VanSplash: Vancouver Aquatics Strategy

Approved October 2019

Vancouver Board of Parks and Recreation

ACKNOWLEDGEMENTS

The Vancouver Park Board acknowledges that the lands discussed in this document are in the unceded, traditional territory of the Coast Salish peoples, specifically the shared traditional territories of the Musqueam, Squamish, and Tsleil-Waututh First Nations. The Park Board aims to provide, preserve and advocate for parks and recreation to benefit all people, communities and the environment, and this strategy focuses on improving aquatic amenities and facilities to support this mission.

The Park Board would like to thank the VanSplash Advisory Group for their contributions to this document and a heartfelt thank you to all Recreation, Real Estate and Facilities Management, Finance, and Communications staff who assisted with the development of this project during 2016-2019.

Vancouver Board of Parks and Recreation Commissioners (2018-2022)
Camil Dumont
Dave Demers
Gwen Giesbrecht
John Coupar
John Irwin
Stuart Mackinnon
Tricia Barker

Vancouver Board of Parks and Recreation Commissioners (2014-2018)
Casey Crawford
Catherine Evans
Erin Shum
John Coupar
Michael Wiebe
Sarah Kirby-Yung
Stuart Mackinnon

Senior Leadership Team
Malcolm Bromley, General Manager
Shauna Wilton, Deputy General Manager
Dave Hutch, Director, Planning and Park Development (Acting)
Donnie Rosa, Director of Recreation (Former)
Daisy Chin, Director of Recreation (Acting)
Howard Normann, Director of Parks
Steve Jackson, Director of Finance

Staff Project Team
Katy Amon, Planner II/Project Manager
Leila Todd, Planner II/Project Manager
Doug Shearer, Manager Planning, Policy and Environment (Acting)
Michelle Larigakis, Planning Analyst

VanSplash Advisory Group

Anthony Abrahams
Jean Campbell
Kaye Chapman
Cliff Cheng
Michael DiPietro
Dale Edwards
Abby Ferris
Samantha Garrett
Igor Kopecky
Carol Martin
Bronwen Mears
Anthony Mehnert
Barry Morris
Stevie Nguyen
Charles Tai
Arthur Tsai
Jarrett Vaughan
Marianne Wieland de Alvarez
Peter Wong

Consultant Team
HCMA Architecture + Design
PERC + RC Strategies
Ross Templeton + Associates
Delaney + Associates

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Executive Summary

In 2016, the Vancouver Board of Parks and Recreation (VPB) initiated a new long range vision for the future of aquatics in Vancouver. The future vision would be informed by a core belief that along with providing opportunities for physical health and well-being, aquatic services play a key role in supporting community and personal well-being, and in enhancing social inclusion.

From beaches to pools, there is a long history of providing aquatic services within the City of Vancouver. The VPB currently operates nine indoor pools, five outdoor pools, 14 spray parks, 15 wading pools, and nearly 18 km of beaches, including Trout Lake swimming beach. In 2012 the VPB developed a Strategic Plan[1] with the mission to "provide, preserve and advocate for parks and recreation to benefit all people, communities and the environment."

The future vision for aquatics developed in the 2017 Vancouver Aquatic Strategy (*VanSplash*) was based upon: an understanding of the current state of existing public aquatic infrastructure (including indoor and outdoor pools, spray parks, wading pools, and beaches); public opinion gathered through a robust public engagement strategy that sought to ascertain the public's hopes and aspirations for the future of aquatics in the city; and looking worldwide for inspiration related to best practices, trends and innovations in aquatics and assessing their applicability to Vancouver's unique physical and social context.

The 2017 Draft Vancouver Aquatics Strategy was intended to update the *2001 Aquatic Services Review* and the *2011 Pool Assessment Study* (both of which are described in the next section), and to build on the scope of the previous studies by increasing the targets and measures of success to include social inclusion and community well-being, by including considerations related to environmental sustainability, and to expand the range of aquatic amenities within the City as a key component for inclusion in the overall vision and recommendations.

When the draft strategy came forward for approval in 2017, public concerns were raised about several aspects – including the strategy's recommendation to move away from a predominantly small-scale indoor pool system. The Board referred VanSplash back to staff for further consideration in early 2018, and the decision was made to establish an Advisory Group as an additional phase of public engagement to help facilitate and guide revisions to be implemented within the 2019 VanSplash Revised Strategy report.

The vision and recommendations in the 2019 *VanSplash* report were developed through four phases:

PHASE 1: POLICY REVIEW, INVENTORY, AND CURRENT STATE REPORT

- *Current State Report*
- *Precedent Report*
- *Public Engagement Report*

PHASE 2: SERVICE LEVELS AND POLICY UPDATE

- Development of draft Recommendations for service delivery and policy
- Additions to *Public Engagement Report*

PHASE 3: DRAFT STRATEGY

- *Draft VanSplash Strategy Report Refined*

PHASE 4: VANSPLASH ADVISORY GROUP REVIEW PROCESS

- *VanSplash Advisory Group Report*
- *Revised VanSplash Strategy Report*

1. http://vancouver.ca/files/cov/park-board-strategic-plan-presentation-2012062

This report represents the revised strategy for *VanSplash*, focused on providing the key recommendations for the proposed 25-year vision. The recommendations presented in this report are based on detailed work completed in Phases 1 and 2, as well as the input and review provided by the Advisory Group, and include at a high level the overall context and drivers on which the recommendations are based. However, for a fuller picture of the research and knowledge that informed and shaped the recommendations, the *Revised Strategy Report* should be read in conjunction with the findings presented in the *VanSplash Current State Report*, the *VanSplash Precedent Report* and the *VanSplash Public Engagement Report* .

The *Current State Report* focuses on:

- the drivers for aquatic use
- aquatic delivery methods
- the regional aquatic context
- pool capacity and operational strategies future demographic trends

The report also provides an overview and evaluation of each of the Park Board's existing aquatic facilities and amenities, with realistic life cycle assessments for each (where applicable), documents unique features, and their role in service delivery.

The *Precedent Report* provides an overview of recent global aquatic trends, and provides aquatic precedent projects that are considered to be cutting edge in representing a particular trend. Precedents were considered in terms of their appropriateness and applicability to the physical and demographic context of Vancouver, and tested in terms of their ability to further the objectives and goals for the future of aquatics in Vancouver as identified by the VPB and expressed by the public during the two phases of public engagement. Ultimately, each typology was used to inform aquatic innovations that could enhance the range of aquatic experiences offered in Vancouver into the future, and helped to develop the overall 25-Year Vision.

The *Public Engagement Report* provides an overview of the strategy and process for two rounds of public engagement for *VanSplash* and summarizes in detail the feedback and insights provided by the public. Information gathered in this report summarized what we heard through over 4,500 survey responses and five facilitated focus group workshops in the first phase of engagement, and over 1,600 survey responses in the second. In Phase 1, over 150 interest groups (including user groups, community centres, neighbourhood houses, immigrant services, City of Vancouver advisory committees, LGBTQ2 representatives, diverse advocacy groups, persons with disabilities, and seniors) were invited to attend stakeholder sessions at locations across the City. Over 60 groups were represented as participants at these sessions. The groups and individuals who were invited to attend stakeholder sessions in Phase 1 were all contacted during the second engagement phase, and were asked to share the information with others in their networks. The *Public Engagement Report* contains crucial input and feedback from the public stakeholders that, in conjunction with the *Current State Report* and the *Precedent Report*, shaped and informed the recommendations. The *Public Engagement Report* also reports on the facilitated engagement process with the Advisory Group and the insights provided since by the group.

Since the report uses specific terms to describe rules or regulations, a glossary has been provided after the Appendix at the end of the report to provide assistance and use of a common language and consistent terminology.

Background

In 2002 the Park Board completed the 2001 *Aquatic Services Review*. The purpose of the review was to develop a comprehensive strategy to reconfigure the Park Board's aquatic services and facilities and to lay a foundation for a 10-15 year revitalization plan. The specific outcome of this work was to provide the Board with recommendations that would enable them to:

- operate the services and facilities in a cost-effective and fiscally sustainable manner
- meet current and future demands of the City's residential and working population
- balance the local neighbourhood services and needs with those of the City and Region as a whole

As a result of the outcomes and recommendations in the 2001 review, in 2002 the Park Board endorsed the objectives for aquatic renewal consisting of:

- One city-wide facility (up to 800,000 swims/year - considered 'large' using the terminology developed in the 2019 update)
- Two community level facilities (up to 400,000 swims/year - considered 'medium' using the terminology developed in the 2019 update)
- Four neighbourhood level facilities (up to 200,000 swims/year - considered 'small' using the terminology developed in the 2019 update)

Subsequently, the Park Board implemented the first phase of recommendations which included:

- Building a new, large aquatic facility at Hillcrest (2010), which replaced the Percy Norman Pool.
- Re-building Killarney pool (2006) to a medium sized pool.
- Renovating Renfrew pool (2005), which was maintained as a small pool.

Since 2001, the Park Board has also:

- Decommissioned two small outdoor pools (Mount Pleasant and Sunset) at the end of their functional lifespan
- Co-located an outdoor leisure pool at the Hillcrest Aquatic Centre (2010).
- Decommissioned five wading pools (Norquay Park, Prince-Edward Park, Pandora, Carnarvon, and Riley Park) at the end of their functional lifespan.
- Added three new spray parks (Prince Edward Park, Norquay Park and Pandora Park).
- Converted Carnarvon and Riley Park wading pools into lawns.

In 2010, the Park Board engaged HCMA to deliver a *Pool Assessment Study* to provide an update that measured the progress made since the adoption of the 2001 aquatic strategy. The work also considered existing pool use data to lay the groundwork for future aquatic facility renewal in the City of Vancouver. The study was intended to provide a comprehensive picture of the City's current aquatic network, and to identify new trends and issues.

Working closely with aquatics and planning staff, HCMA reviewed relevant documentation, assessed the major indoor and outdoor facilities, assessed wading pools and spray parks and conducted interviews with aquatic staff across all levels. Combining this work with research into aquatic trends and best practices, the *2011 Pool Assessment Study* provided both new findings and recommended updates to the 2001 recommendations to inform the future of aquatics relative to the 10-year plan.

The 2011 study served as a touch point for services review, but did

not provide an over arching strategy evaluated through a community engagement process, nor was it endorsed by the VPB as a policy. The scope of work included swim targets for indoor pools only.

VanSplash works to complement and extend the previous studies by including other aquatic service opportunities such as aquatic services at beaches, innovative approaches for new outdoor facilities such as natural pools or facilities for urban ocean swimming as seen in other coastal cities, as well as considering the role of aquatic services in supporting well-being, social inclusion, and broader environmental sustainability targets. This *Draft Strategy Report* builds on current technical knowledge and previous reports, incorporates broader City-wide aspirations, and relies upon robust public engagement to inform a new 25-year vision for aquatics in Vancouver.

Objectives + Methodology

OBJECTIVES

The purpose of *VanSplash* was to develop a 25-year vision for aquatic services that:

- Carries out a robust public engagement strategy to inform the vision and recommendations.
- Offers a comprehensive and robust community and stakeholder engagement strategy, which included an online survey.
- Frames aquatic services in the context of supporting community and personal well-being and enhancing social inclusion.
- Reviews the condition, effectiveness and performance of the Vancouver Park Board aquatic services delivery system.
- Considers current aquatic services within a 25-year time frame which accounts for projected population growth and growth centres in the city.
- Validates optimum city-wide service levels and delivery, including metrics that measure effectiveness of service delivery (e.g. swims per capita, number of users, unmet demand).
- Explores and recommends new and innovative directions to meet city-wide indoor and outdoor aquatic services delivery.
- Recommends an outdoor pool strategy, which considers the location and design of a new outdoor pool facility.
- Reviews and recommends the role of wading pools, spray parks and beaches in the aquatic system.
- Matches updated service metric(s) with a vision to renew and invest in the system.
- Incorporates facility performance findings relative to greenhouse gas emissions. This is to more accurately align with City of Vancouver policy targets.[1]

1. Greenest City Action Plan, 2020 Target: reduce community based GHG emissions by 33% from 2007 levels, and 2050 Target: reduce GHG emissions by 80% below 2007 levels.

METHODOLOGY

The work was carried out in four phases:

Current State Report (Phase 1)

- Reviewed existing policy and literature provided by Park Board including: previous aquatic service and program reviews, recent facility assessments, aquatic services use numbers (2009-2015), Park Board Strategic Framework, Vancouver Sport Strategy, Healthy City Strategy, and Greenest City Action Plan. Facility and aquatic services use numbers were updated in Phase 4.
- Reviewed City aquatic facilities including indoor and outdoor pools, whirlpools, representative spray parks and wading pools (2-3) as well as beach and waterfront sites. The team received data on operations, number of visitors, maintenance and energy use for existing pool facilities from VPB staff, with the exception of data for Britannia pool.
- Evaluated results of review and research and provided conclusions and recommendations into the *Current State Report*.

Precedent Review (Phase 1)

- Conducted an overview of relevant global aquatic precedent projects.
- Reviewed recent global aquatic trends.
- Evaluated precedents and rated them in terms of:
  - appropriateness and applicability to the context of Vancouver
  - ability to further the objectives and goals for the future of aquatics in Vancouver as identified by the VPB and expressed by the public during the public outreach component
  - ability to complement and enhance the current and proposed range of aquatic experiences offered in Vancouver
- Evaluated results of the precedent and trend review provided conclusions and recommendations into the *Precedent Review Report*.

Public Engagement (Phase 1)

- Developed *VanSplash*, a branded public engagement strategy that was carried out in two phases. The first was held in the summer of 2016 and included:
  - a public survey completed by over 4,500 respondents, including 60 translated Chinese language responses, that sought broad input to shape and inform the 25-year vision and draft recommendations for service deliver
  - the receipt of 45 comments via e-mail
  - two public outreach events at Kitsilano beach and New Brighton pool over a key summer weekend in July (July 23 and 24th, 2016)
  - Five stakeholder workshops, with 60 stakeholder groups represented, to gather specific feedback on pool usage, to understand the users' likes and dislikes, and perceived barriers related to current aquatic services in Vancouver and the region.
- Evaluated results of the public engagement, and provided a summary of the results in the *Public Engagement Report*.

Development of Draft Vision and Recommendations for Service Delivery (Phase 2)

On the basis of the foundational work carried out in Phase 1, the consultant team began to develop the draft 25-year vision. The team reviewed what was working well in the current system and what was not, both from a technical and operational perspective, as well as on the basis of input and feedback gathered through the engagement. This was considered in the context of anticipated future demographic growth and changes, desired

swim capacity targets, and the wider aspirations set out by the VPB and the CoV. The team also developed a Vision statement, and a set of Guiding Principles and Goals to support the Vision, that would be supported directly by the strategic 25-Year recommendations. Refer to page 52 for the Vision, Principles and Goals.

The work in Phase 2 was developed in close and regular contact with the VPB Staff Working Group, and was presented to the Vancouver Park Board Commissioners on June 19, 2017 prior to proceeding to the next round of public engagement.

Public Engagement (Phase 2)

- Building on the branding and awareness of *VanSplash* developed in the Phase 1 public engagement, the team conducted a second round of public engagement. The second engagement took place in the fall of 2017, to seek feedback on the draft recommendations:
  - a public survey completed by over 1,600 respondents, including 21 translated Chinese language responses, that sought input from the public on the draft 25-year vision and draft recommendations for service delivery
  - the receipt of 142 comments via e-mail
  - three public outreach events held at Killarney, Hillcrest and Vancouver Aquatic Centre indoor pools in September/October (September 27, September 30 and October 2, 2017)
- Evaluated results of the public engagement and added a summary of the results in the *Public Engagement Report*.
- Advisory Group Report was added in Phase 4.

Development of Draft Vision and Recommendations for Service Delivery (Phase 3)

- Following the tabulation of the engagement results the consultant team, working closely with the VPB Staff Working group, drafted the proposed Vision and Recommendations for service delivery.
- In addition to the key dedicated staff and the Staff Working Group, participants included: aquatics and recreation program, operations, maintenance and management staff, and City of Vancouver Facilities Management and Planning, Urban Design and Development staff.
- This phase of work included a high-level cost estimate for recommendations that are proposed as having potential for implementation. The costing included in the 2017 report has been updated to reflect revisions to the recommendations made in Phase 4 (see below), and to update costing to bring it in line with anticipated construction cost escalation and the new 25-Year Vision.

Development of revised Vision with support and direction from the VanSplash Advisory Group (Phase 4)

- In late 2018, following a call for volunteers, a Board appointed Advisory Group met to provide insights to Vancouver Park Board staff on the Draft 2017 VanSplash Strategy.
- The Advisory Group developed a report that outlined feedback to the proposed recommendations developed in the Draft VanSplash Strategy Report. This revised report includes the updates proposed by the Advisory Group.

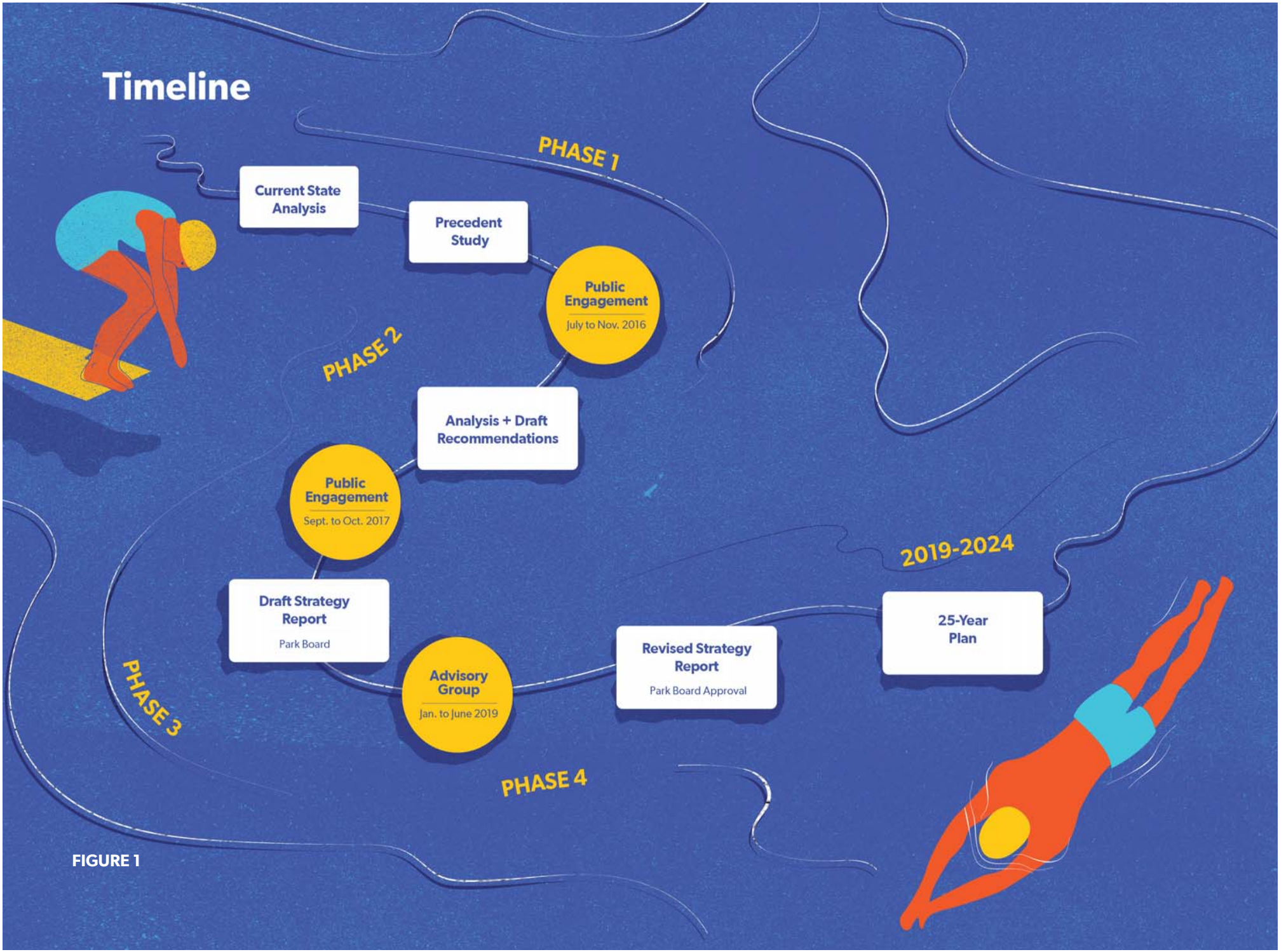

Timeline
PHASE 1
Current State Analysis
Precedent Study
Public Engagement
July to Nov. 2016
PHASE 2
Analysis + Draft Recommendations
Public Engagement
Sept. to Oct. 2017
Draft Strategy Report
Park Board
PHASE 3
Advisory Group
Jan. to June 2019
PHASE 4
Revised Strategy Report
Park Board Approval
2019-2024
25-Year Plan

FIGURE 1

Foundations for Planning Aquatic Services

1

Introduction

This section presents context on the various aspects of aquatic services planning from the *Current State Report*. This information is intended to provide a foundation for viewing and evaluating the current state analysis of aquatic services in Vancouver as as well as to provide an understanding of the current state and its impact on the subsequent recommendations. Further detail is found in Appendices 2, 3, and 4.

