the Animal Control By-law.
- 4.2.2 Update and make consistent terminology regarding "vicious" and "aggressive" dogs.
- 4.2.3 Update and clarify the process for deeming a dog aggressive including process for appeal and impose restrictions such as prohibiting access to off leash areas, higher licensing fees and maintaining a muzzling restriction.
- 4.2.4 Develop additional policy regarding dogs deemed aggressive in other municipalities.
- 4.2.5 Clarify exemptions for people with physical disabilities that prevent them from picking up dog waste.

Animal Control By-law

- 4.2.6 Evaluate options to improve enforceability of by-law requiring dog handlers to pick up and dispose of all dog waste.
- 4.2.7 Add a reference to the Parks Control By-law Schedule 1, to clarify between running 'at large' and being off-leash in a designated area. The by-law should explicitly stipulate that dogs must be kept on a leash, and that dogs are not permitted on bathing beaches or in the water (whether on or dog off-leash), unless otherwise designated by Schedule 1.
- 4.2.8 Clarify leash by-law that dogs must not be left unsupervised while in parks and/or in public areas.
- 4.2.9 Align the Animal Control by-law with any terms added to business licences for Commercial Dog Walkers.

Parks Control By-law

- 4.2.10 Update by-law to reflect Animal Control fines by-law 9636 where every offence in the by-law is a \$250 minimum and \$10,000 maximum fine.
- 4.2.11 Update 'Schedule 1: Parks and Areas of Parks Where Dogs are Permitted to be Off-leash' to update names and include all dog off-leash areas, including Andy Livingstone Park, Crab Park, Devonian Harbour Park, Emery Barnes Park, Everett Crowley Park, Oak Meadows Park, and Hinge Park.

Business Licence By-law

4.2.12 Add additional terms to business licence requirements for Commercial Dog Walkers (see Recommendation 4.5).

4.3 Consider increasing resources and powers for enforcement.

Investigate updating the Parks Control By-law to streamline Park Rangers' ability to issue tickets for dog activity in parks, and providing 'Peace Officer Status' for staff enforcing dog activity in parks. This status would give staff more authority to enforce laws relating to animals, and to require that people provide identification. It is a criminal offense for a person to fail to identify themselves to a by-law officer in lawful execution of his or her duty (Obstructing a Peace Officer, sec 129 Criminal Code of Canada).

Animal Services and the Park Board should work together to develop a multi-year enforcement strategy. Ideally the enforcement strategy would involve an initial focus on intensive park user education about the new strategy, etiquette, licensing and bylaws for park users and an expanded training program for by-law enforcement staff, followed by the launch of a coordinated and consistent approach to enforcement.

4.4 Work with City of Vancouver staff to develop educational resources to increase public knowledge about licensing and by-laws.

Animal Services, Park Board and other City of Vancouver departments should work together to develop a shared communication strategy for dog owners across Vancouver parks and more broadly across the City, to encourage compliance with by-laws and improve the relationship between park users, Park Rangers, and Animal Services. Options could include signs in parks, hard copy materials, and online resources including educational websites, videos, and links to in-person events and learning opportunities. For example, the government of South Australia has produced a "Dog Owners Handbook" with information on 'Obedience Training', 'Dog Park Etiquette', 'Your Dog and the Law' and several other topics that promote responsible pet ownership (see www.gooddogsa.com)

4.5 Develop specific requirements for commercial dog walkers.

Licensing, Animal Services and Park Board should work together to establish specific criteria to regulate commercial dog walker activity in the City of Vancouver. Consider adding specific terms to business licences issued to commercial dog walkers, such as:

- Maximum number of off-leash dogs under supervision of a handler at one time
- Minimum training requirements (if the allowed ratio of handler to number of dogs is higher than non-commercial dog walkers)
- Approved dog off-leash areas for commercial dogs walkers
- Maximum number of commercial dog walkers allowed in one dog offleash area at one time.

Considerations for Other Agencies

Several strategies for supporting dog activity in Vancouver fall outside the Park Board's jurisdiction. The following is a summary of the strategies recommended for consideration:

Translink

Access to dog off-leash areas in our city would be significantly improved if dogs were allowed on public transit. Examples of other locations that allow dogs on transit include the United Kingdom, Prague (requiring dogs to be muzzled when using public transportation) and Berlin, where dogs are allowed on transit with the purchase of a special ticket.

In order to improve equitable access to dog off-leash areas across our city, it would be beneficial if Translink explores opportunities to allow greater access to dogs on public transit.

Vancouver School Board

Many of the open fields surrounding schools in Vancouver are often used for dog off-leash activity, on evenings and weekends when school is not in session. However, Vancouver School Board (VSB) policy is that dogs are only allowed on leash on school property for health and safety reasons, though signage does not make this clear.

In order to improve the management of dog activity on school grounds, it would be beneficial for the Vancouver School Board to consider the following:

- Clarify and clearly communicate policies regarding dogs on school property, including when and where dogs are allowed on-leash or not at all.
- Work with Animal Services to develop strategy for enforcement of dog off-leash activity on VSB grounds.

Province of British Columbia (Ministry of Environment)

In coastal locations, the zone below the high tide mark is Crown Land, and under the jurisdiction of the Provincial government.

In order to improve the management of dog activity on beaches with nearby dog off-leash areas, it would be beneficial for the Provincial government to develop policy in coordination with municipalities, with regard to dog activity below the high tide mark. It would also be beneficial to have the beach and water area where dogs are allowed off-leash clearly marked.

Planning, Urban Design and Sustainability

Planning for neighbourhoods with higher than average density levels should include the provision of new dog off-leash areas, not only as part of public parks, but also as part of private developments.

In order to best manage Vancouver's growing dog population, it would be beneficial if the City of Vancouver Planning, Urban Design and Sustainability department encourages new dog off-leash areas through community amenity contributions, incentives for private developers to incorporate dog off-leash areas and dog relief stations (e.g. "pooch patches") into new developments, and consider the use of rooftop parkades as potential dog off-leash areas (see 'Partnership Opportunities' in the Delivery section of this report).



DELIVERY

Quick Starts
Renewal of Existing Dog Off-Leash Areas
New Dog Off-Leash Areas
Pilot Projects
Partnership Opportunities
Monitoring and Evaluation

DELIVERY

While there are clear opportunities for improving dog off-leash areas throughout the city, it is anticipated that the recommendations in this Strategy Report will be implemented over the course of many years, based on available resources.

The framework for implementing the *People, Parks & Dogs* strategy should include a review of priorities, budgets, phasing, and potential partnerships. Implementation should also be informed by pilot project outcomes, in combination with a robust monitoring and evaluation process to better assess successes and challenges.

Quick Starts

Opportunities for 'quick starts' or improvements that can be rapidly implemented fall into two categories. The first category are items that are able to be accommodated within existing resources and without further consultation. The second category are items that will require budget approval and/or coordination with organizations external to the Park Board.

Opportunities within existing resources

- Upgrade the "VanConnect" mobile app to collect a broader range of input from park users, and offer expanded resources for people looking for information related to dogs in the city.
 - App upgrades could help track volunteer activity associated with the off-leash areas, build momentum for continued community stewardship, and foster responsible dog ownership. (see Recommendation 3.4)
- 2. Remove time-of-use restrictions at New Brighton Park dog off-leash enclosure.
- 3. Expand the 'red bin' separated dog waste program.

Opportunities requiring modest investment

- 1. Install new signage in existing dog off-leash areas, prioritizing sites where unclear boundaries repeatedly contribute to conflict.
- 2. Develop a new dog off-leash area at Renfrew Park.
- 3. Upgrade the dog off-leash area at Sunset Park.
- 4. Provide educational signage at popular dog off-leash areas to educate the public on recognizing signs of stress, aggression, and play in dogs. Recommended priority sites include John Hendry Park, Charleson Park, and Nelson Park. Support new signage with in-park animal behaviourist talks, and post videos of these talks online and on social media, with supporting videos to identify dog behaviour and what action to take to avoid conflicts. Park Board staff should engage animal behaviour professionals to develop educational signage content, using the signage templates developed for the People, Parks & Dogs strategy.



FIGURE 20 - DETAIL FROM PROPOSED EDUCATIONAL SIGNAGE ON DOG BEHAVIOUR.



FIGURE 21 - SIGNAGE RECOMMENDATIONS

- 5. Install environmental education signage and wildlife friendly fencing. Provide educational signage key sites such as Fraser River Park, regarding dogs' impact on foreshore habitat. Support educational initiatives with in-park ecologist talks, and videos of these talks on social media. Park Board staff should engage ecology professionals to develop educational signage content, using the signage templates developed for the *People, Parks & Dogs* strategy. At Fraser River Park and Musqueam Park, combine educational signage with wildlife friendly fencing to help protect ecologically-sensitive areas.
- 6. Foster community stewardship by hosting in-park events for volunteers to conduct light maintenance work in the dog off-leash area. Provide coffee and snacks, sand for filling holes and tools, in a format similar to community planting events. Use the event as an opportunity to invite community members to be formal stewards of the dog off-leash park. Once stewardship groups have established, provide them with resources to self-organize future work parties, and to help monitor dog off-leash areas using standardized inspection reports.

Renewal of Existing Dog Off-Leash Areas

Improvements to existing dog off-leash areas should prioritize parks with existing conflicts with adjacent park uses, sites that show excessive wear, and help meet the need for dog-off leash areas in underserved neighbourhoods (see Figure 3, and Appendix, Table A-3). The renewal of existing dog off-leash areas will happen over time, as budgets allow.

Identifying priority dog off-leash areas

Priorities for improvements can be best identified by assessing the current challenges with dog off-leash areas. These challenges may be highlighted based on the following sources of information:

- 3-1-1 calls related to dog incidents
- Formal complaints made to the City
- · Health and safety incidents
- · By-law infractions
- Site observations

Parks that receive a high number of incident reports should be evaluated to better assess the site's challenges and identify root causes that need to be addressed.

High conflict areas

Priority locations for improvements include the five parks with dog off-leash areas that received the highest number of dog-related 3-1-1 calls, as identified in 'Analysis of 3-1-1 calls' on page 13 of this report (see Appendix G for more information).

Strategies for reducing the number of incidents at these sites include installing new signage to clarify dog off-leash area boundaries and etiquette for all park users, and to remove time-of-use restrictions. In locations where a boundary change is required, the Park Board should host in-park events to present proposed boundary tools and solicit community input.

The 3-1-1 call analysis also identified areas that do not have dog off-leash areas yet received a high volume of dog-related calls. New signage should be installed in these locations to clarify on-leash requirements. Signage should identify the nearest dog off-leash area (or highlight a mobile app or website that can provide this information).

Decommissioning dog off-leash areas

There may be circumstances where it will be necessary to remove an off-leash area from an existing park (see Recommendation 3.2 'Engage local residents in establishing, changing, or eliminating dog off-leash areas'). While this may be a rare occurrence the following procedures should be followed, in accordance with an approved Communications Plan:

- Provide in-park and online notification of the proposed changes to the off-leash area.
- Distribute notification to all households within the service area of the proposed site.
- Clearly communicate the reasons for the removal of the off-leash area and if applicable identify how this service will be offset through other means within the vicinity of the site.

New Dog Off-Leash Areas

New dog off-leash areas¹ should improve service levels and provide more equitable access to dog off-leash spaces across the city, while providing a variety of dog off-leash experiences. The overall analysis of designated dog off-leash areas in Vancouver has identified a number of neighbourhoods that are currently underserved (see Figure 22, below). Establishment of new off-leash areas should be prioritized for these areas of the city and approved by the Park Board.

Triggers for providing new dog off-leash areas

The addition of a new off-leash area may be triggered by the following:

- Park Board identification of a neighbourhood as being underserved (based on target service levels).
- A proposal from Vancouver residents according to an established public application process to be developed by the Park Board (e.g. formation of an Off-Leash User Coalition, demonstration of support from surrounding neighbourhood residents, etc)
- Application for large new development or redevelopment

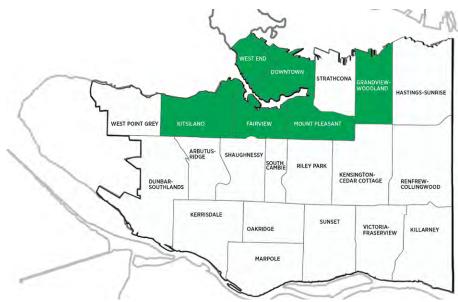


FIGURE 22 - UNDESERVED NEIGHBOURHOODS AS IDENTIFIED BY COMBINED EVALUATIONS (SEE 1.4)

This strategy report provides a framework for the delivery of dog off-leash areas in Vancouver over the next 10 years. As densities increase and evolve, the Park Board should conduct additional needs assessments to help ensure investments in public parks reflect the needs and priorities of the communities they serve.

Dog off-leash area Implementation Process

Once the Park Board identifies a neighbourhood for a service level improvement for dog off-leash areas, the following process is recommended:

- Generate a list of candidate sites at neighbourhood level.
- Assess underutilized spaces within parks for their potential as new or temporary dog off-leash areas.
- Encourage private developers to include dog off-leash areas through Community Amenity Contributions, or incentives (see 'Partnership Opportunities' on page 49 of this report).
- Identify the classification and type of dog off-leash area to best meet the recommended service level while providing a diversity of park types across the city
- Conduct a preliminary site assessment to evaluate the suitability of potential sites. If there are multiple suitable locations, engage residents at the neighbourhood level to help determine the preferred location.
- Conduct a more detailed site assessment if the preliminary assessment indicates suitability.
- Undertake a masterplan process for the park identified as a preferred location for an off-leash area. The purpose of this process will be to improve the spatial relationships within the park to make best use of the available park space. This will help to ensure that the full range of site opportunities potential are explored, and that non-dog owners also receive benefit from the park redevelopment for the off-leash area.
- Provide in-park and online notification of the proposed dog off-leash area pilot project. Distribute notification to all households within the service area of the proposed site.

Each new off leash area should be initiated as a pilot project for a one-year period, with regular monitoring and evaluation of the success of the site. After a 6 month evaluation period any problems that have been identified should be addressed, and after 12 months a decision made to approve or reject official off-leash designation. Clearly communicate the terms of the pilot project with the local community at the outset of the project.

65% of survey respondents agree with introducing a pilot project to add offleash hours in selected downtown parks.

Pilot Projects

It is recommended that various strategies for improving dog off-leash spaces be tested through Pilot Projects, in order to evaluate their effectiveness prior to wider implementation. Details of the following recommended Pilot Projects are provided in the Implementation Guide.

Recommended Pilot Projects

- Introduce morning only hours of dog off-leash use at George Wainborn Park.
- Install a "pooch patch" where dogs can be encouraged to relieve themselves (described on page 32 of this report).
- Test various turfgrass species to identify the most durable seed mix for dog off-leash areas in our climate.
- Test alternate surface materials to determine their suitability for use in dog off-leash areas.

Recommended Implementation Process for Pilot Projects

The recommended duration for pilot projects is generally one year, with an interim assessment. Local residents should be engaged in evaluating their success, and that they are informed about how they can learn more about the project and to provide feedback. The objectives, process and timeline for each project should be clearly communicated to the community.

- Use in-park signage, social media and online resources to describe the pilot project, including its objectives, duration criteria for evaluating success.
 Ensure the public is provided with means to learn more about the project and to provide input.
- Solicit on-going community feedback via in-park community notice board and online resources. Engage a broad spectrum of park users in the evaluation process, including persons with disabilities. Consider making adjustments to the pilot project if clearly requested by public feedback to do so.
- Conduct regular site reviews to observe use, and record notes.
- Meet with Park Board Operations Staff and /or Animal Services (as appropriate) at 6 month intervals to gather interim feedback.
- At the end of the 12 month pilot project period, assess feedback to date and make recommendations to adopt / revise / reject.
- Use in-park signage, social media and online resources to communicate evaluation results and next steps to the public.

Partnership Opportunities

It is recommended that private partnership or sponsorship opportunities be explored for their potential to support activities and/or amenities within dog off-leash areas. All potential partnership opportunities must align with Park Board values including sustainability and healthy, active lifestyles, and be in compliance with Park Board's practices regarding advertising in Vancouver's public parks.

Individual Donations and Dedications

Dedicating a special amenity such as an agility feature or water fountain at a favourite dog off-leash area is another potential means of private sponsorship. In discussions with community members during our round two public engagement process, participants suggested that people might like to fund a specific piece of equipment or upgrade to a dog off-leash area in memory of a well-loved pet. This process could be managed similar to the Park Board's program to dedicate a park bench or picnic table, with the option to fund a ten-year dedication period, or a 'legacy dedication', which is funded through an endowment to provide for the continuous care of a dedicated amenity.

Advertising

Special amenities such as agility features, water fountains for dogs, and dog waste bags and/or dispensers could be privately sponsored, in exchange for limited advertising space. For example, private contractors could stock dog waste bags in dispensers in exchange for sponsorship branding on the bags.

Educational Resources

The Park Board could work in partnership with private training companies and/ or non-profit organizations such as the BC SPCA to provide free dog training sessions in off-leash areas, and develop online resources and print material to foster responsible dog ownership. Topics would be selected with the aim to improve the functioning of dog off-leash areas for all users, such as recognizing and responding to signs of stress and aggression in dogs, best management practices for dog waste management, and minimizing dogs' impact on the environment.

Private Developers

Planning for neighbourhoods with increasing or existing high residential density (such as the West End or Downtown South) should include the provision of new dog off-leash areas and dog relief stations (e.g. "pooch patches"). These amenities should be part of private developments as well as public parks.

- Encourage incentives for private developers to incorporate small off-leash areas on rooftops or courtyards, and to incorporate small, durable "dog relief" stations at entries to reduce impacts on boulevard plantings and street trees.
- Incentivize the creation of indoor and outdoor off-leash areas on private land, possibly as an interim use of future development sites.
 Indoor facilities could include commercial dog parks, particularly in the downtown core.

Rooftop spaces on city-owned parkades

Rooftops of parkades typically have a low utilization rate. These rooftops often cannot accommodate structures or other uses due to seismic considerations, which limits their usability. However, such sites have potential to be converted to dog off-leash areas, particularly in the Downtown core. Managing the safe circulation of people with and without dogs within the parkade elevators and stairs will require further consideration. Rooftop off-leash areas will require a high level of design in order to successfully attract users. Recommended amenities include drinking water for people and dogs, a water element for helping keep dogs cool in summer, and shade structures. Ensure high, secure fencing is installed around the perimeter of any elevated dog off-leash area. Recycled artificial turf could be explored for use on these sites.

Fundraising

Consider working with volunteer groups, such as the proposed Off-Leash User Coalition (see Recommendation 3.1) to fundraise for special amenities or other upgrades at dog off-leash areas. Retail outlets and businesses that provide dogrelated goods and services could be encouraged to provide customers with the opportunity to donate to a fund that enhances dog off-leash areas (for example, through the provision of special amenities).

This strategy is intended to be a living document, for City and Park Board staff to work with stakeholders and the public to measure progress and adapt policy and actions as needed.

Monitoring and Evaluation

Through the, the Park Board aims to help shape how people with and without dogs share parks in Vancouver. Monitoring and evaluation is key to providing ongoing feedback about how well the strategy is working. This feedback allows City and Park Board staff to adjust activities according to what is working well and what is not, responding to changing circumstances.

The performance indicators listed in the tables below are grouped under the four recommendation themes, although in many cases the measures are responsive to many different actions recommended in strategy. To gauge general satisfaction with how well people with dogs and without dogs are sharing parks, we suggest conducting a statistically-sound phone survey using the same methodology and questions identified in Appendix F of this Strategy Report. Responses relating to experiences with dogs off-leash in Vancouver parks could then be compared to the 2017 results from this strategy in order to evaluate progress.

ACCESS THEME RECOMMENDATIONS

1.1	Establish two classifications of dog off-leash areas to support service level planning: Neighbourhood and Destination. (page 17)
1.2	Provide access to Neighbourhood dog off-leash areas within a ~15 minute walk of most residents. (page 17)
1.3	Provide access to Destination dog off-leash areas within a ~35 minute walk or short drive for most residents. (page 18)
1.4	Add new dog off-leash areas and prioritize underserved and densely populated neighbourhoods. (page 19)
1.5	Improve access to dog off-leash areas by removing time-of- use restrictions where possible. (page 20)

MONITORING AND EVALUATION MEASURES FOR IMPROVED ACCESS			
Recommendation Number	Measure	Data Source and Notes	
1.1 to 1.4	Increase the number of licensed dogs in Vancouver, as a portion of the estimated total dog population.	This data helps support service level planning. Information will come from Vancouver Animal Services dog licence data, and results of statistically valid phone surveys conducted every two years.	
1.2 to 1.5	Decrease the proportion of dog off-leash areas with time-of-use restrictions.	Update the 2016 <i>People, Parks & Dogs</i> off-leash area inventory data every two years.	
1.2 to 1.4	Decrease the number of residential city blocks that are more than 1 km from dog off-leash areas.	Evaluate the service level of each dog off-leash area every two years using baseline GIS data.	

MONITORING AND EVALUATION MEASURES FOR IMPROVED ACCESS (CONT.)		
Recommendation Number	Measure	Data Source and Notes
1.4	Identify and update the number of licensed dogs within 1km of each dog off- leash area.	Track the potential service level of each dog off-leash area. Compare with 2016 baseline results to identify trends in the potential service level of individual dog off-leash areas (update Table A-2 of the Appendix).
1.4 to 1.5	Identify and update the amount of parkland allowing dog off-leash use, as a percentage of the total park area, and evaluate against other cities.	Identify and update the amount of parkland allowing dog off-leash use, as a percentage of the total park area, and evaluate against other cities.

DESIGN THEME RECOMMENDATIONS

2.1	Provide a variety of dog off-leash areas. (page 22)
2.2	Provide space and amenities to make dog off-leash areas more appealing to use and universally accessible. (page 24)
2.3	Design dog off-leash areas to be durable, with suitable surfacing. (page 27)
2.4	Design dog off-leash areas to minimize environmental impacts. (page 28)
2.5	Locate dog off-leash areas adjacent to more compatible land and park uses, and mitigate those that are less compatible. (page 28)
2.6	Restrict dog activity from a greater range of park areas. (page 29)
2.7	Clearly mark dog off-leash area boundaries and setback distances where needed. (page 29)
2.8	Assess existing site features and adjacent uses to determine appropriate boundary tools. (page 30)
2.9	Ensure dog off-leash area signage is concise, clear and consistent. (page 31)
2.10	Expand the separated dog waste program and promote initiatives to effectively manage dog waste. (page 32)

MONITORING AND EVALUATION MEASURES FOR IMPROVED DESIGN		
Recommendation Number	Measure	Data Source and Notes
2.2, 2.5 to 2.9	Decrease the number of dog-related calls made to the City's 3-1-1 line.	Repeat data compilation and geographic analysis of 3-1-1 calls to identify the number of calls related to dogs, using the same parameters identified in Appendix E Geographic Analysis. Compare to Figure 6 in Appendix E to identify trends in dog-related 3-1-1 calls.
2.1 to 2.3	Increase the number of pilot projects implemented and evaluated.	Implement the recommended pilot projects outlined in the Implementation Guide and engage local residents, Operations Staff, and other representative park users such as persons with disabilities to evaluate outcomes.

MONITORING AND EVALUATION MEASURES FOR IMPROVED DESIGN (CONT.)			
Recommendation Number	Measure	Data Source and Notes	
2.2	Increase amenities in dog off-leash areas.	Conduct an inventory of standard and special amenities in dog offleash areas (listed in Section 1 'Amenities' of the Implementation Guide). Track data over time to identify trends.	
2.2	Increase Universal Design features in dog off-leash areas.	Conduct an inventory of Universal Design features in dog off-leash areas, and track data over time to identify trends.	
2.4	Minimize the amount of area designated for dogs off-leash within 30m of environmentally sensitive areas.	Track the area of designated dog off-leash space that is within 30m of environmentally sensitive areas.	
2.7 to 2.8	Increase the number of dog off-leash areas with clearly marked boundaries.	Use data from Table D-1 of the 2017 Strategy Report Appendix, combined with an analysis of the maps of existing dog off-leash areas submitted to the Park Board as part of the study to identify the number of off-leash areas with clear boundaries marked with legible onthe-ground features. Compare this data to an updated inventory of off-leash areas with clear boundaries.	
2.7 to 2.8	Decrease the number of dog off-leash areas with boundaries that overlap or nonsecure areas are less than 50m away from less compatible park uses.	Generate an inventory of dog off- leash areas with boundaries that overlap less compatible park uses.	
2.10	Increase the number of separated dog waste bins provided in parks.	Document the number of parks with separated dog waste bins provided.	

STEWARDSHIP THEME RECOMMENDATIONS

3.1	Formalize residents' role in dog off-leash area stewardship. (page 34)
3.2	Engage local residents in establishing, changing, or eliminating dog off-leash areas. (page 35)
3.3	Establish etiquette guidelines for all people and dogs using off-leash areas. (page 35)
3.4	Consider developing dog off-leash area maintenance, monitoring, and evaluation guidelines. (page 36)
3.5	Promote educational initiatives to improve the safety and success of dog off-leash areas. (page 37)
3.6	Investigate potential partnership and funding opportunities to support dog off-leash areas. (page 38)

MONITORING AND EVALUATION MEASURES FOR IMPROVED STEWARDSHIP			
Recommendation Number	Measure	Data Source and Notes	
3.1	Increase participation in formal dog off-leash area stewardship in collaboration with Vancouver Parks Board.	Track membership in dog off-leash area stewardship groups.	
3.2	Increase public participation in decision-making around dog off-leash areas.	Track the number of residents who participate in engagement activities related to dog off-leash areas.	
3.3	Increase the number of signs and hard copy materials guiding proper use of dog off-leash areas, available to park users.	Track the number of signs with etiquette guidelines, and the number of places providing hard-copy materials on dog off-leash area etiquette.	
3.4	Increase the guidance materials available for in-park workers that aim to improve maintenance, monitoring, and evaluation.	Conduct an inventory of guidance materials in dog off-leash areas, and track data over time to identify trends.	
3.5	Increase research into partnership and funding opportunities in support of dog offleash areas.	Track the funding sources and partnership opportunities investigated by Park Board staff and partners.	
3.6	Increase communication of events and resources aimed at helping people and dogs share park space better.	Track all Park Board communications around educational opportunities for people regarding dogs (e.g. posters, online ads, Facebook, Instagram and Twitter posts).	

ENFORCEMENT THEME RECOMMENDATIONS

4.	1	Increase dog licensing compliance rates. (page 40)
4.	2	Ensure consistency, enforceability, and relevance of by-laws for dogs in parks. (page 41)
4.	3	Consider increasing resources and powers for enforcement. (page 42)
4.	4	Work with City of Vancouver staff to develop educational resources to increase public knowledge about licensing and by-laws. (page 42)
4.	5	Develop specific requirements for commercial dog walkers. (page 42)

MONITORING AND EVALUATION MEASURES FOR IMPROVED ENFORCEMENT			
Recommendation Number	Measure	Data Source and Notes	
4.1	Increase the number of dogs licensed in Vancouver.	Track dog licensing data from Vancouver Animal Services to identify trends.	
4.1	Increase dog licencing compliance rates.	Conduct a statistically sound survey to estimate Vancouver's dog population, and use this information combined with dog licensing data from Animal Services to identify trends.	
4.2	Align the Parks Control and the Animal Control By- laws with regard to dog activity in parks.	Review the Parks Control By- law and Animal Control By- law to identify the number of inconsistencies between them. Compare results to items listed in Recommendation 4.2 of the 2017 Strategy Report.	
4.3	Increase Park Board and City staff hours with ticketing ability for dog-related infractions.	Track duties, powers and person hours of Animal Control Officers and Park Rangers for dog-related infractions.	
4.4	Increase educational information and resources available on the City Website and on in-park signage, related to dog activity in parks and beaches.	Track the number of online and hard-copy educational resources provided by the City and Park Board, with information related to dog activity in parks and beaches, including dog licensing and dogrelated by-laws.	
4.5	Increase the rate of dog walking businesses with valid business licences. Include terms guiding appropriate use of park space for commercial dog walkers as part of the business licence.	Track the number of commercial dog walking business licences issued and identify additional terms added as licence requirements.	



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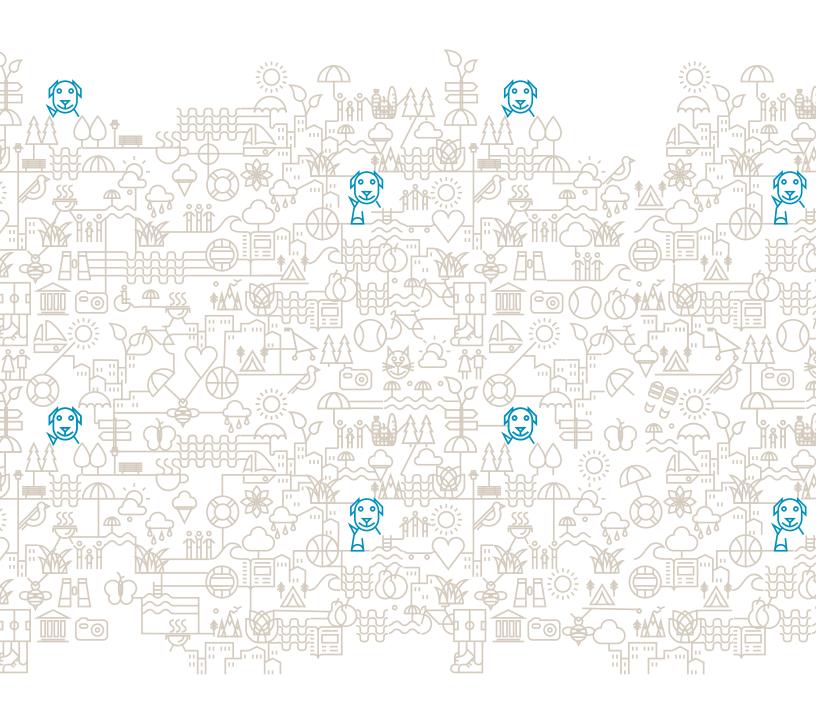
APPENDIX





This document is a companion reference for the 'People Parks and Dogs' Strategy Report, prepared for the City of Vancouver Park Board October 2017, by space2place design inc.





