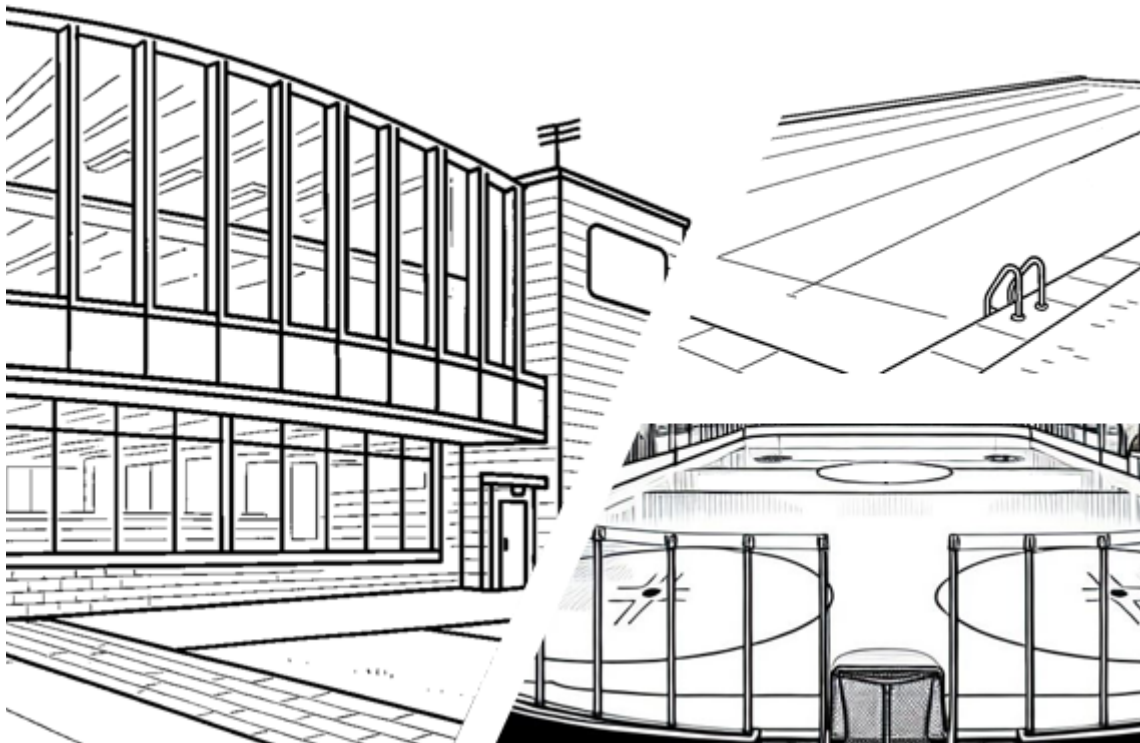


Audit of

Recreation Facility Asset Management



An independent auditor's report prepared in accordance with the Canadian Standard on Assurance Engagements 3001 published by the Chartered Professional Accountants of Canada

September 2025

Performance Audits

A performance audit is an independent, objective and systematic assessment of how well government is managing its activities, responsibilities and resources. We select audit topics based on their significance¹. While the Office of the Auditor General (OAG) may comment on policy implementation in a performance audit, we do not comment on the merits of a policy.

Performance audits are planned, performed and reported in accordance with professional auditing standards and OAG policies. They are conducted by qualified auditors who:

- Establish audit objectives and criteria for the assessment of performance;
- Gather the evidence necessary to assess performance against the criteria;
- Report both positive and negative findings;
- Conclude against the established audit objectives; and,
- Make recommendations for improvement when there are significant differences between criteria and assessed performance.

Performance audits contribute to a public service that is ethical and effective and a civic administration that is accountable to taxpayers and its elected officials.

¹ Significance includes factors such as financial magnitude; importance; economic, social and environmental impact; issues raised in prior assessments; and interest from citizens, elected officials, management and other stakeholders.

Message from the Auditor General

To the Mayor and Council of the City of Vancouver,

I am pleased to present this report on my office's performance audit of Recreation Facility Asset Management.

In November 2023 I was invited by the Vancouver Board of Parks and Recreation (Park Board) to conduct a second performance audit, which we began in the summer of 2024. I thank the Park Board Commissioners for their invitation and hope that they find this report both informative and useful. Responsibility for the management of recreation facilities is shared between the Park Board and the City. Consequently, my recommendations are directed towards both. I acknowledge the significant work these recommendations will entail, but if properly implemented they will yield both cost savings and increased effectiveness over the long-term.