Facility Planning Practices

Over the past 50 years, the public's needs and expectations for aquatic services have changed significantly. As well, Building Codes have introduced much higher seismic performance requirements and Health Act and WorkSafe BC regulations have increased to better protect staff and the public.

Codes and policies regulating sustainable, accessible, and inclusive design have changed how we design spaces. These considerations, among many other factors, guide facilities planning and that shape VanSplash recommendations, including the following:

Reconciliation

Vancouver is located on the unceded territories of the Musqueam, Squamish, and Tsleil-Waututh peoples. Vancouver's parks are venues to foster new connections between the land and its peoples.

The Vancouver Park Board is responsible for much of Vancouver's relatively undeveloped land. This puts us in a unique position to partner with the Nations in preserving spiritually and archeologically significant places, and stewarding park ecosystems for generations to come.

The Park Board will continue with leading our precedent setting approach to Reconciliation initiatives and apply them in the planning and implementation of all aquatic projects.

Climate Change

The Park Board is focused on building and maintaining facilities through the lens of climate change action. VanSplash aligns with Park Board and City of Vancouver strategies and mandates such as the: Climate Change Adaptation Plan, Greenest City Action Plan, Zero Emissions Buildings Plan, Climate Emergency Response, The Renewable City Strategy, the Renewable City Strategy for City Owned Facilities, the motion from City council to add on site solar to all new construction projects, and the Climate Emergency Response which requires for the City of Vancouver to demonstrate leadership in reducing embodied carbon emissions in all new construction projects.

Facilities Asset Planning and Management: The City has a program of ongoing asset management/system replacement planning. An Asset Management Database is used to prioritize capital maintenance and facility renewal activity across the City of Vancouver (including Park Board assets). This database system is based on industry standard lifespans for buildings and major building systems. The building's age, condition, lifespan and intended use are all taken into account when prioritizing upgrade or renovation projects. The Asset Management Database ("Asset Planner") is based on industry standard lifespans for buildings and major building systems, and is validated with onsite visits to assess the buildings and major building systems. Facilities Planning, in collaboration with Park Board, also assigns each building a Development Category Indicator (DCI) value based on the building's age, Facility Condition Index (FCI), lifespan and the intended use. This DCI value guides when and how much Real Estate and Facilities Management (REFM) invests in capital maintenance, renovations, and upgrades. DCI values by building are reviewed and updated with Park Board every four years, prior to planning the new Capital Plan, and at any time upon Park Board's request.

- **Capital Maintenance:** Each year the Facilities Asset Management program reviews what projects will be planned for the subsequent year. An annual list of projects is created using the prioritization process described above and the information contained within the Asset Management Database. The components highlighted for life-cycle review then undergo validation through on-site visits and staff input. Capital Maintenance planning, prioritization, and execution is based on standard industry best practices.
- **Interiors Planning and Design (i.e. renovations):** These are initiated by a request from the Park Board and are typically due to a change in service needs (e.g. accommodating more staff, creating a counter). Larger renovation projects are submitted through the Capital Planning Process. Smaller requests can be submitted at any time. Recommendations in this report are based on upgrade and renovation plans, extending operational life-span for pools with consideration to increase sustainability and operational efficiency, including implementing green technologies.

VanPlay – Vancouver Park and Recreation Master Plan

Vancouver is home to world-class parks and recreation, and our population is growing and changing. It's essential we look to the future to protect and improve parks and recreation across the city. VanSplash aligns with goals in VanPlay:

1. Grow and renew parks, community centres, and recreation assets to keep pace with population growth and evolving needs
2. Protect existing parks and recreation spaces from loss, encroachment, and densification
3. Prioritize the Delivery of Resources to where they are needed most
4. Focus on Core Responsibilities of the Park Board, and be a supportive ally to partners
5. Adapt our parks and recreation amenities to a changing climate
6. Create a green network that will connect our parks, waterfront, and recreation areas
7. Restore Vancouver's wild spaces and vital biodiversity
8. Foster a system of parks and recreation spaces that are safe and welcoming to all
9. Seek truth as a foundation and reconciliation with Musqueam, Squamish, and Tsleil-Waututh Nations
10. Secure adequate and ongoing funding for the repair, renewal, replacement of our aging parks and recreation system

Public Engagement

When decision makers bring together residents and stakeholders to develop or respond to ideas or issues that directly or indirectly affect them, that is public engagement. Park Board aims to effectively inform, educate and engage residents in a transparent and collaborative way that promotes greater participation from those affected and those with key interests. Public engagement in facility planning has many phases and is based on a commitment to continuously improve practices and seek expert advice on effective engagement. As recommended by the Advisory Group, during implementation of all recommendations, Park Board will consult the impacted communities, user groups and stakeholders – based on the City of Vancouver's core values and guiding principles for engagement. Consultation processes will include evaluation to measure effectiveness.

Benefits of Aquatic Services

Public aquatic facilities can transform and bring together communities — they offer opportunities for fitness, a place for community to gather and for families to spend time together; however, public aquatic facilities are among the most expensive facilities that a community can provide for its residents. Almost all communities invest heavily in them because of the tremendous benefits that accrue from their use. These benefits contribute to healthy, active individuals and communities and include:

- Water safety – learning how not to drown (one of the most basic of human needs and public services especially for communities close to natural waterways)
- Learning and improving skills in swimming, diving and other water sports
- Fitness and conditioning in a medium that is least likely to result in injury (due to the buoyancy of the water)
- Rehabilitation and therapy services to those with disabilities, injury, or frailty
- Social opportunities in water or on deck that connect people and reduce feelings of isolation
- Family opportunities to come together in a recreational setting conducive to use by all family members
- Mixing segments and subsets of the community with an activity that is worldwide and appeals to people of all ages and abilities
- Leadership training for young people
- Extensive volunteering opportunities
- Special events that rally community identity, spirit, and pride
- Sport tourism opportunities associated with swim meets and other competitive aquatic events (synchronized swimming, diving, water polo, etc)

The incredible range of community and individual opportunities that aquatic amenities offer is the rationale and incentive for the high level of subsidization of public aquatic swimming facilities. The typical recovery rate[1] of capital costs for an indoor pool is between 30% and 70% with the remainder of the operating costs funded through municipal taxes.

Given the increasing understanding of the value and importance of the social aspects of aquatics, when looking at the current facilities and aquatic services in the last section of the *Current State Report*, the team showed quantitative data related to usage numbers but tried to capture more difficult-to-measure targets such as social inclusion, community building, wellness, and sustainability for each facility.

It should also be noted that a large range of the aquatic benefits, including water safety, fitness, social and family opportunities, mixing of diverse members of the community, building community spirit etc can also be gained through the use of beaches. Natural ocean beaches are one of the singular and defining aquatic experiences that distinguish Vancouver from the majority of other urban centres in Canada.

1. Recovery rate is the proportion of all operating costs that are recovered from users through user fees. The complement of recovery rate is a contribution from the City operating funds (also known as subsidy rate). They both add to 100%.

Drivers of Aquatic Use

What makes aquatic services so important, and what inspires and guides recommendations around the design of new amenities and the enhancement of existing aquatic opportunities, is related, to a large degree, by reasons why people want to take part in aquatic experiences.

People are motivated to use aquatic services for a wide variety of reasons; however, the industry understands, and current research for this study confirms, that some of the most important drivers for use are as follows, in no particular order:

1. **Learning not to Drown**
   The first steps in learning to swim appear to be the most important. As more and more skill is gained, the numbers involved tend to drop. Swimming is a life skill, so most parents want to ensure that their children learn this skill early in order to be safe around water for the remainder of their lives.

2. **Fitness + Wellness**
   Water buoyancy makes activity in the water an ideal path to gaining fitness and overall feelings of wellness. Therapy aspects of aquatics such as warm water pools, sauna, steam, and therapeutic sprays help to meet this driver, which develops as a driver in early adulthood and becomes more important as adults age.

3. **Socialization**
   This also includes all ages and can be met through a variety of aquatic experiences, but seems to become more important as adulthood progresses. It is a very important driver among seniors.

4. **Fun, Relaxation + Diversion**
   This motive applies to all ages, and can be met by a range of aquatic experiences. This driver may start with preschoolers and focus on children, but is an aspect of swimming and aquatic usage that applies to all ages and all demographics. It can range from quiet contemplation to the spectacle of aquatic activities such as wave riding or high diving/jumping. It includes the social aspects of play opportunities for tweens, “seeing and being seen”, "people watching", and just dwelling in a positive environment.

5. **Competition/Training**
   The rigour and structure of training and then testing skill against others (initially in children) and against oneself (especially in adults and seniors) is a strong motivator for many.

6. **Other**
   Others access aquatic services for reasons including: getting a job, recovering from a medical event or illness, and gaining satisfaction from volunteering. All of these motives need to be considered when planning for developing and managing aquatic services in the public sector.

Nine Categories of Aquatic Services

After developing a clear understanding of why people want to take part in aquatic experiences, or the drivers of aquatic use, the next strategic question became: What type of aquatic uses provide an opportunity to meet those drivers?

There are nine categories of aquatic services under which existing services are assessed and future needs determined. Each category represents a certain type of facility/water condition that would be required, and each requires a slightly different configuration of aquatic spaces, water temperature, or operation to deliver the service. Almost all aquatic services and needs can be categorized under the nine headings as listed in Figure 2.

RECREATION	SKILL DEVELOPMENT	FITNESS
• Fun and leisure • Includes watching	• Swim lessons primarily • Other skills taught in lesson format	• Lane swimming • Aquasize classes

SPORT TRAINING	SPECIAL EVENTS	THERAPY + REHABILITATION
• Aquatic sport club training sessions • Synchronized swimming, water polo, others	• Swim meets • Competitions	• Those who are injured, frail, or have disabilities are active in water because it supports their body weight • Either in a program or individual

LEADERSHIP DEVELOPMENT	WATER ORIENTATION	THERMAL RESPITE
• Bronze Medallion • Bronze Cross • National Lifeguard Service (NLS) Courses • Swim instructor training	• Opportunities for young people to gradually get used to being in water	• Water as a medium to cool off in hot weather

FIGURE 2 : Nine categories of aquatic services.

CATEGORIES OF AQUATIC SERVICE	DROP-IN	PROGRAM	RENTAL
RECREATION	✓		✓
SKILL DEVELOPMENT	✓	✓	
FITNESS	✓	✓	
SPORT TRAINING			✓
COMPETITIONS			✓
THERAPY + REHABILITATION	✓	✓	✓
LEADERSHIP TRAINING		✓	
WATER ORIENTATION	✓	✓	
THERMAL RESPITE FROM HOT/COLD	✓		

FIGURE 3 : Accommodating categories of aquatic service within 3 modes of operation.

Three Modes of Pool Operation

Lastly, after understanding why people are motivated to experience aquatics, and categorizing what the range of aquatic activities are that meet these motivations, we considered how aquatic amenities could be provided to meet the nine swim categories. For the purposes of this research, aquatics were considered to operate under three modes, as follows:

1. **DROP-IN**
   Where individuals and families decide to visit an aquatic amenity on a case by case basis.
2. **PROGRAM**
   Where users pre-commit, through a registration process, to a series of uses that typically involve some instruction or leadership, and are scheduled at a predetermined time.
3. **RENTAL**
   Where a group rents some aquatic space and then controls the users and uses of that space.

The nine categories of aquatic service are typically accommodated within the three modes of operation (Figure 3). These modes require different kinds of support areas in a pool but can be combined so that more than one occurs in a pool tank at the same time. Understanding the nine categories of aquatic service and how they are met within the three modes of operation was important to the assessment of existing aquatic facilities and in planning for all aquatic amenities and services in Vancouver for the future.

LEVEL	DESCRIPTION + PROVISION STANDARD	PRIMARY AQUATIC SERVICE CATEGORIES DELIVERED
SMALL	Pools with a 25 m six lane tank providing basic aquatic services for a local area of 60,000 to 90,000 residents, with capacity for about 200,000 swims per year.	• Skill Development • Fitness Swimming
MEDIUM	A multi-tank pool with more specialized aquatic services serving one quarter to one half of the City, with capacity for about 400,000 swims per year.	• Skill Development • Fitness Swimming • Therapy and Rehab • Recreational Swimming
LARGE	Much more comprehensive multi-tank pools serving all residents of the City, centrally located and easily accessible from all parts of the City, with capacity for about 750,000 to 800,000 swims per year.	• Skill Development • Fitness Swimming • Therapy and Rehab • Recreational Swimming • Sport Training • Leadership Training • Special Events
ALL-INDOOR AMENITIES	The entire inventory of indoor pools should be located such that the vast majority of residents have an indoor pool within about 2-3 km of their residence. (A 3 km radius identifies the area of approximately a 30 minute walk, 9 minute cycle, or 4 minute drive.)	
OUTDOOR AMENITIES	The outdoor pool inventory should: 1. Reinvest in Vancouver's existing stand-alone outdoor pools, and expand with new stand-alone facility to ensure reach (approximately a 45 minute walk, 12 minute cycle or 6 minute drive). 2. Supplement the existing facilities with smaller, new outdoor aquatic experiences co-located with new aquatic and community centres to increase the geographic density of outdoor aquatic amenities. Spray Parks should include a mixture of small, medium and large spray parks, located such that the vast majority of residents have a spray park within about 1 – 2km of their residence (approximately a 10-20 minute walk, 3-6 minute cycle or 1-2 min drive).	• Recreational Swimming • Skill Development • Lane Swimming • Fitness Swimming at outdoor pools • Recreation and cooling at spray parks

FIGURE 4 : Three levels of geographic pool study.

	INDOOR AQUATIC AMENITIES			OUTDOOR AQUATIC AMENITIES			
CATEGORIES OF AQUATIC SERVICE	LARGE	MEDIUM	SMALL	OUTDOOR	WADING	SPRAY PARK	BEACHES
1 RECREATION + SOCIALIZING	✓	✓	✓	✓	✓	✓	✓
2 SKILL DEVELOPMENT	✓	✓	✓	✓			✓
3 FITNESS	✓	✓	✓	✓			✓
4 SPORT TRAINING	✓	✓	✓	✓			✓
5 SPECIAL EVENTS	✓	✓		✓			✓
6 THERAPY + REHABILITATION	✓	✓	✓	✓			
7 LEADERSHIP DEVELOPMENT	✓	✓		✓			✓
8 WATER ORIENTATION	✓	✓	✓	✓	✓	✓	✓
9 THERMAL RESPITE	✓	✓	✓	✓	✓	✓	✓

FIGURE 5 : Accommodating categories of aquatic service within different types of aquatic amenities

Three Geographic Levels of Pool Supply

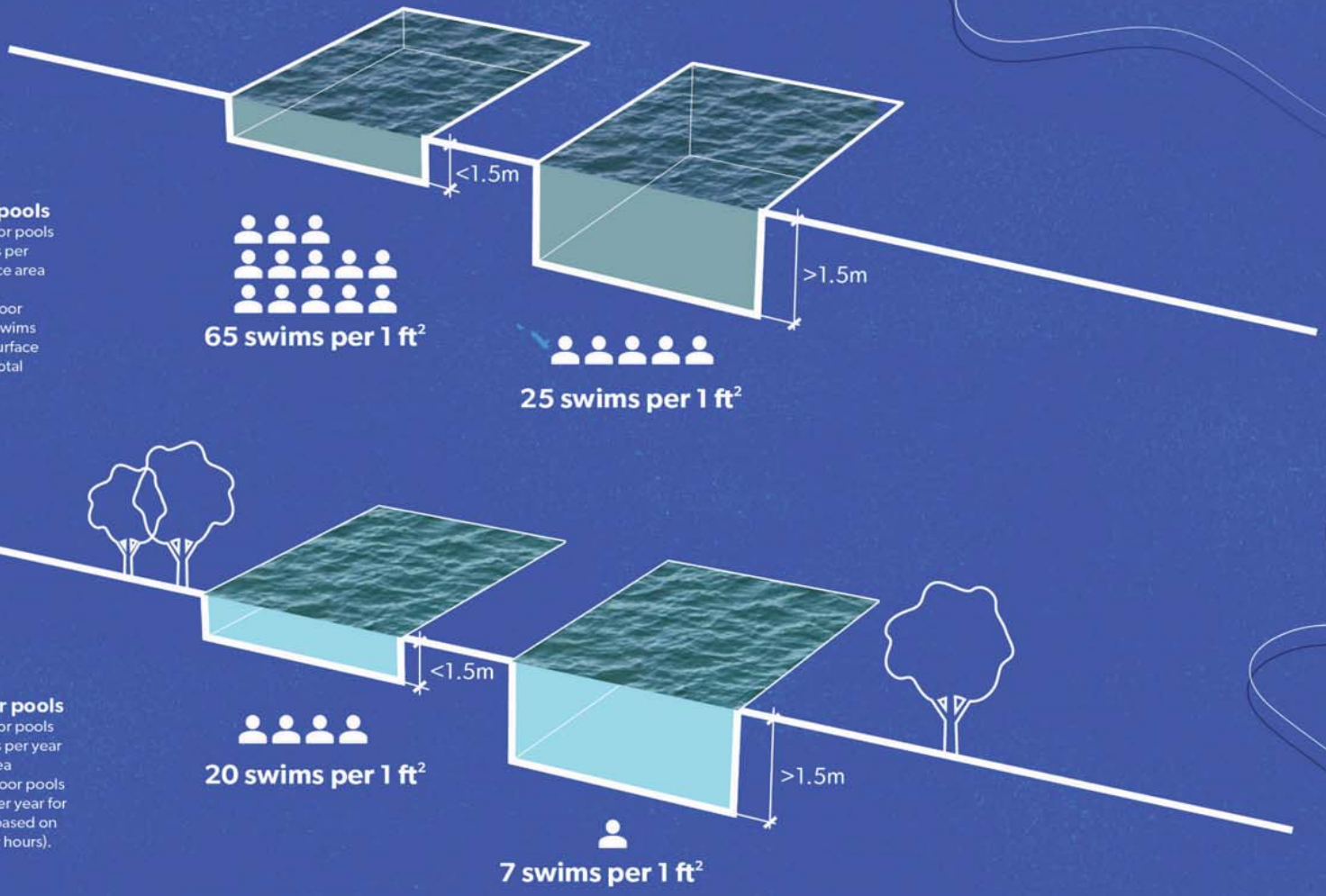
In Vancouver, like in many large urban centres, there are multiple aquatic amenities and each specializes in terms of which of the nine categories of aquatic service it is focused on meeting. This strategy to service delivery is further enhanced by an approach based on different pools that operate at different geographic levels, or within different sized markets. In the *2001 Aquatics Review*, three levels of pool supply were formalized and adopted. The three levels were categorized as neighbourhood, community and city-wide pools. The VanSplash process revealed that this terminology was not adequate to capture the complexity of the service level discussion. During the revision phase, the terminology was changed to small, medium, large. This vision strategy includes recommendations and set proposed targets related to the location and frequency of outdoor amenities to complement and support the indoor amenities targets established in 2001.