CONTENTS

APPENDIX TO THE PEOPLE, PARKS + DOGS STRATEGY REPORT

ANALYSIS

of Vancouver's Dog Off-Leash Areas

B FIELD STUDY and INTERCEPT SURVEY

at Eight Dog Off-Leash Areas in Vancouver

- © PRECEDENT RESEARCH
- D INVENTORY
- E GEOGRAPHIC ANALYSIS

 of Vancouver's Dog Off-Leash Areas
- F PHONE SURVEY

COMPANION DOCUMENTS

Strategy Report
Implementation Guide - Considerations for Delivery
Round 1 Consultation Summary Report
Round 2 Consultation Summary Report



ANALYSIS of Vancouver's Dog Off-Leash Areas

ANALYSIS



The intent of the following analysis is to better understand the distribution and service level of Vancouver's dog off-leash areas, along with what is working well and where there are challenges.

A1 What's working well?

A1.1 Level of use by dog owners and non dog owners

The field survey (see Appendix B) and park reviews revealed that dog off leash areas are well-used by both dog owners and non dog owners. With the exception of early morning at some sites (Charleson Park off-leash area, Hadden Park off-leash area, and Sparwood Park off-leash area), most sites with designated off-leash areas had more people without dogs than people with dogs (Figure B-1).

Common activities by non dog owners within off-leash areas included walking, jogging, cycling, picnicking (including large groups of day care children at Charleson Park), yoga, tai chi, reading, working on laptops, and playing games (e.g. frisbee, disc golf, badminton).

A1.2 Sense of community

Many dog owners have reported that there is a good sense of community and friendship amongst dog owners at off-leash areas, and that having a dog in Vancouver parks can facilitate conversations amongst strangers. For instance, 35% of Round 1 Survey respondents indicated that building community was an important benefit of having designated off-leash areas. Several off-leash areas have regular users that meet up daily at the sites to visit and socialize (e.g. Sparwood Park off-leash area, Fraser River Park off-leash area).

A1.3 Large open areas for running and playing fetch

Off-leash areas with large open fields are well-liked amongst many dog owners for the ability to run and play fetch with their dogs. Open areas for running and fetch was chosen as one of the most preferred amenities by dog owners in the Round 1 Survey (tied with drinking water for dogs), selected by 51% of dog owners. Examples of off-leash areas that are popular for these activities includeTrout Lake off-leash area, Charleson Park off-leash area, and Quilchena Park off-leash area.

A1.4 Water access

Many dog owners at Round 1 events anecdotally expressed appreciation for off-leash areas that provide water access for swimming or wading. Six of 36 off-leash areas currently provide access for swimming, including Hadden Park off-leash area, Spanish Banks off-leash area, Trout Lake off-leash area, Fraser River Park off-leash area, Charleson Park off-leash area (waterfall area), and New Brighton off-leash area.

A1.5 Separate dog waste bins in some parks

There are currently dedicated dog waste bins in two designated off-leash areas (Charleson Park off-leash area, Trout Lake off-leash area) and one non off-leash area (Grimmett Park) as part of a Parks Board pilot project. 5% of dog owners and 8% of non dog owners suggested dedicated dog waste bins as an additional amenity to consider at designated off-leash areas in "other comments" of the Round 1 Survey.

A1.6 Legible off-leash boundaries in some parks

Off-leash area boundaries were observed to correspond with on-the-ground features (e.g. paths, vegetation lines, existing fencing) at a few sites, including Quilchena Park off-leash area and Coopers' Park off-leash area. Field survey observations suggest that having on-the-ground features that correspond with off-leash boundaries appeared to increase compliance with the off-leash / on-leash rules.

Both dog owners and non dog owners strongly support having clearly defined boundaries (81% of dog owners, 88% of non dog owners in Round 1 Survey). Non dog owners have reported they like having clearly defined boundaries as they allow people to choose whether or not to be around off-leash dogs.

A1.7 Minimizing conflict with adjacent uses

Where there are on-the-ground boundaries and accompanying signage at the edge of off-leash areas, it appears to help encourage dog owners to keep their off-leash dogs within the designated area and away from playgrounds, sports fields, and multi-use paths, for example.

A1.8 Surfacing materials

In general, the quality of grass surfaces appears to be in better condition in larger or less-intensively used off-leash area sites compared to smaller or more intensively used off-leash area sites. Gravel surfacing, while not considered desirable by many dog owners, does provide an alternative surface to grass that is more durable under high intensity use. Different types of gravel surfacing (e.g. pea gravel, angular gravel, crushed gravel) are currently used at all of the fenced off-leash areas.

A1.9 Option of fenced off-leash areas

Several dog owners have expressed support for having some completely fenced off-leash areas, with 32% of dog owners and 43% of non dog owners in support of secure fencing in the Round 1 Survey; this was the top amenity preference expressed by non dog owners, and second-most preferred amenity preference expressed by dog owners.

Sites with secure (completely enclosed) fencing are most likely to be used by people who have dogs with poor recall, such as young dogs or dogs in training. Some dog owners also appreciate that fencing helps keep their dog from running into adjacent streets.

A1.10 Support for dog off-leash areas

People are generally supportive of having off-leash areas in their neighbourhood. Phone survey results indicate that approximately 67% of Vancouver residents support or are neutral towards having an off-leash area in their immediate neighbourhood.

A2 What's not working well?



A2.1 High amount of off-leash activity in on-leash areas

In general, there is a low level of compliance with on-leash rules at many locations across the city. Many Round 1 Survey respondents reported using non-designated park or school ground areas for off-leash use, and non dog owners have expressed frustration with encountering off-leash dogs in on-leash areas. The Vancouver School Board has also reported a high level of off-leash activity in many school grounds across the city, despite the fact that all school grounds require dogs to be on-leash at all times.

In the field survey and park review there was a lot of off-leash activity observed during the field survey and park reviews. This off-leash activity occurred outside of the designated off-leash area at sites that were fenced (e.g. Emery Barnes off-leash area) as well as unfenced off-leash areas (e.g. Quilchena off-leash area, Spanish Banks off-leash area, Strathcona off-leash area, Trout Lake off-leash area).

A2.2 Low level of compliance with daytime off-leash usage restrictions

All of the eight off-leash areas in the field survey had dogs off-leash during prohibited hours. For example, Hadden Park off-leash area and the Charleson Park off-leash area waterfall area both require dogs to be on-leash between 10am and 5pm during the summer months; however, thirty (30) dogs off-leash were counted from 12pm to 12:30pm on the weekend observation period at Hadden Park, and 20 dogs were observed off-leash during the same time period at the Charleson Park waterfall area.

Some dog owners have schedules that are not compatible with permitted off-leash times and they are therefore frustrated by reduced opportunities for recreating with their dogs off-leash. Phone survey results indicate that dog owners most commonly use parks in morning and early afternoon:

5am - 8am - early morning: 31.5% 8am - 12pm - late morning: 24.0% 12pm - 3pm - early afternoon: 21.9%

A2.3 Fears expressed by non dog owners

Several non dog owners in the intercept survey reported having some fear of off-leash dogs in public parks, expressing concern with "large" and "aggressive" dogs in particular. Over 95% of survey 1 respondents said that safety for people was one of the most important considerations regarding people and dogs sharing Vancouver's parks and beaches, and over 100 respondents (out of 4055 total respondents) mentioned concern regarding the safety of children around off-leash dogs under "additional comments." Phone survey respondents have mostly had positive or neutral interactions with off-leash dogs in parks:

Positive: 31% Neutral: 42.9% Negative: 15.5%

Of those that cite negative experiences, the most common reason was 'Dogs unpredictable / safer on leash'.

In addition, people with disabilities and seniors can be at greater risk for being injured by boisterous dogs who are off-leash. This concern was expressed at the advisory committee meetings.

A2.4 Fears expressed by small dog owners regarding large dogs

Some people at Round 1 events and in the intercept survey expressed concern regarding the safety of small dogs around large dogs in off-leash areas, particularly in the smaller fenced off-leash areas. Twenty-two (22%) of dog owners expressed support for separated large and small / shy dog areas in the Round 1 Survey.

When small dogs interact with large dogs, either aggressively or during rambunctious play, small dogs are more likely to be injured than their larger counterparts. This is because of differences in size and strength, not because large dogs are more aggressive than small dogs. As such, some owners of small dogs prefer for their dogs to be kept separated from large dogs in off-leash areas.

A2.5 Friction between some dog owners and non dog owners

Several people expressed a feeling of conflict, or friction, between dog owners and non dog owners, both in on-leash and off-leash areas; 54 Round 1 Survey respondents (out of 4055 total respondents) expressed that conflicts arise between dog owners and non dog owners at off-leash areas.

For example, some dog owners commented that non dog owners should not be using the designated off-leash area for certain park activities, such as picnicking or sunbathing, since there are more likely to be conflicts between off-leash dogs and these uses. Some non dog owners expressed the opinion that dog owners should be more compliant with on-leash rules in order to reduce conflicts among users in on-leash parks.

A2.6 Off-leash activity in parking lots

Dogs were observed running off-leash in parking lots at sites where these uses were adjacent to each other (e.g. Spanish Banks off-leash area, Trout Lake off-leash area).

A2.7 Lack of signage and inconsistent signage

Signage identifying off-leash areas is inconsistently located and oriented in relation to the off-leash area boundaries, leading to confusion regarding where off-leash areas begin and end. For example, off-leash area signage was placed outside of the off-leash area boundaries at some sites (e.g. Quilchena off-leash area, Oak Meadows off-leash area, Locarno off-leash area). Signage was sometimes oriented to be viewed from within the off-leash area (facing inward) and sometimes oriented outward to be viewed from outside of the off-leash area. At Everett Crowley park the on-leash trail and off-leash trail signs are very similar looking and could be confusing to park users.

Off-leash signage is also variable in appearance and content from site to site, leading to an inconsistent visual identity of off-leash areas and giving inconsistent information.

In addition, "dog code" signage on Vancouver School Board property looks visually similar to some of the Park Board's older off-leash signage, leading to the common misperception that dogs are permitted off-leash on school grounds outside of school hours.

A2.8 Off-leash area boundaries unclear

Off-leash area boundaries typically do not correspond with legible, on-the-ground features that could help to orient dog owners and non dog owners regarding the location of the off-leash area. Furthermore, the boundaries indicated on in-park signage sometimes conflict with the boundaries shown on the park board website (e.g. Trout Lake off-leash area, Charleson Park off-leash area).

A2.9 Conflicting uses within off-leash areas



Three of 30 unfenced off-leash areas have playgrounds within the boundaries of the off-leash area (e.g. George Park off-leash area, Sunset Park off-leash area, Tecumseh Park off-leash area), and four have sports fields within their boundaries (i.e. Sparwood Park off-leash area, Strathcona Park off-leash area, Falaise Park off-leash area and Jones Park off-leash area). Spanish Banks off-leash area has a multi-use path within its boundaries, and many others have multi-use trails adjacent to their boundaries.

Despite rules prohibiting dogs from being within 15 m of playgrounds and from designated sports fields, such adjacencies create greater risk for conflict between dogs off-leash and other park users. One challenge associated with this prohibition is the fact that parents will often tether their dogs away from the playground areas, so that they can supervise their children in the playground. This can lead to the possibility that unsupervised dogs will act aggressively towards other park users.

While etiquette rules are posted for dog owners and dogs, no such etiquette has been developed for non dog owners regarding recommended behaviour within off-leash areas. This can leads to conflict between users, such as for example, when people play ball sports or picnic in off-leash areas.

A2.10 Conflicting adjacent uses next to off-leash areas

Many off-leash areas have playgrounds, sports fields or multi-use paths directly adjacent to their boundaries, and many lack a clear indication of the off-leash area boundary between these areas. 14 of the 30 unfenced off-leash areas have adjacent playgrounds, including Coopers' Park off-leash area, and Kingscrest Park off-leash area. Similarly, 11 of 30 unfenced off-leash areas are immediately adjacent to sports fields, and 8 of 30 unfenced off-leash areas are next to multi-use bike paths.

A2.11 Surfacing

Most of the smaller fenced off-leash areas in the city are surfaced with different types of gravel (e.g. pea gravel, angular gravel, crushed gravel). Many dog owners have said that pea gravel or larger-sized angular gravel is hard to walk on and hurts dog paws (expressed in intercept surveys, Round 1 events, Round 1 Survey). Hard surfaces, particularly dark-coloured, can heat up more than grass

Grass surfacing in small, intensively used areas does not hold up to the level of wear, and often becomes muddy (e.g. Coopers' park).

A2.12 Some aspects of fenced off-leash areas

Many dog owners have reported feeling that completely enclosed fenced off-leash areas with large expanses of gravel surfacing create an unappealing and "caged-in" atmosphere. These same dog owners report that they are more likely to use off-leash areas that have grass surfacing, shade trees, and other amenities.

Where there are a large number of dogs in a small space, such as a small fenced off-leash area, there is a greater number of interactions amongst dogs, and hence a greater chance of conflict. Examples of conflicts include competition over dog toys, protection of a dog owner from approaching dogs, or dogs defending themselves from threatening or intimidating dogs. The dogs themselves do not display more aggressive behaviour in small spaces, however.

A2.13 Inadequate enforcement of bylaws

Many non dog owners (and, to a lesser extent, dog owners) believe that there is inadequate enforcement of dog activity in Vancouver. Forty-six percent (46%) of Round 1 Survey respondents who are dog owners agree or strongly agree that there is enough enforcement of dog activity in Vancouver, whereas only 10% of non dog owners agreed that there is enough enforcement. When additional comments were solicited, 376 respondents (out of 4055 total survey respondents) expressed a need for more enforcement of dog off-leash activity, and 281 respondents expressed a need for more enforcement of dog waste pick-up.

A2.14 Sensitive habitat areas with off-leash activity

Some designated off-leash areas are within sensitive wildlife habitat, such as internationally-recognized Important Bird Areas (IBAs). At Spanish Banks off-leash area, for example, dogs are able to access sensitive tidal mudflats at low tide. These habitats provide important wintering habitat for migrating waterfowl and shorebirds. Similarly, Pacific Spirit Regional Park is classified as an IBA and off-leash dog activity can negatively impact ground nesting birds and other wildlife.

A2.15 Lack of understanding regarding code of conduct

Several participants in round 1 public engagement anecdotally expressed concern that, in general, there appears to be a lack of understanding about good dog-related etiquette and/or code of conduct among both dog owners and non dog owners.

A2.16 Lack of understanding of bylaws

Many dog owners are under the impression that off-leash activity is permitted on school grounds before and after school hours.

A2.17 Low level of dog licensing

Data from the City of Vancouver Animal Services identifies 21,332 licensed dogs in the City in 2016 (see Strategy Report, Figure2-2). The estimated dog population in Vancouver is between 32,390 and 55,947 (based on NRG phone survey data) which translates to a licensing compliance rate between approximately 38% and 66%. Low levels of licensing make it hard for the city and Parks Board to plan for dogs in the city.

A2.18 Waste management

Both dog owners and non dog owners agree that waste management is one of the most important aspects about people and dogs sharing Vancouver's parks and beaches, with 98% of Round 1 Survey respondents expressing its importance. Similarly, 54% of respondents indicated that managing dog waste was the top challenge of having designated off-leash areas in the city. Opinions among Round 1 Survey respondents were divided regarding whether dog owners do an adequate job of picking up dog waste: 42% agree that dog owners do a good job, whereas 43% disagree.

Both dog owners and non dog owners expressed a desire for more waste bins and dog bag dispensers at off-leash areas; these amenities were ranked second and third in importance by non dog owners in particular.

Comments received from field sport users, Parks Board operations staff, and Vancouver School Board operations staff indicate that cleaning up dog waste from fields before sports games is time consuming and costly.



A3 Estimating Vancouver's Dog Population

The estimated dog population in Vancouver is between 32,390 and 55,947. This estimate is based on results from a statistically-sound phone survey conducted in 2016 as part of the research process that informed this Strategy. (see Appendix F, Phone Survey)

In 2008, Ipsos-Reid conducted an online survey of 222 Vancouver residents and estimated that 36% of households had dogs. Using an estimated figure of 1.45 dogs per household, they estimated that there were over 145,500 dogs in the city (Ipsos-Reid, 2008).

The difference between dog ownership research findings in 2008 (30%) and 2016 (15%) could be a result of a combination of factors including:

- An 8 year gap between research periods
- Difference in research methodology (online in 2008 vs. telephone in 2016)
- The 2016 study deliberately included a representative sample of ethnic Chinese Vancouver residents. It is unclear whether this was the case with the 2008 online study
- The Vancouver sampling area for the 2016 phone survey was specifically delineated. It is unclear whether this was the case for the 2008 online survey

A4 Estimating Dog Licensing Compliance Rate

Several unscientific studies have asked Vancouverites directly whether their dogs are licensed. A 2015 Animal Services study on dog licensing attitudes was conducted online through Talk Vancouver, and received 2699 responses. Of those who participated in the survey, 79% reported having a license for their dog.

The Round 1 Consultation survey, held in fall 2016 as part of this project, also asked dog owners about licensing habits and found that 90% of the over 4000 survey respondents reported having licensed dogs. Similarly, the intercept survey, held in summer 2016 as part of this project, found that 90% of the 230 participants reported having licensed dogs.

If the total dog population in Vancouver is between 32,390 and 55,947 (as indicated by the 2016 NRG phone survey data), this would translate to a licensing compliance rate of between 54% and 93%.

A5 Time-of-use Restrictions

Figure A-1 identifies existing dog off-leash areas in the City, and notes the time-of-use restrictions including daytime and seasonal restrictions. 18 of the city's 36 off-leash areas currently have time-of-use restrictions that restrict off-leash activity during selected daytime hours. These time-of-use restrictions typically restrict dog off-leash activity to mornings and evenings (e.g. 6 to 10 am, 5 to 10 pm), thereby making the park available for other activities during the day. Five (5) of these off-leash areas have time-of-use restrictions during the summer months only, allowing all-day off-leash activity at park sites that are not as intensively used by the general public in the winter months.

Many East Vancouver neighbourhoods have relatively large off-leash areas, but most of these are only accessible in mornings and evenings (typically 5 or 6 am to 10 am, and 5 pm to 10 pm). In East Vancouver only Nat Bailey off-leash area, Sunset Park off-leash area, John Hendry (Trout Lake) off-leash area and Everett Crowley off-leash area have all-day, year-round off-leash access. (see Figure A-1)

The following neighbourhoods are in the vicinity of dog off-leash areas, but with limited hours of use during daytime hours:

- Kitsilano
- Strathcona
- Grandview-Woodland
- Hastings-Sunrise
- Kensington-Cedar Cottage (with the exception of John Hendry (Trout Lake) off-leash area)
- Renfrew Collingwood
- · Victoria-Fraserview

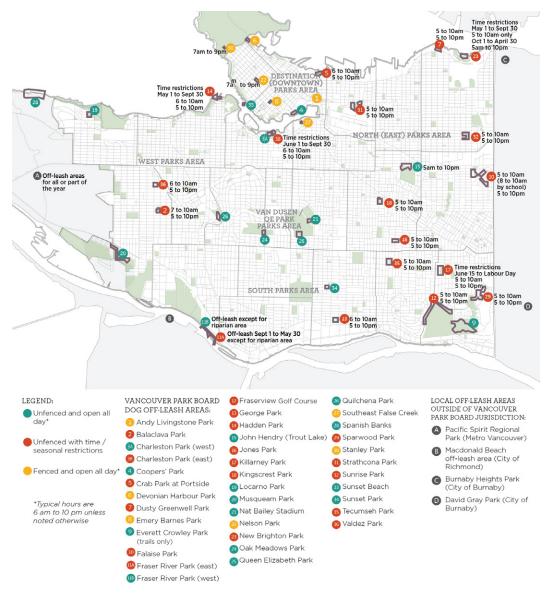


Figure A-1. Vancouver's Existing Dog Off-Leash Areas, 2016 (with time restrictions noted).



A6 Service Analysis

A6.1 Neighbourhood evaluation

Table 2-1 identifies the number of licensed dogs in each of Vancouver's 22 neighbourhoods and the area (measured in hectares) of existing dog off-leash sites within each neighbourhood. This assessment identifies neighbourhoods, particularly Mount Pleasant, which have large numbers of licensed dogs relative to the area of dog off-leash spaces available within it.

Neighbourhood	Area (ha)	Population (2011 Census)	Licensed dogs (June 2016)	Dog density ¹	Off-leash Area ² (ha)	Dog density relative to OLA area ³
West End	225.6	44,543	1,563	6.9	0.31	5,004
Downtown	467.4	54,680	3,037	6.5	1.51	2,005
Kitsilano	636.3	41,136	2,888	4.5	1.27	2,268
Mount Pleasant	372.1	26,400	1,663	4.5	0.05	30,468
Fairview	363.5	31,432	1,522	4.2	1.23	1,233
Grandview-Woodland	475.4	27,297	1,657	3.5	0	N/A
Kensington-Cedar Cottage	725.2	47,471	1,862	2.6	4.38	425
Riley Park	493.2	21,794	1,171	2.4	2.31	508
South Cambie	217.6	7,682	476	2.2	0.47	1,004
Hastings-Sunrise	833.2	33,992	1,548	1.9	4.04	383
Dunbar-Southlands	908	20,185	1,568	1.7	4.87	322
Killarney	693.4	28,458	1,184	1.7	22.28	53
West Point Grey ⁴	535	13,038	904	1.7	6.18	146
Renfrew-Collingwood	810	50,495	1,333	1.6	4.74	281
Arbutus-Ridge	370.1	15,908	598	1.6	0.92	649
Victoria-Fraserview	550.1	30,711	818	1.5	1.98	414
Sunset	657.6	36,286	870	1.3	1.84	472
Kerrisdale	660.9	14,651	817	1.2	7.1	115
Shaughnessy	448	8,807	540	1.2	0	N/A
Strathcona	437	12,170	523	1.2	2.79	187
Marpole	600.3	23,913	650	1.1	7.1	92
Oakridge	402.4	12,443	363	0.9	0	N/A

¹ Number of licensed dogs per hectare of neighbourhood area

Table A-1. Comparison of neighbourhood area, population density, licensed dogs and dog off-leash area.

A6.2 Service analysis based on willingness-to-walk distance

To evaluate the existing service level of off-leash areas from a distance perspective, a map was generated (Figure 3 of the Strategy Report), showing each city block's distance from a designated off-leash area. Note that distances shown are "as the crow flies" and not based on actual walking distance to the off-leash sites.

² Area (hectares) of designated dog off-leash sites within each neighbourhood

³ Number of licensed dogs per hectare of dog off-leash areas within each neighbouhood

⁴ Including Spanish Banks off-leash area (5 ha)

The analysis reveals a number of neighbourhoods that have large areas that may be considered underserved based on distance to off-leash area. These include:

- Kitsilano
- Fairview
- Mount Pleasant
- Grandview-Woodland
- · Renfrew-Collingwood
- Kerrisdale
- Oakridge
- Marpole

A6.3 Service analysis based on off-leash area type and size

Analysis of the sizes and types of off-leash areas across the city reveals additional patterns of service level, with some neighbourhoods having fewer or no off-leash areas with all-day access year-round (See Figure A-4).

This analysis reveals that many East Vancouver neighbourhoods have relatively large off-leash areas, but that most of these are only accessible in mornings and evenings (typically 5 or 6 am to 10 am, and 5 pm to 10 pm). In East Vancouver only Nat Bailey off-leash area, Sunset Park off-leash area, John Hendry (Trout Lake) off-leash area and Everett Crowley off-leash area have all-day, year-round off-leash access.

Based on this analysis the following neighbourhoods are ones that are in the vicinity of off-leash areas, but only those with limited hours of use during daytime hours:

- Kitsilano
- Strathcona
- · Grandview-Woodland
- Hastings-Sunrise
- Kensington-Cedar Cottage (with the exception of John Hendry (Trout Lake) off-leash area)
- Renfrew Collingwood
- · Victoria-Fraserview

A6.4 Service analysis by density of people, projected growth areas, and licensed dogs

Vancouver's neighbourhoods with the highest human population density (Figure A-2) tend to be those with high dog population density (Figure A-3). These include:

- West End
- Downtown
- Fairview
- Mount Pleasant
- Kensington-Cedar Cottage
- Kitsilano
- · Renfrew-Collingwood
- · Grandview-Woodland



Existing off-leash areas within Vancouver's high density neighbourhoods are tasked with supporting high numbers of dogs within relatively small areas. Neighbourhoods with the highest number of licensed dogs per hectare of designated off-leash area are identified in Table A-1. Neighbourhoods with more than 1,000 dogs per hectare of existing off-leash area include:

- Mount Pleasant
- West End
- Kitsilano
- Downtown
- Fairview
- South Cambie

Several of the City's neighbourhoods are also expected to experience higher levels of projected population growth over the coming decades, and it is expected that this will be accompanied by increased densities of dogs within these areas. Neighbourhoods with higher than average levels of projected growth include:

- Downtown
- West End
- Strathcona
- Grandview-Woodland
- Fairview
- Mount Pleasant
- Cambie Corridor
- Oakridge
- Marpole
- Renfrew-Collingwood
- East Fraser Lands

In addition, some of the city's individual off-leash areas experience much higher potential levels of usage than others, based on the number of licensed dogs within a 1 km radius (Table A-2). The sites with the highest potential intensity of usage include the following off-leash areas, each with between 1,000 and 3,000 dogs within a 1 km radius of the site:

- Nelson Park off-leash area
- Emery Barnes Park off-leash area
- Coopers' Park off-leash area
- Charleson Park off-leash area east
- Charleson Park off-leash area west
- Sunset Beach off-leash area
- Hinge Park (Southeast False Creek) off-leash area
- Andy Livingstone Park off-leash area
- John Hendry (Trout Lake) Park off-leash area

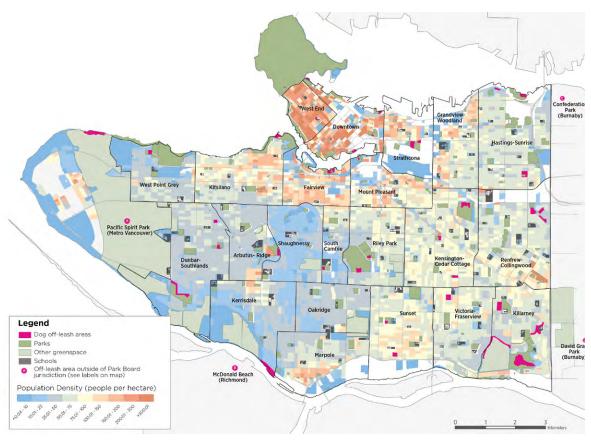


Figure A-2. Distribution of people (population density) in Vancouver, based on 2011 Census data

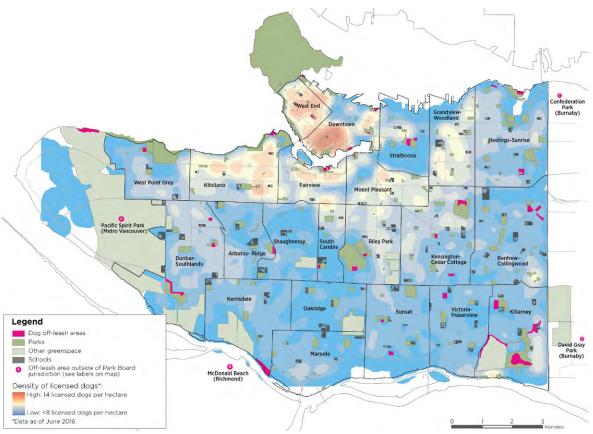


Figure A-3. Distribution of licensed dogs (data from June 2016)



	Population	Licensed dogs
Dog off-leash area	within 1km	within 1km
	(2011 census)	(2016 data)
Nelson Park	67,843	2,966
Emery Barnes	54,144	2,740
Coopers' Park	42,055	2,537
Charleson Park East	43,006	2,249
Charleson Park West	41,256	2,201
Sunset Beach	44,624	1,961
Hinge Park (Southeast False Creek)	31,335	1,758
Andy Livingstone	34,327	1,310
John Hendry	28,520	1,106
Kingscrest Park	28,261	942
Hadden Park	25,924	921
Devonian Harbour	28,976	909
Valdez Park	17,575	886
Balaclava Park	16,156	840
Fraserview Golf Course North	26,808	810
Nat Bailey Stadium Park	15,558	706
CRAB Park at Portside	21,428	689
Everett Crowley	15,201	688
Sparwood Park	19,252	652
Strathcona Park East	16,518	645
Strathcona Park West	18,764	638
Stanley Park	19,188	635
Jones Park	32,147	629
Fraserview Golf Course South	19,759	614
Tecumseh Park	29,129	587
Musqueam Park	8,750	585
Killarney Park	30,738	577
Sunset Park	27,124	570
Quilchena Park	12,717	509
Sunrise Park	17,177	504
Queen Elizabeth Park	15,180	491
Falaise Park West	15,519	411
George Park	20,374	358
Dusty Greenwell Park	7,620	340
Falaise Park South	12,785	337
Falaise Park East	12,152	334
Oak Meadows Park	9,563	326
Fraser River Park	9,752	296
Locarno Beach Park	5,339	295
New Brighton Park	4,955	229
Spanish Banks Park	1,072	33

Table A-2. Population and Licensed Dog Population within a 1km radius of existing dog off-leash areas.