Parks and recreation are fundamental public amenities, facilities and services provided by municipal governments across the country – Vancouver is no exception. Vancouver is unique, however, in having its parks and recreation facilities overseen by an elected Park Board rather than by City Council. Governance of parks and recreation in Vancouver has been a topic of considerable discussion over the last year and half. However, I must emphasize that in no way should the findings and recommendations of this audit be construed as a commentary on this governance structure. Other than those recommendations that address the relationship between the City and the Park Board, the remainder of the recommendations will be applicable regardless of the governance structure going forward.

Recreation facilities are inter-generational assets – built by one generation and, if cared for properly, used and enjoyed by generations to come. However, this means it is the responsibility of subsequent generations to care for the assets handed down to them by investing in maintenance and repairs to ensure value is optimized, and to financially prepare to replace assets when they inevitably reach the end of their useful lives.

Asset maintenance is a technical topic, both practically and financially – but it affects peoples' quality of life in ways that are easy to understand. Recreational facilities enhance the quality of life enjoyed by Vancouver residents, and in the absence of new and/or expanded facilities, pressure on existing facilities will only grow with our increasing population. However, the City has been hard pressed to fund the maintenance of its existing facilities, let alone create more.

One of the key findings of this audit is that the City does not have a capital asset management framework (CAMF). While a root cause of deficiencies identified in the report, the absence of a CAMF is well known and was highlighted by the Mayor's Budget Task force a year and a half ago. Effective CAMFs ensure governments optimize service delivery and minimize operating costs over

the lifetime of major assets. CAMFs also allow governments to anticipate the financial implications of major renewals and replacements, ensuring continuous service delivery over time. The absence of a CAMF, in the words of New Zealand's Infrastructure Minister, "results in expensive renewals and emergency works, poor infrastructure quality, asset failures, and less funding for new services." Vancouver's capital asset challenge is not unique.

In the absence of a CAMF that anticipates continuous service delivery, the City has not put aside funds for the replacement of assets as they reach the end of their useful lives. Absent the financial capacity to replace assets, as highlighted in Figure 6, the City has more than doubled the average lifespan of building systems beyond that which was originally planned. As laudable a technical achievement as this is, this approach raises questions concerning long-term value for money and it cannot go on indefinitely.

At approximately \$500 million, Vancouver's annual infrastructure deficit is significant. Current funding levels are not sufficient to maintain assets in a state of good repair, let alone address funding for asset replacement. It is difficult to envision how the cumulative deficit will be overcome, especially given the City has no plan in place to close the annual funding gap (see Figure 5). Several facilities are nearing the end of their useful lives and are becoming increasingly difficult and expensive to operate.

Going forward, candid and fulsome conversations are necessary about service levels and the costs associated with delivering them. The City has limited resources and will have to continue to prioritize where they will be spent and where trade-offs will be made. The implication of this reality is that if maintenance and renewal gaps are not bridged through taxpayer funding or other means, the City will have to make the difficult decision as to which assets are a priority – ones it will keep and replace – and which assets it will decommission and not replace and, by extension, which services will be discontinued. The recommendations contained in this report are intended to ensure these difficult conversations start now and that decisions are made transparently.

The report contains 13 recommendations for improving the management of recreation facility assets. I express my thanks to staff from the Park Board, the Real Estate, Environment and Facilities Management department, and the Finance and Supply Chain Management department for their thoughtful and productive responses to these recommendations and for their assistance and cooperation throughout the audit.



Mike Macdonell, FCPA, FCA
Auditor General
Vancouver, B.C.
11 September 2025

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Executive Summary

Background

1. Our audit objective was to determine if the Vancouver Board of Parks and Recreation (the Park Board) and the City of Vancouver (the City) effectively managed existing recreation facilities to align with strategic goals, meet service level priorities and optimize asset lifecycles.
2. Robust facility asset management involves planning for and carrying out the maintenance required to keep buildings and equipment – in this case community centres, pools and rinks – in a condition that supports their current and future intended use. This is referred to as community levels of service (LoS). The completion and quality of the maintenance and repair work required to accomplish this over time is referred to as technical LoS.
3. Like many local governments, the City's infrastructure is aging to a point that many existing facilities require significant capital investment if they are to continue providing service. Effective asset management programs should be based on an established framework to ensure cost-effective decisions are made, consistent with best practices in managing capital assets. The framework should include an asset management policy and strategy, prioritization methodology and financing strategy, and dedicated resources. Within an asset management program, community and technical LoS must be well understood in relationship to immediate and forecast costs.
4. Responsibility for Park Board facility asset management is shared between the Park Board and the City (Real Estate, Environment and Facilities Management (REFM), and Finance and Supply Chain Management (FSC)). See paragraphs 40 – 52 for more information on governance, roles and responsibilities.