The nine categories of aquatic service can be met by a range of the levels and types of indoor and outdoor aquatic spaces that exist in Vancouver, but all aquatic amenities don't need to deliver all nine categories. Indeed, a systems approach is required, where specific types of pools and aquatic amenities are positioned to focus primarily on specific categories of aquatic service so that all categories can be optimally served.

Figure 5 summarizes the relationship between both indoor and outdoor aquatic amenities and their specialization in terms of offerings related to the nine category of service.

It is worth noting that in the *2001 Aquatics Review,* there was a special mention about competition uses. It suggested that although the City's indoor pools should accommodate swim club training, there was little need for a more specialized competition pool, as UBC and other short and long course tanks were well positioned to host the few competitions that are held each year in the region. Since then, other pools in the region have been added or replaced with some additional capability to host aquatic sport competitions, the most significant examples of which are the Grandview Heights Aquatic Centre in South Surrey and the new UBC Aquatic Centre. Future pools in the region that will have training and competition hosting capabilities are the New Westminster Aquatic and Community Centre (2022) and the Burnaby Lake Aquatic and Arena (2023). However, based on the Advisory Group process findings in 2019, a need for a competition facility in Vancouver has been identified.

Maximum Pool Capacity



Maximum capacity of indoor pools
For water less than 1.5m (5ft) deep, indoor pools have a capacity to deliver up to 65 swims per year for each square foot* of water surface area

For water more than 1.5m (5ft) deep, indoor pools havea capcity to deliver up to 25 swims per year for each square foot* of water surface area based on year round operation (or total days or hours).

Maximum capacity of outdoor pools
For water less than 1.5m (5ft) deep, indoor pools have a capacity to deliver up to 20 swims per year for each square foot* of water surface area
For water more than 1.5m (5ft) deep, indoor pools havea capcity to deliver up to 7 swims per year for each square foot* of water surface area based on four months of operation (or total days or hours).

1 It should be noted that this is not "legal capacity" which is specified in the Swim Pool Regulations under BC's Health Act, and which results in higher capacity than the formula above. In fact, while legal capacity divides pools into water less than and more than 1.5 m deep, it focuses on instantaneous capacity rather than annual capacity. The above definition of capacity relates to a typical public pool which must deliver a variety of categories of aquatic service in a typical 5,000 hours per year municipal operating format.

*square foot of water surface area is a standard unit of measurement for measuring capacity and revenues

FIGURE 6

Standard Capacity

INDOOR POOLS

The capacity of indoor pools to deliver many or all of the nine categories of aquatic services they are required to meet, relates to:

- The amount of surface area of the pool tank or tanks
- The depth of water in the pool tank or tanks
- Programming and scheduling of the tank or tanks (i.e. different uses can accommodate different totals in the same water surface area and depth)
- The total hours available each year

The indoor pools are available for use about 100 hours each of 49 weeks each year; for a total of approximately 4,900 hours. For such a facility, which attempts to balance all of the nine categories of aquatic service, experience has shown the total capacity for aquatic service can be measured by the formula noted at Figure 6.

OUTDOOR POOLS

Outdoor pools typically only operate about 100 days per year and operate for fewer hours each day. Also, they are subject to inclement weather which can reduce attendance. Therefore, the formula used to understand the capacity of outdoor pools is noted at Figure 6.

WADING POOLS, SPRAY PARKS + BEACHES

As with outdoor pools, use is much more subject to weather. It is much more difficult to determine the capacity of wading pools, spray parks, and beaches for the following reasons.

- Much more of each use is focused on the areas surrounding the aquatic amenity (e.g. beaches, deck and park space surrounding the spray areas) than in the water itself
- For beaches and spray parks, the concept of water surface area becomes much more nebulous
- There are developing best practices but there are currently no industry standards about how to calculate the capacity of these amenities

In addition, use is much more subject to weather. However, in the case of spray parks and beaches, understanding capacity of use may be slightly less relevant in determining their role in the future vision. Both play a very important role in providing aspects of the benefits, drivers and categories of aquatic services; however, their capacity of use is much less fixed than pools. While recommendations regarding targets for geographic locations for spray parks and potential amenities enhancements to beaches is considered in the strategy, capacity of use was not a key driver. Rather, recommendations were focused on ways to increase public enjoyment through improvements to the experiential aspects. In the case of beach-going, the vision considers enhancements to the categories of aquatics (i.e. programs added and/or rentals opportunities increased) offered at beaches rather than on achieving a greater capacity of use.

In other words, while capacity of use formulas are particularly helpful when designing new indoor or outdoor pool facilities or when renovating existing facilities as they help to determine ideal size and design to ensure that the overall range of aquatic facilities can be expected to contribute to reaching an overall swim/capita target, they are less relevant in terms of beaches and spray parks.

Economics of Pool Operation

To frame a holistic understanding of the context within which aquatic facilities operate, some important economic aspects of the delivery of aquatic services also need to be understood and considered along with the drivers, categories of use, and modes of aquatic operation:

The capital cost of building an indoor pool, unlike most other forms of buildings, correlates more directly with the volume of the facility rather than the floor area. This is because, the deeper the water, the more air above the water is typically required. Both water depth and air height are very important and costly considerations when developing an indoor pool as both require large amounts of mechanical systems (water treatment systems which vary with the volume of water, and HVAC systems for handling highly humid air containing chemical substances) associated with those volumes. Two pools with the same floor area can have significantly different construction costs if one has deeper water and higher ceilings than the other.

Generally, water shallower than 1.5 m deep is more economical for service delivery than deeper water. Legally, when calculating instantaneous capacity for use, shallow water allows three times more use per square meter of surface area. Also, shallower water is less expensive to operate and can usually be provided in an enclosure with a lower ceiling which also allows for reduced energy costs. Time lapse photography studies in pools typically show that shallow water areas of a pool tank are used about five times more intensely than deep water and correlates to use for fun, relaxation and socialization. Many patrons come to pools specifically for shallow water opportunities.

Operating costs for indoor public pools are closely related to regulations and largely fixed. About 70% of the operating costs of a typical pool are relatively or completely fixed (i.e. they don't vary significantly whether there is one person swimming or 40 people swimming in the pool enclosure). Operating costs are associated with a minimum required number of life guarding staff, water quality systems, management staff, insurance, utilities, and staffing a customer service control point—none of which vary directly with the volume of use.

Operating revenues are variable. In other words, if use increases by 10%, operating revenues go up roughly 10% as the revenue associated with swims in each category of aquatic service is largely constant on a per swim basis.

Because of the previous points, it is very important, from an economic and environmental sustainability point of view, to operate a pool as close to full capacity as is reasonably possible. A pool operating at a fraction of its total capacity has a high operating cost, a low operating revenue, and a very high net funding contribution and energy consumption per swim. A pool operating close to its full capacity has a high operating cost, a high operating revenue, and a much lower net contribution and energy consumption per swim. Another way of viewing this relationship is to acknowledge that every additional swim a pool is able to generate will trigger more operating revenue than operating cost and won't increase energy consumption proportionately.

This means that typically, from an economic perspective, pools should be sized to meet current and short term future needs, and not the needs of the very long term future, as "overbuilding" capacity in the short term to meet long term needs will likely result in operating contributions per swim that are so high they collectively exceed the cost of adding to the existing pool or building another pool in the future when the community needs it.

Pools economics should also be considered from a social sustainability perspective, as touched on in the introductory sections and Section 3 of this report.

Summary of Planning Context

All of the above contextual factors (benefits and drivers of aquatic use, categories of service, modes of aquatic operation, and the geographic levels of pool supply) play an important role in the sizing and configuration of pool spaces and strategic planning to meet long term aquatic needs. In order to ensure the right kinds and amounts of aquatic spaces are built in the future, it is important to consider:

- The proportion of total aquatic use that will be generated in each of the three modes of operation.
- The proportion of total swims that will be generated in each of the nine categories of aquatic service.
- The total swims that result from the first two bullet points above translated into a set of aquatic spaces that will optimally respond to those needs and resist the temptation to "overbuild" spaces which won't be used for 10-20 years or more.
- While providing all core aquatic services, attempt to fill gaps in the supply left by other existing pools in the region and not duplicate service in categories which are more specialized and represent fewer swims.
- As many current and short term needs are met within a context of the least amount of volume of space.
- All pools will be operated as close to full capacity as is reasonably possible to avoid unnecessarily high subsidies per swim.
- When considering means to balance the previous points, strive to design facilities with a balance of water depths that maximize aquatic use (revenue), understanding that very shallow water and deep water offer limited opportunities for use compared with waist-deep water, combined with leisure features, which provides the greatest revenue potential (refer to Figures 6 on the previous page).
- The potential role of beaches and ocean swimming in meeting aspects of aquatic use.
- The role that new and innovative aquatic service amenities may play in meeting desired outcomes for future aquatic use.

Key Insights

What we heard and learned

2

What kind of pools do we currently have?

The strategy works to ensure more equitable access to a range of experiences across Vancouver — accessible via public transport, car, bike, or walking.

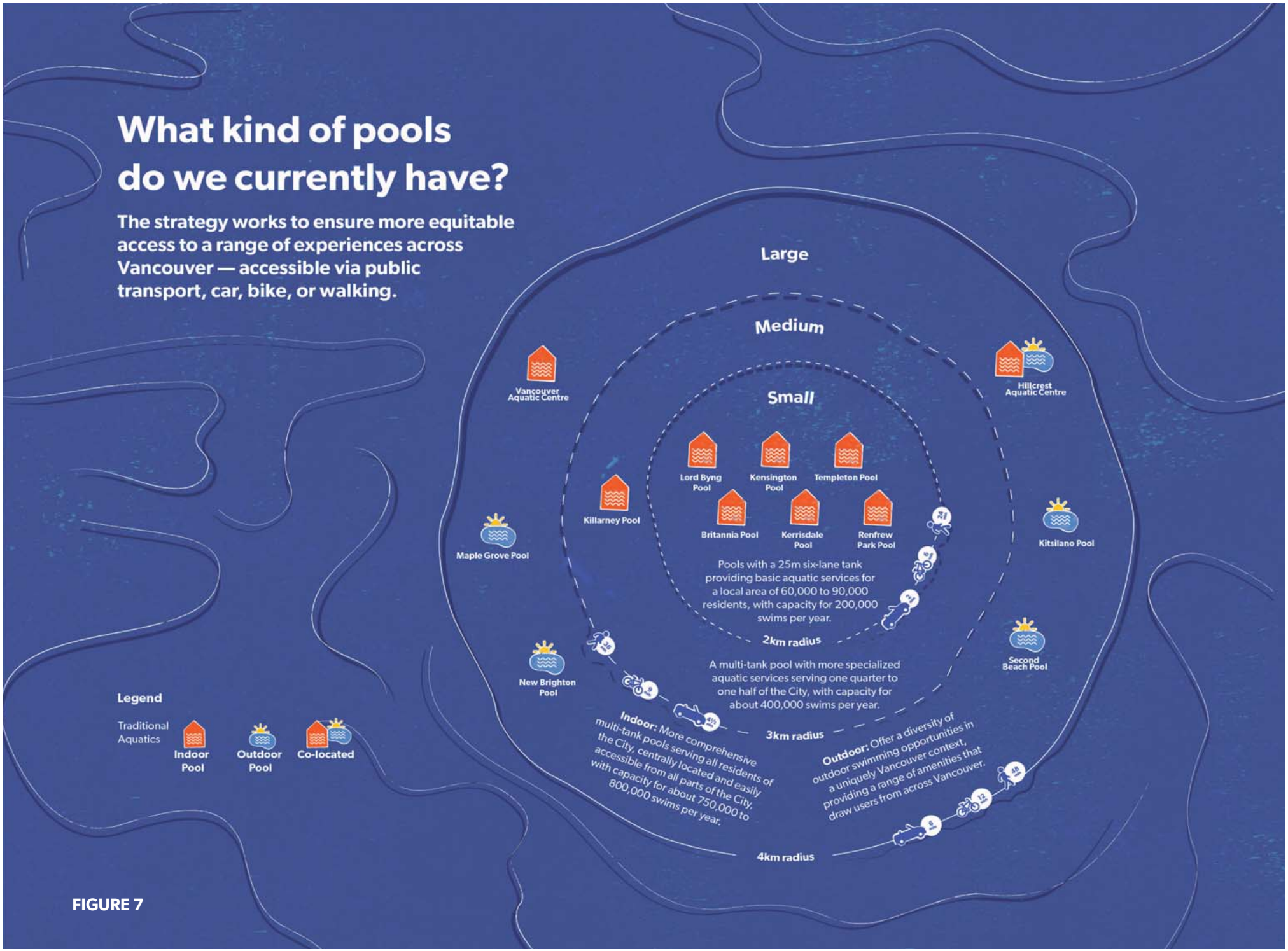


FIGURE 7

Introduction

As discussed in the introductory section of this report, the first phase of *VanSplash* included comprehensive reports regarding the current state of aquatics services in Vancouver, a precedent review looking at global aquatic trends, and a two-phase public engagement process. Phase 4 was an addtional round of public engagement, bringing together a diverse range of community stakeholders to carry out a comprehensive review of the 2017 *VanSplash* draft reports.

This section of the report highlights the key insights from the *Current State Report,* the *Precedent Report*, and the *Public Engagement Report*, which includes all rounds of engagement results and what we heard from the Advisory Group, and intends to present the combined findings relating to the resulting recommendations outlined in the following section.

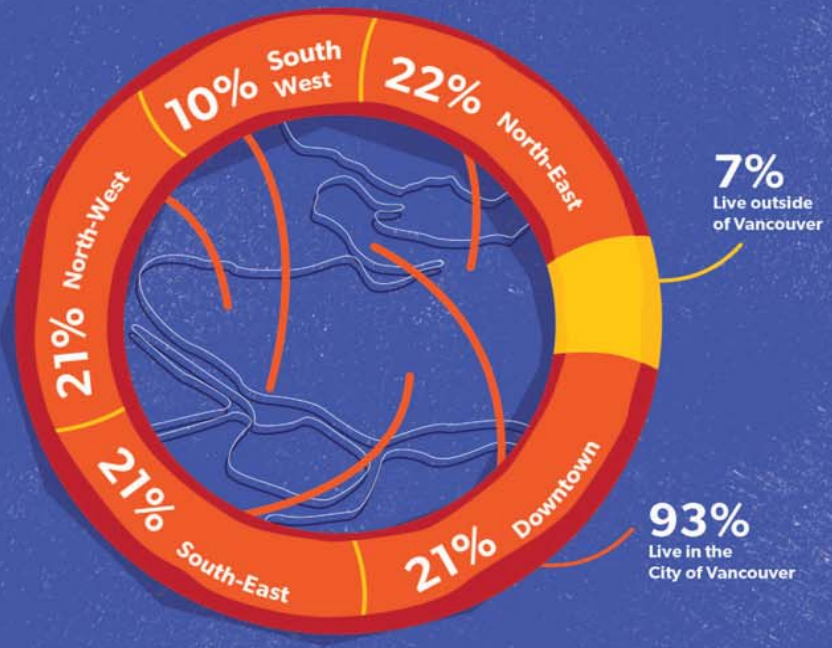
The 'key insights' presented in this section resulted in the draft recommendations for the five types of aquatic services: indoor pools, outdoor pools, beaches, wading pools and spray parks, and aquatic innovations. The draft recommendations, along with key insights from the Phase 1 reports, were presented to the public for feedback during the second phase of engagement. The Advisory Group then reviewed this information during their learning phase, and gave their insights and proposed revisions which are included in this section.

For further information, refer to the appendices outlined in this Appendix section of this report, which include the above-mentioned Phase 1 reports.

Public Engagement

We heard from over 4500 people and held 5 stakeholder engagement sessions throughout the Phase 1 public consultation.

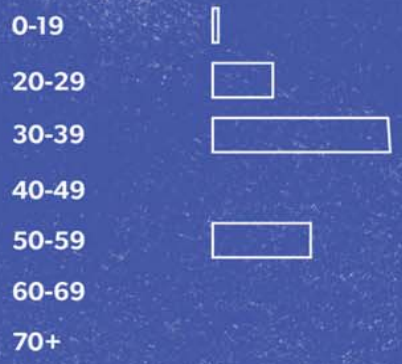
This is where they live:



7%
Live outside of Vancouver

93%
Live in the City of Vancouver

Age:



Household Makeup:

FIGURE 8

Public Engagement

The objectives of the first phase public engagement for the Vancouver Aquatics Strategy were to inform, consult, and involve the community of Vancouver regarding the future and innovation of aquatic amenities. The goal was to:

- Solicit feedback on key functional issues and priorities related to the existing and potential future amenities.
- Create awareness of the project and the issues surrounding the renewal.
- Create a shared understanding of the different community's needs, desires and vision.

The engagement approach was comprised of a Phase 1 comprehensive survey and a series of focus group workshops that provided an opportunity to go into more detail in some areas, and to allow participants to provide more focused feedback.

The long answer survey questions focused on topics such as:

- What are the current aquatic experiences that people enjoy?
- What prevents people from using or enjoying aquatic amenities, both indoor and outdoor?
- What new innovative aquatic experiences do locals want to see in their communities?
- What activities do people enjoy doing at indoor pools, outdoor pools, and public beaches?

The results of the Phase 1 engagement shaped the draft recommendations presented in this report, and are presented in this section to both establish context and to illustrate correlations between what was heard and how the feedback is reflected in the proposed recommendations.

The objectives of the second round of public engagement for the Vancouver Aquatics Strategy were to: 1) share what we heard in first round of engagement 2) share what we learned through current state research, best practices reviews, and global precedents 3) share the emerging Vision and Principles and the draft recommendations with the public to seek their input. The feedback and comments from this round of engagement are summarized in this section, in the blue boxes titled "What we Heard from the Public."

Also included in this section, alongside the summary of public feedback, is the summary of feedback from the Advisory Group. From January to June of 2019, the Advisory Group reviewed the draft 2017 *VanSplash* recommendations and developed a draft report to provide further refinement to the recommendations. The goal of the Advisory Group engagement was to:

- Create a shared understanding of the different community needs, desires and vision.
- Provide feedback to staff on the draft recommendations.

The Advisory Group met regularly to learn about Vancouver's existing aquatic system, review the draft strategy, and other comments received.

The results of the Phase 1 engagement shaped the 2017 draft recommendations, and the input received in the subsequent two rounds of engagement further refined them. Both are shown in this section, alongside the 2017 draft recommendations, to illustrate how the feedback was incorporated into the revised draft 2019 recommendations shown in Section 3.