Neighbourhood	Priority level based on proximity to existing off leash areas (1)	Priority level based density of users Density of licensed dogs and high population density ⁽²⁾	Notes
Arbutus-Ridge	Low priority	Low priority	
Downtown	Low priority	High priority	High existing density + projected growth
Dunbar-Southlands	Low priority	Low priority	
Fairview	Low priority	High priority	High existing density + projected growth
Grandview- Woodland	High priority	High priority	Moderate existing + projected growth
Hastings-Sunrise	Medium priority	Low priority	
Kensington-Cedar Cottage	Low priority	Low priority	
Kerrisdale	High priority	Low priority	
Killarney	Low priority	Medium priority (future)	Projected growth
Kitsilano	High priority	Moderate priority	Moderate existing density
Marpole	High priority	Medium priority (future)	Projected growth
Mount Pleasant	High priority	High priority	Moderate existing density + projected growth
Oakridge	High priority	Medium priority (future)	Projected growth
Renfrew- Collingwood	Medium priority	Medium priority	Moderate existing density
Riley Park	Medium priority	Medium priority	Moderate existing density
Shaughnessy	Medium priority	Low priority	
South Cambie	Medium priority	Medium priority (future)	Projected growth
Strathcona	Low priority	Medium priority (future)	Projected growth
Sunset	Low priority	Low priority	
Victoria-Fraserview	Low priority	Low priority	
West End	Low priority	High priority	High existing density + projected growth
West Point Grey	Low priority	Low priority	

⁽¹⁾ Based on Figure 3 of the Strategy Report, or a 1km service radius (~15 minute walk)

Table A-3 Priority level of Neighbourhoods based on distance to existing dog off-leash areas, licensing and population.

⁽²⁾ Based on Figure 3 of the Strategy Report, and information from City of Vancouver about projected growth areas. The classification of high priority neighbourhoods is based on having either moderate existing density (50 to 80 people per ha) and projected growth, or high existing density (over 80 people per ha)



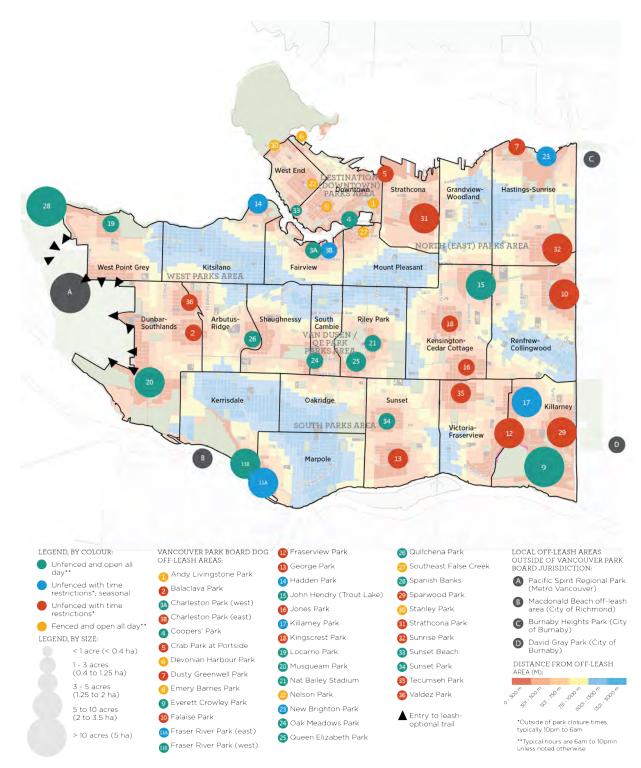


Figure A-4 Vancouver dog off-leash areas by Type and Size.

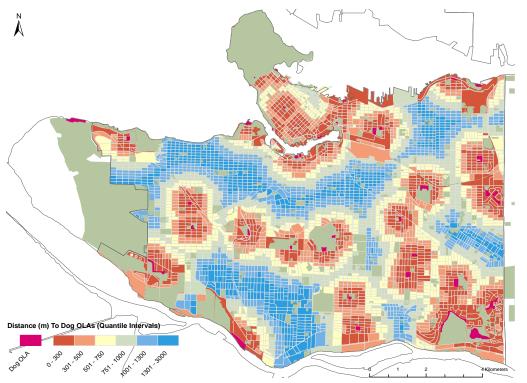


Figure A-5 Distance from Vancouver city blocks to dog off-leash areas: **not including** dog off-leash areas outside of Vancouver Park Board jurisdiction.

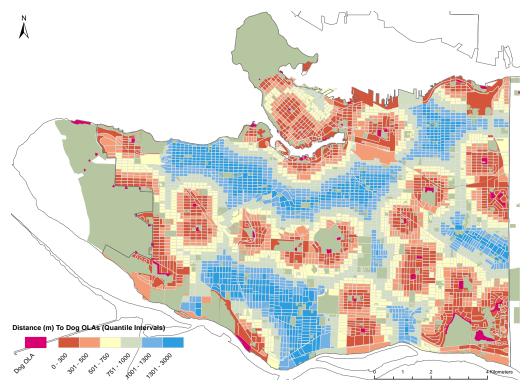


Figure A-6 Distance from Vancouver city blocks to dog off-leash areas: **including** dog off-leash areas located outside of and bordering Vancouver Park Board jurisdiction (applies to Pacific Spirit Regional Park trails). Trail heads for leash-optional trails are identified by red triangles. See Figure 2-3 in Strategy Report for additional information.



B FIELD STUDY and INTERCEPT SURVEY

at Eight Dog Off-Leash Areas in Vancouver



FIELD STUDY

The intent of the field survey was to better understand qualitative patterns of usage at eight selected dog off-leash areas, including how sites were used by people with and without dogs, and to see how these patterns compared over the course of the day and between weekdays and weekends.

B1 Methodology

Eight dog off-leash areas were chosen for the qualitative field survey. These sites were chosen to represent a diversity of off-leash area sizes, surrounding land uses, hours of use, and geographic areas within Vancouver and included:

John Hendry Park (Trout Lake) off-leash area: large destination area; within large park; East Vancouver

Strathcona Park (west area) off-leash area: sports fields and playground adjacencies; within large park; East Vancouver; daytime usage restrictions (off-leash allowed 5-10 am and 5-10 pm)

Sparwood Park off-leash area: large off-leash area with elementary school and medium density residential area adjacencies; southeast Vancouver; daytime usage restrictions (off-leash allowed 5-10 am and 5-10 pm)

Charleson Park (grass bowl area) off-leash area: medium-sized area; along busy section of seawall; west side of Vancouver

Quilchena Park off-leash area: medium-sized area; sports fields and low density residential adjacencies; west side of Vancouver

Hadden Park off-leash area: large destination area with beach; west side of Vancouver; seasonal daytime usage restrictions (off-leash allowed 5-10 am and 5-10 pm, between May 1 and Sept 30)

Spanish Banks off-leash area: large destination area with beach conditions; multi-use trail that bisects off-leash area; west side of Vancouver

Emery Barnes off-leash area: small fenced area; high density residential adjacencies; Downtown

Each site was observed for a 30 minute period in the morning (7:45 - 8:15 am), midday (12:00 - 12:30 pm), and late afternoon (5:30 - 6:00 pm) over a weekday, and for the same three time periods over a weekend days. Results are not statistically significant. Site observations were done on random week days and random weekend days between late June and early September, and all observations were made during dry weather (i.e. not raining).

The number of people with dogs and without dogs were recorded, and they were roughly classified into age groups. When more than one person was present at the park with a dog these people were all counted as being people with dogs. The way dogs were interacting and using the sites was noted, as were the number of dogs and roughly how many were in each size classification, as follows:

Small breed: under 25 lbs, such as Pugs and Miniature Poodles.

Medium breed: 25 to 50 lbs, such as Border Collies and Cocker Spaniels.

Large breed: over 50 lbs, such as Golden Retrievers, Labradors, and German Shepherds.

B2 Highlights of the observations

The following are some general observations and patterns that were observed from the field survey:

- Large dogs (e.g. golden retrievers, labs, and larger) made up the greatest proportion of dogs by size at all sites except Emery Barnes park, which had more small dogs than large or medium sized dogs (Figure B-1).
- People without dogs outnumbered people with dogs at most off-leash areas, most of the time (Figure B-1) (Sparwood, Hadden, and Charleson parks; Emery Barnes was excluded). There were more people without dogs during weekday afternoons at Charleson and Sparwood off-leash areas.
- The off-leash area with the highest use by people with dogs was Hadden Park, with a cumulative total of 163 people across the 6 observation periods (average of 27 people per hour), followed by Trout Lake with 131 people (average of 22 people per hour) (Figure B-1)
- The highest number of total dogs counted over the observation periods was at Trout Lake, with 176 total dogs over the 6 hour observation period (average of 29 dogs per hour). The fewest number of total dogs counted over the observation periods were at Strathcona Park and Sparwood park, each with 40 dogs total (average of 7 dogs per hour) (Figure B-1).
- Overall, weekday and weekend use by people with dogs was similar (Figures B-2 and B-3, respectively).
 Hadden Park and Trout Lake were noticeable busier on weekends. Hadden Park, Spanish Banks, and
 Sparwood Park had more people without dogs on weekdays, while Strathcona Park and Trout Lake had more people without dogs on weekends.
- On weekdays, sites generally became more heavily used by people with dogs throughout the day, increasing at midday and again in afternoons (Figures B-4, B-5 and B-6). Trout Lake, however, was busier in the morning and midday. Emery Barnes was busier in the morning and afternoon, and less so at midday. This pattern was similar on weekends (Figures B-7, B-8 and B-9), with a few exceptions. Emery Barnes, Sparwood Park, Strathcona Park, and Trout Lake were busiest at midday on weekends.
- Dogs were observed off leash during prohibited hours (i.e. midday) at Strathcona Park, Sparwood Park, and Hadden Park (Figure B-5). The highest number of off leash dogs during prohibited hours were at Hadden Park during the weekend midday observation period (26 off leash dogs over 30 minutes). Only three off leash dogs were observed at Sparwood during the weekday midday observation period during prohibited hours when school was in session.

Non dog owners were observed in dog off-leash areas:

- Walking, jogging, biking, skateboarding, or roller blading
- Practicing yoga or tai chi; group yoga class (Hadden Park)
- Playing frisbee
- Playing disc golf (Quilchena Park OLA)
- Playing softball (Strathcona Park OLA)
- Sun bathing
- Reading or on cell phone
- Taking photos
- Picnicking (picnic tables or on blankets on ground)
- Sitting and observing scenery / dog activity
- Using playgrounds
- Kids playing, running, climbing
- Group of daycare children sitting in park (Charleson Park)

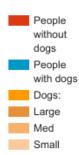
Dog owners were engaged in a variety of activities, both with and without their dogs:

- · Walking dogs
- Playing with dogs
- Resting / sitting with dog
- Reading or on cell phone (not observing dog)
- Socializing with other dog owners
- Picnicking with dog
- Dog training
- Swimming with dog (Hadden Park)

B₃ Patterns of Use



The following graphs identify additional patterns of use at individual off-leash area sites.



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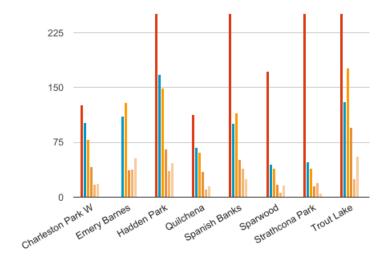


Figure B-1. Cumulative totals of people and dogs at all study sites, across all observation periods; weekend and **weekdays combined (all times)**

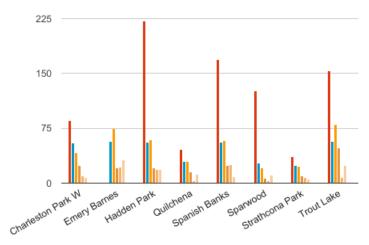


Figure B-2. Total numbers of people and dogs at study sites on **weekdays (all times)**

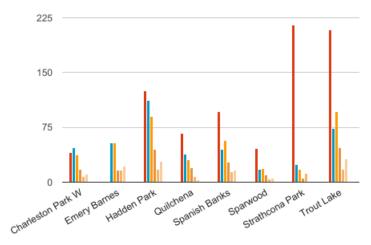


Figure B-3. Total numbers of people and dogs at study sites on **weekends (all times)**

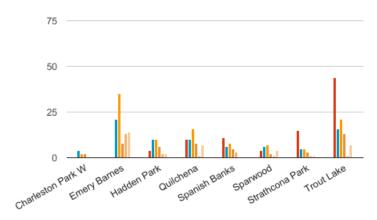


Figure B-4. Total numbers of people and dogs at study sites on **weekday mornings** (note change in scale of y-axis for this and subsequent figures)

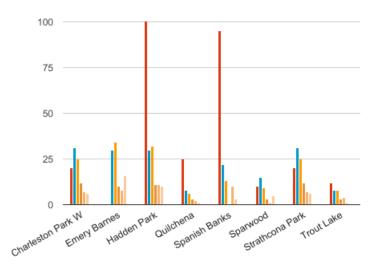


Figure B-6. Total numbers of people and dogs at study sites, **weekday afternoons** (number of people without dogs exceeded 100 at Hadden Park)

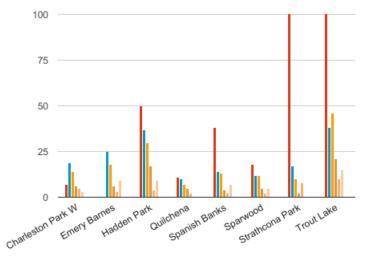


Figure B-8. Total numbers of people and dogs at study sites, **weekends at midday** (number of people without dogs exceeded 100 at Strathcona and Trout Lake)

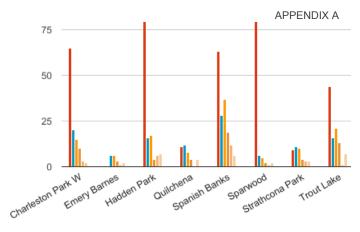


Figure B-5. Total number of people and dogs at study sites on **weekdays at midday** (Sparwood site by students during school days, resulting in over 100 people without dogs)

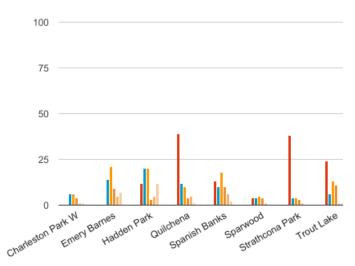


Figure B-7. Total numbers of people and dogs at study sites, **weekend mornings**

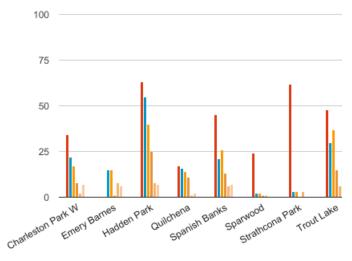


Figure B-9. Total numbers of people and dogs at study sites, **weekend afternoons**



B4 Site Observation Reports

Charleson Park off-leash area west (grass bowl and waterfall area)

Dates and times of observations:

Weekday	7:45 - 8:15am	July 14
Weekday	12:00 - 12:30pm	July 22
Weekday	5:30 - 6:00pm	July 21
Weekend	7:45 - 8:15am	July 24
Weekend	12:00 - 12:30pm	July 9
Weekend	5:30 - 6:00pm	July 24

- Two groups of children from a daycare were having picnic on lawn of off-leash area during weekday
- Many non-dog owners were sitting on the ground or blankets in the off-leash area while resting, reading, and/or picnicking
- · Many children were attracted to climb the "jelly bean" sculptures in the off-leash area
- There was a high usage of the waterfall area throughout the day during the summer (weekdays and weekends), when this area is supposed to be on-leash
- Signage regarding boundaries and off-leash hours / times of year is confusing, and the waterfall area is not shown on the off-leash area map.
- Dog owners and dogs were well-distributed throughout the grass bowl off-leash areas, while non dog owners were mostly concentrated along the seawall and around the "jelly bean" sculptures.

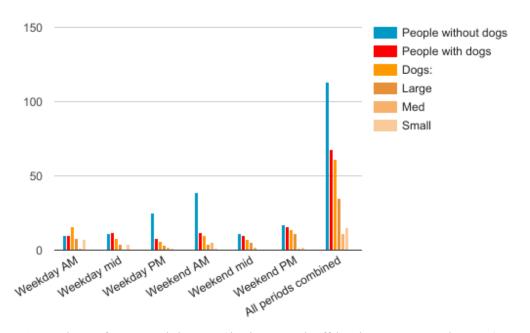


Figure B-10. Numbers of users and dogs at Charleson Park off-leash area across observation periods

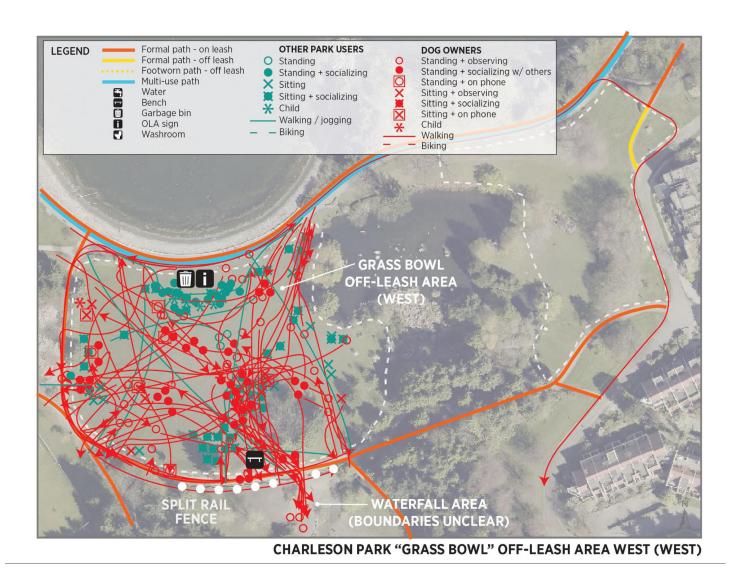


Figure B-11. Spatial patterns of use at Charleson Park "grass bowl" off-leash area, all days, all times combined



Emery Barnes off-leash area

Dates and times of observations:

Weekday	7:45 - 8:15am	Aug 24
Weekday	12:00 - 12:30pm	Aug 15
Weekday	5:30 - 6:00pm	Aug 24
Weekend	7:45 - 8:15am	Aug 27
Weekend	12:00 - 12:30pm	Aug 28
Weekend	5:30 - 6:00pm	Aug 27

- Highest usage of off-leash area was on weekdays, both before and after typical work hours
- Most dog owners stayed for short periods of time (-5-15 minutes). There was very little interaction between dog owners and dogs while they were at the park. Many owners were on their phones while dogs relieved themselves, and then left.
- Some people brought children / babies into the off-leash dog area.
- Lawn area adjacent to off-leash area was well-used by families and children. Some were observing dogs playing in the park.
- During the weekday afternoon observation period 10 off-leash dogs (mostly small dogs) were counted in the lawn area, while about 24 dogs were off-leash in the designated area.
- Dog owners clustered near the entries of the off-leash area and did not circulate through the off-leash space.

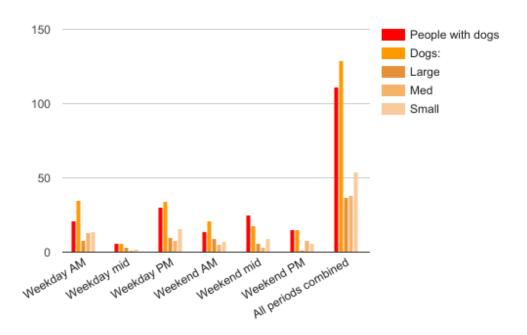


Figure B-12 Numbers of users and dogs at Emery Barnes Park off-leash area across observation periods

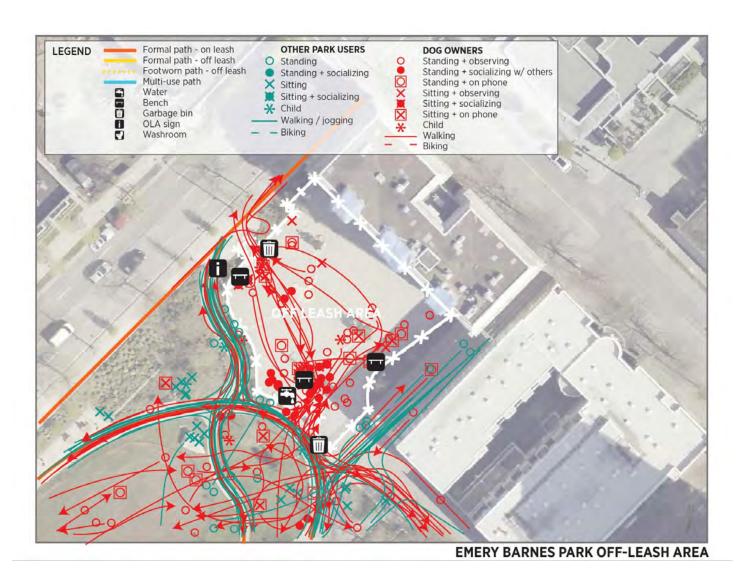


Figure B-13. Spatial patterns of use at Emery Barnes off-leash area, all days, all times combined



Hadden Park off-leash area

Dates and times of observations:

Weekday	7:45 - 8:15am	July 13
Weekday	12:00 - 12:30pm	July 13
Weekday	5:30 - 6:00pm	July 13
Weekend	7:45 - 8:15am	July 17
Weekend	12:00 - 12:30pm	July 17
Weekend	5:30 - 6:00pm	July 17

- It appears that many dog owners drive to Hadden Park off-leash area. One person arrived at the park with her dog by bike.
- Several families with children came to the park with their dog.
- Many people pass through the park on their way to or from the aquabus / water taxi
- Many dogs were observed off-leash outside of the off-leash boundaries. During discussions with dog owners it appeared that many were not aware of the boundaries of the off-leash area.
- During midday and afternoon periods there were more non dog owners than dog owners in the off-leash area
- Most dog owners and dogs were concentrated on the beach, whereas non dog-owners were more typically found using the upland park areas.

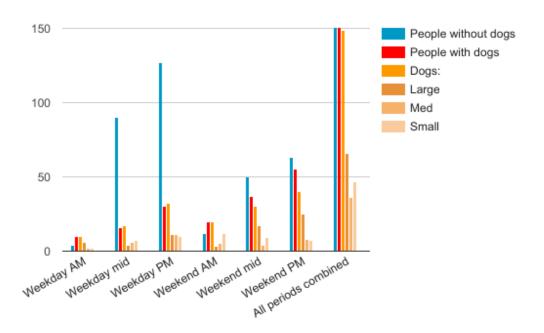


Figure B-14. Numbers of users and dogs at Hadden Park off-leash area across observation periods. Note that numbers of people without dogs and people with dogs exceeded 150 during all periods combined.

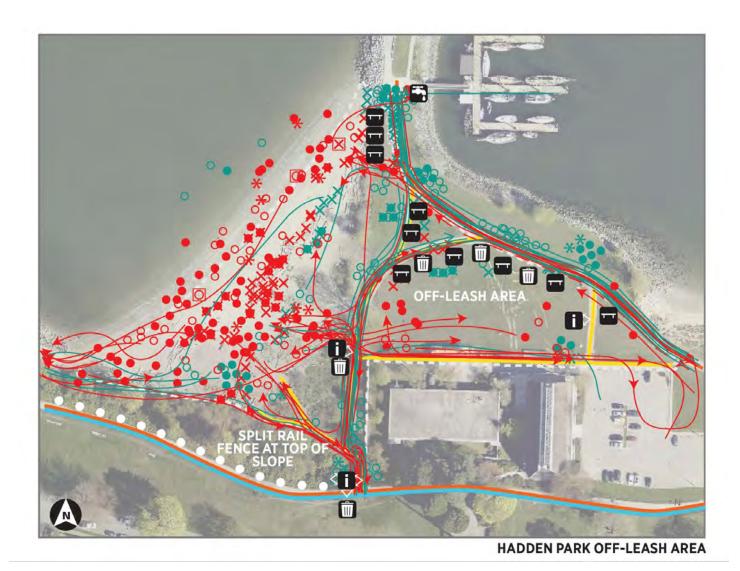


Figure B-15. Spatial patterns of use at Hadden Park off-leash area, all days, all times combined; See Figure B-13 for legend.



Quilchena Park off-leash area

Dates and times of observations:

Weekday	7:45 - 8:15am	July 25
Weekday	12:00 - 12:30pm	July 20
Weekday	5:30 - 6:00pm	July 19
Weekend	7:45 - 8:15am	July 23
Weekend	12:00 - 12:30pm	July 23
Weekend	5:30 - 6:00pm	July 23

- Many dogs and dog owners were observed outside of the off-leash area, but discussions with dog owners revealed that most knew the boundary was defined by the north-south trail
- Most dog owners were walking through the off-leash area. Some stopped to play fetch with their dogs.
- · Many non dog owners were doing laps around the park's loop trail for jogging and walking
- People were observed playing disc golf during half (three of six) of the observation periods. During one of these periods the people playing disc golf had a dog with them off-leash, while during two of the periods the people playing did not have dogs with them.

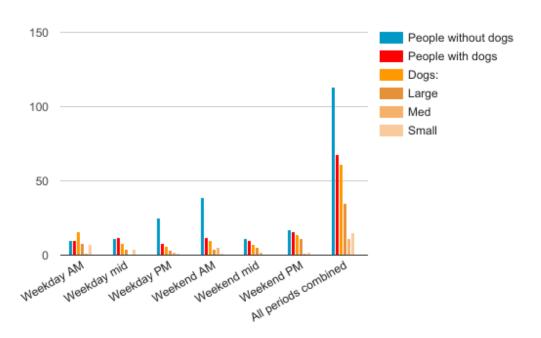


Figure B-16. Numbers of users and dogs at Quilchena Park off-leash area across observation periods

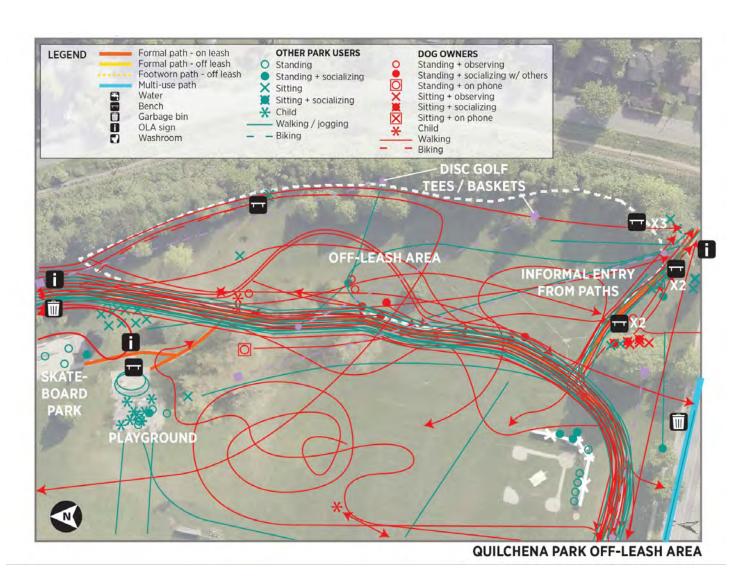


Figure B-17. Spatial patterns of use at Quilchena Park off-leash area, all days, all times combined.



John Hendry (Trout Lake) off-leash area

The busiest time of the week for both off-leash activity and park activity was midday on weekends, which coincided with the Trout Lake farmer's market. Overall, Trout Lake had the highest number of dogs overall (176).

Dates and ti	mes of observations:	
Weekday	7:45 - 8:15am	July 15
Weekday	12:00 - 12:30pm	July 14
Weekday	5:30 - 6:00pm	July 15
Weekend	7:45 - 8:15am	July 16
Weekend	12:00 - 12:30pm	July 16
Weekend	5:30 - 6:00pm	July 17

- Many non dog owners were observed walking or jogging around the park's loop path, which goes through the off-leash area.
- Several cyclists bike through the off-leash area.
- One group of people with special needs came to the off-leash area, although it was unclear whether they specifically came to observe the dogs or not
- Many dogs were observed off-leash outside of the off-leash boundaries, particularly to the east of the multi-use trail on the sports fields.
- Many dogs were swimming in Trout Lake
- Several dogs were observed as having poor recall, and many were playing rambunctiously
- Many non dog owners were present in the off-leash area with children. Several were sitting and observing dogs, and some were sitting on the grass reading or on phones.
- On Saturday mornings there were large numbers of people without dogs passing through the off-leash area on their way to and from the market.

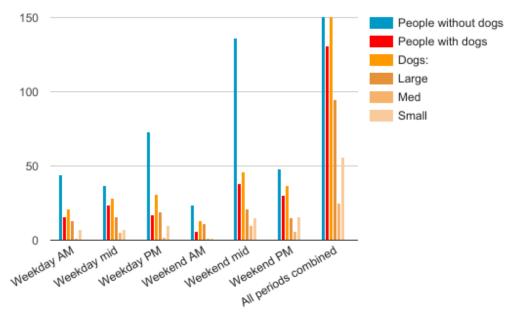


Figure B-18. Numbers of users and dogs at John Hendry (Trout Lake) Park off-leash area across observation periods. Note that numbers of people without dogs and people with dogs exceeded 150 during all periods combined.

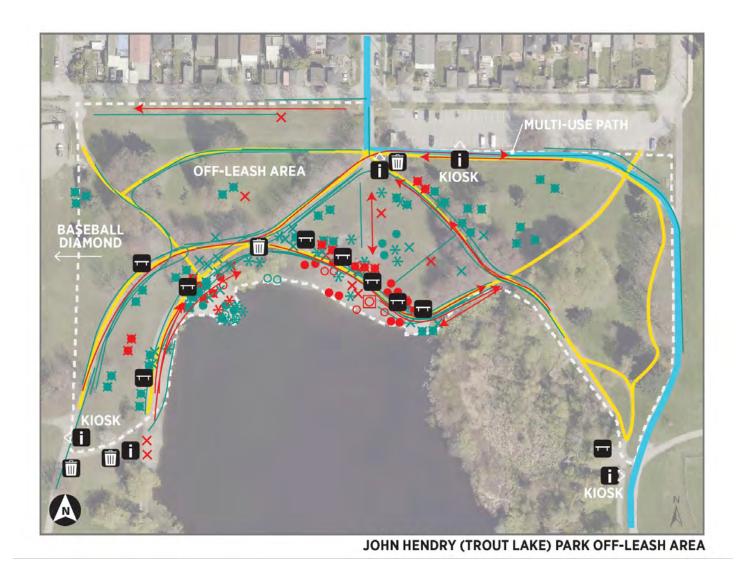


Figure B-19. Spatial patterns of use at John Hendry (Trout Lake) Park off-leash area, all days, all times combined; see Figure B-16 for legend.