What We Examined

5. The audit period covered from January 1, 2019 to June 30, 2024. This aligns with the timeframe for the 2019-2022 Capital Plan, the first eighteen months of the 2023-2026 Capital Plan, and the Park Board strategies developed as input into these plans. The audit scope included the Park Board and City's policies, frameworks, guidelines, processes, reports, data and other documentation related to facility asset management. The audit also included materials produced prior to January 2019 that were used as policies, guidance or administrative processes during the audit period.
6. To gain a more in-depth understanding of how maintenance was planned for and carried out for different types of recreation facilities, we visited six sites (Britannia Rink, Hillcrest Community Centre, Pool and Rink, Kerrisdale Rink, Renfrew Community Centre and Pool, Roundhouse

Community Centre, and Vancouver Aquatic Centre), met with staff and reviewed data specific to these sites.

What We Found

Governance, Strategy and Financial State of Recreation Facilities

7. The City did not have a Council-approved policy or strategy or formalized asset management framework to guide asset management for recreation facilities. Also, the Park Board and REFM did not have an agreed-upon asset management plan for recreation facilities.
8. The Park Board identified some desired LoS in its draft 30-year vision & 10-year strategy for recreation facilities, however there was no framework to assess whether existing operating and capital maintenance programs were prioritized in alignment with them. In the absence of an asset management plan for recreation facilities, community and technical LoS were not fully identified or tied to funding scenarios.
9. The Park Board Commissioners and Council received reports and updates but were missing consolidated LoS and financial analysis to support effective asset management. This limited the Park Board and Council's ability to make fully informed decisions about priorities and trade-off risks for capital renewal projects and, in the case of Council, funding allocation commitments.
10. Although REFM had forecast capital maintenance costs for the recreation portfolio, it did not calculate full lifecycle costs to maintain desired LoS, as these were not well defined. Information about costs for different asset lifecycle components (e.g., acquisition, ongoing maintenance, rehabilitation or renewal, etc.) was not consolidated, which limited the City's ability to align lifecycle costing with desired LoS and long-term financial planning.
11. The City had identified an infrastructure funding deficit for existing assets and a revenue generating strategy that was intended to partially address it, however, specific analysis for recreation facilities was not completed. Even with the revenue increases implemented to date, it projected that an infrastructure funding deficit will remain past 2075, well beyond the useful life of the recreation facility portfolio.
12. As of 2022, REFM's Facility Condition Index² (FCI) data showed that 28% of recreation facilities were in good or fair condition and 72% of facilities were categorized as poor or very poor.

² Facility Condition Index (FCI) is an industry standard index used to assess the current condition performance of a facility. It measures current facility condition needs divided by current replacement value.

Although the lower rating does not mean that facilities are unsafe, these assets generally cost more to maintain, repair or improve and are closer to requiring renewal. The City and the Park Board worked collaboratively to identify facility investment priorities and aimed to improve the condition of recreation facilities so that 70-80% were in good or fair condition by 2050. Long-term asset renewal targets were identified in their strategies and capital plans, however, there were no agreed-upon investment targets specific to renewal or maintenance to fund such a significant increase in condition.

13. Recreation facility asset management activities were carried out by staff from the Park Board and REFM. The division of responsibilities was defined in a Partnership Agreement (2014). REFM services outlined in the Agreement were generally provided to the Park Board. However, the Agreement did not define REFM's accountability requirements to the Park Board or provide sufficient clarity to ensure staff from the Park Board and REFM had a common understanding of all respective responsibilities. In 2018 (prior to the audit period), the Park Board Commissioners directed staff to develop a more detailed operating level agreement (OLA) with REFM. While the OLA was partially drafted, it was never finalized. Staff cited challenges due to staff turnover, shifting priorities during the COVID-19 pandemic, lack of clarity on scope, and a disconnect between planned activities and the budget as key reasons why the OLA was not completed.

Asset Lifecycle Management

14. REFM used two systems for asset management that were adequate to store information and data but not well integrated for analysis and reporting purposes. As a result, it was difficult to generate comprehensive insights to inform decision-making. This is important as effective asset management relies on accurate, accessible and integrated data to support planning, prioritization, and performance monitoring. To improve data alignment across systems and improve data quality, REFM proposed two major data enablement projects through the Technology Services Annual Technology Plan (ATP) prioritization process; both projects are currently in progress.
15. The City used a reactive maintenance approach for facility assets that were not prioritized for capital maintenance investment. This approach can be appropriate and cost-effective when applied to low-cost, non-critical assets, but poses risks when utilized for significant components of a facility that are critical for life safety or maintaining service levels and quality.
16. REFM had both a preventative maintenance and demand (including high priority/emergency) maintenance program in place for recreation facilities, with work carried out by both REFM and Park Board staff, however:

- The preventative maintenance program lacked formalized reviews, adjustments for aging facilities and predictive maintenance capabilities, which limited its effectiveness for fully optimizing asset performance and lifespan; and,
 - REFM's data showed that a notable proportion of demand maintenance work orders were not closed within required completion times. Although we were told that the delay rates may not be accurate, as physical work was sometimes completed prior to work orders being closed in the system, it was the best information available and formed the basis of our analysis. Delays in addressing high and medium priority maintenance can increase the likelihood of service disruption and potentially lead to higher long-term repair costs or safety concerns, underpinning the importance of reliable data to support decision making.
17. REFM also had a capital maintenance program in place that provided services for recreation facilities. We found that the Council-approved funding levels for capital maintenance were 29% below REFM's annual average forecast costs to address critical needs. As a result of this funding gap, only a subset of higher impact systems and facilities were addressed, increasing the maintenance backlog and the risk of system breakdown, precipitating a gradual decline in facility condition over time.
18. The City prioritized the renewal and replacement of recreation assets based on service needs, facility condition assessments, seismic considerations, and financial constraints. However, the capital planning procedures were not documented to ensure consistency between capital planning cycles.

Performance Measurement and Monitoring

19. The Park Board and REFM had no overarching framework to assess asset management performance, which limited the opportunities to understand technical, strategic, and financial performance. However, they did have a partial understanding of facility asset operating efficiency, as some metrics related to work orders, facilities maintenance, energy and utilities and facility development were tracked.
20. REFM did not report performance metrics to demonstrate to the Park Board its fulfillment of obligations under the Partnership Agreement. While the Agreement did not require such reporting, providing these metrics would enhance the Park Board's ability to monitor the asset management services provided by REFM.

What We Concluded

21. The findings above demonstrate that few of our audit criteria were met. As a result, we concluded that during the audit period the City's recreation facilities were not effectively managed to align with strategic goals, meet service level priorities and optimize asset lifecycles.
22. This audit report includes findings and recommendations related to the governance, strategy and financial state of recreation facilities, the asset management lifecycle, and performance measurement and monitoring. Implementing the 13 recommendations in this report will strengthen the capability of the Park Board and the City to better define and adjust LoS, in alignment with resource requirements and availability, and ensure the lifecycles of existing facilities are optimized.

Recommendations

23. We designed our recommendations (see Exhibit 1) to address the root causes of issues identified during the audit. They are intended to be relevant to, and respectful of, the Park Board's and City's respective roles in recreation facility asset management. Where relevant, we developed our recommendations based on established asset management frameworks from Asset Management BC and the Municipal Finance Officers' Association of Ontario, which were developed based on the International Organization for Standardization's ISO 55000 series on Asset Management (see [Appendix D](#) for components of these frameworks). The Park Board and the City have developed action plans in response to these recommendations (see [Appendix A: Responses and Action Plans from the Auditees](#)).

Exhibit 1: Themes and Summary of Recommendations

Themes	Recommendations
Governance, Strategy and Financial State of Recreation Facilities	<p>1. The City should implement an asset management framework. Foundationally, the framework should include:</p> <ul style="list-style-type: none"> • An asset management policy to set guiding principles when using asset management practices to meet the requirements of the City's strategic plans; and, • An asset management strategy to define how the City's strategic objectives translate to levels of service and other objectives, along with associated decision-making criteria, to guide the development of asset management plans.

	<p>2. The Park Board and REFM should develop an asset management plan for recreation facilities. The Park Board and REFM should determine which entity should lead the development of the plan, or whether it should be co-led. The plan should:</p> <ul style="list-style-type: none"> • Align with the City's asset management framework (see Recommendation 1); • Be approved by the Park Board and Council; • Include the following elements: <ul style="list-style-type: none"> ○ State of infrastructure (asset types, inventory and valuation, age and condition); ○ Current and planned levels of service (community and technical); ○ Lifecycle management strategy (growth and enhancements, refurbishment and renewal, operations and maintenance); and, ○ Financial strategy (infrastructure funding deficit, historic and projected expenditures, funding resources). <p>3. To support consistent and defensible methodologies for prioritization and trade-off decisions within approved funding envelopes, the City should integrate the recreation facility plan as a component of a broader plan for all City facilities. This plan should be used as an input for City-wide asset prioritization processes.</p> <hr/> <p>4. Once levels of service have been defined for asset management, the City should establish and implement the level of asset management reporting (i.e., City-wide, service group or facility type) required by elected officials for effective strategic decision-making.</p> <ul style="list-style-type: none"> • Reporting should include risks and impacts to community levels of service related to forecast funding scenarios and technical levels of service targets.
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	<p>5. The City should:</p> <ul style="list-style-type: none"> • Calculate and consolidate relevant lifecycle cost estimates (such as operating maintenance, capital maintenance, renewals and replacement) for recreation facilities to support long-term investment planning; • Update the infrastructure funding gap calculation to reflect these lifecycle costs; and, • Analyze the updated funding gap relative to current and planned community levels of service to ensure funding alignment. Levels of service or funding investments should be adjusted as required to address the shortfall. <p>6. The Park Board and REFM's Partnership Agreement should be updated to include:</p> <ul style="list-style-type: none"> • REFM's accountability requirements to the Park Board, including defining and reporting on metrics that include targets and results related to technical levels of service; • Defined roles and responsibilities for the development of an asset management plan for recreation facilities (as per Recommendation 2); • A definition of 'base building' and detailed guidance on which entity is responsible for maintenance of base building components vs programming equipment; and, • Alignment between maintenance responsibilities and budgets.
Asset Lifecycle Management	7. The City should implement an integrated information technology solution to manage and report on its capital asset related data.
	8. REFM should formalize a process to regularly assess the effectiveness of preventative maintenance schedules and leverage data analytics to support predictive maintenance.
	9. REFM should improve its data reliability to accurately assess work order completion rates, and the Park Board and REFM should implement risk-informed measures to reduce the delays in demand maintenance completion.
	10. In conjunction with the Park Board, REFM should assess the benefits of implementing a balanced maintenance strategy that shifts focus towards planned and predictive maintenance. This includes:

	<ul style="list-style-type: none"> • Ensuring that maintenance data is of sufficient quality to support analysis (complete and accurate); • Assessing the gap between the operating maintenance and capital maintenance required to reduce demand maintenance (i.e. how much demand maintenance is the result of planned/preventative maintenance or capital maintenance projects not being completed as required); • Developing and using a risk and criticality matrix to determine which asset components can be left to reactive maintenance without significant negative impact on levels of service; • Determining the budget and staff capacity required; and, • Developing a funding strategy to efficiently and effectively carry out the preventative and capital maintenance required to shift the balance from reactive to proactive maintenance and address the capital maintenance backlog of recreation facilities. <ul style="list-style-type: none"> ○ This strategy should incorporate the service levels specified in Recommendation 2 and be included in the overall funding gap analysis in Recommendation 5. <p>11. With input from the Park Board, the City should develop a standardized framework for prioritizing recreation facility asset renewal, replacement and disposal. The framework should incorporate clear evaluation criteria and documented rationale to support transparent and defensible decision-making.</p>
Performance Measurement and Monitoring	<p>12. The Park Board and City should review and update their current metrics to create key performance indicators that integrate measures of utilization, maintenance and cost efficiency. This would allow for more comprehensive monitoring and reporting of recreation facility performance relative to community and technical service levels.</p> <p>13. After accountability requirements have been updated in the Partnership Agreement (as per Recommendation 6), REFM should report its results against agreed-upon performance measures and targets to the Park Board to demonstrate its fulfilment of facility asset management obligations.</p>

Main Report

1. Introduction

1.1 Background & Context

24. The City of Vancouver provides a range of services to residents to improve quality of life, help drive the economy, increase prosperity, and create jobs. These services are delivered through a broad network of physical assets with a replacement value of \$34 billion (as of 2022)³. Vancouver, like many other major cities across North America, faces a large infrastructure funding deficit and the City has identified a need to invest approximately \$800 million annually to maintain these assets in a state of good repair – about \$500 million greater than current spending levels.
25. Vancouver's recreation facilities – pools, community centres and rinks – have a replacement value of approximately \$2.1 billion (as of 2022). They serve a wide range of user groups including residents of Vancouver and visitors, and support liveability, health and well-being. The City reported that there were 2.9 million participant visits to aquatic, arena and fitness drop-ins in 2023⁴. Adequate maintenance and renewal of the City's recreation facilities is critical for providing recreation services to the community and optimizing the City's physical assets.

Capital Asset Management

26. Asset management is an organization-wide approach to planning for new assets and managing existing assets to ensure efficiency, minimize risks, maximize benefits and deliver expected levels of service (LoS) in a proactive, sustainable manner. Asset management underpins sustainable service delivery with decision-making about assets that balance costs, risks and services.
27. Benefits of a formal approach to asset management include improved financial performance by:
- Making the best use of (optimizing) assets and reducing lifecycle costs;
 - Supporting defensible decision-making and prioritization; and,

³ Examples of physical assets include underground water and sewer infrastructure; roadways, walkways and bikeways; affordable housing; community and recreation facilities, parks and open spaces; public safety facilities; and service yards.

⁴ [Vancouver 2025 Budget](#).

- Improving alignment of organizational objectives with technical and financial decisions and actions.
28. An effective asset management program requires a local government to have robust and reliable data on the performance and condition of its assets, to make sound decisions about future repair, timely removal from service or replacement, and to efficiently use resources by aligning them with the most critical asset needs and priorities.