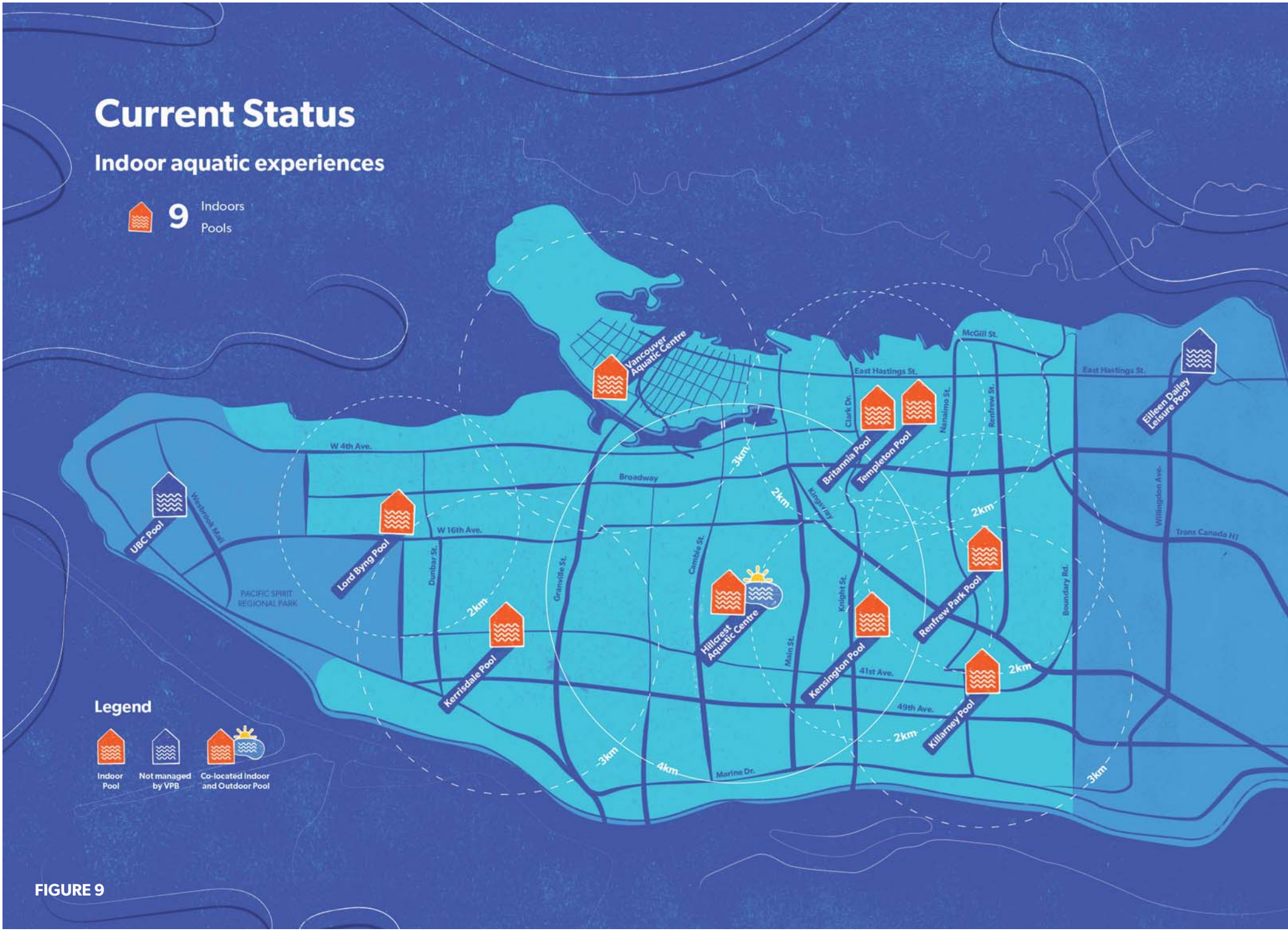

Current Status
Indoor aquatic experiences
9 Indoors Pools
Vancouver Aquatic Centre
UBC Pool
Lord Byng Pool
Kerrisdale Pool
Hillcrest Aquatic Centre
Britannia Pool
Templeton Pool
Renfrew Park Pool
Kensington Pool
Killarney Pool
Eileen Dailey Leisure Pool
W 4th Ave.
W 16th Ave.
Broadway
East Hastings St.
McGill St.
41st Ave.
49th Ave.
Marine Dr.
Trans Canada Hwy
PACIFIC SPIRIT REGIONAL PARK
Westbrook Mall
Dunbar St.
Granville St.
Cambie St.
Main St.
Knight St.
Boundary Rd.
Nanaimo St.
Renfrew St.
Clark Dr.
Willingdon Ave.
Kingsway
2km
3km
4km
Legend
Indoor Pool
Not managed by VPB
Co-located Indoor and Outdoor Pool

FIGURE 9

4km **LARGE**

Hillcrest Aquatic Centre, 2010

- Newest facility in VPB
- Greatest number of annual visits
- 50m, 8-lane main tank with a separate leisure tank

Vancouver Aquatic Centre, 1974

- High demand for diving, synchro, water polo and elite aquatic based training
- Within the area of highest expected population growth over the next 24 years
- While the pool capacity of VAC qualifies it as a city-wide pool, the range of amenities limits its current usage to community level, so it is shown throughout as a community pool
- 50m, 8-lane tank with connected dive tank and separate teach tank

3km **MEDIUM**

Killarney, 2006

- One of the newest facilities in VPB
- Second greatest number of annual visits
- 25m, 6-lane tank with leisure tank

2km **SMALL**

Kensington, 1979

- Currently operates cost effectively
- Warmer pool temperature
- 15m, 4-lane shallow tank

Britannia, 1974, renovated 1998

- Overall masterplan currently underway
- Significant service overlap with Templeton
- 25m, 6-lane main tank plus small leisure tank

Lord Byng, 1974

- Never renovated
- 25m, 6-lane main tank

Templeton, 1974

- Never renovated
- Service overlap with Britannia
- 25m, 6-lane main tank with separate teach tank

Renfrew, 1963, renovated 1970, 2005, 2010

- Third most well-used facility after Hillcrest and Killarney
- 25m, 6-lane tank plus shallow water tank

Kerrisdale, 1955, renovated 1996

- 30.5m, 6-lane tank

Indoor Pools

There are currently nine indoor public pools in Vancouver. Eight of the nine city pools are operated by the Vancouver Park Board and one, Britannia, is operated by a partnership of public agencies.

As Figure 9 shows:

There is reasonably good coverage of indoor pools in Vancouver, with the possible exception that:

- There is a small area in south central Vancouver that is not within the service delivery area of an indoor pool;
- There is a significant amount of overlap in service areas, with the most dramatic overlap being the area served by both Templeton and Britannia pools.

For further detail on each facility, refer to Chapter 3 of the *Current State Report*.

Expected Demographic Growth Over Next 25 Years

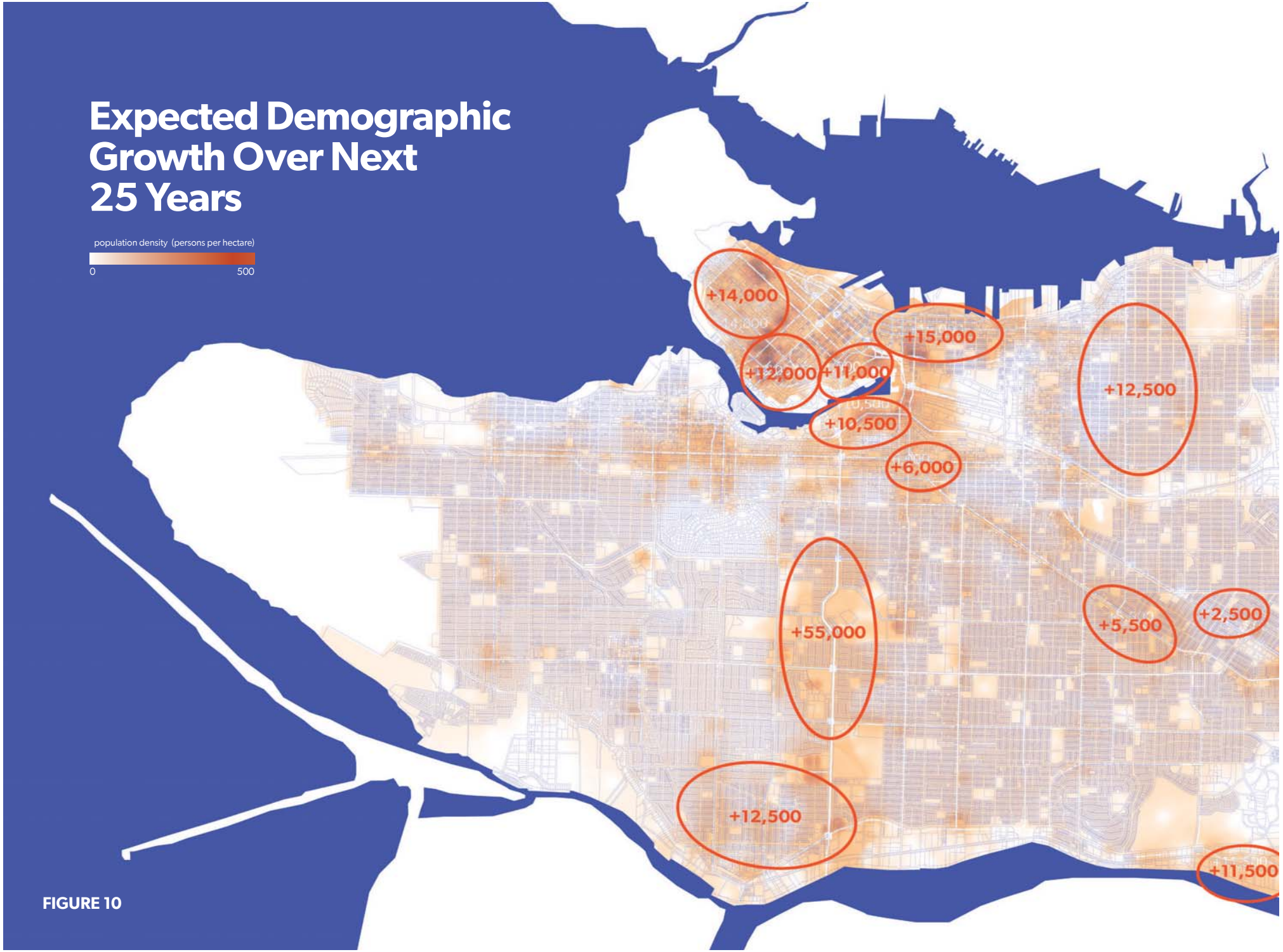


FIGURE 10

Indoor Pools

In 2012, Urban Futures, researchers in demographics and economics, completed the most rigorous population projection available as a basis for planning. According to that analysis the population is expected to grow by up to 15% over the next 25-years (see Figure 10), and is expected to age significantly with fewer net school aged children, particularly in the downtown core and the West End.

With an aging population, a change in swimming programming is anticipated, potentially resulting in an increased provision of therapeutic amenities to complement other aquatic offerings.

Work by the City of Vancouver shows that the growth referred to in the Urban Futures report will most likely be focused along a north/south spine that begins in the downtown core and proceeds south along the Cambie corridor as shown in Figure 10.

KEY INSIGHTS

- Hillcrest attracts visitors from surrounding neighbourhood and across the city and often operates close to its designed capacity.
- The heavy usage of Hillcrest reflects how people enjoy, and travel greater distances to experience, a facility with a greater diversity of aquatic offerings.
- However, the perception of overcrowding at Hillcrest is a deterrent for some users.
- Multiple large pools evenly distributed across the city and can be expected to address overcrowding.
- New or renovated pools are the best utilized and most financially efficient (Renfrew, Killarney, Hillcrest). Indoor pools nearing the end of their lifespan are the least used, least efficient and require the most investment to operate.
- It is difficult to access swim lessons at newer, more popular pools.
- Overall, pools became more efficient between 2011 and 2014. The operating costs increased marginally, as did the operating revenues and the net deficit. However, since the use increased substantially, the net contribution per swim decreased.

Indoor Pools

15%
go to other facilities in Vancouver, such as facilities in their condos, YMCA/ YWCA, and the Jewish Community Centre.

40%
over the age of 60 use indoor facilities at least once a week.

59%
visit indoor pools at least once a month, with 29% visiting at least once a week.

Top things we heard

14%
said facilities need updating and accessiblity at indoor swimming pools need to be improved (open ended question).

WHAT WE HEARD IN PHASE 2 OF PUBLIC ENGAGEMENT

- 82% chose new indoor pools or upgrades to indoor pools in their top 5 recommendations.
- 55% said they think the recommendations for indoor pools respond well to what we heard and learned in Phase 1. 34% said they think they do not respond well, and the rest were unsure. *
- 35% said they think the recommendations will improve indoor aquatic experiences in Vancouver. 33% were unsure and the rest said they think they will not improve experiences. *

* We suspect the unknown responses are directly related to the Lord Byng and Templeton indoor pools, as over a quarter of written comments concerned this.

THE ADVISORY GROUP'S RESPONSE

- There was support for the amended recommendation 1 proposed by Commissioners that indoor pools should seek to deliver a more balanced delivery model, creating a greater emphasis on the inclusion of neighbourhood, small-scale facilities along with the proposed larger-scale destination facilities. This includes greater consultation with the impacted communities, as well revisions to the proposed 25-Year Vision with an emphasis on attempting to retain existing neighbourhood facilities.
- Vancouver needs a competition pool adequate in capacity to serve local age group, master and triathlete as well water polo, diving and synchronized swimming - big enough to host provincial and national competitions. In planning for such a facility, consult with National Sport Organizations, Prinvicial Sport Organizations and other user groups.

1. Note that community-plus refers to a facility designed between the capacity of a City-wide pool and a Community scale pool.
2. Note that this recommendation was put forward by the Advisory Group with no specified location for the facility.

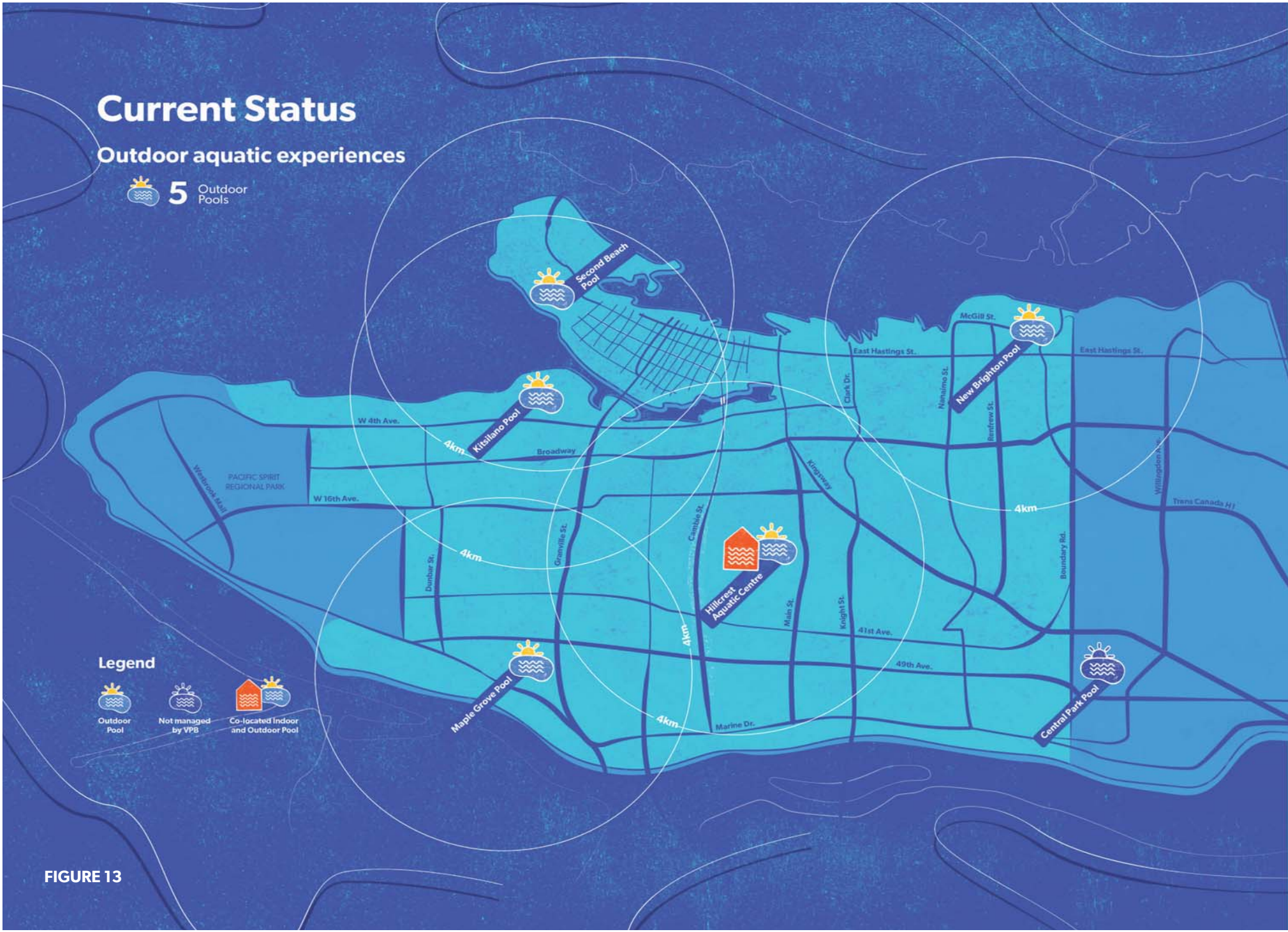

Current Status
Outdoor aquatic experiences
5 Outdoor Pools
Second Beach Pool
Kitsilano Pool
New Brighton Pool
Hillcrest Aquatic Centre
Maple Grove Pool
Central Park Pool
4km
W 4th Ave.
Broadway
W 16th Ave.
PACIFIC SPIRIT REGIONAL PARK
Westbrook Mall
Dunbar St.
Granville St.
Cambie St.
Kingsway
Clark Dr.
Nanaimo St.
Renfrew St.
McGill St.
East Hastings St.
Boundary Rd.
Trans Canada Hwy
Main St.
Knight St.
41st Ave.
49th Ave.
Marine Dr.
Legend
Outdoor Pool
Not managed by VPB
Co-located Indoor and Outdoor Pool

FIGURE 13

4km

Hillcrest Aquatic Centre, 2010

- Co-located with indoor pool
- Leisure pool
- Newest facility in VPB

Second Beach, 1995

- Located off seawall in high-traffic pedestrian and tourist area
- Lap and leisure pool
- Large pool deck area with minimal shading
- Second most popular outdoor pool in system

Maple Grove, 1995

- Quiet location within a park
- Leisure pool
- Large green space
- Popular venue for children's groups and family days

Kitsilano, 1979

- Located next to Kitsilano Beach
- Extremely long length, ideal for length swimming (137.5m)
- Located on cycling route, walking path, and tourist area
- Most visited outdoor pool

New Brighton, 1973

- Located within New Brighton park with expansive views to North Shore mountains and water
- Lap and leisure pool, mostly recreational use
- Limited green space with minimal shading at pool
- Limited parking

Outdoor Pools

The Park Board has five outdoor pools, as shown in Figure 13, offering a total of 2.4 million swims per year.

Although the number of outdoor pools in Vancouver is relatively small compared to some other urban centres in Canada (e.g. Montreal and Toronto), at least two of the Vancouver outdoor pools are quite large, and therefore the total capacity for swimming in public outdoor pools in Vancouver is at least as high as cities that have more pools. For example, the Kitsilano pool has the equivalent capacity as about fifteen regular 25m six lane pools.

For further detail on each facility, refer to Chapter 3 of the *Current State Report.*

KEY INSIGHTS

- Generally, different outdoor pools are optimized to provide different types of aquatic experiences and as a result Vancouver's outdoor pools offer a range of experiences and draw residents from across the city.
- The public engagement highlighted an interest in innovative facilities, such as outdoor naturally filtrated pools and a floating pool.
- The outdoor pools are not currently providing adequate changing facilities.
- Many of the outdoor pools are aging and require mechanical or pool upgrades.
- Concession stands and food services at all outdoor pools could be improved.
- Outdoor pools support multiple activities from lap swimming to leisure and play.
- Location for outdoor pools should be carefully considered as they compete with land with other park uses, many of which offer year round use.

Outdoor Pools

55%
visited outdoor pools at least once a month in the summer.

11%
want improved changing facilities at outdoor pools.

19%
indicated that they they think Vancouver needs more outdoor pools.

75%
under the age of 30 visit Kitsilano pool in the summer.

Top things we heard

38%
noted improvements to existing outdoor pools (e.g. newer changing rooms, renovated pool) would encourage them to visit more often.

80%
use outdoor pools for recreation, fun and socializing.

49%
use outoor pools for fitness, lengths and aerobics.

67%
identified a natural outdoor swimming pool as an innovative feature they wanted to see.

WHAT WE HEARD IN PHASE 2 OF PUBLIC ENGAGEMENT

- 71% said they think the recommendations for outdoor pools respond well to what we heard and learned in Phase 1.
- 59% chose new outdoor pools or upgrades to outdoor pools in their top 5 recommendations.
- 47% said they think the recommendations will improve outdoor aquatic experiences in Vancouver. 14% said they think they will not improve experiences and the rest were unsure.