Spanish Banks off-leash area

Dates and times of observations:

Weekday	7:45 - 8:15am	July 15
Weekday	12:00 - 12:30pm	August 22
Weekday	5:30 - 6:00pm	July 12
Weekend	7:45 - 8:15am	July 10
Weekend	12:00 - 12:30pm	September 4
Weekend	5:30 - 6:00pm	August 21

- In the open lawn area of the off-leash area people without dogs were observed picnicking, doing yoga, reading, sunbathing, playing frisbee, and playing badminton. Many people without dogs were biking, walking, and jogging through the off-leash area along the multi-use trail.
- Most park users at the sandy beach area (west end of the off-leash area) were people with dogs
- People with dogs and without dogs were generally equally distributed throughout the open lawn area. Many families and children were present.
- Several dogs were observed off-leash in the parking lots to the south of the off-leash area.
- Many dogs were observed off-leash outside of the off-leash boundaries.
- There is no signage at the west boundary of the site to indicate that users are entering or leaving an off-leash area.

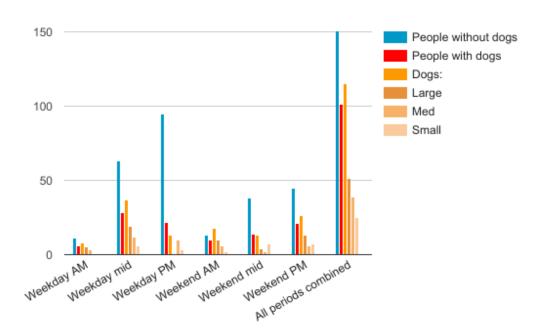


Figure B-20. Numbers of users and dogs at Spanish Banks Park off-leash area across observation periods. Note that numbers of people without dogs exceeded 150 during all periods combined.

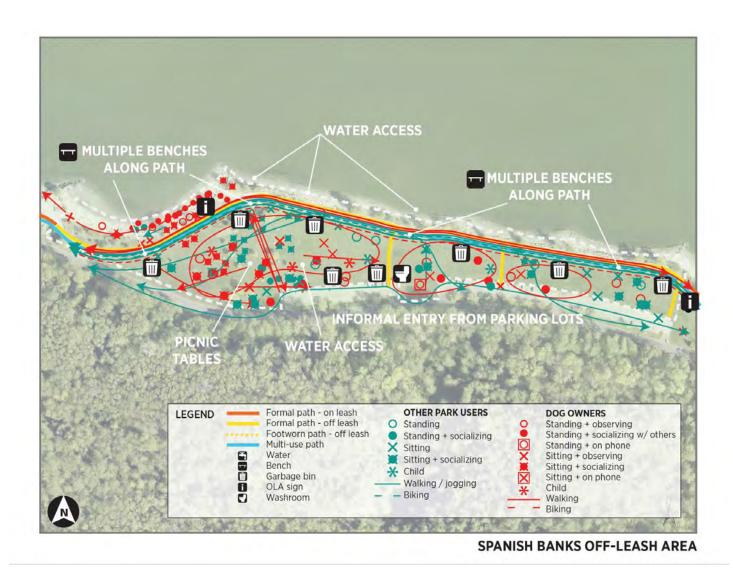


Figure B-21. Spatial patterns of use at Spanish Banks Park off-leash area, all days, all times combined.



Strathcona Park off-leash area west

Dates and times of observations:

Weekday	7:45 - 8:15am	July 18
Weekday	12:00 - 12:30pm	July 19
Weekday	5:30 - 6:00pm	July 18
Weekend	7:45 - 8:15am	July 16
Weekend	12:00 - 12:30pm	July 17
Weekend	5:30 - 6:00pm	July 17

- Many dogs were off-leash in on-leash area
- Some softball players were at the park with dogs
- Activities by people without dogs included: BMXing in skatepark, observing biking and skateboarding, stretching / tai chi / yoga, running, walking, basketball, practicing softball, playing frisbee, playing with boomerang.
- Many dog owners were playing fetch with dogs or walking through park with dogs
- One dog owner observed lifting dog up to drinking fountain to drink

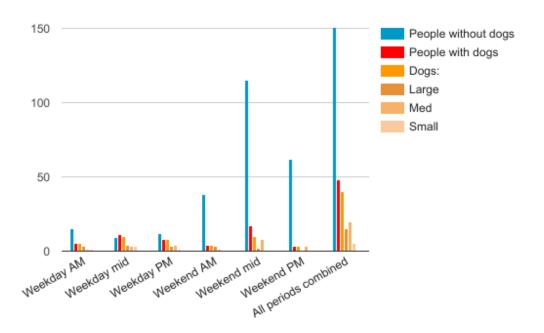


Figure B-22. Numbers of users and dogs at Strathcona Park off-leash area west across observation periods. Note that numbers of people without dogs exceeded 150 during all periods combined.

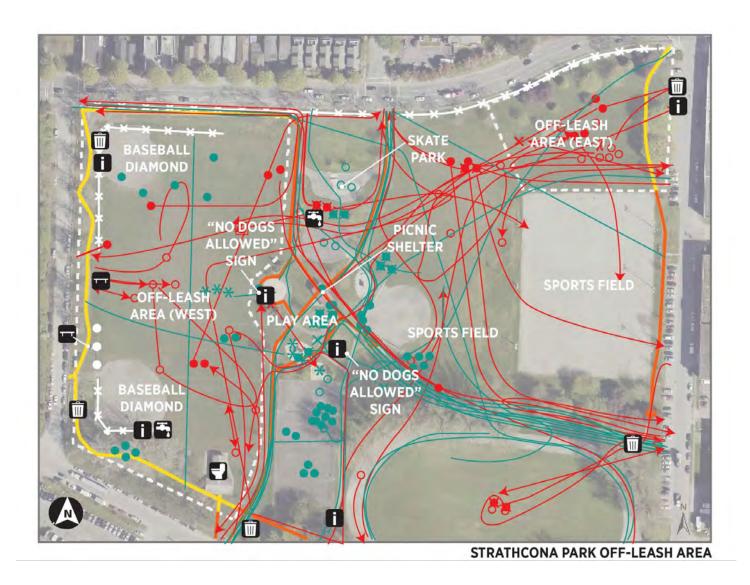


Figure B-23. Spatial patterns of use at Strathcona Park off-leash area, all days, all times combined; see Figure B-21 for legend.



Sparwood Park off-leash area

Dates and times of observations:

Weekday	7:45 - 8:15	June 29
Weekday	12:00 - 12:30	June 29
Weekday	5:30 - 6:00	June 29
Weekend	7:45 - 8:15	July 24
Weekend	12:00 - 12:30	July 24
Weekend	5:30 - 6:00	July 24

- Dog owners generally respected on-leash rules during weekday midday when students from Sparwood elementary school were using the schoolyard and park field
- There were a group of dog owners who indicated that they gathered at the park every day in the late afternoon with their dogs. They set up their own chairs along the west edge of the park, and would throw balls for their dogs from there.
- Strong east-west and northwest-southeast desire lines through park
- Dogs were not observed to north and northeast of school during any observation periods
- Most dog owners were observing dogs, playing ball with dogs, or sitting in shade on grass with dogs

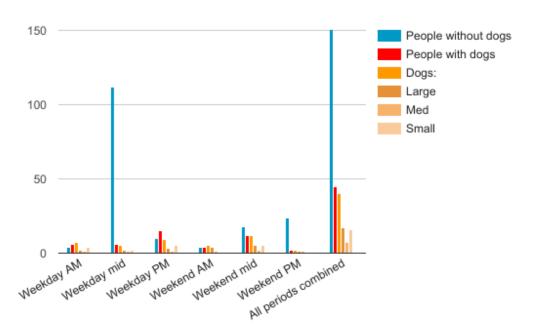


Figure B-24. Numbers of users and dogs at Sparwood Park off-leash area across observation periods. Note that numbers of people without dogs exceeded 150 during all periods combined.

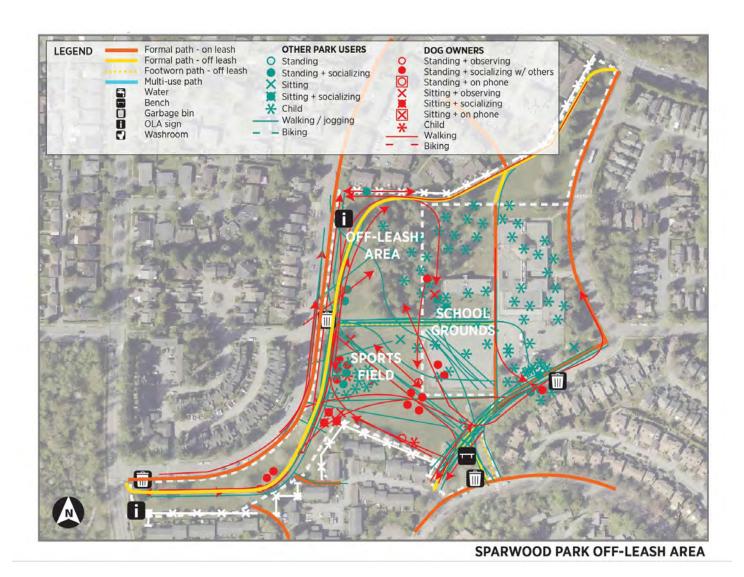


Figure B-25. Spatial patterns of use at Sparwood Park off-leash area, all days, all times combined.



INTERCEPT SURVEY

The intent of the intercept survey was to gather feedback from people using dog off-leash areas.

Methodology

Public Intercept Surveys were conducted in dog off-leash areas in order to gather feedback from park visitors with and without dogs. A total of 230 people participated, responding to questions on the following topics:

- Level of satisfaction with the quality of parks with off-leash areas
- How well Vancouver parks work for dog owners and non dog owners
- What improvements can be made to improve off-leash areas for both dog owners and non dog owners
- Identification of priorities and concerns related to dog off-leash activity
- Patterns of usage at off-leash areas

These Intercept Surveys were conducted during the summer of 2016, as part of the Field Studies (see Appendix B) at the following eight dog offleash areas:

- John Hendry Park
- Strathcona Park
- Sparwood Park
- Charleson Park
- Quilchena Park
- Hadden Park
- Spanish Banks
- Emery Barnes

An even mix of people with dogs (118) and without dogs (112) were approached to take the survey, and respondents completed the form on paper or online (using an iPad or phone) while they were in the park. Eighty-seven (87) dog owners and 41 non dog owners provided general open-ended comments to help inform the development of the dog off-leash strategy.

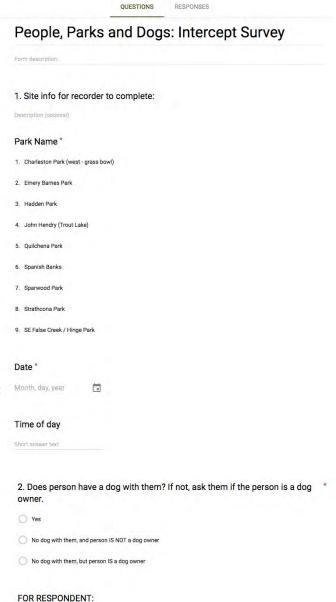


Figure B-30 Intercept Survey Questions (1 of 4)

Very dissatisfied O O O O

3. To what degree are you satisfied with the OVERALL QUALITY of Vancouver's parks that have dog off leash areas in them, such as this park? (5 = very satisfied /

Description (optional)

4/3/2/1 = very dissatisfied)

Summary of Results

Quality of parks with off-leash areas

Dog owners (67%) and non dog owners (73%) both reported being satisfied with the quality of Vancouver parks that have dog-off leash areas in them.

How well Vancouver's parks work for dog owners and for non-dog owners

Both dog owners (61%) and non dog owners (65%) agreed that Vancouver's parks work well for dog owners and dogs.

Higher numbers of dog owners (81%) and non dog owners (78%) both agreed that Vancouver's parks work well for non dog owners.

Whether parks can work better for both dog owners and non-dog owners

The majority of dog owners (82%) agreed that improvements can be made so that Vancouver's parks work better for both dog owners and non dog owners, while fewer non dog owners agree (61%).

The three most supported improvements among dog owners were:

- More dog off-leash areas (47%*)
- Clearer off-leash area boundaries (26%*)
- Education programs for dog owners and non dog owners (16%*)

The three most supported improvements among non dog owners were:

- Clearer off-leash area boundaries (32%*)
- More dog off-leash areas (26%*)
- More enforcement (20%*)
- *Note that totals add up to more than 100% as respondents were able to choose more than one option.

Are dog off-leash areas an acceptable use of public parks?

Almost all dog owners (93%) agreed that off-leash areas are an acceptable use of public parks, while a smaller majority of non dog owners agreed (78%).

The role of off-leash areas in reducing conflict with off-leash dogs

Both dog owners (81%) and non dog owners (74%) agreed that off-leash areas reduce conflict between off-leash dogs and other park users.

Several non dog owners (12%) expressed a general fear of dogs (especially large breeds, pit bulls, or aggressive dogs) or were concerned for the safety of children around off-leash dogs.

4. To what extent would you agree that Vancouver's parks work well for DOG OWNERS AND DOGS? (5 = strongly agree/4/3/2/1 = strongly disagree) 2 3 4 5 Strongly disagree O O O Strongly agree 5. To what extent would you agree that Vancouver's parks work well for NON DOG OWNERS? (5 = strongly agree/ 4 / 3 / 2 / 1 = strongly disagree) Strongly disagree O O O Strongly agree 6. Do you think that any improvements can be made so that Vancouver's parks can work BETTER for both dog owners and non dog owners? Unsure / I don't know If yes: Which of the following strategies do you think would help to IMPROVE Vancouver's parks to work better for both dog owners and non dog owners? (select all that apply) Clearer boundaries between on leash and off leash areas More enforcement of rules Education programs More designated off leash areas Fewer designated dog off leash areas I don't think any changes need to be made Other... AGREE / DISAGREE STATEMENTS: To what extent do you agree with the following statements, where 5 = strongly agree and 1 = strongly disagree 7. Dog off leash areas are an ACCEPTABLE use of public parks * Strongly disagree O O O Strongly agree 8. Dog off leash areas help REDUCE CONFLICTS between off leash dogs and * other park users Strongly disagree O O O Strongly agree 9. Dog off leash areas should be FENCED*

Figure B-31. Intercept Survey Questions (2of 4)

1 2 3 4 5

Strongly disagree O O O Strongly agree



Fencing versus clear boundary delineation

Opinions were divided regarding the need for fencing versus other strategies to clearly delineate off-leash area boundaries.

A slight majority (44%) of dog owners disagreed that off-leash areas should be fenced, while 31% agreed, and 25% were undecided or neutral. In contrast, 64% agreed that off-leash areas should have clear boundaries but not be fenced.

Non dog owners were almost evenly split in their opinion on fencing, with 34% in support, 33% opposed, and 32% undecided or neutral. A majority (59%) agreed that off-leash areas should have clear boundaries but not be fenced.

Among those who provided open-ended comments, far more non dog owners (24%) expressed support for fencing, selective fencing (i.e. where it makes sense), and clearer boundaries compared to dog owners (10%).

Dog waste management

The majority of dog owners (66%) felt that it was being managed adequately while only 48% of non dog owners agreed.

Among those who provided open-ended comments, both dog owners (11%) and non dog owners (7%) expressed the need for better waste management, either through better compliance with picking up dog waste, more dog waste bags, and/ or more dog waste bins.

Enforcement and education

Opinions were divided about enforcement. A small majority (53%) of dog owners felt that there was adequate enforcement of dog activity in Vancouver parks, while only 30% of non dog owners agreed.

Among open-ended comments, 19% of non dog owners called for more enforcement, fines, and education of dog owners so as to increase dog owner responsibility and control over dogs, while 8% of dog owners expressed these sentiments.

10. Dog off leash	areas sh	ould have	e clear b	oundaries,	but NOT	be FENCED*
	Ť	2	3	4	5	
Strongly disagree	0	0	0	0	0	Strongly agree
11. DOG WASTE	is adequa	tely man	aged in \	√ancouver	's off leas	h areas *
	1	2	3	4	5	
Strongly disagree	0	0	0	0	0	Strongly agree
12. There is adec	quate ENF	ORCEME	NT of do	og activity	in Vancou	ver parks*
	7	2	3	4	5	
Strongly disagree	0	0	0	0	0	Strongly agree
15. Is there anyth developed? (USE BY HAND)						n as this strategy is DARD OR ENTER
16. How often d	o you visit	dog off	leash are	eas?		
O Daily						
Once or more per v	veek					
Once or more per n	nonth					
Once or more per y	ear					
17. Which Off Le map here: https://drive.god?usp=sharing	ogle.com/		HbUnsvl			now tnem map) HuNGIQbtIILA/view
Balaclava Park				New Brighton P	ark	
Charleston Park				Oak Meadows F		
Coopers' Park				Queen Elizabeth		
Crab Park at Portsi	de			Quilchena Park	, un	
Devonian Harbour			_	Southeast False	Crook / Hingo	Dorle
Dusty Greenwell Pa					Creek / Tillige	rain
Emery Barnes Park				Spanish Banks Sparwood Park		
Everett Crowley Pa				Stanley Park (~	ald abufflabour	d court)
Falaise Park				Strathcona Park		Courty
Fraser River Park				Sunrise Park		
Fraserview Park (~	by golf course			Sunset Park		
George Park	, g.,, coa, co				lowntown)	
Hadden Park (~ Kit	ts dog beach)			Sunset Beach (o		
Killarney Park	- aog peddil)					
Kingscrest Park				Valdez Park		
Locarno Park				Other		
Locario Faik						

Figure B-32. Intercept Survey Questions (3 of 4)

Visits to dog off-leash areas

Among dog owners, 65% reported visiting a dog off-leash area every day, and 30% go once or more per week. A small majority (57%) of dog owners had walked to the off-leash area on the day of the survey, although 67% report typically walking.

Licensing

Of dog owners who were asked about licensing, 90% of them reported that their dogs were licensed. The primary reason for licensing was that it was legally required (expressed by 46% of dog owners), and that it can increase the chance of being reunited with one's dog if he/she goes missing (24%).

The primary reason that people gave for not licensing their dog was that they consider it inconvenient.

Other comments

Other open-ended suggestions for the strategy expressed by dog owners included the following:

- More off-leash areas (9%)
- More amenities within off-leash areas (8%), such as seating, shade, drinking water, and more grassed areas
- Need for larger off-leash spaces for running / exercising dogs, for reducing aggression between dogs, and for maintaining cleaner and more attractive park space (7%).
- Education of non dog owners in order to increase their tolerance of dogs, and to foster an understanding of good etiquette around off-leash dogs (6%).

18. How did you travel to this dog off leash area today?
Walk
Orive
Other
19. How do you TYPICALLY travel to off leash areas in general?
○ Walk
O Drive
Other
20. These last two questions are completely confidential and optional to answer: Is your dog currently licensed?
○ Yes
○ No
Prefer not to answer
Skipped question
21a. If licensed: Would you mind sharing with us why you have licensed your dog? Please select all that apply.
Increases the chance that I will get my dog back if he/she goes missing
Helps the city collect data on dogs
Legally required
I've always just licensed my dog
I don't know / no strong reason
Other
21b. If NOT licensed: Would you mind sharing with us why you have NOT licensed your dog? Please select all that apply.
Too expensive
I don't think it's important
Didn't know that I was supposed to license my dog
Inconvenient
I don't know / no strong reason
Other

Figure B-33. Intercept Survey Questions (4 of 4)



© PRECEDENT STUDY



PRECEDENT RESEARCH

The intent of the following precedent research is to better understand best practices in dog off-leash management from across North America, and how Vancouver compares.

C1 Methodology

11 precedent cities or jurisdictions were chosen based on various criteria, including:

- Similarity to Vancouver climate (Seattle, Portland, and various Lower Mainland municipalities)
- Local municipalities to understand what is being done in the Vancouver area (Lower Mainland municipalities: Burnaby, District of North Vancouver, City of North Vancouver, Surrey)
- Established dog off-leash management plans in place (Salt Lake County, Denver, Calgary, Hamilton, Seattle)
- Similarity to Vancouver in urban form and density (Toronto, New York City)

In addition to reviewing any existing management plans and reports from the precedent cities, phone interviews were conducted with staff from each municipality in order to understand how dog off-leash activity is managed and what "lessons learned" have emerged from that municipality's experience with dogs off-leash.

C2 Highlights of Precedent Research

C2.1 Off-leash area metrics by jurisdiction

The following table (Table C-1) summarizes the available data for Vancouver, detailed precedent study cities, and some other North American cities for comparison.

Compared to the other selected cities The City of Vancouver has a high amount of designated off-leash area space as a percentage of total parkland, at about 5.9%. Of the cities surveyed, only the City of Calgary has a higher percentage of off-leash area (6%).

Similarly, the City of Vancouver has a high number of off-leash hectares per number of dogs, with an estimate that ranges between 12 ha and 21 ha per 10,000 dogs. Only Calgary and Austin, TX, have more space allocated to designated off-leash areas, out of the cities surveyed.

The City of Vancouver has a relatively low number of dogs per capita, with a range of 54 to 93 dogs per 10,000 people. Most of the other cities surveyed have more dogs per capita.

C2.2 Classification and distribution of off-leash areas

Out of the municipalities studied, only New York, Calgary, and Salt Lake County have different types of designated off-leash area.

New York's off-leash area typologies are based on whether sites are fenced ("dog runs") or whether they are designated park areas with allowable off-leash hours ("designated off-leash areas"); hours are typically 9pm to 9am, outside of park closing hours.

Calgary and Salt Lake County have different scales of off leash area, including Neighbourhood, Community, and Regional. Neighbourhood off-leash areas are typically smaller and serve a more local area, whereas Regional off-leash areas are larger, have more amenities, and serve a larger area.

City	Human population (5)	Licensed dog population (2016 data)	Est. total dog population (3)	Est. % of dogs licensed	Est. total number of dogs per 10,000 people	Hectares of parkland	Parkland (ha) per 10,000 People	OLA hectares	OLA hectares per 10,000 people	OLA hectares per 10,000 dogs	Dog off leash hectares as % of total parkland
Vancouver, BC:											
Est. dog population - low	603,502	21,332	32,390	%99	54	1,153	19.1	9.79	1.12	20.87	2.86%
Est. dog population - high	603,502	21,332	55,947	38%	93	1,153	19.1	9.79	1.12	12.08	2.86%
Toronto, ON	2,615,000	57,276	230,000	72%	88	8,000	30.6	N.d.	N.d.	N.d.	N.d.
Calgary, AB	1,097,000	99,724	135,000	74%	123	21,244	193.7	1278.8	11.66	94.73	6.02%
North Vancouver - City, BC	48,196	1,627	N.d.		N.d.	136	28.2	9.9	1.37	N.d.	4.85%
Hamilton, ON	519,950	39,844	75,000	23%	N.d.	888	17.1	25.94	0.50	N.d.	2.92%
Austin, TX (1, 2)	885,400	N/A	193,600	A/N	219	10,965	123.8	271.9	3.07	14.05	2.48%
San Francisco, CA (1)	805,000	17,135	113,010	15%	140	2,304	28.6	48.6	09.0	4.30	2.11%
Portland, OR	609,456	N.d.	137,000		225	4,452	73.0	26.7	0.44	N.d.	%09:0
New York, NY	8,336,697	85,000	000'009	14%	72	11,740	14.1	48.6	90.0	0.81	0.41%
Seattle, WA	652,406	40,644	150,000	27%	230	2,647	40.6	10.7	0.16	0.71	0.41%
Surrey, BC	468,250	18,830	75,000	72%	160	2,685	57.3	10.9	0.23	1.45	0.40%
Burnaby, BC	223,220	2,000	19,500	79%	87	2,000	9.68	6.24	0.28	3.20	0.31%
Los Angeles, CA (1)	3,884,307	N.d.	681,428		175	14,640	37.7	44.1	0.11	0.65	0.30%
Denver, CO	649,495	26,887	142,631	19%	220	2,518	38.8	5.3	0.08	N.d.	0.21%
Chicago, IL (1)	2,718,782	18,303	400,000	2%	147	5,053	18.6	6.4	0.02	0.12	0.10%
San Diego, CA (1)	1,394,988	87,375	313,336	28%	225	19,589	140.4	8.1	90.0	0.26	0.04%
North Vancouver - District, BC	84,412	6,505	8,700	75%	103	12,914	1529.9	4 8.	0.57	5.52	0.04%

⁽¹⁾ Data from Seattle, 2016. Estimated total dog population is based on an assumption of 30% licensing rate.

⁽²⁾ Licensing not required
(3) Numbers in italics are from American Veterinary Medical Association calculator

⁽⁴⁾ Includes 32 km of trails, using assumption of 1.5m trail width (5) Canadian city data from 2011 Statistics Canada census N.d. = No data available



With respect to the distribution of off-leash areas, Denver, Hamilton, Surrey, Portland, and Seattle all have explicit goals of having areas well-distributed across the municipalities.

Vancouver does not have official classifications of off-leash area, nor has explicit goals of off-leash area distribution. There are currently six (6) completely or partially fenced off-leash areas, all close to downtown, and the remaining thirty (30) are unfenced. Site sizes vary greatly across the city. Thirteen (13) sites have daytime usage restrictions year-round; these are typically 5 to 10 am and 5 to 10 pm, which are much longer than New York City's permitted hours. Five (5) other sites have daytime usage restrictions in summer only, although start and end dates vary by site. The only precedent city with seasonal time restrictions is New York, which limits dogs off-leash at selected beach sites in summer months.

C2.3 Location criteria

Many municipalities prohibit dogs from park areas that are considered more sensitive to disturbance, or where conflict is more likely, such as: playgrounds, school grounds, swimming pools / wading pools, sports fields, cemeteries, golf courses, swimming beaches (with exceptions), ornamental plant displays, and sensitive natural areas.

Some municipalities also strive to keep off leash areas away from residential adjacencies (e.g. Hamilton, Salt Lake County, Denver), and encourage the use of mitigation measures to buffer residents from off leash areas. Some municipalities also require setbacks or mitigation measures when sites are next to busy streets (e.g. Portland, Denver, Hamilton). Denver, for example, requires a 60 m setback from busy streets unless the site is completely fenced.

Vancouver has few location criteria to guide the siting of off-leash areas, with the exception of prohibiting dogs from within 15 m of playgrounds, and from designated sports fields.

C2.4 Commissioning and decommissioning off-leash areas

Many municipalities require or prefer that new off-leash area requests come from members of the community. In some cases requests may come from individual applications (e.g. Portland), a local dog owners association (e.g. Toronto), or a group of citizens who can demonstrate broad neighbourhood support for a new facility (e.g. Denver). The City of Calgary has a detailed framework for responding to off-leash area requests; their process involves evaluating the request and the level of stakeholder support, screening the site using establishment criteria, engaging stakeholders, and developing a draft plan for the site.

Having an established process for decommissioning an off-leash site is also critical. The City of Toronto, for example, may close an existing site due to lack of use, extensive damage, conflicts among users, or ongoing non-compliance with the Code of Conduct.

Vancouver has established its current network of off-leash areas on a somewhat ad hoc basis, primarily in response to local demand or Park Board identification of potentially suitable sites. There is no formal process for commissioning or decommissioning off-leash areas.

C2.5 Defining off-leash area boundaries

Most municipalities use a mix of fencing and/or signage to define the boundaries of off-leash areas. Some, like Portland, use wood posts and signage as boundary markers. Others, like Burnaby, use a mix of hedges, pathway, or partial fencing to delineate the off-leash area boundaries. Several municipalities include maps posted at park entries to show the off-leash area boundaries and use boundary signs to indicate where on-leash and off-leash areas begin and end.

Boundaries of Vancouver's unfenced off-leash areas are typically communicated by a single small map that is located somewhere within the off-leash area. These maps appear to be insufficient to adequately inform users about the boundaries, and in most cases, there are no on-the-ground features that correspond with boundary lines. Oak Meadows off-leash area is one of few sites that has older signage along some of its boundaries indicating where on-leash and off-leash areas begin and end.

C2.6 Amenities

The level of standard amenities at off-leash areas varies across the municipalities surveyed, and by the type of off-leash area. Neighbourhood-scale off-leash areas typically have fewer amenities than destination-scale sites. The City of Calgary has a "level of service" framework to guide which types of amenities are located at the different types of off-leash areas.

Waste bins and signage are provided as standard elements by most municipalities, and several provide shade and seating. Some municipalities provide drinking water and dog bag dispensers that are typically stocked by volunteers. The City of Surrey hires a private contractor to supply dog waste bags in exchange for advertising space on park kiosks.

Vancouver is in line with surveyed municipalities in providing waste bins and signage as standard elements in off-leash areas, and most sites have seating and some amount of shade. Vancouver provides more drinking water for people in proximity to off-leash areas compared to most municipalities; drinking water fountains are available at or close to 24 out of 36 off-leash areas. Drinking water for dogs is currently provided in two sites (Southeast False Creek off-leash area and Coopers' Park off-leash area). Dog bag dispensers had been provided at a few sites in the past (including Queen Elizabeth Park off-leash area and Dusty Greenwell Park off-leash area) but these have since broken and not been replaced.

C2.7 Surfacing

Finding successful surfacing options for off-leash areas is a challenge for most municipalities, as most users prefer grass but it does not hold up to heavy usage. Municipalities that share Vancouver's wet winter climate (including Seattle, Portland, and Lower Mainland municipalities) have found that fine crushed gravel (e.g. crusher dust or gravel screenings) is the most successful material for high use areas, as long as smell and dust is managed. Wood chips typically do not drain well and have problems with odour and mold. The City of Surrey, however, is finding that the use of cypress wood shavings / sawdust (typically used in horse rings) is working well so far.