Good Practice Frameworks and Levels of Service Attributes

29. Asset management frameworks are widely recognized as a best practice for maintaining municipal infrastructure in a cost-effective, sustainable, and service-focused way. They provide structured guidance for aligning infrastructure investment with service delivery goals, managing risk, and improving long-term financial planning. Some examples include the International Organization for Standardization (ISO) 55000 series, Asset Management BC's Framework and the Municipal Finance Officers of Ontario Asset Management Framework.
30. Consistent with good practice, the Province of Ontario introduced an *Asset Management Planning for Municipal Infrastructure Regulation* to help improve the way municipalities plan for their infrastructure. The regulation promotes consistency and standardization in asset management plans, spreading best practices across the sector and enabling the collection of comparable data. While not currently required by legislation in British Columbia (B.C.), asset management policies, strategies and plans are increasingly adopted by local governments to strengthen their decision-making processes and accountability. The Province of B.C. encourages the practices through programs such as the Canada Community-Building Fund, which requires local governments to demonstrate progress in asset management capacity.
31. Asset management plans may be specific to one asset type or cover multiple types. For example, recreation facilities may be included with a plan that includes all of a municipality's facilities, and there may be separate plans for other assets such as water, transportation, fleet and equipment, and parks.
32. Defining and measuring LoS is a core activity for developing infrastructure asset management plans. Figure 1 is an example of the relationship between the attributes of two LoS types – Community LoS and Technical LoS– used in facility asset management planning:

Figure 1: Community and Technical Levels of Service (LoS) Attributes for Facilities

Examples of LoS Attributes	Community LoS measure services the assets need to deliver from a customer's perspective	Technical LoS define asset performance levels that drive required lifecycle activities and associated funding
Capacity and Use	Services have enough capacity and are available at appropriate times to residents and relevant stakeholders	The facility or service area has enough physical space and are convenient and accessible
Function	Services meet customer needs while limiting health, safety, security, natural and heritage impacts	The facility functions appropriately, complies with regulations, performs as intended, and is safe, secure and reliable
Quality & Reliability	Services are provided reliably and to the agreed quality to residents and relevant stakeholders	The facility is at an appropriate condition level, maintained as required and responds to customer needs
Affordability	Services are financially sustainable and affordable for current and future customers	Assets are adequately funded in both the short and long term

Source: Adapted for illustrative purposes from the City of New Westminster's Facilities Asset Management Plan (2024)

33. Established LoS inform requirements for maintenance, upgrades, renewals, and growth work along with the estimated costs to complete this work. A key challenge to asset management financial sustainability is balancing LoS decisions with risk and affordability.

Financial Resources

34. Property taxes and utility fees typically fund most of the operating maintenance, capital maintenance and renewal work of recreation facilities. Partner contributions (funding from Provincial and Federal government and non-profit agencies) can also fund asset renewals.
35. The City approves several budgets related to capital asset maintenance and renewals.
36. The **Operating Maintenance budget** is used to fund preventative and demand (emergency) maintenance. This budget is allocated to the Park Board for facility-specific maintenance carried out by the Park Board maintenance technicians ('mech techs' who typically work at pools and rinks), REFM mobile maintenance staff that provide services to recreation facilities (that do not have mech techs on site), trade-specific shops (such as electrical) and contractors such as elevator and fire and life safety technicians. The budget amount is rolled over from year to year, with some adjustments. For 2024, the total budget was \$22.1 million.
37. The **Capital Maintenance budget** is used to fund larger capital maintenance projects such as roofs and heating and cooling (HVAC) systems. This budget is approved by Council in its Capital Plans. This budget is managed by REFM.

38. **Capital Project budgets** (such as facility renewals) are also approved in Capital Plans and managed by REFM.
39. In the 2023-2026 Capital Plan, the City approved \$193.6 million for capital projects related to the renewal of existing recreation facilities and \$19.1 million for capital maintenance of existing recreation facilities. See section 2.2.7 for analysis of the City's capital maintenance budget for recreation facilities.

Governance and Oversight of Vancouver's Recreation Facility Assets

The Vancouver Board of Parks and Recreation

40. The Vancouver Board of Parks and Recreation's (the Park Board) mission is to provide, preserve, and advocate for parks and recreation services to benefit all people, communities, and the environment. The Park Board includes elected commissioners (the Board) and staff within the department. The Park Board manages 24 community centres, 14 pools and eight indoor rinks across the City (see Figure 2 for the recreation facilities OAG visited), in addition to fitness centres, golf courses, street trees, marinas, sport fields and playgrounds, 250 public parks and beaches, the VanDusen Botanical Garden, the Bloedel Conservatory, Stanley Park and the seawall and the Stanley Park Bright Nights train.