THE ADVISORY GROUP'S RESPONSE

- The need for additional outdoor pool facilities was proposed by the Advisory Group, suggesting to, "Renovate Hillcrest outdoor pool to make it a legal competition-size pool."
- The overall recomendations for outdoor pools is to increase the range of outdoor pool experiences by accommodating lane swimming.
- In providing a balance of recreation, Advisory Group suggested "not to limit uses and not to create individually focused facilities."
- Extend the Kitsilano Pool season, as this is the most unique pool in Vancouver and extended season would increase capacity in the system

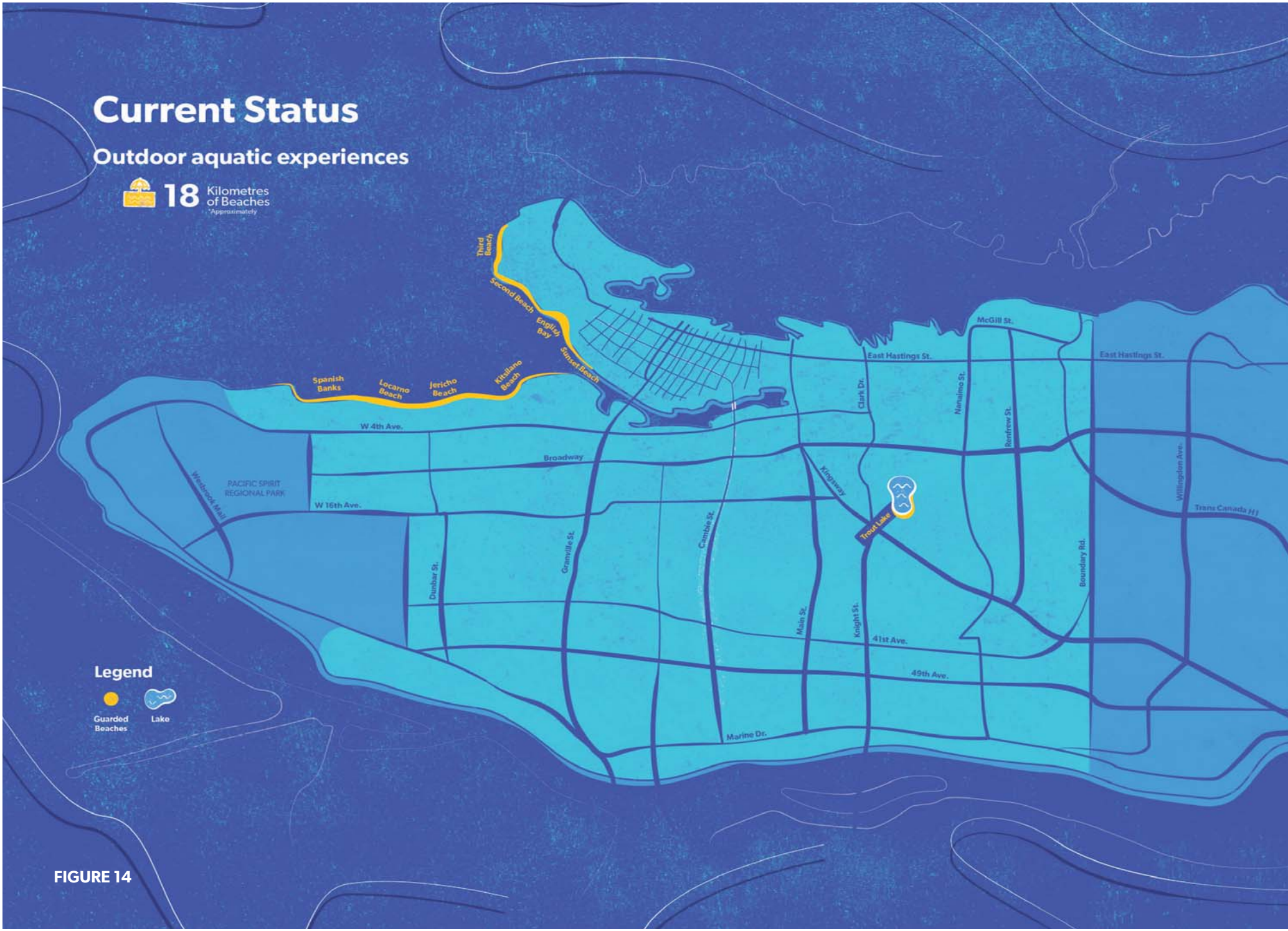

Current Status
Outdoor aquatic experiences
18 Kilometres of Beaches
*Approximately
Third Beach
Second Beach
English Bay
Sunset Beach
Spanish Banks
Locarno Beach
Jericho Beach
Kitsilano Beach
W 4th Ave.
Broadway
W 16th Ave.
PACIFIC SPIRIT REGIONAL PARK
Westbrook Mall
Dunbar St.
Granville St.
Cambie St.
Main St.
Knight St.
Clark Dr.
Nanaimo St.
Renfrew St.
Boundary Rd.
Willingdon Ave.
McGill St.
East Hastings St.
East Hastings St.
Kingsway
Trout Lake
Trans Canada Hwy
41st Ave.
49th Ave.
Marine Dr.
Legend
Guarded Beaches
Lake

FIGURE 14

Beaches

The Vancouver Park Board manage 9 life guarded (from late May until early September annually) beach areas totaling approximately 18 linear km of beach area (shown in Figure 14). Eight are on the ocean and one is at Trout Lake, and amenities offered at each vary. Similar to outdoor pools, beaches in Vancouver currently play a very significant role in providing respite from heat and recreation and socializing. Beaches see a large proportion of their use focused not necessarily on patrons in the water, but on a desire to be near the water. Beaches also see many engaging in ocean play and swimming, as well as fitness uses on the water (kayaking, wind-surfing, boogie boarding) and at the edge of the water, such as skim boarding.

LIFE GUARDED BEACHES

Trout Lake
Sunset Beach
Third Beach
Second Beach
English Bay
Locarno Beach
Kitsilano Beach
Jericho Beach
Spanish Banks

Beaches

The most visited beaches were:

45%
recommend more shaded areas as an improvement.

Top things we heard + learned

80%
visit beaches with the primary goal of relaxation.

24%
said they love the beaches as they are.

3.1 million
annual visitors to beaches (observed in life-guarded season), but, there is a lack of clear data collected on how many people visit the beach and why, compared to our understanding of pool usage.

Beaches provide a range of amenities, varying by beach, such as: concessions, seasonal life guards, sand volleyball courts, playing fields, swimming rafts, playgrounds, picnic areas, and tennis courts.

Vancouver's beaches offer a unique, natural, outdoor aquatic experience available in very few urban centres in the country.

People are willing to travel farther from their homes to visit beaches.

FIGURE 15

Beaches

KEY INSIGHTS

- Based on information collected by lifeguards in 2010, there were over 3.1 million users during guarding season — over 1.0 million greater than the combined annual indoor and outdoor pool swims recorded for 2010.
- Highest beach use was seen at Kitsilano and English Bay beaches.
- Beaches play a significant role in meeting the 25-Year Vision for the future of aquatics in Vancouver.
- There are opportunities for beaches to play a greater role in meeting service needs in the nine categories of aquatics, with potential to increase their role in skill development, fitness and special events.

WHAT WE HEARD IN PHASE 2 OF PUBLIC ENGAGEMENT

- 75% said they think the recommendations for beaches respond well to what we heard and learned in Phase 1.
- 44% said they think the recommendations will improve beach experiences in Vancouver. 10% said they think it will not improve and the rest were unsure.
- 28% chose upgrades to beaches in their top 5 recommendations.

THE ADVISORY GROUP'S RESPONSE

The Advisory Group supported all the draft's current recomendations for Beaches, with the addition that beach accessibility should be included within the investments towards maintaining and enhancing existing beaches.

Current Status

Wading Pools + Spray Parks

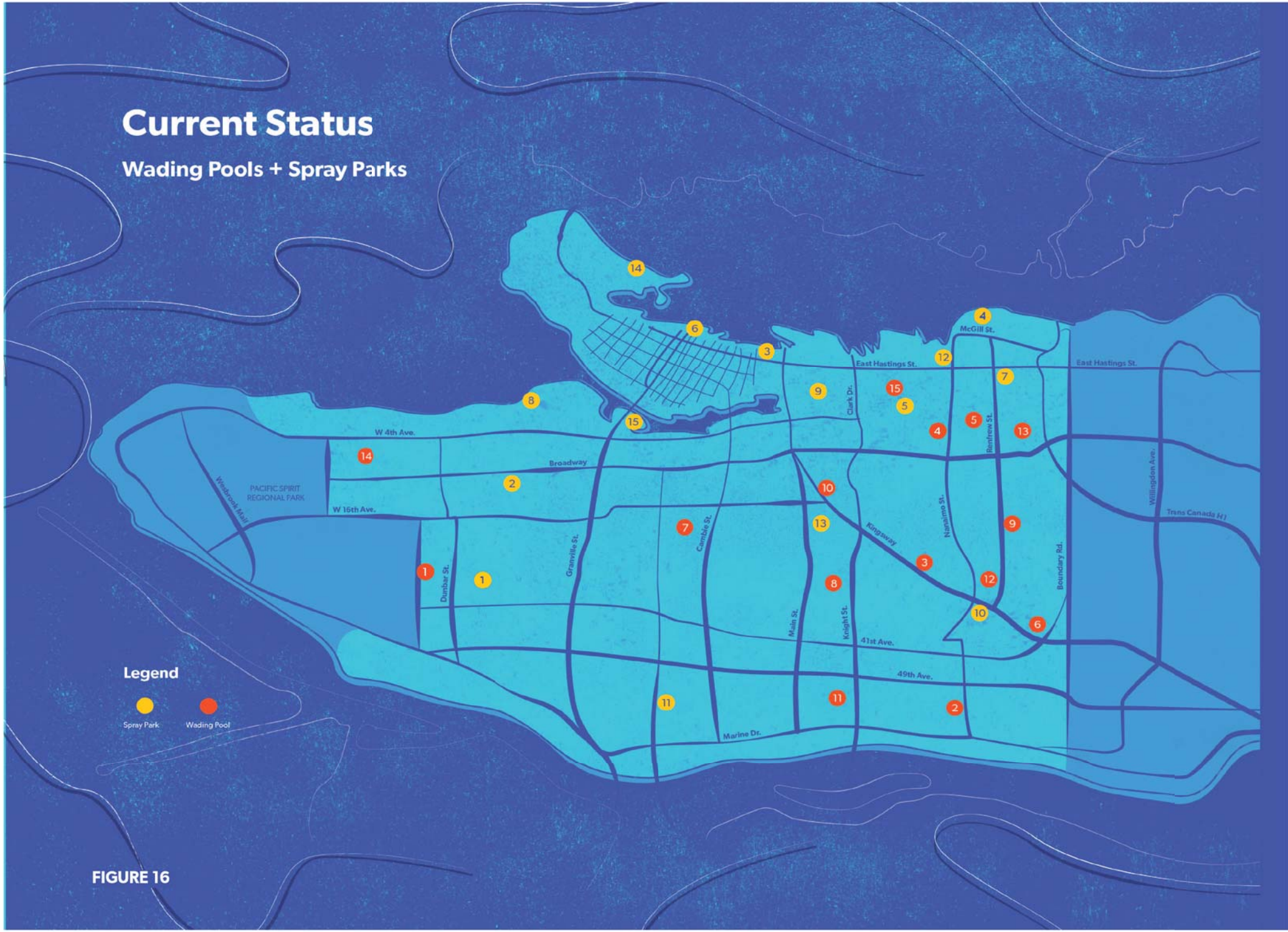


FIGURE 16

Wading Pools + Spray Parks

Fifteen spray parks are licensed to operate in Vancouver - fourteen are operated by the Vancouver Park Board and one by the Community Centre at Granville Island. See Figure 16 for a map of all wading pools and spray parks in the City of Vancouver.

The VPB currently has, in its inventory, 15 wading pools, largely constructed in the 1960s and 1970s. They are required to be licensed as pool features under the Health Act regulations and need to be staffed. Wading pools are gradually being phased out in Vancouver, as they are in many municipalities across Western Canada, in favour of spray parks. This is due to revisions to the Health Act regulations that render the wading pools non-compliant.

Both wading pools and spray parks play a role in providing an introduction, and in some cases a 'first touch' water experience for young children. However, Vancouver's fill and draw wading pools are aging, and do not meet current Health Act standards. Additional shortcomings for existing wading pools are that they do not provide universal access, and must be staffed. The daily maintenance is water intensive and wading pool operation is costly as it requires staff for maintenance and supervised operation to meet Health Act requirements.

Spray parks, alternatively, offer a similar introduction to water, but offer a greater range and diversity of uses, do not require full-time staff to operate, and have an extended usage period as they can be used for more hours of the day and can be access year round (no fences or gates) during the off-season as 'terrain parks' and play spaces when water features are no longer operating. Spray parks also tend to appeal to a greater range of users, and are more socially as well as physically inclusive.

SPRAY PARKS

1. **Chaldecott Park**
2. **Connaught Park**
3. **CRAB Park at Portside**
4. **Garden Park**
5. **Grandview Park**
6. **Harbour Green Park**
7. **Hastings Community Park**
8. **Kitsilano Beach Park**
9. **MacLean Park**
10. **Norquay Park**
11. **Oak Park**
12. **Pandora Park**
13. **Prince Edward Park**
14. **Stanley Park (Lumberman's Arch)**
15. **Granville Island**
    *not operated by the VPB

WADING POOLS

1. **Balaclava Park**
2. **Bobolink Park**
3. **Brewers Park**
4. **Burrard View Park**
5. **Clinton Park**
6. **Collingwood Park**
7. **Douglas Park**
8. **Gray's Park**
9. **Renfrew Community Park**
10. **Robson Park**
11. **Ross Park**
12. **Slocan Park**
13. **Sunrise Park**
14. **Trimble Park**
15. **Woodland Park**

Wading Pools + Spray Parks

What is working

- Wading pools and spray parks provide an introduction to water.
- Spray parks offer a greater range of use and accessibility, greater level of safety and are more socially-inclusive.
- Spray parks can be activated as play areas outside of summer, and do not need to be supervised, extending their use to more hours of a day.
- Spray parks can be designed as public space attractions.
- Spray parks do not need to be supervised.

Top things we heard

1. Spray parks are more dynamic and more fun than a wading pool.
2. Water needs to be activated for more hours of the day and for more days of the week; spray parks provide this flexibility.

What is not working

- Existing wading pools do not meet Health Act regulations, compelling significant conversion or removal.
- Current wading pools must be filled daily with potable water.
- Current wading pools do not provide universal access.
- Wading pools must be supervised.

FIGURE 17

Wading Pools + Spray Parks

KEY INSIGHTS

- Spray parks provide more opportunities to serve a broader range of ages and needs, and provide much greater flexibility in meeting activity needs than wading pools.
- Spray parks are more inclusive, offering access to a range of people, from very young children to adults of varying physical abilities, to play, socialize, and seek respite from summer heat together.
- Spray parks also offer the possibility of year-round use, as the topography and some of the features offer opportunities for imaginative play even when the water is not running.
- Spray parks are more economical to run as they do not require staffing to operate.
- During the operating season, spray parks can be used during all park operating hours, while wading pools, which must be staffed, are only in operation during limited hours.

WHAT WE HEARD IN PHASE 2 OF PUBLIC ENGAGEMENT

- 69% said the recommendations for spray parks + wading pools responded well to what we heard and learned in Phase 1.
- 46% said they think the recommendations will improve spray parks + wading pool experiences in Vancouver. 9% said they think it will not improve and the rest were unsure.

THE ADVISORY GROUP'S RESPONSE

- The Advisory Group recommended adding accessible to all six of the draft recommendations. This should include other provisions like accessible site access (ie. level pathway, disabled parking)

Aquatic Innovation Definitions

FLOATING POOL

A Floating Pool creates a sanitary swimming environment within a body of water that is often too polluted to permit safe swimming practices. Situating a floating pool in such an area would offer an alternate experience and enhance the enjoyment of the water.

FLOATING SAUNA

In many cultures, saunas play an important role as a part of daily culture, and in some cases connection to nature and the outdoors. Floating saunas are water-based or water's -edge saunas that provide a sauna experience as part of a larger aquatic wellness experience that could be related to ocean swimming, or associated with outdoor or indoor swimming facilities.

NATURAL POOLS

Natural Swimming Pools are defined as pools that use naturally occurring biological water filtration and treatment methods to provide pure and clean bathing facilities that mirror natural bodies of water, without the use of chemical treatment.

URBAN SPLASH PARK

Spray park features combined with public art and/or urban water features, creating a more 'mature' environment that appeals to a wider age range of people, often in highly prominent places. They are free and can be enjoyed by a larger cross section of users in warmer months, while still serving a public function (art), in colder months. They offer respite in a high density urban environment during hot days, but also offer a high degree of 'spectacle' and community building: there are often ample opportunities for people watching and social gathering, and a lot of the settings attract residents but are also tourist draws due to their stunning settings and opportunities for photo-ops.

OCEAN PLAY

Water play structures made of inflatable elements are aquatic playgrounds that can be located at existing beaches. The various elements can include slides, wheels, and trampolines. Easily arranged to create obstacle courses, these structures provide active waterpark experiences suitable for a wide age range.

URBAN BEACH

Urban beaches simulate beach environments within urban settings, often taking advantage of nearby water features. With the introduction of sand, beach umbrellas, and seating, and the insertion of an urban beach offers a surprising, alternative space to relax within the cityscape in areas away from natural bodies of water.

The installation of urban beaches increases the equity of beach experience in key locations of the city.

HARBOUR DECK

These urban swimming structures extend the urban landscape into the water, encouraging city dwellers to interact and connect with the water that surrounds their cities. These public swimming holes, through extensions to the public promenade, docks or the seawall, offer an urban harbor landscape of piers, ramps, cliffs, playgrounds and pontoons, completing the transition from land to water and making it possible to go for a swim in the middle of the city.

Harbour decks place an emphasis on public gathering, with areas for seating, sunning, socializing and taking in the spectacle and the activity are as important, if not more important, than the areas dedicated for fitness and leisure swimming, and diving platforms.

FIGURE 18

Aquatic Innovations

As part of the 2017 Vancouver Aquatics Strategy, a global precedent review was carried out of current trends around the world related to aquatic experiences. The questions asked as part of this research were:

- What are the latest trends in aquatic experiences around the world?
- What new specialty pool typologies are emerging?
- What are the current best practices and how do we see them being applied in new aquatic forms in Vancouver's context?

KEY INSIGHTS

- In addition to traditional indoor and outdoor pools, there has been a recent rise in aquatic experiences that do not fit the traditional model of a user-pay aquatic facility focused on fitness and leisure swimming.
- Globally, there is a shift in aquatic services to include a broader range of water based experiences that focus on social gathering, community building, health, wellness, joy, and a renewed connection to nature, in many cases through no-cost entry facilities.

WHAT WE HEARD IN PHASE 2

- 67% said they think the recommendations for aquatic innovations respond well to what we heard and learned in Phase 1.
- 42% said they think the recommendations will improve innovative aquatic experiences in Vancouver. 14% said they think it will not improve and the rest were unsure.
- The top 3 innovations were a Natural Outdoor Pool, a Harbour Deck, and a Floating Pool in False Creek.

THE ADVISORY GROUP'S RESPONSE

The Group's input on the current recommendations for aquatic innovation are primarily specific to each proposal. These include:

- Increasing accessibility and therapeutic aspects to wellness ammenities that are connected to both new and existing pools.
- Providing play structures in the ocean at existing beaches, so long as they consider their ecological and environmental impacts.
- Ensure First Nations are included in consultation processes and that communities' cultural traditions re: water / aquatics are considered and consulted on

ADDITIONAL INPUT INCLUDE

- Include a glossary in the updated VanSplash strategy report
- Plan in consideration of climate change
- Address water quality in outdoor bodies of water for swimming
- Plan facilities with recognition of existing programs
- Reduce the use of chlorine whenever possible
- Empower communities to fundraise for public aquatics facilities
- "Develop an upgrade and renovation plan, extending operational life-span for all aquatic facilities, to increase sustainability and operational efficiency including consideration of implementing green technologies *(Note: this is adjusted wording of one of the amendments proposed by Commissioners in January 2018.)"