Vancouver is similar to other municipalities in primarily providing a mix of grass and gravel in its off-leash areas, and in its struggle to maintain grass at high usage sites (e.g. Coopers' Park off-leash area). The type of gravel used at sites is variable, though; most sites have coarse angular gravel or pea gravel, both of which are generally considered undesirable by dog owners.

C2.8 Funding

All of the municipalities surveyed obtain the largest percentage of off-leash area funding from their general parks budget; this is generally available for new construction as well as maintenance.

Other sources of funding or in-kind support that are used in some instances include:

- Private sponsorship: The cities of Surrey and Calgary both use private sponsorship
 to fund extra amenities at off-leash areas. As referenced above, Surrey uses a private
 contractor to provide dog waste bags in parks in exchange for advertising space on inpark kiosks.
- Community fundraising: Volunteer fundraising is used to fund non-standard amenities at some off-leash sites in the cities of Calgary and Hamilton.
- Dog license fees: The City of Hamilton dedicates a portion of every dog license fee to off-leash areas.

Like most municipalities, Vancouver funds off-leash area maintenance and upgrades through the general park board capital plan and currently does not access sponsorship, community fundraising, or license fees to fund off-leash areas.

C2.9 Stewardship



The cities of Hamilton, Portland, Toronto and Calgary all encourage the formation of volunteer-based committees to be involved with the stewardship of individual off-leash areas, but municipalities report it is hard to ensure these groups stay active in the long-term. The City of Seattle has a formal partnership with a city-wide dog off-leash advocacy organization who plays a role in planning, education, monitoring, fundraising, site improvements, and basic maintenance.

Similar to the other municipalities surveyed, Vancouver does not have a formal volunteer stewardship program for its off-leash areas. There are currently a few informal citizen groups that have formed around individual off-leash areas in Vancouver (e.g. Dog Lovers of Trout Lake).

C2.10 Monitoring and Evaluation

Most municipalities have informal procedures for receiving complaints and identifying potential issues with off-leash areas.

The City of Calgary is one of few municipalities that has an established list of evaluation criteria that are used to assess off-leash areas. If issues have been identified with one or more of the criteria, a formal review process will be initiated.

The City of Portland monitors sites for giardia if they are made aware of any cases of giardia that might be linked to an off-leash area.

As with many of the municipalities in the precedent survey, Vancouver does not have a formal process for monitoring off-leash areas, or for evaluating sites according to established criteria.

C2.11 Education initiatives

Within the municipalities surveyed examples of education initiatives include city-wide public education campaigns (e.g. Toronto), informal education in parks by city staff or bylaw officers (e.g. Portland), and in-park signage to educate users. Some have partnered with organizations such as the SPCA (Society for the Prevention of Cruelty to Animals) for educational events. The City of Calgary also offers free in-park training on dog recall.

Vancouver currently uses in-park signs and enforcement officers to communicate bylaw and code of conduct requirements, and has developed a "Rex in the City" educational brochure to communicate important dog ownership information to City of Vancouver residents.

C2.12 Dog waste management

Most municipalities have combined waste bins for dog waste and other park garbage, and send all of this to landfill.

Some municipalities have experimented with composting dog waste with mixed results. The City of Toronto, for example, had a pilot project in parks whereby dog waste could be placed in in-park green bins as long as it was collected with cardboard scoops or paper bags; this pilot project was considered unsuccessful and was not continued.

"Biodegradable" bags are not accepted in Toronto or Vancouver's green bin systems as the material is highly variable and most requires special conditions for degradation that are not found in municipal composting systems.

Vancouver, along with several municipalities in the Lower Mainland, started a "red bin" pilot project in three parks (Charleson Park, Grimmett Park, and John Hendry / Trout Lake Park) to collect dog waste separately and have this sent to the wastewater treatment plant. This initiative appears to be superior to the waste management techniques used by the other municipalities surveyed.

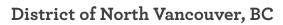
C3 Detailed Profiles

The following 11 cities or districts are included in the detailed profiles:

- City of North Vancouver, BC
- District of North Vancouver, BC
- Burnaby, BC
- Surrey, BC
- Calgary, AB
- Hamilton, ON
- Toronto, ON
- Salt Lake City, UT
- Portland, OR
- Denver, CO
- Seattle, WA

City of North Vancouver, BC

Number of off-leash	3 sites, 2 are fenced
areas	(Kings Mill Walk, Mosquito Creek Park and Lynnmouth Park)
Classification and Distribution	No target
Size	No target
Location Criteria	Dogs are NOT permitted at all on playgrounds, picnic areas, playing fields, beaches, fitness circuits, running tracks, golf courses, bowling greens, tennis courts, ornamental gardens or in the North Vancouver cemetery.
	Specific permitted and prohibited areas are outlined by CNV parks bylaw 6611, Schedule F
Commissioning / Decommissioning off- leash areas	No formal process
Boundary Definition	Two of three sites are fenced. Fully fenced designated off-leash areas have been found to work well. The unfenced site is entirely off leash and is bounded by a river and an industrial area.
Amenities	No standard amenities. Amenities at some sites include: waste bins, dog waste bags supplied by municipality, seating, drinking water for people, drinking water for dogs, walking path(s), shade, fencing, at some but not all of our off-leash areas.
Surfacing Materials	Gravel or paved paths with grass.
Funding	General parks operating budget
Stewardship	No volunteer program
Monitoring and Evaluation	No formal process
Education Initiatives	"Poo fairy" education campaign. Educational signage in parks.
Licensing	Estimate is that percentage licensed is very low.
Dog Waste Management	Currently taken to landfill but city is implementing dedicated dog waste "red" bins so that waste will be collected by private contractor and disposed of at wastewater treatment plant. Red bin program should be in place for early 2017.
Source	City of North Vancouver website, "Dogs in City Parks", Mike Hunter, Manager of Parks & Environment, City of North Vancouver, personal communication (June 2016).





Normals are of off to a sh	10
Number of off-leash areas	18 parks with leash-optional trails / areas. 1 fenced off-leash area.
Classification and Distribution	No target
Size	No target
Location Criteria	Dogs are not allowed at all in playgrounds, spray pools, picnic areas, playing fields, beaches, fitness circuits and running tracks, golf courses, bowling greens, and tennis courts. No established criteria to inform where dogs are allowed on or off leash within parks. DNV is exploring the provision of dog off leash areas in new growth centres.
Commissioning / Decommissioning off- leash areas	No formal process.
Boundary Definition	One site is fenced. Boundaries of unfenced sites are designated with signage.
Amenities	No standard amenities. amenities at some sites include: waste bins, dog waste bags supplied by municipality, seating, drinking water for people, drinking water for dogs, walking path(s), shade, fencing.
Surfacing Materials	Gravel areas tend to be more successful and require less maintenance.
Funding	General parks revenue
Stewardship	No volunteer program
Monitoring and Evaluation	No formal process
Education Initiatives	Animal Welfare Officers educate dog owners when they are out on patrol.
Licensing	Estimate almost 90% compliance. Door-to-door and phone campaigns have been effective. Those who have not renewed their dog licenses are called, then followed up with a visit, then given a ticket if the license is not renewed.
Dog Waste Management	Dog waste goes to landfill
Source	Carolyn Girard, Park Planner, District of North Vancouver, personal communication (June, 2016).

City of Burnaby, BC

Number of off-leash areas	9 sites, 4 of which are fenced. Sites include trails, separate small dog areas, and areas with water access
Classification and Distribution	No target. Goal is to direct off leash activity away from high use park areas and into appropriate dedicated locations. It has been hard to find locations for new off leash areas that meet all of the defined criteria and that have public support.
Size	For neighbourhood parks the minimum size of off-leash areas is 0.25 ha (0.6 acres) for unfenced off-leash areas and 0.5 ha (1.23 acres) for fenced off-leash areas.
Location Criteria	Setback requirements:
	 15m away from recreation facilities and flower beds 30m away from the top of bank of watercourses and water bodies (if this setback is not possible mitigative measures must be used, such as fencing along the watercourse). 50m away from the perimeter of conservation areas or ecological reserves, and avoid high-use bird nesting and feeding habitat (e.g. meadows, wetlands, marshes) Dog off-leash areas should be away from primary or secondary roads and from major trails (unless a natural or man-made barrier is in place). Dogs are NOT allowed on sports fields, playgrounds, ball / tennis courts, group picnic grounds, concert grounds, on beaches, or in ponds, lakes or streams. Dogs are only allowed on sports fields for pre-approved special events (e.g. dog agility competition).
Commissioning / Decommissioning off-leash areas	New off-leash areas are initiated by the Parks Recreation and Cultural Services with authorization from the Parks Recreation and Culture Commission and are subject to a community consultation process targeting the residents of the local community in which a facility is being proposed. During this process it is determined what type of off-leash area facilities is supported (i.e. open area, fenced, partially fenced, trail, or combination). If there is opposition to use of the park site for an off-leash area it is not pursued. Residents can submit a letter, petition or appear as a delegate to the Parks and Recreation Committee to request a site be decommissioned, but to date none of these requests have been approved.
Boundary Definition	Mix of fenced and unfenced sites. If unfenced the off-leash area may be delineated with a hedge, pathway, or partial fence. Some sites are mixed use. Fencing is used when off-leash areas are next to roads or some uses where dog activity is restricted.
Amenities	Waste bins, dog waste bags, seating, drinking water for people and drinking water for dogs.
Surfacing Materials	Gravel areas (rock dust / granite fines) work well at well-drained and level sites. Grass is provided for variety but is hard to maintain. Wood chips can be made in house but break down quickly and have poor drainage.
Funding	General capital and operating funds
Stewardship	No volunteer program
Monitoring and Evaluation	No formal process. Informally collect information from field staff and public. Aim to review how sites are performing on annual basis.
Education Initiatives	Have partnered with Burnaby SPCA in the past to hold education events in the past to educate and teach dog owners about proper etiquette and dog behaviour. Education programs were not continued.
Licensing	Estimate about 30% (data from 2006)
Dog Waste Management	Waste from designated off leash areas goes to Metro Vancouver incinerator.
Other	City is pursuing limits on the number of dogs that can be walked on or off-leash. They have discussed the idea of licensing professional dog walkers but are not implementing this at this time.
Source	Alekxos Sarter, Research Officer, Parks Planning, Design and Development, City of Burnaby, personal communication (July, 2016), City of Burnaby "Dogs in Burnaby Parks" Brochure, City of Burnaby "Criteria and Indicators for Off-leash Areas in the City of Burnaby"

City of Surrey, BC



Number of off-leash areas	10 sites, with majority fenced. Unfenced sites are gradually being fenced.
Classification and Distribution	Target distribution is 2-3 per Town Centre (6 Town Centres in total)
Size	Minimum of 1 acre (0.4 ha) although they may be smaller in dense urban areas.
Location Criteria	Dogs must be kept away from sports fields, school grounds, playgrounds, residential areas, and selected biodiversity conservation areas.
Commissioning / Decommissioning off- leash areas	Guided by criteria and process in approved strategy. Proposed sites go through a public consultation process and committee evaluation. Sites may be closed by the Parks General Manager at any time.
Boundary Definition	All new sites are fenced, and older unfenced sites are gradually being fenced. The City considers fencing critical to minimize conflict with other park users.
Amenities	Most sites have waste bins, walking paths and fencing.
Surfacing Materials	Crusher dust (9mm crushed gravel) is quite successful but not as popular as grass. The city is piloting the use of cypress wood shavings / sawdust (a material typically used in horse rings) and so far it appears to be successful.
Funding	Parks Capital Program
Stewardship	No formal program
Monitoring and Evaluation	No formal program
Education Initiatives	No formal program
Licensing	Estimated 25% compliance rate
Dog Waste Management	Currently taken to landfill but the City is investigating having it collected by a private contractor and disposed of at the wastewater treatment plant.
Source	Ted Uhrich, Manager of Parks Planning, Research and Design, Parks Division - City of Surrey, personal communication (June, 2016).

City of Calgary, Alberta

Number of off-leash areas	150 unfenced sites and 4 fenced sites.
Classification and Distribution	Off-leash areas (off-leash area) are areas where dogs are allowed off-leash under full control of the owner. Sites may be fenced, partially fenced, or unfenced. Neighbourhood off-leash areas serve residents within a 800m walking distance Community off-leash areas serve residents within a 8 minutes driving distance Regional off-leash areas serve residents within a 20 minute driving distance
Size	The goal is for off-leash areas to be a minimum of 0.5 ha, although some sites in urban areas are smaller than this. More specifically:
	 Neighbourhood off-leash areas: less than 4.3 ha Community off-leash areas: 4.3 ha to 19.9 ha Regional off-leash areas: more than 19.9 ha off-leash areas should occupy less than 30% of a regional or multi-use site. Recently, a small fenced off-leash area has been established in downtown Calgary that measures 0.11 ha.
Location Criteria	Potential sites are evaluated according to an establishment checklist that addresses location considerations and other criteria. No dogs are permitted within 5 m of playgrounds, school grounds, wading pools, swimming areas, sports fields, golf courses or cemeteries, or other areas where indicated by posted signs. Dogs must always be on-leash on paved pathways, even if the path is within an off-leash area. All areas within natural environment parks are on-leash unless otherwise designated.
	Mitigation is required if an off-leash area is near a "no dog area," or near a pathway, residential area, or major roadway. Mitigation typically consists of selective areas of fencing.
Commissioning / Decommissioning off-leash areas	The City of Calgary has an established procedure for handling off-leash area requests. Suggested new sites or changes to existing sites can come from citizens, organizations or be initiated by the City. Sites are reviewed based on the level of stakeholder support, a review of establishment criteria, and additional meetings with stakeholders to develop a draft plan for establishing a new off-leash area, or for modifying or eliminating an existing off-leash area. Sites may be eliminated where public safety or asset management challenges exist.
Boundary Definition and and Signle Use Vs. Shared Use	Fencing or other barriers are used where necessary and feasible. Fencing is typically used but other barriers may include unmown or forested edges, or making use of natural edges (e.g. landforms) where they exist. Signage is placed at park entries and along paths to indicate when people are entering or exiting the off-leash area.
Amenities	Amenities are provided according to a level of service framework and vary by classification of park. For instance, all sites receive a "base level" of service, signage and barriers to separate uses where necessary and feasible. Benches are provided for community and regional off-leash areas where feasible. Washrooms are provided for regional parks where feasible. "Enhanced service" amenities may be provided in partnership with volunteers or on a sponsorship basis.
Surfacing Materials	Most off-leash areas are surfaced with a mix of grass and dirt. Some sites have gravel or concrete hardscape surfacing in selected areas.
Funding	Funding for off-leash areas currently comes from the capital plan. Additional sources that can be considered include developers, community groups, private funding, grants or a combination thereof.
Stewardship	The City introduced a pilot ambassador program for Egerts and Bowmont Parks, and is currently rolling the ambassador program out across the City. Stakeholder engagement guidelines have been established for different classifications of off-leash areas.
Monitoring and Evaluation	The City has established evaluation criteria that are used to evaluate off-leash areas (e.g. number and nature of complaints, damage to planting, user patterns, amount of dog feces not picked up, etc.). Where concerns have been identified the off-leash area will be reviewed.
Education Initiatives	The City offers free training to dog owners regarding dog recall and hosts educational programs in parks regarding dog waste management.
Licensing	The City estimates that they have a 90% compliance rate with licensing and they have a number of incentives to encourage dog owners to license their dogs, such as the "I Heart My Pet" reward program that offers residents discounts at participating vendors.
Dog Waste Management	Dog waste goes to landfill
Other	In general, there is a high level of tolerance for dogs off-leash in many city parks, even outside of designated off-leash areas. Temporary signage is sometimes used in on-leash parks where there have been concerns with dogs off-leash, such as near schools, sports fields, or playgrounds.
Source	City of Calgary "Off-Leash Area Management Plan," 2010 / City of Calgary website, 2016 / Graham Jones, Business Policy Planning & Strategy Lead, City of Calgary, personal communication (July, 2016).





Number of off-leash	10 sites (8 fenced, 2 unfenced)
areas	10 01000 (0 1011000)
Classification and Distribution	Goal is to have one off-leash area per ward (City has 15 wards)
Size	Preferred size is 1 ha but many are non compliant.
Location Criteria	All existing sites are intentionally located in non-park public lands; this has been found to work well. Sites are not intended to be located in high density residential areas, not along trails, and not within Environmental Significant Areas (ESAs).
	Additional criteria for unfenced sites: not bordered by high traffic streets unless there are adequate barriers; not allowed in park sites with sports facilities; sites close to schools, playgrounds or pools / spray parks shall have time and seasonal restrictions.
Commissioning / Decommissioning off- leash areas	Dog off-leash areas are established in response to community demand and are approved through Council. off-leash areas that are community-led initiatives tend to be more successful.
	The city aims to have a public meeting before the initiation of new off-leash areas.
Boundary Definition	Most sites are fenced with double-entry gates. Unfenced sites have boundaries indicated with signage.
Amenities	Fencing, signage, waste bins, seating and shade are supplied by the City. All other amenities and equipment are supplied by volunteer committees.
Surfacing Materials	Wood chips have been found to be the most successful. Grass is preferred by users but is not durable enough. The City is piloting the use of tumbled granite for a small off-leash area but reviews to date are mixed.
Funding	Funded through Council, capital budgets, and a portion of every dog license. Ensuring that maintenance dollars are provided to keep the amenity clean / functioning is important.
Stewardship	The city aims to have a volunteer group for each site. The group must commit to certain duties, including weekly maintenance, inspections, and education.
	There are currently 2 of 9 sites with volunteer groups. In practice the City undertakes the majority of the maintenance at off-leash areas.
Monitoring and Evaluation	No formal program
Education Initiatives	No formal program
Licensing	The city does not have data on licensing compliance rates
Dog Waste Management	Dog waste goes to landfill
Source	City of Hamilton, "Leash Free Parks Program Policy," 2003, Andrea McDonald, City of Hamilton, personal communication (July, 2016).

City of Toronto, Ontario

Number of off-leash	63 sites, 51 of which are fenced.
areas	os sites, of of which are reficed.
Classification and Distribution	No classification or target distribution
Size	Minimum size is 0.2 ha (0.5 acres)
Location Criteria	The following considerations are used in staff's review of the suitability of a proposed off-leash area: adjacent land use, population density, licensed dog population, proximity of existing off-leash areas, compatibility with the existing park, potential impacts on the park's natural environment, proportion of the park to be taken up by the off-leash area, proximity of the off-leash area to residential areas and no-dog areas. More specifically, off-leash areas cannot be next to residential areas (no designated setback), within 1 km of an existing off-leash area, or next to school grounds or playgrounds. The City's policy dictates that off-leash areas shall not be established within the following areas: playgrounds; splash pads and wading pools; horticultural display areas or ornamental gardens; skateboard bowls, tennis courts and other sports pads; sports fields and stadiums; artificial or natural ice rinks, toboggan hills; animal display areas; campgrounds; designated heritage, memorial, commemorative and ceremonial areas; burial grounds; areas posted prohibiting dogs; swimming
	beaches (with some exceptions); natural environment areas.
	The Animal Bylaw and Parks Bylaw dictate where dogs are allowed on-leash.
Commissioning / Decommissioning off-leash areas	New off-leash areas are considered in conjunction with capital redevelopment of existing parks or new park development. Requests for off-leash areas are reviewed by City staff. Residents interested in establishing an off-leash area must establish a local Dog Owners Association (DOA), although this requirement can be waived. If a site is deemed to meet the required criteria a public meeting is held for comment.
	Sites may be decommissioned by the General Manager under the following conditions: the area is not being used on a regular basis; extensive damage to the park and/or natural environment is occurring; the park is no longer suitable for an off-leash area; conflicts between park users cannot be resolved; repeated, ongoing non-compliance with the Code of Conduct.
Boundary Definition	Off leash areas must be fenced if they are within parks that are 2 acres and under in size, or if they are located within the vicinity of the identified exclusion areas. The goal is to fence all new off-leash area sites, though, regardless of size. For sites that are not fenced the goal is to use natural topography of the land or shrubs for physical/visual delineation.
Amenities	Standard amenities include: waste bins, seating, drinking water for dogs, and fencing (most sites). Four off-leash areas have designated areas for small dogs only.
Surfacing Materials	Pea gravel (washed) has been found to be the most successful surfacing material. Wood chips are used but are not ideal because they hold odour, are not as permeable, and have to be frequently topped up.
Funding	Funding is only available for new off-leash areas sites as part of new capital projects or redevelopment projects.
Stewardship	The City of Toronto encourages Dog Off Leash Area (Doff-leash area) committees to be established for each site to liaise with the City regarding issues, future work, required repairs, etc.
Monitoring and Evaluation	Sites are monitored for problems
Education Initiatives	The City recently undertook a city-wide public education campaign to encourage responsible dog ownership, featuring ads at transit shelters.
Licensing	Estimated to be 30%
Dog Waste Management	Dog waste goes to landfill
Other	Commercial dog walkers who walk more than three dogs at one time require a permit. Commercial dog walkers are excluded from certain off-leash areas, are limited to walking up to 6 dogs at a time and can only walk dogs during specified hours (typically Monday to Friday between 9am and 5pm, as these are the less busy hours at off-leash areas).
	Trees within off-leash areas are fenced to their dripline to prevent damage to root systems.
Source	City of Toronto People, Dogs and Parks Off-Leash policy (2010), Nancy Aranha, Acting Program Standards and Development Officer, Parks, Forestry and Recreation, City of Toronto, personal communication (August, 2016).

Salt Lake County, Utah



Number of off-leash areas	14 sites in total (4 sites administered by Salt Lake County and 10 sites administered by individual cities within the county). 8 of 14 sites are fenced.
Classification and Distribution	Neighbourhood off-leash areas serve residents within a 3 km radius
Distribution	Community off-leash areas serve residents within a 8 km radius
	Regional off-leash areas serve the entire county. The County aims to increase the number of regional dog parks.
Size	Neighbourhood (small): 0.2 to 0.8 ha (0.5 - 2 acres)
	Community (medium): 0.8 ha to 4 ha (2 - 10 acres)
	Regional (large): over 4 ha (10 acres)
Location Criteria	There are no fixed setbacks but residential adjacencies are to be avoided. Compatible adjacencies may include municipal / county facilities, animal oriented non-profit facilities (e.g. humane society), commercial or industrial development
Commissioning / Decommissioning off- leash areas	No formal process
Boundary Definition and Single Use Vs. Shared Use	The goal is for neighbourhood parks and community parks to be fenced, while regional parks are typically not fenced.
	Maps at each park indicate the off leash boundaries and signage is placed at the boundaries.
Amenities	Amenities vary by off-leash area classification and may include: Vary by classification of park. May include: waste bins, dog waste bag dispensers, stocked by volunteers, dog waste bags (supplied by municipality), seating, drinking water for people, drinking water for dogs, walking path(s), shade, and fencing.
Surfacing Materials	Wood chips are not working well as they hold odours. One off leash area has two halves that are used alternately to allow turf time to recover. Another turf site gets used for 2 weeks at a time and then is closed for 3 weeks for the turf to recover.
Funding	General park funds
Stewardship	No volunteer program
Monitoring and Evaluation	No formal process
Education Initiatives	No formal program
Licensing	Currently unknown
Dog Waste Management	Dog waste goes to landfill
Other	Lack of owner clean-up of dog waste in natural areas is causing water quality problems.
Source	Salt Lake County "Off-Leash Dog Park Master Plan" (2008), Kenneth Richley, Parks Planner, Salt Lake County, personal communication (July, 2016).

City of Portland, Oregon

Classification and Distribution Size Size	Goal is for sites to be well-distributed across the city Unfenced sites are called SHARED sites (Seasonal Hours at Reserved Sites), and allow off-leash activity during seasonal hours in the early morning and early evening. Minimum of 0.1 acre (0.04 ha), although there is a big range in size of parks Some parks are divided into big dog and small / shy dog areas
Distribution U a Size N	Unfenced sites are called SHARED sites (Seasonal Hours at Reserved Sites), and allow off-leash activity during seasonal hours in the early morning and early evening. Minimum of 0.1 acre (0.04 ha), although there is a big range in size of parks
Size M	activity during seasonal hours in the early morning and early evening. Minimum of 0.1 acre (0.04 ha), although there is a big range in size of parks
S	
	Some parks are divided into big dog and small / shy dog areas
Lasatian Cultania	
g	Dogs are not permitted on sports fields, selected natural areas, selected park sites, and school grounds. Dogs are allowed on-leash only in selected natural areas. Dogs must be kept 25' (8 m) away from playgrounds.
C	Other criteria for locating off-leash areas:
	Avoid affecting fish and wildlife habitat
	Avoid risk to water quality
	Be relatively level
	 Have minimal impact on adjacent residential areas
	Be close to parking
	 Slope and heavy tree canopy should be avoided wherever possible
	Areas should be dry and irrigated rather than wet
	Park's main circulation should be outside off-leash areas
	Avoid locating off-leash areas adjacent to streets with heavy traffic
	Consider areas with current high dog off-leash use
	Members of the public can propose a new off-leash area site by completing a Park Project Proposal application form. Sites must meet established location criteria.
а	The city is moving towards fencing sites as much as possible to minimize conflicts. Unfenced off-leash areas are defined by "boundary markers" (i.e. wood posts) and signage. Fencing is a mix of vinyl-coated chain link or steel posts with wire mesh, and the city is trying to establish vines on the fence.
	All off-leash areas have signage that indicates etiquette and rules. Selected sites have fencing, signage, and/or water.
	The City has experimented with sand, wood chips, decomposed granite, and pea gravel, and found that all materials have pros and cons. Many sites have wood chips and some lawn areas.
_	Sites are maintained by the parks operating budget. There is no dedicated revenue source or fees to pay for new sites.
a	The City has a "Stewardship Toolbox" to encourage volunteers in starting a group, but to date there are no volunteer groups for dog off leash areas. The City offers volunteer off-leash area stewardship groups with printing costs, lending tools, and other resources. Members of the public can propose changes to off-leash areas through a park proposal form.
Evaluation a the state of the	f the City is notified by a dog owner that their dog has giardia and has been at particular off leash areas, the City will test the off-leash area for giardia. If giardia is found to be present, the city follows the recommendations of the State Public Health Veterinarian regarding closure (length of time, conditions, etc.) of the off-leash area. Otherwise no formal monitoring program.
	Targeted educational campaigns have been used in the past. Currently rely on in-park signage and Park Rangers to patrol and educate on an as needed / call for service basis.
Licensing T	The city does not have data on licensing compliance rates
Dog Waste Management	Dog waste goes to landfill
	City of Portland parks website, Bryan Aptekar, Lands Stewardship Operations Coordinator Lands Stewardship Division, City of Portland, personal communication (June, 2016).

City of Denver, Colorado



Number of off-leash	9, all of which are fenced					
areas	9, all of willen are reficed					
Classification and Distribution	The goal is to have an equitable distribution of off-leash areas across the City. No other off-leash areas should be within ~2-3km depending on population density.					
Size	Preferred size is 1 - 2 acres (0.4 - 1 ha) but several existing sites are smaller than this.					
Location Criteria	Dog off-leash areas are to be a minimum of 30 m from playgrounds and 60m from arterial streets unless the site is completely fenced. off-leash areas should be separated from residential areas using dense vegetation or opaque fencing, and there should be a clear separation of off-leash areas from sports fields. No off-leash areas can be located within natural areas and off-leash areas are typically not located within smaller neighbourhood parks. Sites should be relatively flat or with gentle grades to reduce erosion; retaining walls are used if required to accommodate grade changes.					
Commissioning / Decommissioning off-leash areas	When residents express interest in a new off leash area, the city encourages them to talk with neighbours and their local City councilor to build broad local support for the project, and to identify potential sites for the off-leash area. The City then evaluates the proposal according to their criteria.					
	Existing sites can be decommissioned if there is a high level of non-compliance with collecting or disposing of dog waste. The City uses a green / yellow / red sign system at off-leash areas to alert users to concerns with dog waste non-compliance at the site. When sites receive a red sign they are closed until users clean up the site.					
Boundary Definition	ition All sites are fenced with a min. 1.2m tall fence and double-gated entries.					
Amenities	All sites have shade and seating. Some off-leash areas have separated areas for high energy / low energy dogs. No bag dispensers, bags, or lighting are provided.					
Surfacing Materials	Dog off-leash areas are surfaced with an "infield" mix that is typically used in baseball diamonds, as it is relatively soft, has good drainage, can be raked / ripped periodically, and can be cleaned. The City has experimented with other surfacing but found this to be the most successful.					
Funding	Capital Improvement Program					
Stewardship	No formal program. The City's 2010 management plan suggested giving people discounted annual user fee in exchange for volunteer service, but this has not been implemented.					
Monitoring and Evaluation	No formal program					
Education Initiatives	No formal program					
Licensing	The city does not have data on licensing compliance rates					
Dog Waste Management	Dog waste goes to landfill					
Source	City of Denver "Dog Park Master Plan & Policy Recommendations," 2010, Mark Tabor, Assistant Director of Planning, Parks and Recreation, City and County of Denver, personal communication (June, 2016).					