Figure 2: OAG Snapshot of Recreation Facilities⁵

	<i>Recreational Facilities</i>	<i>OAG Site Visits</i>
	14 pools	<ul style="list-style-type: none"> • Vancouver Aquatic Centre • Renfrew Pool* • Hillcrest Pool*
	8 ice rinks	<ul style="list-style-type: none"> • Britannia Rink • Kerrisdale Rink • Hillcrest Rink*
	24 community centres	<ul style="list-style-type: none"> • Roundhouse Community Centre • Renfrew Community Centre* • Hillcrest Community Centre*

* Renfrew has both a pool and community centre and Hillcrest has a pool, rink and community centre.

⁵ Refer to the Park Board's [website](#) for the list of the 46 facilities. The Carnegie Community Centre, Evelyn Saller Centre and Gathering Place were excluded from our audit as they are not managed by the Park Board.

41. As set out in section 488(1) of the *Vancouver Charter (Charter)*, the Park Board, comprised of elected commissioners,⁶ has exclusive possession, jurisdiction and control of all areas designated as permanent public parks of the City. Though not the legal owner of the recreation facilities it oversees (ownership resides with the City), the Park Board has authority for constructing, acquiring, maintaining, equipping, operating, supervising and controlling such buildings, structures, and facilities as may be required for the recreation, comfort, and enjoyment of the public while within the parks (*Charter*, s. 489(1)(a)).
42. The Park Board's governance responsibilities and activities include:
- Setting direction for parks and recreation services through various strategies and initiatives;
 - Identifying and planning for desired customer service levels and service priorities for Park Board facility assets;
 - Providing service level input to the Finance and Supply Chain Management department (FSC) on capital planning for Park Board facility assets; and,
 - Approving capital and operating budgets and multi-year capital plans before submitting them for the consideration of City staff and Council.
43. The Park Board's master plan and key strategies set out its priorities for the recreation facilities it oversees:
- In 2022, the Park Board approved its *Community Centre Strategy*. The strategy prioritizes community centre renewals identifying facilities most in need of renewal/replacement and establishes the Park Board's target to renew or substantially improve two community centres per capital plan.
 - In 2020, the Park Board approved *VanPlay: the Parks and Recreation Services Master Plan* which outlines goals to deliver parks and recreation services equitably while being financially sustainable. The Plan includes an aspirational 2040 target to renew or substantially improve an average of two existing community centres per capital plan to achieve "good" or "fair" condition for at least 70% of facilities.
 - In 2019, the Park Board approved *VanSplash: Vancouver Aquatics Strategy* that presents a 25-year vision for the City's indoor and outdoor pools, wading pools and spray parks, including service improvements such as renewals, upgrades and replacements and net new facilities subject to funding via the City's capital planning process.

⁶ Note that on December 13, 2023, Council adopted a resolution to ask the Province of British Columbia to amend the *Vancouver Charter* moving governance of parks and recreation services in Vancouver from the Park Board to Council and dissolving the Park Board as an independent body.

City Council (Council)

44. The facilities governed and operated by the Park Board are owned by the City. Council has the authority to acquire property for parks, playground and recreation areas, while the Park Board may make recommendations on such purchases.
45. Council approves capital plan requests, and operating and capital budget requests, which include Park Board-related assets. The quarterly capital budget adjustment and capital plan mid-term update processes allow Council to provide additional funding to the Park Board upon request.
46. In addition to four-year funding commitments, the City's 2023-2026 capital plan is guided by a long-term vision for the City and the Park Board to:
 - Renew at least 20 facilities over a 30-year period;
 - Improve the condition of recreation facilities by 70-80 per cent by 2050;
 - Increase the capacity of recreation facilities to meet population growth;
 - Deliver services equitably; and,
 - Renew and expand six to eight aging recreation facilities over the next 10 years.

Operational and Service Delivery Roles and Responsibilities

47. Responsibility for recreation facility asset management is shared between the Park Board and the City's Real Estate, Environment and Facilities Management department (REFM) and FSC. Appendix E provides each department's recreation facility asset management responsibilities.
48. The Park Board operates 21 of its 24 community centres in partnership with Community Centre Associations (CCAs)-independent community-based organizations with a mandate to respond to local needs shaped by Joint Operating Agreements (JOA). JOAs establish the roles and responsibilities of the CCAs, which include:
 - Responding to local needs by providing programs and events, fostering community engagement and driving volunteer recruitment; and,
 - Providing input to the Park Board concerning maintenance, repair and upgrades to the jointly operated sites.

The Finance and Supply Chain Management department

49. FSC has a dedicated financial planning and analysis team that supports the Park Board and REFM in developing the operating and capital budgets. The Long-Term Financial Strategy team is responsible for establishing and implementing resilient financial strategies and ensuring the City's long-term financial sustainability consistent with Council, Board and community priorities. This includes working with departments to develop the City's Capital Plan.