Recommendations for Service Delivery + Policy

3

Vision + Principles

Vision

Building communities of aquatics users for a lifetime.

Mission:

Deliver a wide range of accessible aquatic experiences for residents and visitors that support Vancouver as a highly-livable, world- leading coastal city.

Principles

1. Recognize that water is only one component of the experience.
2. Expand the definition of 'aquatics' to include beaches, wading pools, spray parks and new innovative aquatic experiences.
3. Enhance social inclusion through aquatic experiences.
4. Support community and personal well-being.
5. Promote and encourage active living through aquatics.
6. Provide flexible and functional facilities.
7. Establish sustainability targets for aquatics.
8. Increase connection to nature in all aspects of aquatics.

Goals

1. Continue to increase annual swim and aquatic use per capita in the system.
2. Accommodate Vancouver's growing and aging population.
3. Provide a wide range of vibrant and engaging aquatic experiences.
4. Provide aquatic experiences that are accessible to all.

FIGURE 19

Introduction

Based on the findings presented in the *Current State Report*, *Precedent Report*, *Public Engagement Report*, and *Advisory Group Report*, as well as building on the revised 25-year vision, mission, principles and goals, this section of the report presents the proposed recommendations.

As discussed in the introductory section of this report, the *VanSplash* recommendations must fit within a broader Vancouver Board of Parks and Recreation mandate, supporting the overall *Strategic Plan, Sport Strategy*, and Park Board policies including *Parks and Recreation for All* as well as ongoing City-wide planning projects and objectives such as the *Greenest City Action Plan* and the *Healthy City Strategy*.

The recommendations are intended to enhance and support a number of current initiatives including the *Parks and Recreation Masterplan (VanPlay),* the *Non-Motorized Boating Strategy (On Water)*, *West End Waterfront Masterplan*, and the *Northeast False Creek Redevelopment*, as well as consider current Park Board planning initiatives. As noted in the introduction and shown in the vision and principles, *VanSplash* established a broader definition of success in aquatics, and was tasked with widening success measures of aquatic services beyond swim and aquatics per capita to include social inclusivity, social engagement, health and well-being, connection to nature, and vibrant experiences.

While the definition of success was broadened, the initial key metric for success – aquatics per capita, was still a key driver for the work of *VanSplash*. The *2001 Aquatic Study* established a swims per capita recommendation target of 4.0. The *Current State Report* notes an increase in swims per capita of 3.4 after the implementation of the *2001 Aquatic Study* – a significant increase from the swims per capita rate prior to 2001, which was estimated at 2.4.

The 25-year vision sets a target of 5.0 swims per capita. Recognizing that full pools can be perceived by some as over-crowded, the strategy recommendations support a capacity of between 5.0 and 6.0 swims per capita. As context for this target, urban centres generally see a swim per capita rate of between 2.0 and 4.0, with smaller communities achieving higher swims per capita of closer to 7.0-8.0.

The Advisory Group's overarching message across all these recommendations is summarized through their overarching message that, "we need more pools". The Group believes this is implemented through meaningful, transparent consultation with impacted communities, user groups, and stakeholders, building on the City of Vancouver's core values and principles for engagement. The engagement should be a high priority for both Park Board Staff and elected officials. Across all recommendations, the Advisory Group recommends that:

- Meaningful consultation is done with impacted communities, user groups and stakeholders – based on the City of Vancouver's core values and guiding principles for engagement.
- Previous consultations with impacted communities should be reviewed. Consultation processes should include evaluation to measure effectiveness.
- Ensure clear and transparent communication is a focus and high priority for both Park Board staff and elected officials.


Indoor Pools - 4 New Facilities
1 new
3 replacement
Vancouver Aquatic Centre
NEW
Britannia Pool
NEW
Templeton Pool
Eileen Dailey Leisure Pool
UBC Pool
Lord Byng Pool
Connaught Park Pool
NEW
Kerrisdale Pool
NEW
Hillcrest Aquatic Centre
Kensington Pool
Renfrew Park Pool
Killarney Pool
W 4th Ave.
Broadway
W 16th Ave.
East Hastings St.
McGill St.
41st Ave.
49th Ave.
Marine Dr.
Kingsway
Trans Canada Hwy
PACIFIC SPIRIT REGIONAL PARK
2km
3km
4km
Legend
Existing Indoor Pool
Not managed by VPB
Existing Co-located Indoor and Outdoor Pool
Potential Partnership
NEW Indoor Pool

FIGURE 20

Indoor Pools

Recommendations

INTRODUCTION

Recommendations for indoor pools focused holistically on the larger 25-year vision, with a particular emphasis on:

- Continuing the renewal of indoor facilities reaching the end of their functional lifespan;
- Increasing the capacity of the system to accommodate anticipated population growth and to achieve the renewed and increased aquatics use across all facilities
- Providing a balanced range of aquatic experiences throughout the system.

The overall recommendations for changes to the indoor pool service offerings are summarized in Figure 20.

1. Support a balanced delivery model that includes small scale pools as well as large scale facilities to deliver a greater diversity of aquatic experiences.

2. Where feasible, **co-locate outdoor pools with indoor pools** to offer a greater range of aquatic experiences at each facility and to maximize operational efficiencies.

3. Investigate decommissioning existing stand-alone whirlpools in community centres which have safety, operational challenges, unfeasible to resolve.

4. Replace Britannia neighbourhood pool with a new pool on the Britannia site. This work should be carried out as part of the current overall masterplan work and, as with all recommendations for new and replacement aquatic facilities, the particular amenities and balance of aquatic offerings should be determined in consultation with the community and as part of the VPB's vision to provide a broad and balanced mix of aquatic services.

5. Engage with Templeton pool users during the design development phase of Britannia facility. Once the Britannia pool is fully operational, meaningful consultation will be done with user groups and stakeholders, and community members to determine the impact of the new Britannia Pool on Templeton Pool. Meaningful community engagement and a thorough impact study will be completed with no predetermined outcome. Contingent on Templeton pool building condition and potential associated risks, Templeton pool will remain operational for a minimum of ten years following Britannia becoming fully operational. Should renewal of Templeton building due to building condition be required during this time, community consultation with the Templeton users will take place.

6. Provide a large scale pool at Connaught Park as part of a future arena and/or community centre renewal. Engage with the community during planning and design of this proposed new facility, along with a detailed site study to determine the capacity and size that the site can reasonably accommodated.

Community consultation will include engagement with Kitsilano community, VAC user groups, Lord Byng user groups, community centre associations, and community stakeholders. *An exercise was undertaken during the development of this strategy to test the fit of a sport-training focused aquatic facility located at Connaught Park. This confirmed that it is possible to accommodate a large scale pool along with an ice arena, community centre, childcare centre, and associated parking with in a principle of no net loss of park space. In 2019, we heard through the Advisory Group that, in their view, the test-fit model is not sufficient for hosting provincial and national competition.*

(Connaught Park was selected based on a selection criteria as a candidate site for a future pool based on its location within an area of anticipated population growth, proximity to transit corridor, proximity to VAC for joint need assessment and continuous service model.) This proposed facility renewal would be in collaboration with community centre association.

7. Engage with Lord Byng pool users during planning and design development phases of Connaught facility. Once the Connaught pool is fully operational, meaningful consultation will be done with user groups and stakeholders, and community members to determine the impact of the new Connaught pool on Lord Byng Pool. Meaningful community engagement and a thorough impact study will be completed with no predetermined outcome. Contingent on Lord Byng pool building condition and potential associated risks, Lord Byng pool will remain operational for a minimum of ten years following Connaught becoming fully operational. Should renewal of Lord Byng building be required due to building condition during this time, community consultation with the Lord Byng pool users will take place.

8. Replace the Vancouver Aquatic Centre with a new large scale pool with outdoor aquatic amenities to take advantage of the waterfront location. The Vancouver Aquatic Centre (VAC) has almost reached the end of its functional lifespan and does not meet current seismic requirements.

Planning and design of VAC will be integrated with the West End Waterfront Masterplan currently underway. The replacement facility has the opportunity to take advantage of the spectacular beach siting, views, access to nature, and provide year round outdoor amenities. This facility will be multi-purpose, serving the needs of a wide variety of user groups. During the detailed planning process, consultation with VAC user groups and other stakeholders will occur.

Community consultation will include engagement with west end community, VAC user groups, and community centre associations, and other community stakeholders.

9. Replace Kerrisdale Pool with a new medium scale pool, as part of a future Community Centre and/or arena renewal to take advantage of co-location synergies including energy savings, operational efficiencies, and the community interest in larger facilities offering a diverse range of amenities and services in one location.

10. Renovate Kensington Pool to enhance accessibility and increase opportunities for adaptive and therapeutic swimming.

11. Continue to consider **building partnerships** with other agencies to gain opportunities for public use of non-park board aquatic facilities consistent with Park Board goals of accessibility and equity.

12. In the planning and assessment phase of the future large facilities (e.g. VAC and Connaught and/or other), **conduct a feasibility study to build a facility providing sport training, leadership training, hosting of large sport and recreation events, as well as skill development and fitness swimming.** This facility would have adequate capacity to serve local sport needs aligned with Sport Strategy. Ensure the site is capable of hosting provincial and national competition and consult with local competitive groups, national sports organizations, provincial sports organizations, site neighbourhood and others in planning of such facility.

Design Considerations

Throughout the VanSplash process, we heard from many residents and aquatic user groups communicating their interest in at least one or more of Vancouver's facilities. While describing facilities, terminologies and words often meant different things to different people. In the 2001 Aquatic Services Review, facility levels were categorized and described as Neighbourhood, expanded Neighbourhood (Community), and multi-purpose (City-wide) aquatic centres. In initial drafts of VanSplash, the same planning terminologies were used to explain facility levels and their associated programming and services. Since form follows function, opportunities in servicing in one facility happens to increase as the size increases.

For most people, the word "neighbourhood" has a qualitative component, as it describes personal values. We also heard during the Advisory Group that people prefer different facilities for different reasons and that all facilities, regardless of size, are considered as "neighbourhood" facilities to those who live close to them.

The quality of the experience that any civic facility brings to different individuals can be enhanced through design. A civic facility can be adaptive, it can have a place for everyone, and it can evolve as different needs arise. To reflect feedback received and to be clear on the intentions, the terminology used in the document to describe facility levels has been revised to small, medium, and large. Additionally, a list of Design Considerations are included here to help address those preferences heard throughout the process, ensuring all facility designs implemented in the future consider the following:

1. Provide opportunities for socializing and community building

Neighbourhood qualities can be created through meaningful spaces where patrons can meet and connect and socialize. Informal social space is an essential part of community aquatic facilities, and the design should provide such spaces, large and small, both within and between mandated program elements.

2. Understand Unique Competition Needs

Competition training and hosting have specific requirements, from deck space, to seating, viewing, acoustics, timing and judging. A true understanding of the type and nature of competitions that the facility is intended to accommodate must be an integrated part of the design process to ensure success.

3. Every site and situation is unique

Pools must be carefully situated in both their social and urban contexts. Facility design should take advantage of the potential of a street, outlook or natural setting. Public and stakeholder engagement should be embedded in the early stages of design and permit the real (not just apparent) needs of users.

4. Details are important

Aquatic architecture should conform to specific criteria from user groups, health boards and public safety agencies, as well as challenging environmental conditions. Indoor facilities should provide aquatic experiences within tempered water and conditioned air of exceptional quality, safe and engaging environment, including the provision of abundant natural light and fresh air.

5. Delight and surprise pool users

Pool facility design should exceed technical requirements. They must capture the spirit of play and amplify the pleasure of users. They can provide tranquility for some and a high level of energy for others.

6. Universal Access

Aquatic facilities must accommodate the widest cross section of the community, reducing barriers—whether physical, cultural or social. As aquatic facility design becomes more accessible, gradual or ‘zero-entry’ sloped access for all types of tanks will be critical in reducing barries to use to accommodate all ages and abilities. Often going beyond Code for required access has spatial implications such as increases the overall building footprint.


2 Outdoor Pools
1 new
1 potential renewal
Second Beach Pool
Kitsilano Pool
New Brighton Pool
Hillcrest Aquatic Centre
Maple Grove Pool
Marpole Pool
NEW
Central Park Pool
location TBD (along the Fraser River)
4km
W 4th Ave.
Broadway
W 16th Ave.
PACIFIC SPIRIT REGIONAL PARK
Westbrook Mall
Dunbar St.
Granville St.
Cambie St.
Ontario St.
Main St.
Knight St.
Boundary Rd.
Clark Dr.
Nanaimo St.
Renfrew St.
Kingsway
McGill St.
East Hastings St.
41st Ave.
49th Ave.
Marine Dr.
Trans Canada Hwy
Legend
Existing Outdoor Pool
Existing Co-located Indoor and Outdoor Pool
Not managed by VPB
Natural Outdoor Pool
Potential Outdoor Pool
Geographic range of South Vancouver Natural Outdoor Pool (location TBD)

FIGURE 21

Outdoor Pools

Recommendations

INTRODUCTION

As with indoor pools, recommendations for outdoor pools are based on achieving the larger 25-year vision. It was recognized during this study that each of our existing outdoor stand-alone facilities are distinctive amenities that serve residents across the city. It was also clear from the engagement that they are a much-loved component of the current aquatic system and they play a key role in the broader social targets for the renewed aquatic strategy. The recommendations for outdoor pools therefore place a particular emphasis on:

- Renewal of outdoor pool facilities that are considered jewels in the system but need investment to maintain and extend their functional lifespan.
- Improving the geographic distribution of outdoor pools while providing a balanced range of aquatic experiences throughout the system.

The *2001 Aquatic Services Review* recommended that neighbourhood stand-alone outdoor pools be phased out and future outdoor pools be co-located with indoor pools. The benefits of a co-located indoor and outdoor pool include:

- A high number of swim opportunities and swim participants
- Lower cost per swim,
- Extended outdoor season, shared staff (ie: life guarding, maintenance and customer service), shared operation systems (ie: admissions, marketing, program development), shared infrastructure (ie: facility change rooms and shared mechanical systems) and access to more services, amenities, and features.

OUTDOOR POOL RECOMMENDATIONS

1. Continue to invest in the existing outdoor pools to keep them as unique facilities within Vancouver.

2. Prioritize locating new outdoor pools to fill current service area gaps in south-central and south-east Vancouver.

3. Provide a balance of recreation, fun, socializing, and fitness including lane swimming, instructional and skill development at each outdoor pool facility where possible (referred to as full-size).

4. Consider an outdoor pool or spray feature with every new indoor pool facility where possible with site constraints and site planning objectives.

5. Revitalize existing outdoor pools. Each of the existing outdoor pools require investment to extend their lifespan and to provide users with supporting amenities that meet current best-practices and can support increasing usage. Specific upgrades proposed are:

- **Improve or replace changing facilities** at each outdoor pool to meet current City and VPB policies to provide safe,accessible, and inclusive environments for all, to support current and future usage demands, and to improve effectiveness of on-going maintenance.
- **Improve food and beverage service offerings.** A significant usage of outdoor pools is related to socializing, and providing food services that are on the pool deck, convenient and affordable, and allow patrons to extend the time spent in the facility are likely to result in longer stay-times and increased socialization (addressed through VPB Concession Strategy).
- **Improve or replace mechanical equipment** and pool basins where required. In order to keep these facilities long-term investment into some of the pool systems is necessary to prevent

more significant costs in the future.

- **Improve new spray features** to increase the diversity of aquatic amenities at each outdoor pool and offer a wider appeal to a broader age range.
- **Improve deck areas to enhance quality of experience**. Offer shaded areas, and consider increasing the deck area at particular outdoor pools (New Brighton) that do not include green space to accommodate sunning and relaxation. Consider improving wind protection around deck areas.

6. Provide a new co-located outdoor pool in South Vancouver. Preliminary VanSplash findings considered a location at Killarney or Marpole Community Centres. A Park Board motion was made in 2018 to "approve the location for a new full-size outdoor pool in South Vancouver co-located at Marpole Community Centre in Oak Park."

7. Provide a new City-wide naturally filtered outdoor pool in South Vancouver. While the majority of Vancouver is geographically well served by current outdoor pools, there is a service gap in the outdoor swimming opportunities, beaches, and natural swimming experiences in South Vancouver along the Fraser River. Implementing a natural pool adjacent to the Fraser River would require a site and regulatory revision. Investigate the potential to provide new naturally-filtered outdoor swimming experience that address and compensate for water quality issues and swimming concerns in Vancouver.

8. Conduct a feasibility study to renovate Hillcrest outdoor pool to provide lane swimming (25m length lanes or 50m length lanes) while ensuring that existing leisure components remain and are improved**.**

A preliminary analysis by staff (in 2019) showed that 50m length addition will require full park development.

9. Investigate the feasibility of operating (an) outdoor pool(s) with extended season. Balancing usage level with energy consumption and greenhouse gas emissions measure, staffing and resources, operating and maintenance costs are some of the considerations for the feasibility study.

10. Provide a new outdoor pool at Mount Pleasant Park. In October 2019, Park Board directed staff to provide a new outdoor pool.

Wading Pools + Spray Parks

Continue to Add Spray Parks

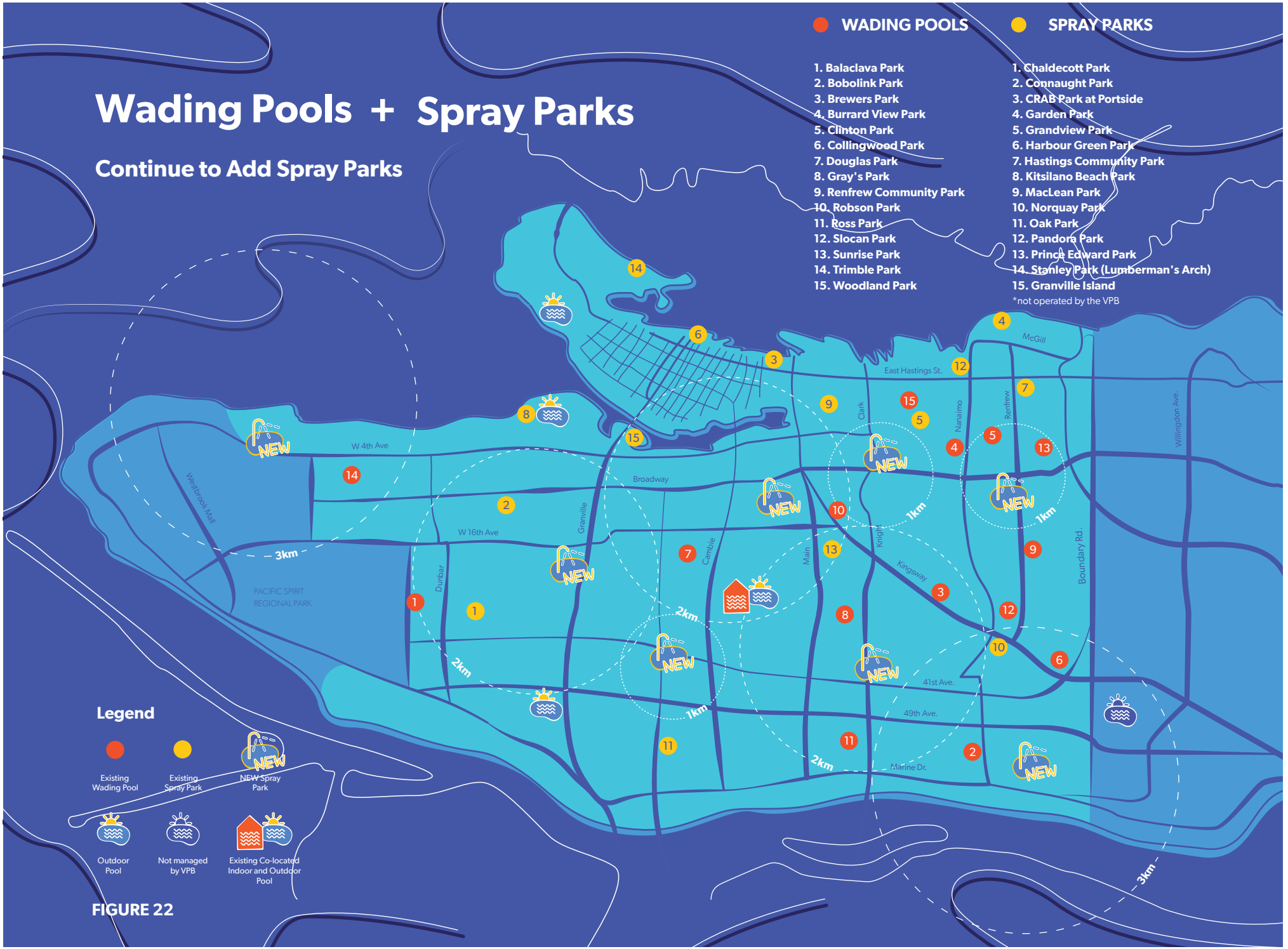


FIGURE 22

Wading Pools + Spray Parks

Recommendations

INTRODUCTION

The recommendations for spray parks and wading pools is focused on the long term 25 year vision, and are supported by Parks and Recreation Master Plan (VanPlay) to increase the number of spray parks throughout the city and to provide a greater number of accessible spray parks per capita. This goal is balanced with the continued recommendation to phase out existing out-dated wading pools. The goal is to build a spray park in each capital plan. Specific locations for new spray parks are not determined. The intent is to provide a geographic distribution throughout the City that is equitable, reduces service gaps and addresses future population density and areas of growth through a range of scales of spray parks.