City of Seattle, Washington

Normaliani di esseri	14 -th all assemble for and assemble 1								
Number of off-leash areas	14 sites, all completely fenced except beach access at one site								
Classification and Distribution	Existing sites have been developed in response to demand, and are generally well-distributed across the city. Seattle Parks and Recreation's (SPR) 2011 Development plan recommended that there be an off-leash area in each of the city's four quadrants; this goal has been achieved. It has been found that there is an off-leash area within 2.5 miles (4 km) of all residents, with the exception of two areas in the City.								
	Only one off-leash area site has beach access, and the 2016 plan recommends against new beach sites due to documented contamination of local waters with E. coli bacteria from dog waste, and due to sensitive inter-tidal and marine areas.								
Size	Preferred minimum of 1 acre, although some existing sites range from less than 1 acre to 9 acres in size. Preferred size is 2 acres.								
Location Criteria	Dog off-leash areas should:								
	Avoid interference with other established uses								
	Avoid directly abutting residences								
	Assure the availability of close parking								
	Avoid locating near children's play areas								
	Minimize impacts on the visual character of a park								
	 Locate where there is low potential for spillover into on-leash areas 								
	 Avoid sensitive environmental areas such as wildlife habitats and steep slopes 								
	Public parks and non-park public lands are considered for off-leash areas.								
Commissioning / Decommissioning off-leash areas	Seattle Parks welcomes proposals for new off-leash areas through a fund that matches community-generated funds for park improvements. For proposed new sites Seattle Parks convenes a committee to evaluate the site and make a recommendation on whether the site should move forward.								
Boundary Definition	All sites are fully fenced and the 2016 plan recommends that all new off-leash areas be fenced.								
Amenities	The SPR's 2011 Development plan recommends sites should be fenced, with pathways, benches, kiosks, drinking fountains and other park furniture.								
	Most off-leash areas have drinking water for people and dogs, small dog / large dog areas with separate entrances, dog bag dispensers (volunteers are providing bags, but the city is pursuing sponsorship), and an information kiosk. Some sites have seating and lighting.								
Surfacing Materials	Various types of gravel, some grass / dirt fields. Testing artificial turf at one site. Moving away from wood chips due to smell, mold, and fact that chips migrate outside of off-leash areas.								
Funding	Dog off-leash areas are funded through the Parks District capital budget. The city intends to explore potential partnerships and sponsorships to share costs. The city-wide volunteer association (off-leash area, or Citizens for Off-Leash Areas), plays a role in fundraising for off-leash areas.								
Stewardship	A city-wide volunteer association, Citizens for off-leash areas (COLA), is the official steward of Seattle dog off leash program, governed by a partnership agreement between COLA and the city. They help to manage 13 of 14 off-leash area sites. COLA is involved in planning of off-leash area sites, education initiatives, monitoring, fundraising, site improvements, and basic maintenance (e.g. spreading new surfacing materials, clean-up). The City provides materials and hauls away garbage.								
Licensing	The city does not have data on licensing compliance rates								
Dog Waste Management	Dog waste goes to landfill								
Other	The city has identified off-leash areas as a potential use of parks to be considered in new park development and redevelopments. The city is also encouraging the development of private off-leash areas and off-leash areas on non-park public land.								
	The 2016 plan recommends that commercial dog walkers have both a business license and a dog walker license, and that dog walkers be limited to a maximum of 10 dogs ,with a certificate in animal behaviour (proposed new program); otherwise dog walkers will be limited to a maximum of three (3) dogs.								
	The 2016 plan recommends increasing fines for repeat off-leash area violators of off-leash laws.								
	Dogs are welcome on Seattle buses, ferries, light rail and local seaplanes.								
	The 2016 plan has established maintenance standards for off-leash areas that address routine maintenance, surface material replacement, and equipment and supplies.								
Source	Seattle Parks and Recreation "People, Dogs & Parks Plan" - Draft for public review (June 2016), Citizens for Off-Leash Areas (C.O.L.A.) website, Holly Miller, Senior Policy Advisory, Seattle Parks and Recreation, City of Seattle, personal communication (May, 2016).								



D INVENTORY

INVENTORY



The following inventory provides an overview of Vancouver's existing dog off-leash areas.

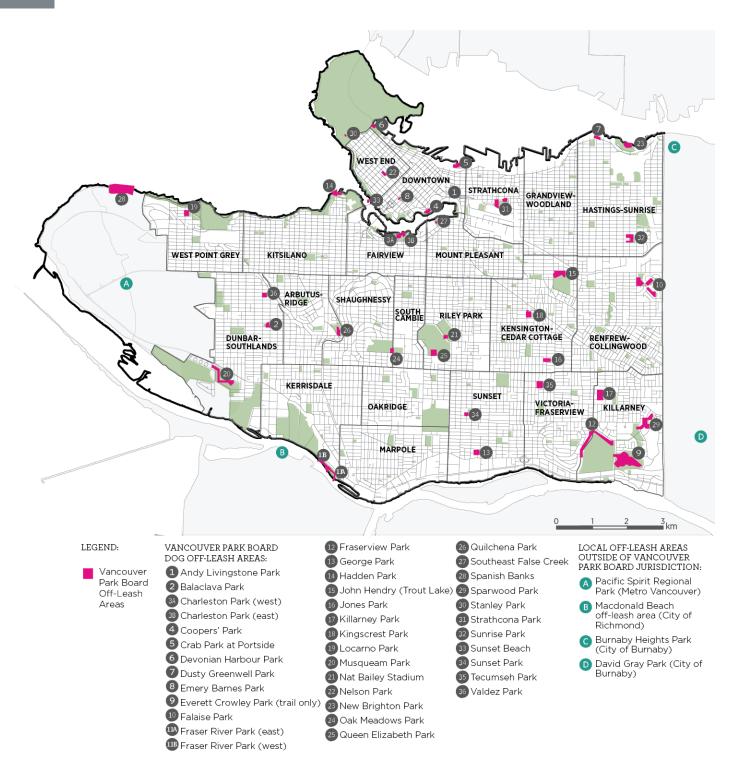


FIGURE D-1. VANCOUVER'S EXISTING DOG OFF-LEASH AREAS

						APPE	
#	Name	Description	Hours*	Size (ha)	Adjacencies	Amenities	Proposed Designation
1	Andy Livingstone Park	Small fenced off- leash area with dirt surfacing.	Typical	O.11	 Residential Undeveloped waterfront land Sports field, playground nearby 	 Seating Waste bins Shade Secure fencing Drinking fountain (people) / washrooms nearby 	Neighbourhood Urban
2	Balaclava Park	Turf with gravel trail along west edge and running track on east edge. Boundaries undefined.	6-10am 5-10pm	0.77	ResidentialSports fieldsPlay areaWading pool	 Seating Waste bins Shade Drinking fountain (people) / washrooms nearby 	Neighbourhood Park
3	Charleson Pa	ark - total area:		1.23			
3a	Charleson Park (west - grass bowl)	Open turf area next to seawall paths. Paths along south and west. Pond on east side. "Water- fall area" allows seasonal dog access.	Typical Water- fall area 6-10am 5-10pm in sum- mer	0.81	Seawall Play area	SeatingWaste binsShadeDrinking fountain (people) nearby	Neighbourhood Park
3b	Charleson Park (east)	Grass area to east of pond with shade trees.	Typical	0.43	Residential Seawall	Waste binsShade	-
4	Coopers' Park	Worn grass field next to seawall with one bisect- ing path. Bound- aries defined by berm / vegeta- tion to south, paths to north.	Typical	0.43	ResidentialSeawallPlay area	 Seating Waste bins Shade Drinking fountain (dogs) Drinking fountain (people) nearby 	Neighbourhood Urban
5	Crab Park at Portside	Open grass area with paths and berm / trees at south end. Boundaries undefined.	6-10am / 5-10pm	0.51	ResidentialIndustrialPlay areaPicnic area	SeatingWaste binsShadeDrinking fountain (people) nearby	Neighbourhood Park
6	Devonian Harbour Park	Open grass area partially fenced by split rail. Next to seawall path.	Typical	0.38	Residential Seawall Biodiversity area	 Seating Waste bin Partial fencing Drinking fountain (people) nearby 	Neighbourhood Park
7	Dusty Greenwell Park	Treed grass area with gravel trail. No parking avail- able.	5-10am / 5-10pm	0.53	Residential	Seating Waste bins	Neighbourhood Park

^{*} TYPICAL HOURS ARE 6 AM TO 10 PM

TABLE-D-1. SUMMARY OF VANCOUVER'S EXISTING DOG OFF-LEASH AREAS, WITH PROPOSED DESIGNATION.



8	Emery Barnes Park	Securely fenced gravel area with some boulders.	Typical	0.09	Residential Play area	Seating Waste bins Drinking fountain (people)	Neighbourhood Urban
9	Everett Crowley Park	Forested area with dogs allowed off-leash on inner trails.	Typical	2.46 km of off- leash trail	ResidentialBiodiversity area	Waste bins Drinking fountain and washrooms nearby Off-street parking	Destination Park
10	Falaise Park	- total area:		4.74			
10a	Falaise Park (north- west)	Open grass area with wetland / creek features.	5-10am / 5-10pm	2.29	 Residential Community playground across street. 	Seating Waste bins Shade Drinking fountain (people) / washrooms nearby	Neighbourhood Park
10b	Falaise Park (northeast)	Open grass area, bounded by lanes and streets.	5 to 8am / 5-10pm	1.29	Residential	Waste bin	Neighbourhood Park
10c	Falaise Park (southeast)	Open grass area, bounded by steel bollards and lan- eways.	5-10am / 5-10pm	1.16	 Residential Small play area in southeast corner 		Neighbourhood Park
11	Fraser River	Park - total area:		6.38			
11a	Fraser River Park (east)	Large waterfront park with water access, amenities, restricted access to riparian area. Boundaries be- tween east, west and riparian areas not well defined.	On leash only May 30 - Sept 1	3.95	ResidentialBusinessPicnic areaMulti-use trailBiodiversity area	 Seating Waste bins Shade Drinking water (people) / washrooms Off-street parking 	Destination Park
11b	Fraser River Park (west)		Typical	2.43	ResidentialGolf courseMulti-use trailBiodiversity area	 Seating Waste bins Shade Drinking water (people) / washrooms nearby 	Destination Park
12	Fraserview Golf Course	Wood chip path along west, north and east edges of golf course. Sep- arated from golf course by fence and planting.	5-10am / 5-10pm	2.69	ResidentialGolf courseBiodiversity area	 Waste bins Shade Partial fencing Drinking fountain / washrooms nearby 	Destination Trail
13	George Park	Mix of open and treed grass areas with paths, un- dulating topog- raphy, and picnic shelter.	6-10am / 5-10pm	1.32	ResidentialPlay areaPicnic shelter	SeatingWaste binsShadeDrinking fountain	Neighbourhood Park

							APPEND
14	Hadden Park	Mix of beach and open grass area. Water access.	6-10am / 5-10pm in sum- mer	1.27	ResidentialSeawallBiodiversity area	Seating Waste bins Partial fencing Drinking fountain (people) / washrooms nearby Water access	Special Study Area ⁽¹⁾
15	John Hendry (Trout Lake)	Mix of beach and upland treed area, with some worn grass. Water ac- cess.	Typical	2.72	ResidentiaSports fieldsMulti-use trailBiodiversity area	SeatingWaste binsShadeWashrooms nearbyWater access	Destination Park
16	Jones Park	Open grass area with sports field, bounded by multi- use trail, lane, and busy street.	5-10am / 5-10pm	0.92	ResidentialSports fieldPlay areaMulti-use trail	SeatingWaste binsPartial fencingWashrooms nearby	Neighbourhood Park
17	Killarney Park	Open grass area with large shade trees and path, bounded by streets and community centre parking lot.	Jun 15- Labour Day: 5-10am / 5-10pm	3.43	ResidentialCommunity CentreSchoolSports field	SeatingWaste binsShadeDrinking fountain (people) nearby	Neighbourhood Park
18	Kingscrest Park	Open grass area next to variety of park activity areas, including basketball court, playground, and paths.	5-10am / 5-10pm	0.74	 Residential Play area basketball court Sports field Picnic area Community garden 	Waste bins Shade Drinking fountain (people) / washrooms nearby	Neighbourhood Park
19	Locarno Park	Mix of open and treed grass area with dense vegetation along east edge and naturalization area in northeast corner. Boundary undefined along west edge.	Typical	1.14	ResidentialPlay areaBiodiversity area	Shade Waste bins	Neighbourhood Park
20	Musqueam Park	Linear off-leash area between res- idential street and Musqueam park.	Typical	3.33	ResidentialCommunity gardenBiodiversity area	Waste bins Shade	Destination Trail
21	Nat Bailey Stadium	Overflow parking area for Nat Bailey Stadium, with gravel and asphalt surfacing. Used regularly for parking and in winter for Farmer's Market.	Typical	0.66	Residential	Partial fencing	Neighbourhood Park

⁽¹⁾ THIS SITE IS UNIQUE DUE TO THE SPECIFICS OF THE TERMS OF THE GIFT FOR HADDEN PARK. THIS AREA REQUIRES FURTHER LOCALIZED CONSULTATION AND EVALUATION BEFORE MAKING ANY RECOMMENDATIONS ABOUT CLASSIFICATION OR FUTURE USE.



22	Nelson Park	Secure fenced off-leash area with 2 dou- ble-gated entries and gravel sur- facing.	7am to 9pm	0.21	ResidentialPlay areaCommunity gardenSchool	 Seating Waste bins Shade Secure fencing Drinking fountain (people) nearby Washrooms nearby 	Neighbourhood Urban
23	New Brighton Park	New off-leash area (under construction) will consist of fenced grass area (-0.7 ha) and an off leash beach with water ac- cess (-0.2 ha).	May 1 to Sept 30: 5-10am Oct 1 to Apr 30: 5am- 10pm	0.9	IndustrialPlay areaPoolBiodiversity area	Seating Waste bins Drinking fountain (people / dogs) Washrooms nearby Water access	Destination Park
24	Oak Mead- ows Park	Mix of open lawn and meadow areas with gravel paths.	Typical	0.47	ResidentialSports fieldSchoolBiodiversity area	SeatingWaste binsShadeDrinking fountain (people) nearby	Neighbourhood Park
25	Queen Elizabeth Park	Open lawn with shade trees, bounded by vehicle circulation areas and tennis courts.	Typical	1.65	Residential Biodiversity area	Waste bins Drinking fountain (people) / washrooms nearby	Destination Park
26	Quilchena Park	Open grass area with shade trees, bounded by grav- el paths.	Typical	0.92	ResidentialSports fieldPlay area	 Seating Waste bins Shade Drinking fountain (people) / washrooms nearby 	Neighbourhood Park
27	Southeast False Creek (Hinge Park)	Secure fenced off-leash area with two dou- ble-gated entries and separate small dog area.	Typical	0.05	ResidentialPlay areaCommunity gardenBiodiversity area	 Seating Waste bins Shade Drinking fountain (dogs) Drinking fountain (people) nearby 	Neighbourhood Dog run
28	Spanish Banks	Mix of open grass area with shade trees and water access.	Typical	5.04	ParkSeawallPicnic areaBiodiversity area	Seating Waste bins Drinking fountain (people) / washrooms nearby Water access Off-street parking	Special Study Area ⁽¹⁾

⁽¹⁾ THE LOCATION OF SPANISH BANKS WEST PARK CREATES A UNIQUE LEGAL AND JURISDICTIONAL SITUATION THAT REQUIRES FURTHER RESEARCH AND CONSULTATION WITH OTHER GOVERNMENT AGENCIES BEFORE MAKING ANY RECOMMENDATIONS ABOUT CLASSIFICATION OR FUTURE USE.

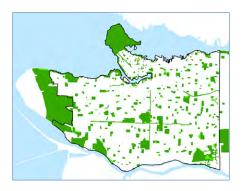
							APPE
29	Sparwood Park	Mix of open grass area and for- ested area next to Champlain Heights school.	5-10am / 5-10pm	3.52	ResidentialSchoolSports fieldPlay areaBiodiversity area	Waste bins Shade	Neighbourhood Park
30	Stanley Park	Securely fenced off-leash area in former shuffle- board court area.	7am to 9pm	0.04	ParkBiodiversity area	 Seating Waste bins Shade Secure fencing Drinking fountain (people) / washrooms nearby 	Neighbourhood Dog run
31	Strathcona P	ark total area:		2.79			
31a	Strathcona Park (west)	Open grass area with two base-ball diamonds and some gravel paths within boundaries.	5-10am / 5-10pm	2.17	ResidentialIndustrialCommunity gardensSports fieldPicnic area	 Seating Waste bins Shade Drinking fountain (people) / washrooms nearby 	Neighbourhood Park
31b	Strathcona Park (east)	Open grass area with shade trees and gravel path.	5-10am / 5-10pm	0.63	ResidentialIndustrialSports fields	Waste binsShade	Neighbourhood Park
32	Sunrise Park	Open lawn area with shade trees, playground, wading pool and washrooms within boundaries. Bounded by streets and sports field.	5-10am / 5-10pm	2.12	ResidentialSports fieldPlay areaWading pool	 Waste bins Shade Drinking fountain (people) Washrooms	Neighbourhood Park
33	Sunset Beach	Beach with water access, next to seawall.	Typical	0.10	Residential Seawall	ShadeWater access	Neighbourhood Park
34	Sunset Park	Open lawn area with few shade trees, bounded by streets, works yard and arena. Proposed relocation under master plan.	Typical	0.52	ResidentialArenaCity works yardSchoolPlay areaPicnic area	Drinking fountain (people) nearby	Neighbourhood Park
35	Tecumseh Park	Open lawn area with semi-fenced playground with- in boundaries, bounded by lanes and residential streets.	5-10am / 5-10pm	1.98	ResidentialPlay areaSchoolPicnic area	SeatingWaste binsShadePartial fencingDrinking fountain (people)	Neighbourhood Park
36	Valdez Park	Open lawn with shade trees, bounded by residential streets.	6-10am / 5-10pm	0.77	Residential	SeatingWaste binsShade	Neighbourhood Park



E GEOGRAPHIC ANALYSIS

MOUNTAINMATH

People, Parks & Dogs: Geographic Analysis



Prepared by Alejandro Cervantes & Jens von Bergmann



People, Parks, Dogs - Geographic Analysis

Introduction

This report summarizes the results of a series of geographic analyses undertaken to support the City of Vancouver's People, Parks, & Dogs strategy. Using Geographic Information Systems and publicly available databases, we performed three types of analyses.

First, to analyze population access to Off-Leash Areas (OLAs), we mapped the location of current parks and dog OLAs in Vancouver and we combined these with population estimates at the city block level. By combining these two datasets, we approximated population's average distance to OLAs as a proxy for accessibility.

Second, to identify areas of concern we analyzed the 3-1-1 calls directed to the City's Animal Control Division. We analyzed this data looking for temporal and geographic patterns. We focused our interest on animal complaints and animal control inquiries.

Third we analyzed the dog registry data. The City of Vancouver maintains a database of all dog licences. We mapped this data and identified and mapped the nieghbourhoods with the both the highest number of dogs and highest ratio of dogs/population, and then we calculated their average proximity to OLAs.

1. Distance to OLA analysis

With the aim of understanding which areas of the City are far from OLAs and thus potentially underserved, we mapped the City of Vancouver's Off-leash areas in combination with population counts at the city block level (Stats Canada, 2011 Census).

In Figure1 we stratify the city blocks based on their linear distance to an OLA. The map in clearly shows three large corridors (in light gray) of unserved areas. A first corridor spans from Kitsilano to the South of Mt Pleasant and extends to Grandview/Woodland. The second corridor runs south from Kerrisdale to Oakridge, and Marpole. The third corridor is NE of Kingsway in Renfrew-Collingwood.

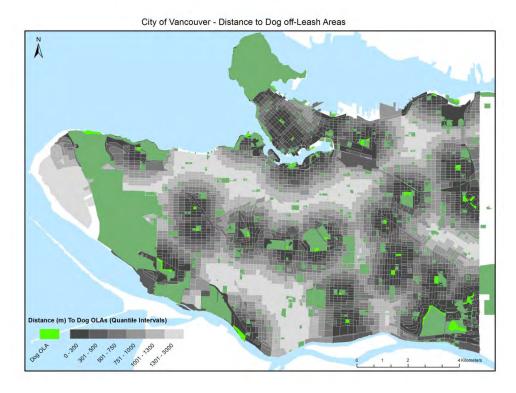


Figure 1. Distance from Vancouver City Blocks to OLAs

To estimate the number of people and their travel distance to OLAs, we weighted the block distances by population. The distance to an OLA for the average Vancouver resident is 790 metres, with almost 55% of the population living closer than 800 metres from an OLA. In Figure 2 we show the distribution of Vancouver's population by distance to the City's OLAs.



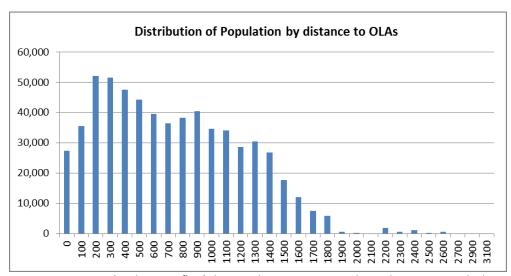


Figure 2. Average (as the crow flies) distance between OLAs and Population in City Blocks: avg: 790m, max: 3,050m

Although most people live less than 1 km away from OLAs, it is important to identify whether these people are dog owners or not. To better understand this distribution, we analyzed the City of Vancouver's dog licence data base (section 3).

2. 3-1-1 Data Analysis

The City of Vancouver keeps a database of all 3-1-1 calls received. As a second step in our analysis, we examined a subset of the 3-1-1 calls database that we obtained from the City. The data we received included approximately 45,000 records of calls that contained the word "dog" in any of the data fields recorded. The calls were received from January 1st 2010 to July 21st 2016. We cleaned and filtered the database and finally obtained a subset of 31,000 calls classified in the following 9 call types:

	Year	2010	2011	2012	2013	2014	2015	2016	Total
1	Animal Concern - Emergency Case					109	111	71	291
2	Animal Concern - Non-Emergency Case					1,105	2,899	2,016	6,020
3	OLD Animal Complaint - Emergency								
	Case				80	171			251
4	OLD Animal Complaint - Non-								
	Emergency Case	884	914	1,066	1,162	1,515			5,541
5	Animal Control General Inquiry Case	232	420	547	626	925	951	739	4,440
6	Dog Licence Changes Case	1,417	1,440	1,596	1,711	1,641	1,544	911	10,260
7	Holding Stray Case	427	432	415	367	311	279	174	2,405
8	Lost Pets Case		50	126	225	475	489	288	1,653
9	Urgent Holding Stray Case				94	266	256	158	774
	Total By Year	2,960	3,256	3,750	4,265	6,518	6,529	4,357	31,635

Table1. Summary of Calls directed to the Animal Control Division

2.1. Temporal Patterns

As a first approach to our analysis, we looked for temporal patterns. Figures 3 and 4, aggregate the data by month of the year and by year. It is interesting to note that Animal Control calls peak between the months of April and May with and start declining during the summer. By contrast Animal Concerns (both emergency and non-emergency) peak in the summer months; Lost pets cases also peak in July to September, while holding stray cases have lower variability during the year.

The yearly aggregates shown in Figure 4 are also interesting. There seems to be a constant increase of most call types but most notably "Animal Concern – Non-Emergency". In July of 2014 the labeling for these call types changed: the "Animal Complaint" category was changed to "Animal Concern". For the purpose of figure 4 we have aggregated the two categories and we removed 2016 as we only had data up until July.



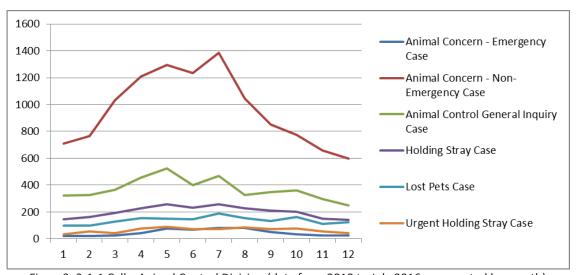


Figure 3. 3-1-1 Calls: Animal Control Division (data from 2010 to July 2016, aggregated by month)

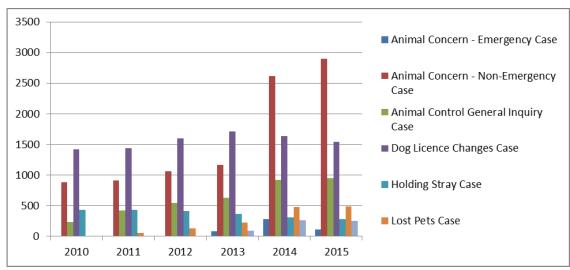


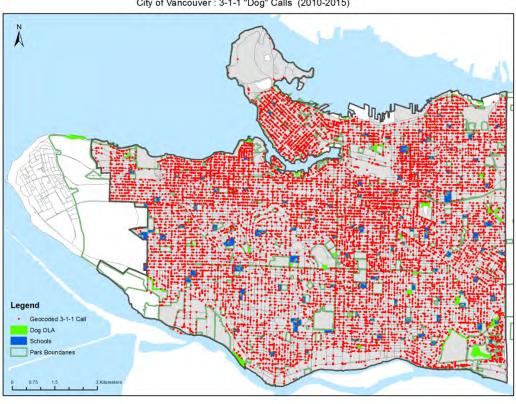
Figure 4. 3-1-1 Calls (2010 to 2015, aggregated by year).

It is interesting to note that the Animal Concern category has risen constantly over time. To identify areas where these particular issues occur, we performed a geographic analysis.

2.2. Geographic Patterns

Following the temporal analysis, we then mapped the 3-1-1 calls. Out of the 31,635 calls from our previous analysis, 25,991 (82%) included an address or postal code for the incident.

We built a geocoding service and geocoded these 25,991 3-1-1 incidents. We were able to geocode 98% of all incident addresses. The remaining 2% was not geocoded due to address syntax errors. We then mapped the location of all incidents (Figure 5). As an additional step, we filtered out three known addresses that are artificially assigned to some of the calls and that correspond to City's offices and/or Call Centres ('1800 SPYGLASS PLACE', '1280 RAYMUR AV', '453 W 12TH AV').

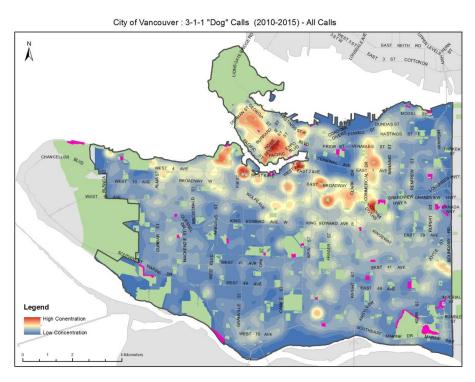


City of Vancouver: 3-1-1 "Dog" Calls (2010-2015)

Figure 5. Location of 25,000 3-1-1 Calls

It is very difficult to visualize the density of calls based on a point map. As an additional step, we created two hotspot maps (figure6). The first map shows the concentration of all geocoded 3-1-1 incidents while the second map shows only the concentration of the 15,853 incidents categorized as Animal Complaints/Concerns/Inquiries. The maps clearly show hotspots where incidents are concentrated.





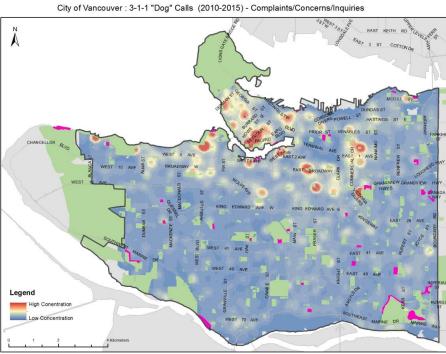


Figure 6. Areas with High Concentrations of 3-1-1 Animal Control Incidents

In the maps above, the red high concentration spots are areas with at least 40 calls per hectare the dark blue low concentration areas have less than 4 calls per hectare. Using the map and intersecting it with the OLA data base, we identified the areas with the highest numbers of relevant 311 calls. The area that has the highest number of incidents (Calls classified as Complaints/Concerns/Inquires) is John Hendry Park with more than 260 cases. The corridor that spans from Kitsilano Beach Park to and Hadden park has more than 350 complaints. Two other prominent hotspots with more than 200 cases each are the areas near Emery Barnes Park and George Wainborn Park. In Table2 we summarize the top 12 hotspots.

Rank	Location	Number of
		Complaints/Concerns/Inquiries
1	Area west of John Hendry Park	260
2	Kitsilano Beach Park	250
3	Emery Barmes Park	240
4	George Wainborn Park	210
5	Area near Guelph Park & Mt. Pleasant Elementary	170
6	Hinge Park	160
7	Area around Robson Park	150
8	Hadden Park	120
9	Locarno Beach Park	120
10	Area West of Granville Loop Park	120
11	Area around Victoria Park	90
12	Jericho Beach Park	90

Table2. Areas with the Highest Number of Animal Control Incidents



3. Analysis of Dog Licence Data

For the last part of our geographic analysis we analyzed the City's dog registry. We used the addresses reported in the dog registry database to geocode and then identify areas with high dog populations. The map in Figure 7 shows the areas with higher concentration of dogs. The dog densities span values of 1 dog/hectare in the blue areas to more than 25 dogs/hectare in the dark red areas.

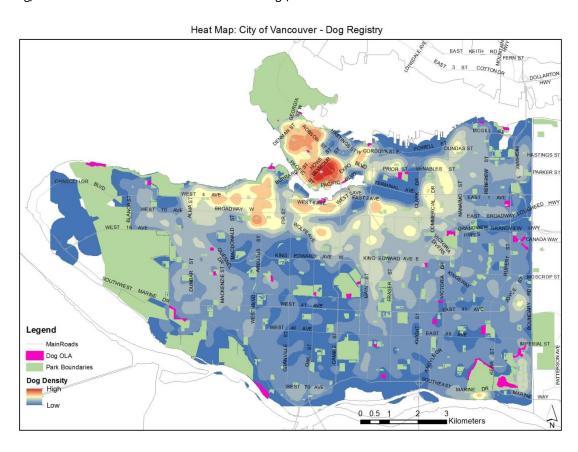


Figure 7. Areas with High Concentrations of Registered Dogs

Although there is some level of correspondence between the high density dog registry areas and high population density, this is not always the case. Areas like Dunbar/Southlands have low population density but higher than expected dog density, the opposite happens in areas like Sunset or Victoria/Fraserview where the registered dog population is lower than expected.

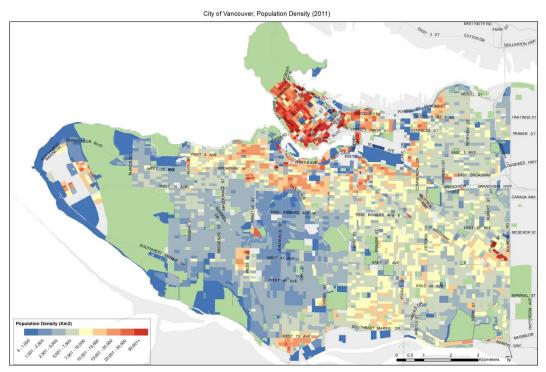


Figure 8 Population Density in Vancouver

To estimate the OLA acreage available to these dogs, we then calculated the numbers of dogs per hectare for each neighbourhood (Local Area) in Vancouver. In Table 3 we summarize our findings.

Mount Pleasant is the neighbourhood with the highest number of dogs per hectare of OLA. Although there are a considerable number of dogs registered in the neighbourhood, the main reason behind this high value is the low acreage of OLAs. The West End is the neighbourhood with the highest number of dog licences and it is also the most populated.



Local Area Name (Hectares)	Dog Licences	Population (2011 Census)	OLA Area (Hectares)	Dogs per hectare of OLA
Sunset (657.6)	870	36,286	1.84	472
Mount Pleasant (372.1)	1,663	26,400	0.05	30,468
Riley Park (493.2)	1,171	21,794	2.31	508
Downtown (467.4)	3,037	54,680	1.51	2,005
Kitsilano (636.3)	2,888	41,136	1.27	2,268
Dunbar-Southlands (908)	1,568	20,185	4.87	322
Kerrisdale (660.9)	817	14,651	7.10	115
Arbutus-Ridge (370.1)	598	15,908	0.92	649
West Point Grey(535**)	904	13,038	6.18	146
Marpole (600.3)	650	23,913	7.10	92
Oakridge (402.4)	363	12,443	0.00	NA
Shaughnessy (448)	540	8,807	0.00	NA
Fairview (363.5)	1,522	31,432	1.23	1,233
South Cambie (217.6)	476	7,682	0.47	1,004
West End (225.6)	1,563	44,543	0.31	5,004
Killarney (693.4)	1,184	28,458	22.28	53
Renfrew-Collingwood (810)	1,333	50,495	4.74	281
Hastings-Sunrise (833.2)	1,548	33,992	4.04	383
Victoria-Fraserview (550.1)	818	30,711	1.98	414
Kensington-Cedar Cottage (725.2)	1,862	47,471	4.38	425
Strathcona (437)	523	12,170	2.79	187
Grandview-Woodland (475.4) **Spanish Banks OLA (5 ha) is not	1,657	27,297	0.00	NA

^{**}Spanish Banks OLA (5 ha) is not in the neighbourhood but is included in this figure

Table3. Vancouver Neighbourhoods, Dog Licences & OLAs

The average number of dogs per 100 people in the City of Vancouver is 4.5. But the relative dog population is not distributed equally by neighbourhood. In Figure 9, we show the number of registered dogs per 100 people by neighbourhood. The relative dog population spans from 2.4 dogs per 100 people in Sunset to 7.8 in Dunbar-Southlands.

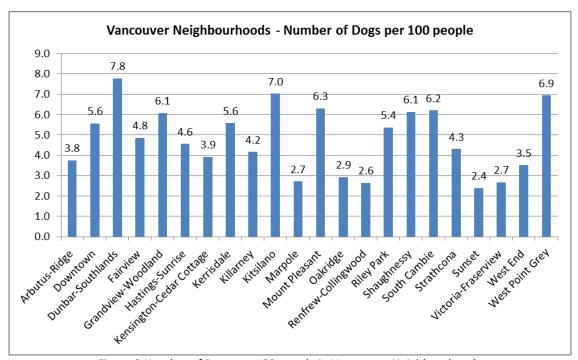


Figure 9 Number of Dogs per 100 people in Vancouver Neighbourhoods

As a final analysis we tried to understand the relationship between the distribution of registered dogs and the location of OLAs in the City. Under the assumption that people are willing to walk 1 Km (10 minutes) from their home to the nearest OLA, we then calculated the number of people within 1Km of each OLA in Vancouver. This procedure allows us to identify which OLAs are near high dog density areas (potentially overcrowded) and which OLAs are far from the high dog density areas (potentially empty). Table 4 shows the results of this analysis. When interpreting this table it is important to know that some of the registered dogs can be within less than 1km from multiple OLAs, in that case dog licences are assigned to all OLAs that are within 1 Km. This is illustrated in the map in Figure 10.

Park (Dog OLA)	Population in a 1 KM radius(2011 census)	Number of Dog Licences in a 1 Km radius	Dogs per 100 people in a 1 km radius
Nelson Park	67,843	2,966	4.4
Emery Barnes	54,144	2,740	5.1
Coopers' Park	42,055	2,537	6.0
Charleson Park East	43,006	2,249	5.2
Charleson Park West	41,256	2,201	5.3
Sunset Beach	44,624	1,961	4.4



Park (Dog OLA)	Population in a 1 KM radius(2011 census)	Number of Dog Licences in a 1 Km radius	Dogs per 100 people in a 1 km radius
Hinge Park (Southeast False Creek)	31,335	1,758	5.6
Andy Livingstone	34,327	1,310	3.8
John Hendry	28,520	1,106	3.9
Kingscrest Park	28,261	942	3.3
Hadden Park	25,924	921	3.6
Devonian Harbour	28,976	909	3.1
Valdez Park	17,575	886	5.0
Balaclava Park	16,156	840	5.2
Fraserview Golf Course North	26,808	810	3.0
Nat Bailey Stadium Park	15,558	706	4.5
CRAB Park at Portside	21,428	689	3.2
Everett Crowley	15,201	688	4.5
Sparwood Park	19,252	652	3.4
Strathcona Park East	16,518	645	3.9
Strathcona Park West	18,764	638	3.4
Stanley Park	19,188	635	3.3
Jones Park	32,147	629	2.0
Fraserview Golf Course South	19,759	614	3.1
Tecumseh Park	29,129	587	2.0
Musqueam Park	8,750	585	6.7
Killarney Park	30,738	577	1.9
Sunset Park	27,124	570	2.1
Quilchena Park	12,717	509	4.0
Sunrise Park	17,177	504	2.9
Queen Elizabeth Park	15,180	491	3.2
Falaise Park West	15,519	411	2.6
George Park	20,374	358	1.8
Dusty Greenwell Park	7,620	340	4.5
Falaise Park South	12,785	337	2.6
Falaise Park East	12,152	334	2.7
Oak Meadows Park	9,563	326	3.4
Fraser River Park	9,752	296	3.0
Locarno Beach Park	5,339	295	5.5
New Brighton Park	4,955	229	4.6
Spanish Banks Park	1,072	33	3.1

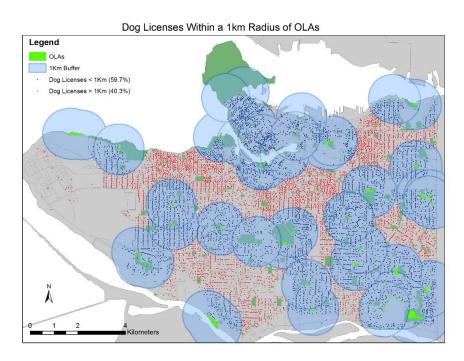


Figure 10. Location of Dog Licences and 1Km buffers around OLAs

Almost 60% of the licensed dogs are within 1Km of an OLA, with the remaining 40% farther than 1Km. In this map it is easy to discern the three underserved corridors previously identified.

Conclusion

We have tried to understand accessibility and utilization of OLAs by dog owners from three different perspectives and utilizing multiple geographic datasets. We have identified three city corridors with potentially underserved areas; we have also identified locations where large numbers of dog-related 311 complaints seem to be arising. Finally, by combining the location of OLAs, population data and dog registry data, we have identified areas in the City that are potentially overcrowded and other areas that are potentially underused by dog owners and their pets.



F PHONE SURVEY





City of Vancouver Dog Parks Survey

December 19, 2016

Prepared by:

NRG Research Group

Andrew Enns, President

204-989-8986

aenns@nrgresearchgroup.com



Suite 1910-360 Main Street Winnipeg, MB R3C 3Z3

Summary

- Less than 2 in 10 (15%) Vancouver residents surveyed were dog owners or live in a household with a dog. All but one dog owner said their dog is licensed. When asked why their dog is unlicensed, the reasons the person gave was Haven't got around to it and I don't see the benefit.
 - Using the estimate of 264,570 households in Vancouver, the results of this survey suggest the total number of households with at least one dog in Vancouver to be between 29,103 and 50,268 (based on +/- 4.9% margin of error)
 - Based on this survey the total number of dogs present in Vancouver is between 32,390 and 55,947 (based on +/-4.9% margin of error) which amounts to an average of 1.1 dogs per dog owning household in Vancouver.
- > Over half (54%) of residents agreed that more than 6% of park space should be allocated for official and designated off-leash
- Most residents said their experiences with dogs off-leash in Vancouver has been neutral (43%), with positive (31%) and negative (16%) being the next most frequent replies. I'm a dog lover/I like dogs (19%) was the most often-mentioned reason for a positive experience in the past, while Dogs unpredictable/safer on leash (30%) was the most often-mentioned reason for a negative experience.
- > Over 6 in 10 (61%) residents agreed with having a dog off-leash area in their immediate neighbourhood. Those that did not agree were read a series of potential park design features to see if they would be more supportive if implemented. The top three features that residents said would make them more supportive were Fencing that encloses part or all of the off leash area (60%), An adequate number of waste bins for dog waste (49%), and Clearly defined boundaries for the off leash area (41%). Additionally, when this group was asked if there was anything else that could be implemented, over three quarters (76%) of people responded Nothing else.
- Respondents were asked to rank three types of dog off leash areas by first and second choice. The most popular was a *Community* style park (area size of a baseball field, within a 30 minute walk), followed by a *Neighbourhood* style park (area size of a tennis court, within a 15 minute walk).
 - Community 45% first choice; 36% second choice
 - Neighbourhood 30% first choice; 30% second choice
 - Destination 17% first choice; 29% second choice





Methodology

NRG Research Group (NRG) was asked by Kirk and Co. to conduct a statistically sound quantitative survey of the City of Vancouver residents. The primary objective of the research was to assess Vancouver residents' opinion toward of leash dog parks. The survey was provided by Kirk & Co. and reviewed by NRG for flow and question structure.

The calling area for this study was the city of Vancouver proper. The city was divided into two regions: East of Mainstreet and West of Mainstreet. In addition to regional quotas, NRG also established gender quotas and a quota to interview a minimum of 100 Vancouver residents of Chinese ancestry. NRG developed a dual sample frame for the study consisting of both landline and wireless sample. A pre-test was held on Monday, November 7th, 2016 whereby 20 completes were captured, examined, and kept. Full launch began on Tuesday, November 8th and concluded November 18th, 2016.

A total of 400 interviews were conducted. At the conclusion of data collection, the results were weighted by gender and age using 2011 census data to ensure resulting sample was demographically representative of the City of Vancouver. A quantitative study consisting of 400 cases in theory results in data that has a margin of error of +/-4.9% 19 times out of 20.

Sample Characteristics (Weighted)

	% (n=400)		% (n=400)		% (n=400)
Gender		Region of Vancouver		Children under 18 in HH	
Male	49	East of Main Street	50	Yes	32
Female	51	West of Main Street	49	No	66
Age		Ancestry		Home Ownership	
18-34	33	European (i.e. Britain, France, Germany, Ukraine, Scandinavia)	49	Own	63
35-54	36	Asia (i.e. China, India, Pakistan)	42	Rent	34
55 plus	30	Americas (i.e. Canada, Latin America)	7	Type of Home	
Employment Status		Middle Eastern/African	2	A detached house	48
Full Time	50	First Nation, Inuit, or Métis	1	An attached house (townhouse)	9
Part Time	10	Other	1	An apartment	35
Retired	19			Condominium	4
Student	8				
Not Working	10				

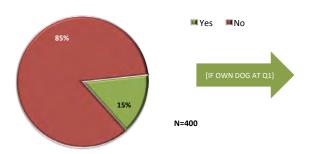






Dog Ownership

Q1. Are you a dog owner or does your household have a dog?

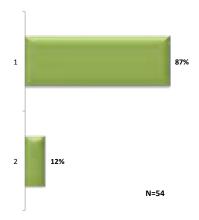


Dog owners are more likely to be:

- Of Caucasian/European ancestry (19% owners) compared to ethnic Chinese (8%)
- Employed (18%)

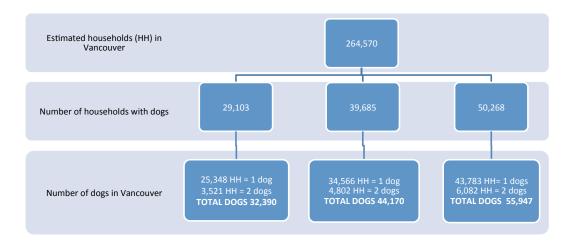
Dog owners are also somewhat more likely to be between the age of 35 and 54 (18%) compared to over the age of 55 (10%).

Q1b. [IF YES AT Q1] How many dogs are there in the household?



All dog owners or those with dogs in their household (n=54) were asked if there dog is licensed. All but one respondent said they were licensed. When asked why their dog is unlicensed, the reasons the one person gave was Haven't got around to it and I don't see the benefit.

Dog Ownership Numbers



Note regarding previous research: There difference between dog ownership research findings in 2008 (30%) and 2016 (15%) studies. The cause for this difference could be a result of a combination of factors including:

- An 8 year gap between research periods;
- Difference in research methodology (online in 2008 vs. telephone in 2016);
- The 2016 study deliberately included a representative sample of ethnic Chinese Vancouver residents. It is unclear whether this was the case with 2008 online study; and
- The Vancouver sampling area for the 2016 phone survey was specifically defined. It is unclear whether this was the case for the 2008 online survey.

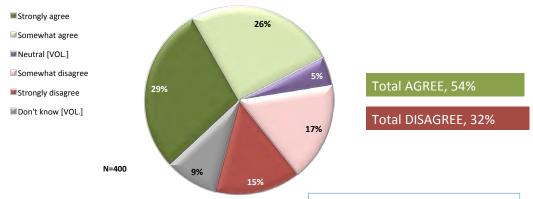




Agree/Disagree: Off-Leash Dog Park Space in Vancouver

Q2. About 6% of existing park area is officially designated for dog off leash use in Vancouver, although dog off leash activity often occurs outside of these areas.

Do you agree or disagree with the following statement: "More than 6% of park space should be allocated for official and designated off-leash areas". [IF AGREE/DISAGREE] Would that be strongly or just somewhat?



Opinions on the need for more designated off-leash areas for dogs is fairly divided in the City. A majority do support off-leash areas but there is a sizeable minority opposed.

The results to this question are provided for different demographic sub-groups on the next slide.

Agree/Disagree: Off-Leash Dog Park Space in Vancouver

Q2. About 6% of existing park area is officially designated for dog off leash use in Vancouver, although dog off leash activity often occurs outside of these areas.

Do you agree or disagree with the following statement: "More than 6% of park space should be allocated for official and designated off-leash areas". [IF AGREE/DISAGREE] Would that be strongly or just somewhat?

N=400	% Total									
	ALL	Male	Female	18-34	35-54	55+	Rent	Own	East	West
Total Agree	54	50	58	67	51	44	62	52	55	53
Total Disagree	32	33	31	20	38	37	24	35	33	31

Agreement to this question was noticeably higher among:

- Individuals of Caucasian/European descent (63% agree) compared to individuals of Chinese ancestry (43%).
- Dog owners (82%) compared to non-dog owners (49%).
- Individuals who have had a positive experience at an off-leash park (75%) compared to those with a negative experience (30%) or a neutral experience (50%).

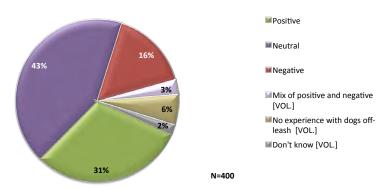






Off-Leash Dog Parks in Vancouver Experiences

Q3. Have your experiences with dogs off-leash in Vancouver parks been positive, neutral or negative?



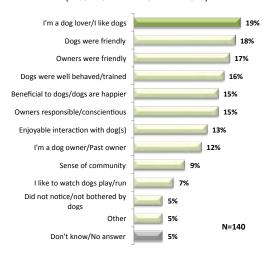
Positive experiences was noticeably higher among subgroups:

- Residents West of Main St. (39%) vs. East of Main St. (22%)
- Those of Canadian/European ancestry (41%) vs. Chinese ancestry (16%)
- Dog owners (64%) vs. non-dog owners (25%)
- Apartment/condo residents (42%) or those living in attached houses (40%) compared to a detached house (22%)
- Those without children younger than 18 living at home (39%) than those with (17%)

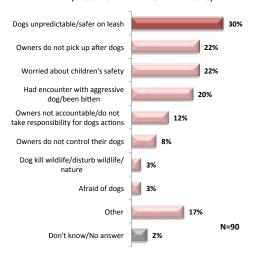
Individuals age 55 and older were somewhat more likely to say they have had a negative experience with off-leash dog parks (20%) compared to people under the age of 35 (13%).

Off-Leash Dog Parks in Vancouver - Why Positive or Negative

[IF Q3 POSITIVE] Q4. Why or what made your experience positive? [RECORD OPEN END. TOTAL MENTONS]



[IF Q3 NEGATIVE] Q4. Why or what made your experience negative? [RECORD OPEN END. TOTAL MENTONS]



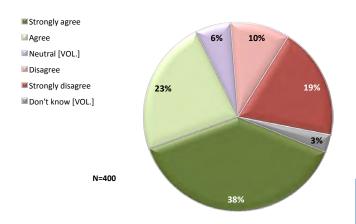
Ethnic Chinese are significantly more likely to say dogs are unpredictable and should stay on leash (56% of mentions) compared to other ethnicities.





Agree/Disagree: Off-Leash Dog Parks in Vancouver

Q5. Do you agree or disagree with the following statement: "I support having a dog off-leash area in my immediate neighbourhood".



Total AGREE, 61%

Total DISAGREE, 29%

There is good agreement with having off-leash parks in one's immediate neighbourhood. The following slide $\,$ outlines some of the sub-group responses to this question.

Agree/Disagree: Off-Leash Dog Park Space in Vancouver

Q5. Do you agree or disagree with the following statement: "I support having a dog off-leash area in my immediate neighbourhood?

N=400	% Total									
	ALL	Male	Female	18-34	35-54	55+	Rent	Own	East	West
Total Agree	61	61	62	65	60	58	71	58	57	66
Total Disagree	29	28	30	21	33	33	21	32	34	24

- Agreement to this question was noticeably higher among:
 Individuals of Caucasian/European descent (76%) compared to individuals of Chinese ancestry (32%).
- Dog owners (91%) compared to non-dog owners (56%).

 Individuals who have had a positive experience at an off-leash park (91%) vs. those with a negative experience (41%) or a neutral experience (54%).

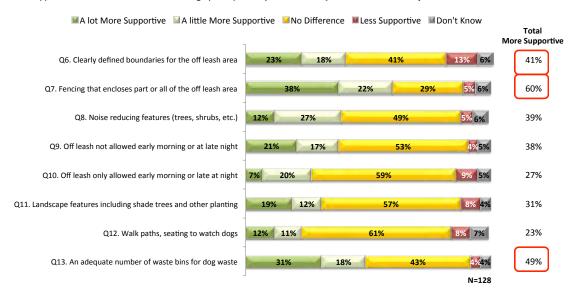






Impact of Off-Leash Dog Park Features on Opinion of Dog Parks

[IF Q5=DISAGREE] Q6-13. I am going to read you a few potential design features of a dog off-leash area and ask if these might make you more supportive of one in your immediate area. The first feature is [INSERT & RANDOMIZE]. Would this feature make you more supportive of an off leash area or not change your opinion? [IF SUPPORTIVE] Would that be a lot or just a little?



Impact of Dog Park Features on Disagreement with Dog Park (Q5)

N=128	% Total Disagree (Q5)			
	% More Supportive	% No Change	Difference (+/-)	
6. Clearly-defined boundaries of the off leash area.	41	41	0	
7. Fencing, usually about 4 feet tall, that separates the off leash area from the rest of the park.	60	29	+31	
8. Noise reducing features such as trees, shrubs and mounds to reduce noise.	39	49	-10	
9. Off leash <u>not</u> allowed early morning or late night	38	53	-15	
10. Off leash only allowed early morning or late night	27	59	-32	
11. Landscaping features including shade trees and other planting	31	57	-26	
12. Things to do for people without dogs, such as walking paths, seating and areas to watch the dogs if desired	23	61	-38	
13. An adequate number of waste bins for dog waste	49	43	+6	

The two most persuasive arguments to change the impression of people who do not support having a dog off-leash area in their immediate neighbourhood are to have:

•Fencing, usually about 4 feet tall, that separates the off leash area from the rest of the park (up 31 points of support)

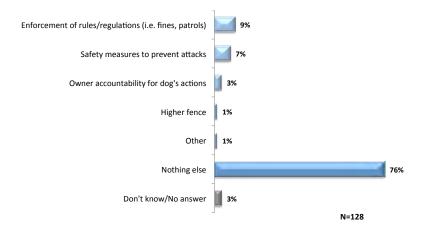
•An adequate number of waste bins for dog waste (up 6 points of support)





Other Things to Make More Supportive of Off-Leash Dog Parks

[IF Q5=DISAGREE] Q14. Would there be anything else I haven't mentioned that might make you more supportive of a dog off-leash area in your neighbourhood? [RECORD OPEN END. TOTAL MENTIONS]



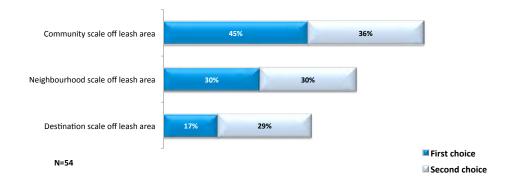
Combined First & Second Choice: Ranking of Dog Off-Leash Areas

Q17. I'm going to describe three types of dog off leash areas. Please rank them in the order that you are most likely to use them. [RANDOMIZE ORDER]

- > Neighbourhood scale off leash area: Area the size of a tennis court, within a 15 minute walk
- > Community scale off leash area: Area the size of a baseball field, within a 30 minute walk
- > Destination scale off leash area: Area the size of a soccer field or larger, within a 45 minute walk

A: Which of these types of leash parks would be your first preference?

B: And which would be your second?









Combined First & Second Choice: Ranking of Dog Off-Leash Areas (Cont.)

[IF DOG OWNER/HAVE DOG IN HH] Q17. I'm going to describe three types of dog off leash areas. Please rank them in the order that you are most likely to use them. [RANDOMIZE ORDER]

- > Neighbourhood scale off leash area: Area the size of a tennis court, within a 15 minute walk
- Community scale off leash area: Area the size of a baseball field, within a 30 minute walk
- > Destination scale off leash area: Area the size of a soccer field or larger, within a 45 minute walk

A: Which of these types of leash parks would be your first preference?

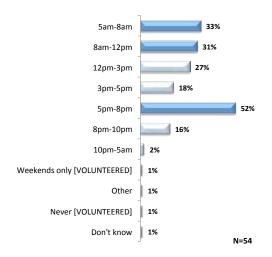
B: And which would be your second?

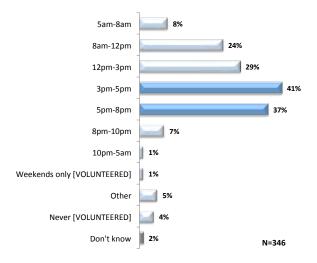
N=54	% Total									
	ALL	Male	Female	18-34	35-54	55+	EAST	WEST	RENT	OWN
Community scale	77	88	70	66	85	88	77	76	82	74
Neighbourhood scale	58	46	67	71	50	57	52	65	62	55
Destination Scale	44	44	43	39	50	42	34	53	26	53

Park Usage

[IF DOG AT Q1] Q18A. What times of day are you typically going out with your dog and visiting a park in the City? Is it usually in the morning, afternoon or evening? [CLARIFY PER BELOW. READ IF NECESSARY. SELECT ALL THAT APPLY]

[IF NO DOG AT Q1] Q18B. What times of the day are you typically visiting a park in Vancouver? Is it usually in the morning, afternoon or evening? [CLARIFY PER BELOW. READ IF NECESSARY. SELECT ALL THAT APPLY]



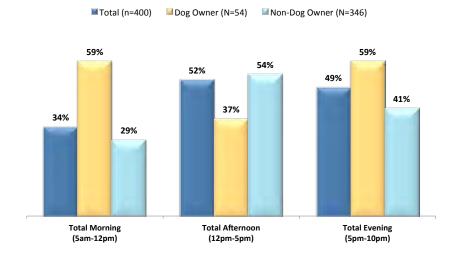






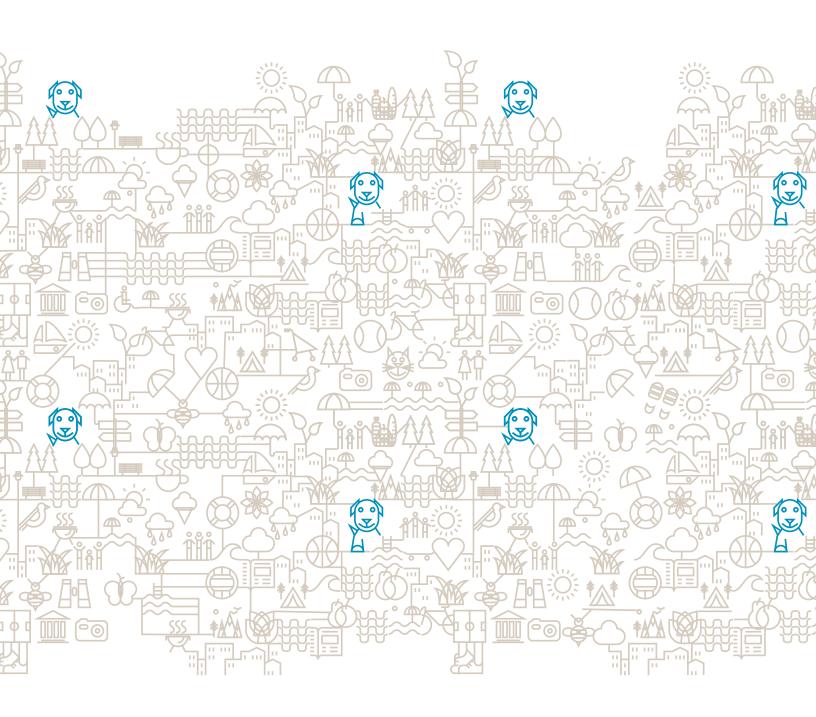
Park Usage

[IF DOG AT Q1] Q18A. What times of day are you typically going out with your dog and visiting a park in the City? [IF NO DOG AT Q1] Q18B. What times of the day are you typically visiting a park in Vancouver?







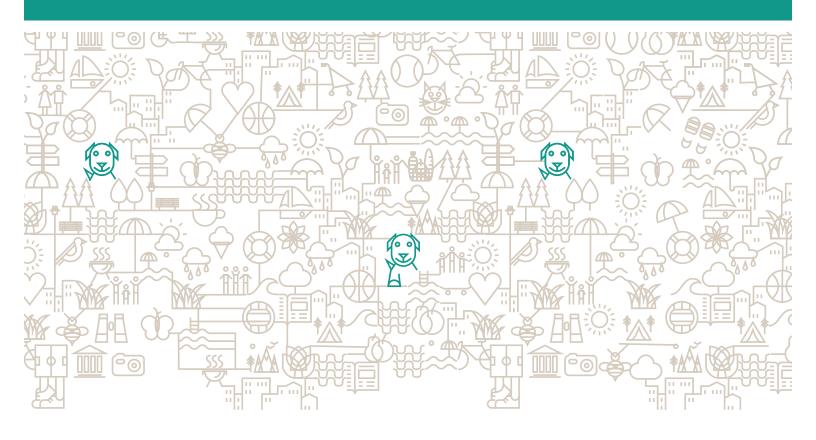


PEOPLE PARKS&D®GS

IMPLEMENTATION GUIDE considerations for delivery

PROPOSED

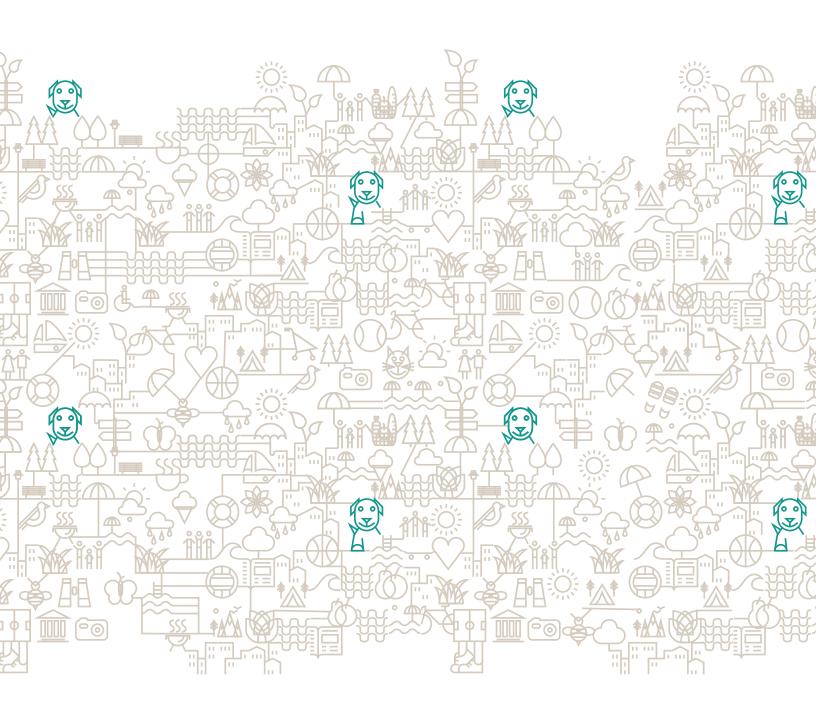
Park Board Meeting: October 23, 2017





This document is a companion reference for the 'People Parks and Dogs' Strategy Report, prepared for the City of Vancouver Park Board October 2017, by space2place design inc.