Public consultation with surrounding community and user groups would be a key next step in determining locations, however, suggested aspects to consider are parks with existing washroom or change facilities, parks with an existing water supply, and parks where a wading pool is being removed. Specific feedback from the Advisory Group supported the overall move to spray parks over wading pools for their accessibility and the ability of kids of all abilities to engage in water play.

WADING POOLS AND SPRAY PARKS RECOMMENDATIONS

The recommendations for wading pools and spray parks are as follows:

1. To facilitate the emerging spray park system, continue to convert wading pools to accessible spray parks or decommission them, pending locational criteria and consultation with communities.

2. Provide large scale, accessible spray parks at destination and highly urban parks serving large populations.

3. Provide small scale, accessible spray parks based on greatest social and geographic need and through consultation with local communities.

4. Consider co-locating accessible spray parks (without perimeter fencing or admission*) with indoor or outdoor pools, and/or with washrooms and community centres.

5. Where possible, **design accessible spray parks in a way that water can be recycled for park use**, i.e. adjacent irrigation or water features.

6. Distribute accessible spray parks more evenly throughout the City corresponding to population distribution and density.

Beaches

Recommendations

INTRODUCTION

As shown through the public engagement process, Vancouver beaches are very well used by locals and tourists alike, are much-loved by locals for the range of aquatic services they offer, and score very highly in terms of the broader social impact targets that are part of the 25-year strategy for aquatics in Vancouver. However, it was noted in the *Current State Report* that the range of data on beach usage and operation costs were not as robustly tracked as for pools (and that more focused data collection could help to inform possible future improvements).

The recommendations for beaches place a particular emphasis on building on the current success of our beaches, and are as follows:

BEACHES RECOMMENDATIONS

1. Consider activating or enhancing the range of aquatic experiences offered at beaches, i.e. temporary water play.

2. **Find a better way to collect information** on how many people use our beaches and how they use them.

3. Invest in maintaining and enhancing existing beaches:

- **Upgrade or replace changing facilities** at beaches to meet current City and VPB policies to provide safe and inclusive environments for all, to support current and future usage demands, and to improve effectiveness of on-going maintenance of change facilities.
- **Upgrade food and beverage service offerings** to meet current user expectations and to support social and community building targets through shared food experiences and increased stay times. The VPB has undertaken a separate Concession Strategy that will provide recommendations regarding improvements to food and beverage offerings.
- **Provide opportunities for shade.**
- **Increase beach accessibility for people with disabilities.**

4. Consider enhancing the diversity of experiences offered at/from the beach including ocean play and floating structures (see also Innovations Recommendations) and ocean swimming lessons.

5. Invest in swimming improvements at Trout Lake. As desire for natural swimming continues to rise, look at ways to provide an improved outdoor swimming experience at Trout Lake, potentially through improvements to water quality, beach quality and change facilities and concessions. Refer to draft *John Hendry Park Master Plan* for further details.

Innovation

INNOVATION RECOMMENDATIONS

Global aquatic trends are showing a broad range of amenities and services that extend beyond the traditional indoor or outdoor pool. As learned through the public engagement process, Vancouver residents are showing a keen interest in non-traditional aquatic services providing a range of innovative experiences. The goal of aquatic innovations is to support the enrichment of Vancouver's aquatic services to offer fun, spectacle, diverse, and vibrant experiences by implementing one innovation per capital plan.

The recommendations for aquatic innovations places emphasis on enhancing the overall service offering and complement the more fixed aquatic infrastructure, and are as follows:

1. Provide a combination of temporary (ie: urban beaches) and permanent aquatic innovations to provide new and more equitably distributed innovative services around the City.

2. Provide accessible, therapeutic and wellness amenities connected with existing and future pools such as saunas, pools of varying temperatures, and relaxation spaces.

3. Add outdoor hot tubs at larger outdoor pools that aren't co-located with an indoor pool or hot tub to offer a greater range of aquatic experiences at outdoor pools, including socializing and relaxation.

4. Build large scale spray parks for fun and cooling aquatic experiences in urban areas such as water play structures combined with public art and urban water features, creating a more 'mature' environment that appeals to a wider range of people. (See also Wading Pools + Spray Parks Recommendations.)

5. Create urban beaches for relaxation and play to provide a beach experience in more urban settings and to offer more equitable access.

6. Build a harbour deck for improved access to ocean water where possible within appropriate jurisdiction.

7. Provide play structures in the ocean at existing beaches such as installations that deliver an exhilarating experience, provide excitement, and in some cases deliver a high level of fitness with consideration of potential ecological and environmental impacts.

8. Build a naturally-filtrated outdoor pool for better connection to nature and an enhanced and unique aquatic experience (see also Outdoor Pools recommendations).

9. Assess feasibility of a floating pool in False Creek to provide a treated (chlorinated) and filtered pool in an ocean setting.

10. Monitor, evaluate and choose to use the best possible pool disinfection systems that successfully manage any health risks associated with aquatics and can improve user comfort and experience. While following provincial health regulations, where possible reduce the use of chlorine in existing facilities with consideration that all new indoor pool designs will incorporate secondary disinfection systems.

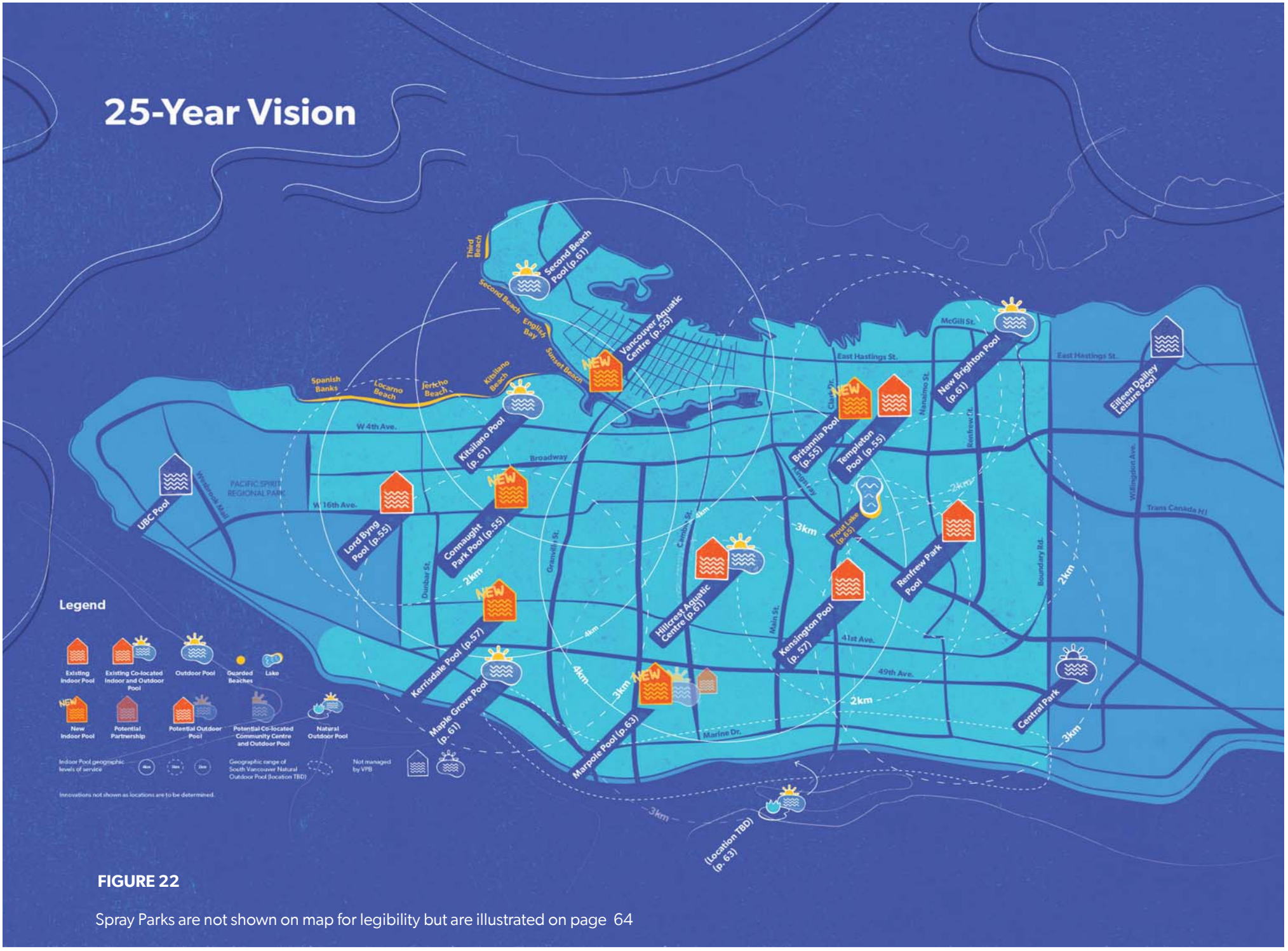
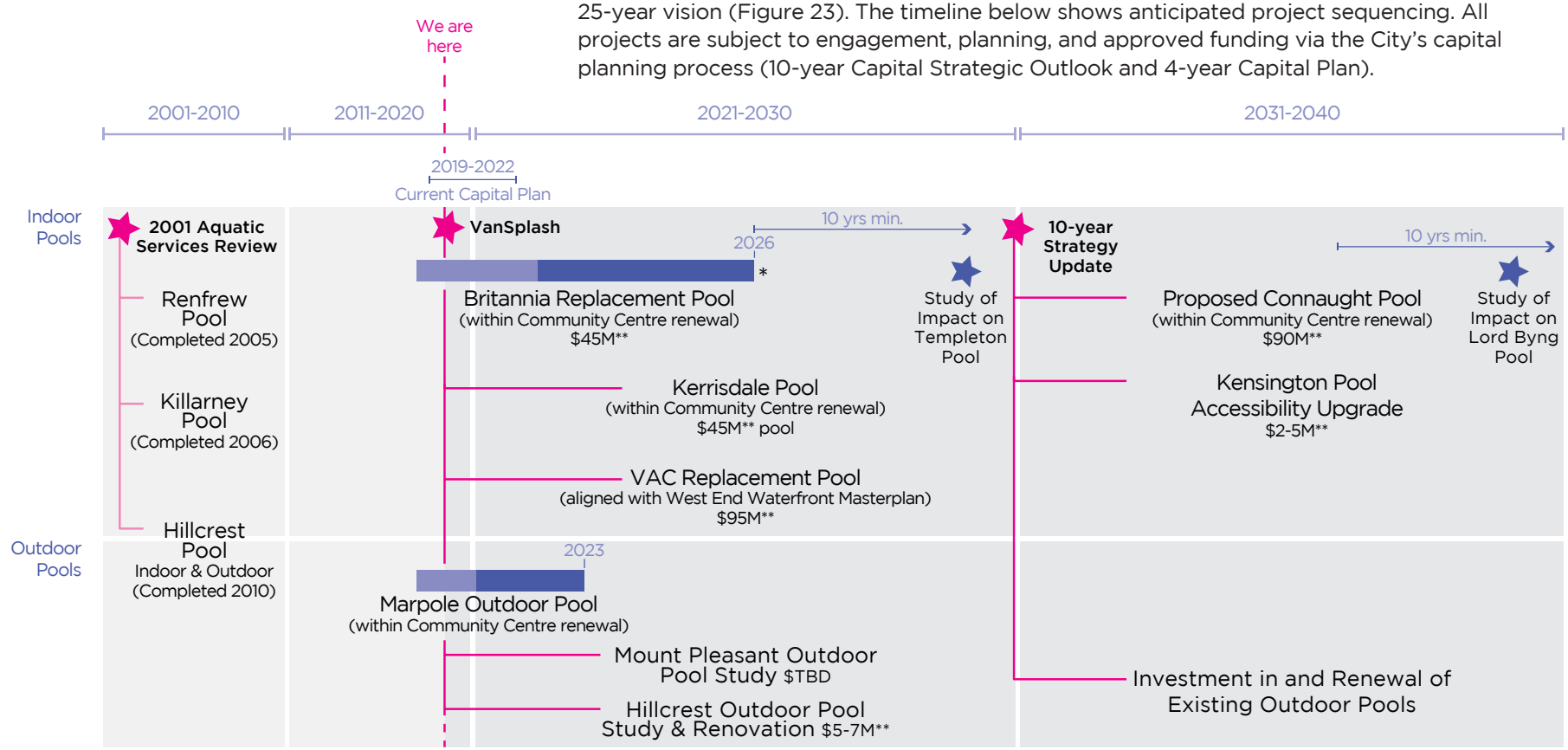


FIGURE 22

Spray Parks are not shown on map for legibility but are illustrated on page 64

25-Year Vision

Many factors impact potential sequencing of the service improvements recommended in the 25-year vision (Figure 23). The timeline below shows anticipated project sequencing. All projects are subject to engagement, planning, and approved funding via the City's capital planning process (10-year Capital Strategic Outlook and 4-year Capital Plan).



Planning | Construction

* Funding TBD in 2023-2026 Capital Plan

** Rough order of magnitude estimate funding needed (2019 $) through 4-year capital plan process

Policy Document

Impact study of new facility on existing operating pool and community engagement on both new and existing facility

FIGURE 23

Glossary

Glossary

Note: Definitions as described here are based on provincial legislation, industry standards, aquatic practices, and Vancouver Park Board policies and operation.

Access: refers to the opportunity to enter and make use of an aquatic amenity. Access can consider factors such as distance, quantity, usability, and design for all people. Accessible, in VanSplash, is used in terms of access.

Accessibility: Ensuring facilities, spaces, and services are accessible for people with accessibility needs e.g. those with temporary or permanent physical, visual, auditory, and cognitive disabilities as well as those using strollers. An example of modern aquatic facilities that reflect the diverse needs of the full spectrum of pool users is zero depth entries. Accessibility is also sometimes captured under discussions of Universal Design or Universal Access. See Universal.

Annual Swim Per Capita: Per capita means 'per person'. Per capita divides a desired measurement for an organization by its population. The formula is Measurement / Population = Measurement per Capita. When the measurement is number of annual swims, the result is the average number of swims per year, per person. For example, 5 annual swims per capita means every person in the City of Vancouver swimming 5 times per year. This approach is an average and takes into account that some people do not swim at all, while other people swim multiple times per year (ex. pg. 53 Strategy Report).

Aquatics: includes all activities that occur at Park Board's indoor pools, outdoor pools, wading pools, spray parks, whirlpools, and beaches. This includes but is not limited to leisure swim, lane swim, competitive swim, spectator activities, etc. Non-traditional aquatics include innovative aquatic services such as naturally filtered City-wide outdoor pools and are part of the overall aquatic offering.

BC Pool Regulations: The Pool Regulations in the Public Health Act govern the design, construction and operation of pools in BC and apply to all public and commercial pools (see also definition of "pool"). The BC Guidelines for Pool Operations is designed to help operators and regulators interpret the Pool Regulation with respect to the operation of pools. These guidelines represent generally accepted standards of safe practices. Depending on the type of pool and the use that it is put to, higher standards may be required.

Capacity: The ideal maximum number of swimmers that an aquatic centre is designed to contain, based on best practices and swimmer comfort. Note that this is not legal capacity, which is determined by the Swimming Pool Regulations under the BC Health Act, and which results in a higher capacity than the design capacity. (Refer also to page 20 of the VanSplash Current State Report for more on capacity).

Capital Cost: Capital costs are fixed, one-time expenses incurred on the purchase of land, buildings, construction, and equipment used in the production of goods or in the rendering of services. Capital cost include all costs required to bring a project to a commercially operable status including softs costs like design fees, project management costs, etc. The capital cost of an indoor pool, unlike most other forms of buildings, correlates more directly with the volume of the facility rather than the floor area. This is because, the deeper the water, the more air above the water is typically required. Both water depth and air height are very important and costly considerations when developing an indoor pool as both require large amounts of mechanical systems (water treatment systems which vary with the volume of water, and HVAC systems for handling highly humid air containing chemical substances) associated with those volumes. Two pools with the same floor area can have significantly different construction costs if one has deeper water and higher ceilings than the other.

Capital Maintenance: is planned like-for-like replacement of building systems with the goal of extending the useful service life of a facility and reducing associated operating costs. Capital maintenance priorities are established through the Asset Planner framework that monitors building system service life through high-level Building Condition Assessments and validates against service group needs and operator reports. Some examples of the components of a pool facility that might be renewed through the capital maintenance program are pool mechanical systems (pumps, heaters, piping), complete tank replacement, roofing, or HVAC system replacements.

City-Wide: A comprehensive, unique pool that provides a diversity of swimming opportunities in a uniquely Vancouver context, providing a range of amenities that draw use from across Vancouver.

Community-Plus: A multi-tank pool with more specialized aquatic services designed to serve more than one half of the City, with capacity for about 600,000 swims per year. Slightly less comprehensive in aquatic offerings than a City-Wide pool, but with a greater range and capacity than a Community Pool. This is typically between Community and City-Wide range of offerings and size of building footprint. (Refer to note on page 37 of Strategy Report).

Co-location: Grouping together compatible uses such as sports fields, libraries, schools, community centres, community gardens, can strengthen neighbourhoods and allows residents to access a number of programs and facilities in one location. One positive attribute is to assist with the challenges associated with elevated cost of land and creating opportunities for expanded parkland through partnerships. In facilities, there is efficiency in co-locating components such as an ice rink and indoor pool as through a heat recovery system, the heat recovered from cooling down to create ice is used to warm up the pool. There are also design and operation efficiencies (staffing, change room, mechanical system).

Destination: Often used in context of parks, recreational spaces and facilities, a destination is a place people from across the city want to go to (walk, transit, bike, and paddle to). Destinations give identity and image to their communities, and help attract new residents, businesses and investments and building strong community destinations that attract people. Cities of all sizes thrive to create such places. In VanSplash City-Wide facilities are intended to create a destination in the City.

Equal Distribution: A geographical distribution of services across the city considering population density.

Equitable Distribution: A geographical distribution of services across the city that reflects where community needs are greatest, ensuring access regardless of socioeconomic background.

Facility Addition: Adds space to an existing facility to accommodate a new or growing service need. This increases service level.

Facility Decommission: Divests an asset when service need is no longer there or is accommodated elsewhere.

Fitness: (pg. 18) one of 9 categories of aquatic services includes lane swimming and aquasize classes.