CONTENTS IMPLEMENTATION GUIDE

- AMENITIES

 Recommended for Vancouver's Dog Off-Leash Areas
- SURFACING

 Recommended for Vancouver's Dog Off-Leash Areas
- BOUNDARIES

 Recommended for Vancouver's Dog Off-Leash Areas
- MITIGATION TOOLS

 for Dog Off-Leash Areas with Less Compatible Adjacencies
- 5 PILOT PROJECTS

 Recommended for Vancouver's Dog Off-Leash Areas

1 AMENITIES

Recommended for Vancouver's Dog Off-Leash Areas

					ALLEND	
	Destination Park dog off-leash area	Destination Trail dog off-leash area	Neighbourhood Park dog off-leash area	Neighbourhood Urban dog off-leash area	Neighbourhood Dog Run dog off-leash area	
Intent	Large off-leash area. Used by residents and visitors on a daily or weekly basis.	Linear and trail- oriented off- leash area. Used by residents and visitors on a daily or weekly basis.	Medium sized off-leash area. Used by local residents on a daily basis.	Smaller off-leash area in high density setting. Used by local residents on a daily basis. Higher quality amenities to attract and support higher intensity of use.	Smaller off-leash area, in medium to high density settings. Used by local residents on a daily basis.	
Service level	Accessible to the n residents within a - km radius) or short	35 minute walk (3	Accessible to the majority of residents within a ~15 minute walk (1.0 km radius)			
Hours of use	Typical hours 6am	to 10pm				
Target size	Greater than 1.2 ha (3 acres)	Determined on site-by-site basis	From 0.4 to 1.2 ha (1 to 3 acres)	From 0.04 to 0.4 ha (0.1 to 1 acre)		
Boundary		permeable), bollards cent park uses, land (Entirely enclosed with high quality secure fencing (e.g. decorative steel)	Entirely enclosed with standard secure fencing (e.g. chain link)	
Surfacing	Mix of surfaces, including fine crushed gravel and grass	Gravel or wood chip trail surfacing. Consider options for increasing accessibility.	Mix of surfaces, including fine crushed gravel and grass	Mix of durable surfacing types, with specialty surfacing (e.g. synthetic turf)	Standard durable surfacing type (e.g. fine crushed gravel)	
Amenities (1)	Standard and special amenities considered on a site-by-site basis such as washrooms, drinking water for people and dogs, parking, and separated small / shy dog areas.	Standard amenities.	Standard amenities. Special amenities to be considered on a site-by-site basis.	Standard and special amenities, such as drinking water for people and dogs, agility features, and climbing elements. 'Pooch Patch' to help manage dog waste.	Standard amenities. Special amenities to be considered on site-by-site basis.	

⁽¹⁾ SEE 'TABLE IG-2'

Table IG-1. Overview of the five types of dog off-leash areas, and their recommended attributes.

		APPENDIX B
Standard Amenity	Description	
Waste bins	Provide separated, highly visible red dog waste bins to keep dog waste out of landfills.	
Open space	Dog off-leash areas should be sufficiently sized and thoughtfully designed to maximize the available open space for dogs to get a good amount of exercise through running and play.	Mary Const of Street
Shade	People and dogs need shade. Dog off-leash areas should be located and designed to take advantage of sites with a mix of sunny and shaded conditions. Plant new trees if feasible, where shade is inadequate. Note that existing shade trees and any new plantings may need protection from dog activity. Consider simple shade structures where trees are not feasible.	
Dog Waste Bag Dispensers	Provide durable dog waste bag dispensers at all dog off-leash areas to encourage dog owners to pick up dog waste. Dispensers can be stocked by volunteers or through private partnership agreements.	
Seating	Provide seating at dog off-leash areas to make sites more comfortable for people. At least one bench per site should be wheelchair accessible (including the access route to it).	
Special Amenity	Description	
Looping paths	Looping paths with durable surfacing can encourage dog owners to walk with their dogs, thereby reducing congregation of dogs at entries and reducing wear on turf areas. Consider options for increasing accessibility.	
Drinking water (dogs and people)	Provide drinking fountains for people and dogs (i.e. separate dog fountain) at higher-use sites. Fountain designs should consider the needs of those using wheelchairs or canes, and be located centrally where they are accessible to all park users.	
Water for dog play	Providing water for play is recommended for high-use sites. If the site has no access to water for dogs to swim, consider adding in-ground water jets to stimulate play, hydrate dogs, and cool the site. Reduce the volume of water used and extend its play value, for example by using channels or rills where shallow water can flow before it drains away. Install drainage (e.g. catch basin) to accommodate run-off.	
Separated small / shy dog areas	Separated areas for small or shy dogs, or dogs with other special needs, can allow these dogs to benefit from dog off-leash activity while keeping them safe from large, rambunctious dogs. Having separated small / shy dog areas may be most appropriate at fenced dog off-leash areas such as Neighbourhood Urban dog off-leash areas and Neighbourhood Dog Run dog off-leash areas.	
Dog wash station	Consider dog wash stations for Destination Park dog off-leash areas, particularly those with water access where dogs can get muddy.	ARROW STOP
Agility Features	Incorporate agility or play features to attract greater use and support more intense use. This may be most beneficial at smaller, high use sites such as Neighbourhood Urban and Neighbourhood Dog Run off-leash areas, and could also be a popular amenity at Destination Park dog off-leash areas. Engage a professional to evaluate the safety of the agility feature prior to installation.	
Washrooms	Consider washrooms (including porta potties) for Destination Park dog off-leash areas and Destination Trail dog off-leash areas, as well as some high-use Neighbourhood dog off-leash areas where there are no public washrooms in proximity. Washrooms should have universal access, be open during park hours, and be centrally located within shared-use parks to facilitate access by all park users. Porta potties may be suitable on a temporary basis if regularly maintained, and replaced with a wheelchair accessible facility in the near future if one is not located within a reasonable distance.	
Mix of park conditions	Provide a mix of park conditions, including open fields, forest, and/or water access (where possible) at Destination park dog off-leash areas.	
Lighting	Consider lighting for selected dog off-leash areas, such as Neighbourhood Urban dog off-leash areas, to increase their usability during winter months and improve accessibility. Lighting can be set on timers and can be turned off outside of dog off-leash area hours.	
Parking (cars and bicycles)	Provide parking with wheelchair accessible stalls and bicycle racks at Destination Parks. Conduct site-level assessments to identify existing parking capacity and anticipated requirements.	

2 SURFACING

Recommended for Vancouver's Dog Off-Leash Areas

			APPE				
Type of surfacing	Advantages	Disadvantages	Suitability ⁽¹⁾	Image			
Fine-crushed gravel (2) (also known as decomposed granite, gravel screenings, crusher dust)	 Suitable for high-intensity use Can be designed to be accessible for mobility aids / strollers Can be designed to have good drainage 	 May require irrigation for dust control, or surfactant Requires moderate maintenance (raking) May get muddy and compacted if overly saturated Hard on paws 	Smaller areas of intensive use, such as paths or bench pads.				
Synthetic turf (with 'zeofill' infill product to absorb ammonia)	 Suitable for high-intensity use Good drainage Easy to clean and can be sanitized Accessible for mobility aids / strollers 	Higher cost Requires edging material Requires weekly hosing down in summer with a commercial ionic enzyme solution to remove the buildup of ammonia from "zeofill"	Areas of intensive use.				
Grass (natural turf)	Inexpensive Natural Aesthetically pleasing and desirable by dog owners and non dog owners Somewhat accessible for "all-terrain" mobility aids / strollers Soft on paws	Not suitable for smaller sites, high-use areas, or areas with poor drainage Performs best if constructed similar to a high performance sport fields, with subsurface drainage and a high sand root zone and min. 3% surface slope Requires frequent overseeding, and may require periodic park closures to rehabilitate grass Requires irrigation	Larger areas with low intensity of use. Recommend pilot projects to identify more durable grass species / mixes.				
Sand	 Low cost Easy to install Excellent drainage Malleable material, allows for digging(3) Soft on paws 	 Not wheelchair accessible Tracks onto adjacent surfaces Requires regular raking to remove surface debris May require irrigation for dust control, or surfactant (Magnesium sulfite) 	"pooch patch" dog waste areas, or designated digging areas				
Pea gravel	 Excellent drainage Easy to install Malleable material, allows for digging(3) 	 Not wheelchair accessible Messy; can be slippery if tracked onto paved surfaces and requires regular raking to remove surface debris Difficult to clean / sanitize Can get dusty Hard on paws 	Consider in select applications where drainage is a significant challenge.				
Wood chips	 Low cost Can be locally sourced Easy to install Malleable material, allows for digging(3) Soft on paws 	 Not wheelchair accessible Compacts / degrades / crusts over time, causing drainage problems Requires regular topping up, causing mounding Difficult to clean / sanitize Mold / odour problems are common 	Select areas with good existing drainage.				

- (1) SUITABLE FOR USE IN VANCOUVER'S DOG-OFF LEASH AREAS.
- (2) FINE-CRUSHED GRAVEL RECOMMENDATIONS:

HIGH-INTENSITY APPLICATION:

225mm depth decomposed granite screenings installed in three lifts over 300mm depth drain rock, as used with reported success at Tompkins Square Dog Run, New York (Source: personal communication, January 2017)
STANDARD APPLICATION:

150mm depth 9mm crusher dust (available from mainland soil and gravel) over 100mm depth 20mm minus aggregate, as per City of Surrey Dog Park Construction Standard

(3) DIGGING IS ONLY CONSIDERED AN ADVANTAGE IN SELECT LOCATIONS.

Type of surfacing	Advantages	Disadvantages	Suitability ⁽¹⁾	Image
Concrete	 Suitable for high intensity use Wheelchair accessible Easy to clean and can be sanitized Durable 	 Higher cost Requires drainage Surface gets hot, especially in summer Surface may get slippery in freezing conditions Requires drainage No cushioning 	Smaller areas of intensive use, such as paths or bench pads.	
Asphalt	 Suitable for high intensity use Easy to clean and can be sanitized Wheelchair accessible 	Limited durability Surface gets hot, especially in summer (surface coating may be applied to reduce heat) Surface may get slippery in freezing conditions Requires drainage No cushioning	Consider for paths where concrete or fine-crushed gravel is unsuitable, or for temporary applications.	
RECOMMENDE	D AS PILOT PROJECT:			
Grass-gravel 'schotterrasen'	 Combines the benefits of grass with the structure of gravel Excellent drainage Aesthetically pleasing 	 Limited information on local applications; European applications include parking lots and RV campgrounds May require periodic park closures to rehabilitate grass May require irrigation 	Pilot project	
Alternate Grass Species Mixes (natural turf)	• see "Grass"	• see "Grass"	Pilot projects to identify more durable grass species / mixes. Consider fescuebased mixes.	
RECOMMENDE	D FOR FURTHER MONITORING:			
Cypress wood shavings	Cushioned surface Permeable (requires underdrainage) More rot resistant than regular wood chips Malleable material allows for digging(3) Soft on paws	 Compacts / degrades over time, causing drainage problems Requires regular top-up / replacement Product can be inconsistent in size Not wheelchair accessible Some animals may demonstrate a sensitivity or allergic reaction to the material. 	Monitor results in other dog park applications (e.g. Surrey, B.C.).	
Pour-in-place rubber	Cushioned surfaceGood tractionAvailable in a variety of colours and patterns	 Higher cost Requires surface sealant (porous surface may become unsanitary) Requires drainage Unknown durability in dog park setting 	Monitor results in other dog park applications.	

Table IG-3 Recommended types of surfacing for dog off-leash areas with advantages and disadvantages.

3 BOUNDARIES

Recommended for Vancouver's Dog Off-Leash Areas

SECURE BOUNDARIES

Secure fencing is recommended where dog off-leash areas are located next to less compatible adjacencies (see 'Mitigation Tools', Table IG-6). Recommended standard fence height for dog off-leash areas is 1.2 meters, and should be flush to the ground. Planting can be established along the base to reduce the visual prominence of the fencing, or gravel strips can be provided along the base of the fence to facilitate lawn mowing.

Type of Boundary	Advantages	Disadvantages	Suitability	Image
Decorative Steel Fencing	 Durable, high quality Considered aesthetically pleasing Available in a variety of styles and colours Can be combined with planting to reduce visual prominence of fencing 	• Relatively expensive	Neighbourhood Urban dog off- leash areas	
Chain Link Fencing	 Relatively Inexpensive Durable Available in galvanized finish or vinyl coated (black coating is less visually prominent) Can be combined with planting to reduce visual prominence of fencing 	Not considered aesthetically pleasing	Neighbourhood Dog Run off- leash areas	
Post and Rail Fencing, with Wire Mesh Infill	 Relatively inexpensive Considered aesthetically pleasing Can be combined with planting to reduce visual prominence of fencing 	Less durable Wire mesh may restrict the movement of wildlife (mesh sizing to be reviewed on a site basis, if the fence is intended to provide habitat protection).	Neighbourhood Park dog off- leash areas Destination Park dog off-leash areas	

Table IG-4. Overview of Secure Boundary Tools

PERMEABLE BOUNDARIES

Permeable boundaries such as bollards, vegetation, and non-secure fencing (fencing that delineates the boundary but does not keep dogs securely contained inside) are recommended for dog off-leash areas located next to more compatible park uses and where a visually and physically permeable boundary is desired.

Type of Boundary	Advantages	Disadvantages	Suitability	Image
Post and Rail Fencing	 Allows for wildlife movement Relatively inexpensive Considered aesthetically pleasing Can be combined with planting to reduce visual prominence of fencing 	 Creates a barrier for people but not for dogs Consider including narrow breaks in fencing to allow people to retrieve their dogs, where foot traffic beyond the fence is permissible Less durable 	Recommended next to ecologically- sensitive areas (see additional notes on 'Post and Rail Fencing, with Wire Mesh Infill')	
Bollards ¹ (steel or pressure treated wood)	 Allows for the dog off-leash area to be more visually integrated with its surroundings Relatively inexpensive 	Less visible; people and dogs might bump into bollard	Recommend where full permeability between the dog off-leash area and on-leash area is desired	that I de la late la l
Vegetation ²	 Aesthetically pleasing Can be formal (e.g. hedge) or naturalistic Can be combined with landforms (e.g. berms) to help delineate a boundary 	 Requires density to be a physical barrier Requires maintenance May require irrigation 	Recommend as a tool to help visually integrate dog off-leash area with its surroundings	

⁽¹⁾ IT IS RECOMMENDED THAT BOLLARDS BE SPACES APPROXIMATELY 8 METERS APART, WITH GRAVEL OR CONCRETE APRONS AT THE BASE TO FACILITATE LAWN MOWING.

Table IG-5. Overview of Permeable Boundary Tools

⁽²⁾ SEE STRATEGY REPORT SECTION 2.2.6 FOR ADDITIONAL RECOMMENDATIONS ON VEGETATION.

4 MITIGATION TOOLS

for Dog Off-Leash Areas with Less Compatible Adjacencies

Type of adjacency	Concern	Potential mitigation measures						
Residential	Dog noise.	Setback distance						
		• Mounds						
		Dense vegetation						
		Solid fencing panels (to be balanced with safety concerns)						
		Signage to respect local residents and discourage persistent barking						
Ecologically-sensitive area (e.g. biodiversity	Impacts on wildlife from physical disturbance,	Completely restrict dogs from designated ecologically- sensitive areas						
hotspot, wildlife corridor, water bodies)	scent, and/or noise.	Minimum setback distance of 50 to 75 m and/or use of secure fencing						
		Wildlife-friendly fencing (described in 'Boundary Recommendations' section)						
		Use educational signage to raise awareness about potential impacts of dogs on wildlife						
Busy road	Dogs being injured or causing car accidents.	Minimum setback distance of 50 to 75 m and/or use of secure fencing						
Multi-use trail	Dogs being injured or causing injuries to trail users.	Minimum setback distance of 50 to 75 m and/or use of secure fencing						
Playground, wading pool, splash pad	Conflict between dogs and children.	 Minimum setback distance of 50 to 75 m and/or use of secure fencing with a 5 m buffer zone where no dogs are allowed (even on-leash). 						
		Buffer planting or other barriers to prevent children from putting fingers through fencing						
		Dogs completely restricted from playgrounds, wading pools and splash pads, either on-leash or dog off-leash						
Designated sports field	Conflict between dogs and sport field users, causing injuries.	Minimum setback distance of 50 to 75 m and/or use of secure fencing						
	Dogs digging holes in sports fields.							
	Uncollected dog waste.							
Community Gardens	Impacts to vegetation and conflict between garden users and dogs.	Minimum setback distance of 50 to 75 m and/or use of secure fencing						
Designated picnic area	Conflict between off- leash dogs and open food.	Minimum setback distance of 50 to 75 m and/or use of secure fencing						

Table IG-6. Potential mitigation measures between dog off-leash areas and less compatible adjacencies.

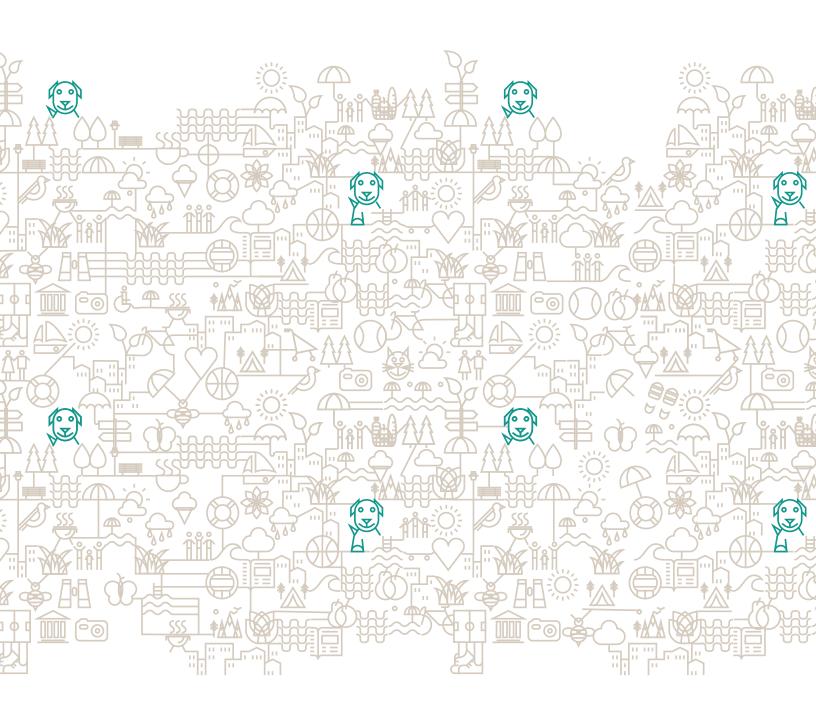
5 PILOT PROJECTS

Recommended for Vancouver's Dog Off-Leash Areas

PILOT PROJECTS

The following Pilot Projects are recommended to test improvements related to the access, design and stewardship of dog off-leash areas. Refer to Stewardship Recommendations on pages 33 - 38 of the Strategy Report for further considerations on community engagement, evaluation, and implementation.

Name	Description	Implementation						
George Wainborn Park	Introduce morning-only hours of dog off-leash use (duration:	Work with Park Board staff to finalize proposed boundaries and hours (6 am - 9 am or 10 am)						
	one year)	Clearly delineate off-leash area boundaries (consider bollards, see Signage Plan)						
		Include dog off-leash area 'etiquette' signage						
		Include pilot project signage.						
Pooch Patch	A patch of sand where dogs can be encouraged to relieve themselves upon arrival to	 For smaller sites with high use, such as Neighbourhood Urban dog off-leash areas, and/or new dog off-leash areas where training new habits may be more successful. 						
	the park or dog off-leash area (duration: one year)	 Host an in-park event to introduce the pilot project, and to gather contact information for those that would like to keep informed. 						
		Locate near the entry of the dog off-leash area.						
		 Provide a dog waste bin and bag dispenser immediately adjacent to the pooch patch. 						
		 Provide an area approx 5 m² of well-draining sand (500mm depth, underlain by 300mm depth of clear crush aggregate), with a post installed in the sand area to encourage dogs to urinate. 						
		Include pilot project signage.						
Turf Species	Testing grass species and / or mixes to identify those most	Conduct field tests in larger dog off-leash areas, min. 1.2 ha in size (i.e. Destination Park Dog Off-Leash Areas)						
	suitable for use in dog off-leash areas. (duration: 2 years)	 Consult with professionals in turf management (e.g. professionals from UBC Botanical Gardens, and / or Kwantlen Polytechnic Horticulture programme) to identify recommended grass species for testing 						
		 Park Board staff, in consultation with turf experts, identify parameters for field-testing, including a 'control' area to compare results against Park Board's current turf mix. 						
		Include pilot project signage.						
Grass Gravel "Schotterrasen"	Test the suitability of Grass Gravel in smaller dog off-leash	For smaller sites with high use, such as Neighbourhood Urban dog off-leash areas (min. 0.4 hectares).						
	areas where regular turf is not feasible	• Install minimum 20 m ² area						
		Install during spring, when nights are frost-free						
		Provide 300mm Gravel (max 20% by vol.) / Soil / Compost mixture over a base of 200mm depth gravel.						
		 Hand seed at a rate of 10 g seeds per m² watering the soil before and after seeding to ensure optimal contact between seeds and substrate. Consult with Turf Management professionals (see 'Turf Species' pilot project description) for selection of grass seed. Recommend testing various seed mixes and slight variations on construction methods. 						
		 Cordon off the area to prevent foot traffic for 3 months, and regularly irrigate during establishment. Fertilize if recommended by test results. 						
		 Once open to public use, plan an appropriate mowing schedule, e.g. 3x / year (and adjust as required). 						
		Include pilot project signage.						



Implementation Plan: People, Parks and Dogs Strategy

Page 1 of 2

APPENDIX C

Off-Leash Areas	Boundary Less Compatible Adjacencies Surfacing									Estimate of Probable Cost			Comments	Priority A-B-C
		Playgrounds	Busy Roads - arterials & secondary	Ecologically Sensitive - in Biodiversity Strategy		Designated Sports Fields (bookable)	Community Gardens	Multi-use Trails	Challenging grass, sand, gravel or wood chips		Low	High		A - 2019/22 Cap. Plan, B - 2023-26 Cap. Plan, C - 2027-30 Cap. Plan
Coopers' Park	not fenced	yes - 50 m	yes - 50 m	no	no	no	no	yes	yes	\$	250,000	\$ 1,500,000	Consider signage, surfacing and boundaries.	А
Crab Park at Portside	not fenced	yes - 70 m	no	no	yes - 70 m	no	no	no	no	\$	75,000	\$ 125,000	Consider signage and boundaries.	A
Hadden Park				:	Special Study Are	a				\$	5,000	\$ 10,000	Review this special study area.	A
John Hendry (Trout Lake)	not fenced	no	no	yes	no	yes - 50 m	no	yes	yes	Ś	30,000		Consider signage, environment and design as part of Park Master Plan process.	A
Musqueam Park	not fenced			yes	no	yes - 50 m	no	yes	no	\$		\$ 200,000	Consider signage, boundaries and environment.	A
New Brighton Park*	not fenced		no	yes	no	yes - 50 m	no	no	no	\$		\$ 1,000,000	Consider signage, boundaries and	A
Spanish Banks					Special Study Are	a				\$	5,000	\$ 10,000	Review this special study area.	А
Strathcona Park	not fenced	yes - 50 m	yes - 50 m	no	no	yes - 50 m	yes	yes	no	\$	50,000	\$ 150,000	Consider signage, design and boundaries.	А
Sunset Beach	not fenced	no	yes - 50 m	no	no	no	no	yes	yes	\$	75,000	\$ 250,000	Consider signage, design, boundaries and environment.	А
Sunset Park	not fenced	yes - 70 m	no	no	no	yes - 50 m	no	yes	no	\$	-	\$ -	Update as part of current Sunset Park redevelopment.	А
Charleson Park (east & west)	not fenced	yes - 50 m	no	no	no	yes - 50 m	yes	yes	no	\$	100,000	\$ 150,000	Consider signage, boundaries and environment.	А
Emery Barnes Park	fenced	yes - 50 m	yes - 50 m	no	no	no	no	yes	yes	\$	30,000	\$ 50,000	Consider signage and surfacing options.	A & B
Falaise Park	not fenced	yes - 50 m	yes - 50 m	no	yes - 50 m	yes - 50 m	no	no	no	\$	50,000	\$ 75,000	Consider signage, boundaries and design options.	A & C
Andy Livingstone Park	fenced	yes - 70 m	yes - 50 m	no	no	yes - 50 m	no	yes	yes	\$	30,000	\$ 50,000	Consider signage.	В
Devonian Harbour Park	fenced	no	no	no	no	no	no	yes	no	\$	50,000	\$ 75,000	Consider signage, surfacing and boundaries.	В
Dusty Greenwall Park	not fenced	no	no	no	no	no	no	yes	no	\$	30,000	\$ 40,000	Consider signage.	В
Nat Bailey Stadium	not fenced	yes - 50 m	yes - 50 m	no	no	yes - 50 m	no	yes	yes	\$	20,000	\$ 50,000	Consider signage, design and boundaries.	В
Nelson Park	fenced	yes - 50 m	no	no	no	no	yes	yes	yes	\$	20,000	\$ 125,000	Consider signage, design and surfacing options.	В

Priority A
Priority B
Priority C
Special Study Areas

Request for funding will come in the 2019-2022 Capital Planning Process Request for funding will come in the 2023-2026 Capital Planning Process Request for funding will come in the 2027-2030 Capital Planning Process

The special study areas require further localized consultation and evaluation before making any recommendations about classification or future use. Hadden Park is unique due to the specific terms of the gift of the site to the City, and the location of Spanish Banks West Park creates a legal and jurisdictional situation that requires further research and consultation with other government agencies.

Implementation Plan: People, Parks and Dogs Strategy

Page 2 of 2

APPENDIX C

Off-Leash Areas	Boundary		ompatible Adjace	encies			Surfacing	Estimate of Probable Cost			Comments	Priority A-B-C		
	·	Playgrounds	Busy Roads - arterials & secondary	Ecologically Sensitive - in Biodiversity Strategy	Splash Pads/Wading Pools	Designated Sports Fields (bookable)	Community Gardens	Multi-use Trails	Challenging grass, sand, gravel or wood chips		Low	High		A - 2019/22 Cap. Plan, B - 2023-26 Cap. Plan, C - 2027-30 Cap. Plan
Quilchena Park	not fenced	yes - 50 m	yes - 50 m	no	no	yes - 50 m	no	yes	no	\$	60,000	\$ 200,000	Consider signage, design and boundaries.	В
Southeast False			•			•							Consider signage, design, environment and	
Creek/Hinge	fenced	yes - 50 m	no	yes	no	no	yes	no	yes	\$	20,000	\$ 40,000	surfacing options.	В
Stanley Park	fenced	no	no	yes	no	yes - 70 m	no	no	no	\$	20,000	\$ 500,000	Consider signage, design and environment.	В
Tecumseh Park	not fenced	yes - 50 m	no	no	no	no	no	no	no	\$	30,000	\$ 100,000	Consider signage and design options.	В
Balaclava Park	not fenced	yes - 70 m	no	no	yes - 50 m	yes - 50 m	no	no	no	\$	50,000	\$ 75,000	Consider signage and boundaries.	С
													Consider signage, environment and water	
Everett Crowley Park Fraser River Park (east	not fenced	no	yes - 50 m	yes	no	no	no	no	no	\$	30,000	\$ 60,000	provision.	С
=	not fenced	no	no	no	no	yes - 50 m	no	yes	no	Ś	75,000	\$ 200,000	Consider signage and design.	С
Fraserview Golf	not fenced		yes - 50 m	yes	no	no	no	yes	no	\$	30,000		Consider signage, design and environment.	С
George Park	not fenced	yes - 50 m	no	no	no	yes - 50 m	no	no	no	\$	50,000	\$ 80,000	Consider signage and design.	С
Jones Park	not fenced	yes - 50 m	yes - 50 m	no	no	yes - 50 m	no	yes	no	\$	20,000	\$ 40,000	Consider signage and design.	С
Killarney Park	not fenced	no	no	no	no	yes - 50 m	no	yes	no	\$	30,000	\$ 60,000	Consider signage, and design as part of Park Master Plan process.	С
Kingcrest Park	not fenced	yes - 50 m	no	no	no	yes - 50 m	yes	yes	no	\$	50,000	\$ 120,000	Consider signage, boundaries and design.	С
Locarno Park	not fenced	yes	yes - 50 m	yes	no	yes - 50 m	no	yes	no	\$	20,000	\$ 50,000	Consider signage, design, environment and boundaries.	С
Oak Meadows Park	not fenced	no	yes - 50 m	no	no	yes - 50 m	no	yes	no	\$	30,000	\$ 80,000	Consider signage, environment and boundaries.	С
Sparwood Park	not fenced	no	yes - 50 m	yes	no	yes - 50 m	no	no	no	\$	20,000	\$ 30,000	Consider signage, environment, boundaries and design.	С
Sunrise Park	not fenced	yes - 50 m	yes - 50 m	no	yes - 50 m	yes - 50 m	no	no	no	\$	20,000	\$ 50,000	Consider signage and boundaries.	С
Valdez Park	not fenced	no	no	no	no	no	no	yes	no	\$	20,000	\$ 30,000	Consider signage and design.	С
Queen Elizabeth Park	not fenced	no	no	no	no	yes - 70 m	no	yes	no Total	\$	30,000	\$ 750,000 \$ 6,375,000	Consider signage and boundaries.	С

Priority A

Request for funding will come in the 2019-2022 Capital Planning Process

Priority B

Request for funding will come in the 2023-2026 Capital Planning Process

Priority C

Request for funding will come in the 2027-2030 Capital Planning Process

The special study areas require further localized consultation and evaluation before making any recommendations about classification or future use. Hadden Park is unique due to the specific terms of the gift of the site to the City, and the location of Spanish Banks West Park creates a legal and jurisdictional situation that requires further research and consultation with other government agencies.