Flexible Facilities: Facilities that, through their design and operation, are able to accommodate wide range of uses during the course of operations without impacting their ability to effectively deliver their primary service function(s).

GHG Emissions: Annual Green House Gas Emissions measured in kilograms of CO2 (pg. 82) Buildings use energy to operate and contribute to greenhouse gas emissions. Often operational energy use

and greenhouse gas emissions data are evaluated to assess operational efficiency to highlighting facilities with exceptionally high consumption.

Glossary Continued

Swimming pools are very high GHG producers in relation to other buildings.

Goals: A general or specific desired outcome associated with principles

Harbour Deck: Harbour decks are floating structures that provide defined areas for swimming within flow-through tanks of various depths and sizes. The term 'Harbour Deck' is inspired by the Scandinavian Harbour Baths, which are a system of floating platforms that serve as recreational ocean swimming facilities along the waterfront of Copenhagen, Denmark as well as various urban waterfront areas in Oslo, Norway. These facilities serve as a supplement to the beaches around the city, providing opportunities for swimming, diving, sunbathing and socializing. The harbour baths in Copenhagen, the first of which was opened in 2002 (Islands Brygge) are a result of a consistent effort to improve the water quality in urban harbours to an extent that allows for bathing to take place alongside recreational boating and port-related shipping.

Inclusion: All people are able to access, enjoy and feel welcome at the facility. There are no physical, psychological, financial or cultural barriers to access, use, and participation.

Joint-Needs Assessment: Co-occurrence of two processes to define, measure, and prioritize needs in order to make a decision.

Large: A comprehensive multi-tank pool serving all residents of the City, centrally located and easily accessible from all parts of the City, with capacity for about 750,000 - 800,000 swims per year. This type of facility typically has a large building footprint. (Refer to page 26 of the Strategy Report).

Medium: A multi-tank pool with more specialized aquatic services serving one-quarter to one half of the City, with capacity for about 400,000 swims per year. This type of facility typically has a medium building footprint. (Refer to page 26 of the Strategy Report).

Needs Assessment: A systematic process to define, measure, and prioritize needs in order to make a decision. This process includes public consultation to establish service targets.

New Facility: adds a new facility to accommodate a new or growing service need.

Operating Cost: Operating costs are all costs associated with successfully operating the facility, including a minimum required number of life guarding staff, water quality systems, management staff, insurance, utilities, and staffing a customer service control point. About 70% of the operating costs of a typical pool are relatively or completely fixed (i.e. they don't vary significantly whether there is one person swimming or 40 people swimming in the pool enclosure).

Operating Revenue: Operating revenues include user fees and charges. If use increases by 10%, operating revenues go up roughly 10% as the revenue associated with swims in each category of aquatic service is largely constant on a per swim basis.

Operating Contribution: User fees and charges contributed by City/Parks Board operating budget to recover all or a portion of overall operating costs.

Partnership with other agencies: Partners extend the reach of the Park Board and allow for delivery of important aspects of the parks and recreation system. Examples include Community Centre Associations, schools, and libraries(ex. pg. 31 Current State Report).

Play: An imaginative, intrinsically motivated, non-serious and freely chosen activity done for its inherent pleasure

Pool: As defined by the Public Health Act Pool Regulation, pool means a commercial pool, hot tub, public pool, spray pool or wading pool, and includes any (a)facilities, (b)auxiliary structures, (c)equipment, (d)play

equipment, and (e)moving water features such as wave or whirlpool actions that are associated with the use or operation of a pool;

Principles: a high level aspiration or value which can guide and inspire actions across spectrum of policies, designs or actions.

Recommendations: a set of actions intended to fulfil stated goals

Recreation: (pg. 18) one of 9 categories of aquatic services includes fun and leisure and socializing and people watching.

Regular Building Maintenance: includes day-to-day planned maintenance (like painting, changing air filters, etc.) demand maintenance (like a roof leak repair, replacing a failed fan, etc.).

Renewal: means demolish and replace. Replacement could be larger or smaller, and in the same or a new location as required to best meet service need.

Renovation: alters an existing facility to accommodate a change of service need – may or may not accommodate growth.

Regular Maintenance: Includes day-to-day planned maintenance (like painting, changing air filters, etc.) and demand maintenance (like a roof leak repair, replacing a failed fan, etc.).

Secondary providers: private and non-profit recreation service providers autonomous of the Park Board.

Service Area Gap: Service need describes the gap between current and desired service levels. Each pool has an anticipated service radius that estimates the expected distance a resident would travel to use the facility. Service radiuses have been set at 4km and over for City-Wide pools, 3km for Community pools and 2km for Neighbourhood pools. Service area gaps identify areas of the city where no pool is provided within any scale of service radius, and are used to provide insights into areas of the city where potential future facilities may be needed in order to provide equitable access to a range of aquatic experiences across the City via public transit, bike, walking or driving (pg. 26 Revised Strategy Report).

Service Delivery: Providing an equitable and continuous access of facilities across the city. Implementation plan and sequencing of design and construction of facilities is the key component behind ensuring a continuous service delivery with no interruption.

Skill Development: (pg. 16) one of 9 categories of aquatic services includes swim lessons primarily and other skills taught in lesson format.

Small: Pool with a 25m six lane tank providing basic aquatic services for a local area of 60,000 - 90,000 residents, with capacity for 200,000 swims per year. Refer to page 26 of the VanSplash Revised Strategy Report. See also definition of City-Wide, Community, and Community-Plus pools.

Special Events: (pg. 18) one of 9 categories of aquatic services includes meets and competitions.

Sport: an activity involving physical exercise and skill in which an individual or team competes for entertainment

Sports tourism: Any activity in which people are attracted to particular location as a sports event participant, an event spectator, or to do attend sport attractions or business meetings

Sport Training: (pg. 18) one of 9 categories of aquatic services includes aquatic sport club training sessions, synchronized swimming, water polo, and others.

Spray Park: also known as spray pool or splash pad, means an artificially created depression or basin into which water is sprayed but not permitted to accumulate.

Stand-alone Whirlpool: Hot tubs located at three existing facilities (Marpole, Kitsilano, and Dunbar Community Centres) that are not associated with an aquatic facility.

Glossary Continued

Therapy and Rehabilitation: (pg. 18) one of 9 categories of aquatic services includes those are injured, frail or have disabilities and are active in water because it supports their body weight.

Thermal Respite: (pg. 18) one of 9 categories of aquatic services where water is a medium to cool off in hot weather.

Universal: Often used in context of the change rooms and washrooms in facilities. The Canadian Human Rights Act and Criminal Code clarify the right of all people to use a washroom or change room that corresponds to their gender identity and support discussions around accessibility and how spaces can be made more inclusive*. The provision of universal washrooms and change rooms in public spaces is one way to embrace inclusivity and accessibility for all. Contemporary and public expectations and legislated requirements around accessibility, change rooms, washrooms, pools and supporting program spaces require a larger footprint than conventional design. See Accessibility.

*For a variety of users including families, people with disabilities, caregivers, and transgender and non-binary (TNB) people.

Vancouver Coastal Health (VCH): A local regulatory authority that ensures compliance to provincial health regulations, including Pool Regulation and associated guidance documents. Services under the health protection umbrella generally fall into three areas of environmental health, facility licensing, and inspection reports.

Vision: the role of the vision statement is to declare the purpose and aspirations of the project. It informs the supporting principles, goals and strategies which are used to guide all future decision making and to successfully realize the Vancouver Aquatic Strategy.

Wading Pool: an aquatic recreation amenity that is for wading purposes and having a depth of less than 61 cm.

Water Conservation: This emphasis on potable water conservation is driven by the Park Board focus on increasing sustainability and resilience across its operations. An additional driver is the increased stresses on regional potable water resources due to growing population demands and climate change. There are many laws associated with water conservation in Vancouver: Park Board Water Conservation Action Plan, City of Vancouver By-Law 4848, The Public Health Act Pool Regulation, The BC Guidelines for Pool Operations.

Water Orientation: (pg. 18) one of 9 categories of aquatic services where it provides opportunities for young people to gradually get used to being in the water.

Appendices

Capital Costs

Appendix 1

INDOOR POOLS		
Britannia ***	Rebuild	$44,800,000
Connaught ***	New Build (Large)	$92,000,000
VAC ***	Rebuild (Large)	$94,000,000
Kensington (Neighbourhood)	Upgrades, accessibility	$2 - 4,000,000
Kerrisdale	Community Centre and Arena Site Planning and Needs Assessment	$44,750,000**
OUTDOOR POOLS		
South Vancouver Pool	New Build	$6 - 9,000,000
Hillcrest****	Upgrade (sun/wind protection, hot tub, change rooms)	$247,000**
Kitsilano****	Upgrade (sun/wind protection, hot tub, spray features, change rooms, plumbing, fence)	$14,800,000
Maple Grove****	Upgrade (sun/wind protection, spray features, change rooms, plumbing, fence)	$2,600,000
New Brighton****	Upgrade (sun/wind protection, hot tub, spray features, plumbing, fence, change rooms)	$8,900,000
Second Beach****	Upgrade (sun/wind protection, hot tub, spray features, change rooms)	$5,500,000
INNOVATIONS, other Innovation costs TBD		
Urban Splash Park	New Build	$1 - 3,000,000
Ocean Play	New Build	$350,000**
Urban Beach	New Build	$29,000**
Harbour Deck	New Build	$11,700,000
SPRAY PARKS + WADING POOLS		
Spray Park	New Build	$1-2,000,000**
BEACHES		
Standard change room	New Build	$2,850,000
Enriched change room	New Build	$4,700,000

These are Class D cost estimates only.

* Estimated cost rounded to nearest $1,000,000, except where noted or where over $30,000,000 and have been rounded to the nearest $5,000,000.

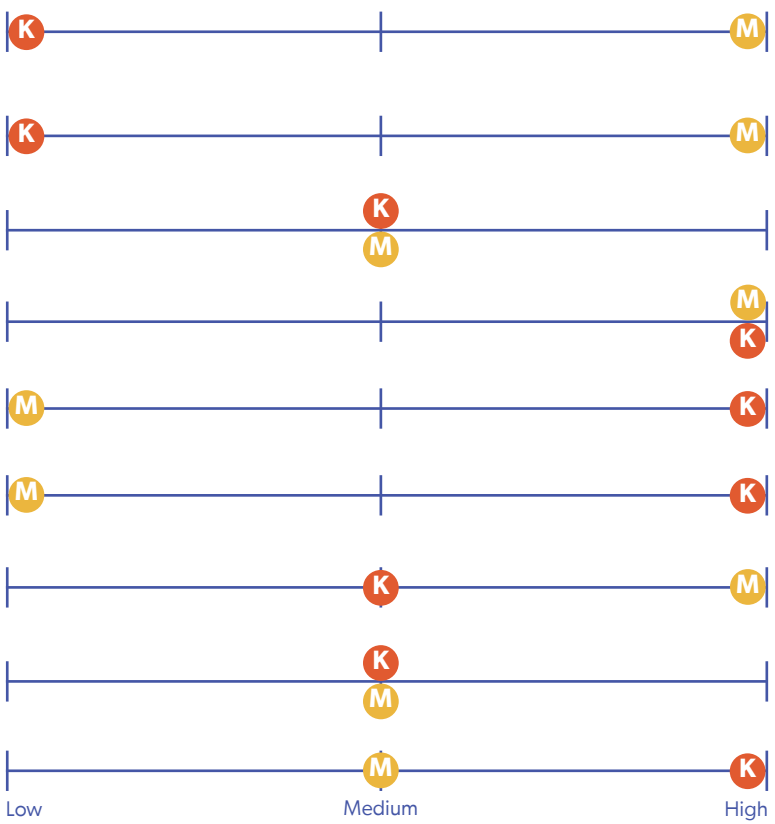
** Estimated cost rounded to nearest $10,000. *** Project undertaken as part of a larger community centre/arena renewal. These costs include aquatics only. **** Scope to be finalized in detailed 25-Year Vision.

Cost estimates include design and construction contingencies. Exclusions: LEED certification; GST; off-site works; unforeseen ground conditions; furniture, finishing and equipment; removal of contaminated soil or hazardous materials abatement (if any); decanting and moving (if any).

Outdoor Pool in South Vancouver Location Comparison

Appendix 2

CONSIDERATIONS FOR LOCATING A NEW POOL IN SOUTH VANCOUVER



Legend

K Killarney Community Centre at Killarney Park

M Marpole Community Centre at Oak Park

Note: Board directed Staff to proceed with an outdoor pool at Marpole Community Centre in January 2019.

Sustainability

Appendix 3

The sustainability goal for all new City-owned facilities, including aquatic facilities, is to achieve near zero greenhouse gas emissions. The purpose of this goal is to show leadership to the broader community in meeting the targets of the Renewable City Strategy, and adopt a near zero emission standard for new buildings much earlier than required by building code. To achieve a goal of near zero GHG emissions in new buildings the following strategies are required to be incorporated into new City-owned facilities:

• All City capital funded buildings must be designed to be certified to the Passive House energy performance standard, or an approved alternative zero emission building standard, and use only low carbon fuel sources, in order to minimize energy consumption and GHG emissions.

• LEED® Gold Certification is also required by the City of Vancouver for all public buildings, tenant improvements, and facilities funded by City capital funds which are over 500 square meters in area.

The sustainability goal for all existing City-owned facilities, including existing aquatic facilities, is to reduce GHG emissions by 100%, and use only renewable energy sources, by 2040, ten years ahead of the target required by the Renewable City Strategy. The following tables represent the current energy use by pool in the City of Vancouver.

TEMPLETON INDOOR POOL ENERGY USE

Use Per Swim		Use per Area		Totals	
Energy Use /Swim (kWh/swim)	GHG / Swim ($kgCO_2e$/swim/yr)	Energy Use Intensity (kWh/m^2/yr)	GHG Emissions Intensity ($kgCO_2e$/m^2/yr)	Total Energy (kWh/yr)	Total GHG ($kgCO_2e$/yr)
14.60	2.10	1363.16	195.91	2,602,271	374,000

BRITANNIA INDOOR POOL ENERGY USE

Use Per Swim		Use per Area		Totals	
Energy Use /Swim (kWh/swim)	GHG / Swim ($kgCO_2e$/swim/yr)	Energy Use Intensity (kWh/m^2/yr)	GHG Emissions Intensity ($kgCO_2e$/m^2/yr)	Total Energy (kWh/yr)	Total GHG ($kgCO_2e$/yr)
n/a	n/a	n/a	n/a	n/a	n/a

HILLCREST FACILITY ENERGY USE

Use Per Swim		Use per Area		Totals	
Energy Use /Swim (kWh/swim)	GHG / Swim ($kgCO_2e$/swim/yr)	Energy Use Intensity (kWh/m^2/yr)	GHG Emissions Intensity ($kgCO_2e$/m^2/yr)	Total Energy (kWh/yr)	Total GHG ($kgCO_2e$/yr)
19.76	2.03	1086.87	111.67	13,323,911	1,369,000

KENSINGTON INDOOR POOL ENERGY USE

Use Per Swim		Use per Area		Totals	
Energy Use /Swim (kWh/swim)	GHG / Swim ($kgCO_2e$/swim/yr)	Energy Use Intensity (kWh/m^2/yr)	GHG Emissions Intensity ($kgCO_2e$/m^2/yr)	Total Energy (kWh/yr)	Total GHG ($kgCO_2e$/yr)
19.56	2.53	657.77	85.04	1,925,946	249,000

KERRISDALE INDOOR POOL ENERGY USE

Use Per Swim		Use per Area		Totals	
Energy Use /Swim (kWh/swim)	GHG / Swim ($kgCO_2e$/swim/yr)	Energy Use Intensity (kWh/m^2/yr)	GHG Emissions Intensity ($kgCO_2e$/m^2/yr)	Total Energy (kWh/yr)	Total GHG ($kgCO_2e$/yr)
33.25	4.73	511.33	72.79	3,301,656	470,000

Note: GHG = Annual Green House Gas Emissions measured in kilograms of CO_2 equivalent
Swim Number Data from 2014 annual numbers; Energy and GHG data from 2016 Q2 (Apr 2015-Mar 2016)
Other uses in facility that will impact total energy use: rinks, gymnasiums, fitness centres, multi-purpose rooms will all impact overall energy use.

KILLARNEY INDOOR POOL ENERGY USE

Use Per Swim		Use per Area		Totals	
Energy Use /Swim (kWh/swim)	GHG / Swim ($kgCO_2e$/swim/yr)	Energy Use Intensity (kWh/m^2/yr)	GHG Emissions Intensity ($kgCO_2e$/m^2/yr)	Total Energy (kWh/yr)	Total GHG ($kgCO_2e$/yr)
15.78	1.78	786.50	88.49	7,261,738	817,000

KITSILANO OUTDOOR POOL ENERGY USE

Use Per Swim		Use per Area		Totals	
Energy Use /Swim (kWh/swim)	GHG / Swim ($kgCO_2e$/swim/yr)	Energy Use Intensity (kWh/m^2/yr)	GHG Emissions Intensity ($kgCO_2e$/m^2/yr)	Total Energy (kWh/yr)	Total GHG ($kgCO_2e$/yr)
14.70	2.35	411.38	65.83	2,549,712	408,000

LORD BYNG INDOOR POOL ENERGY USE

Use Per Swim		Use per Area		Totals	
Energy Use /Swim (kWh/swim)	GHG / Swim ($kgCO_2e$/swim/yr)	Energy Use Intensity (kWh/m^2/yr)	GHG Emissions Intensity ($kgCO_2e$/m^2/yr)	Total Energy (kWh/yr)	Total GHG ($kgCO_2e$/yr)
14.65	2.12	1164.31	168.79	1,641,678	238,000

MAPLE GROVE OUTDOOR POOL ENERGY USE

Use Per Swim		Use per Area		Totals	
Energy Use /Swim (kWh/swim)	GHG / Swim ($kgCO_2e$/swim/yr)	Energy Use Intensity (kWh/m^2/yr)	GHG Emissions Intensity ($kgCO_2e$/m^2/yr)	Total Energy (kWh/yr)	Total GHG ($kgCO_2e$/yr)
20.00	3.26	306.99	50.00	528,019	86,000

RENFREW INDOOR POOL ENERGY USE

Use Per Swim		Use per Area		Totals	
Energy Use /Swim (kWh/swim)	GHG / Swim ($kgCO_2e$/swim/yr)	Energy Use Intensity (kWh/m^2/yr)	GHG Emissions Intensity ($kgCO_2e$/m^2/yr)	Total Energy (kWh/yr)	Total GHG ($kgCO_2e$/yr)
13.48	1.76	634.51	83.01	2,751,856	360,000

NEW BRIGHTON OUTDOOR POOL ENERGY USE

Use Per Swim		Use per Area		Totals	
Energy Use /Swim (kWh/swim)	GHG / Swim ($kgCO_2e$/swim/yr)	Energy Use Intensity (kWh/m^2/yr)	GHG Emissions Intensity ($kgCO_2e$/m^2/yr)	Total Energy (kWh/yr)	Total GHG ($kgCO_2e$/yr)
18.21	2.77	468.02	71.17	1,025,897	156,000

VANCOUVER AQUATIC CENTRE INDOOR POOL ENERGY USE

Use Per Swim		Use per Area		Totals	
Energy Use /Swim (kWh/swim)	GHG / Swim ($kgCO_2e$/swim/yr)	Energy Use Intensity (kWh/m^2/yr)	GHG Emissions Intensity ($kgCO_2e$/m^2/yr)	Total Energy (kWh/yr)	Total GHG ($kgCO_2e$/yr)
20.89	2.84	707.10	96.10	4,256,739	578,000

SECOND BEACH OUTDOOR POOL ENERGY USE

Use Per Swim		Use per Area		Totals	
Energy Use /Swim (kWh/swim)	GHG / Swim ($kgCO_2e$/swim/yr)	Energy Use Intensity (kWh/m^2/yr)	GHG Emissions Intensity ($kgCO_2e$/m^2/yr)	Total Energy (kWh/yr)	Total GHG ($kgCO_2e$/yr)
19.21	3.46	468.83	84.53	1,663,883	300,000

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