The Real Estate, Environment, and Facilities Management department

50. The scope and coverage of REFM's services to the Park Board relating to planning, development, and maintaining/operating Park Board facilities is established by the *Facilities Management and Vancouver Board of Parks and Recreation Partnership Agreement* (the Partnership Agreement). The Partnership Agreement assigns responsibility for services pertaining to the management and operation of the physical site and base building to REFM (generally, "base building" includes structural portions of the building together with mechanical, electrical, plumbing and fire/life safety systems before tenant improvements). Other assets (such as parks, playgrounds, park furniture, small structures such as bandshells and pedestrian footbridges, some park road bridges, and wading pools/splash pads) are maintained by the Park Board internally.

The Vancouver Board of Parks and Recreation

51. Park Board staff are led by the General Manager, who has dual reporting accountabilities to both the Park Board Commissioners and the City Manager's Office.
52. The core responsibilities of the Park Board in relation to facility asset management include service delivery and the provision of some maintenance services (excluding capital maintenance) by the Park Board's Recreation Services team and providing input on capital planning by the Strategic Operations team. Given the unique needs and regulatory requirements of specific recreation facilities, the Recreation Services team also allocates staff to onsite facility roles such as ensuring safe operation of ice rinks and their ammonia plants.

1.2 About the Audit

53. The audit objective was to determine whether the Vancouver Board of Parks and Recreation and the City of Vancouver effectively manage existing recreation facilities to align with strategic goals, meet service level priorities and optimize asset lifecycles. To conclude on this audit objective, we reviewed the following areas: governance, strategy and financial state of recreation facilities, the asset management lifecycle, and performance measurement and monitoring.
54. A performance audit of the City's capital asset management relating to parks and recreation infrastructure assets such as recreation centres and other community amenities was included in the Office of the Auditor General's (OAG) 2024 three-year audit plan. Consistent with the Auditor General By-law, the Park Board invited the Auditor General to commence a performance audit effective January 2024 at its meeting on November 27, 2023.

55. The audit scope included 46 recreation facilities (pools, rinks, and community centres) the Park Board is responsible for, including the asset management services provided by REFM under the Partnership Agreement.
56. The scope of this audit did not include:
- Governance processes by the Park Board or City unrelated to the management of existing facility assets;
 - Non-building assets such as those related to parks and open spaces;
 - Planning, designing, budgeting, procuring and construction of new recreation facilities; and,
 - Procurement related to facilities management.
57. The audit period covered from January 1, 2019 to June 30, 2024. This aligns with the timeframe for the 2019-2022 Capital Plan, the first eighteen months of the 2023-2026 Capital Plan, and several Park Board strategies developed as input into these plans. The scope included the Park Board's and the City's policies, frameworks, guidelines, processes, reports, data and other documentation related to facility asset management. The audit included materials produced prior to January 2019 used as policies, guidance or administrative processes during the audit period.
58. We used several methods to obtain sufficient and appropriate evidence, including:
- Analysing the Park Board and City policies, strategies, agreements, financial information and activity records related to asset management of existing Park Board facilities;
 - Interviewing the Park Board and City staff to clarify roles and responsibilities; and,
 - Analysing data (e.g., maintenance records, financial records) provided by the City and the Park Board.
59. For six facilities, we performed additional procedures through site visits, site-specific maintenance data analysis and staff interviews, to enhance our understanding of how existing processes worked in the context of individual facilities. Though our audit findings were drawn from the totality of evidence we examined and apply broadly to the multiple recreation facilities overseen by the Park Board, we have included some examples from these sites to illustrate findings presented in this report. These examples are included in Section 2 of the report.
60. For more on this audit, please refer to [Appendix B: About the Audit](#).

2. Conclusion, Findings and Recommendations

Conclusion

61. The detailed audit findings reported in the following sections demonstrate that few of our audit criteria were met. As a result, we concluded that during the audit period the City's recreation facilities were not effectively managed to align with strategic goals, meet service level priorities and optimize asset lifecycles.
62. This audit report includes findings and recommendations related to the governance, strategy and financial state of recreation facilities, the asset management lifecycle, and performance measurement and monitoring. Implementing the 13 recommendations in this report will strengthen the capability of the Park Board and the City to better define and adjust LoS, in alignment with resource requirements and availability, and ensure the lifecycles of existing facilities are optimized.
63. The following report sections describe the audit findings that support our overall conclusion and recommendations to:
 - Advance the City's and the Park Board's asset management practices relating to its recreation facilities; and,
 - Better inform decision-making that prioritizes facility asset investments based on a robust understanding of, and agreement on, community and technical LoS and the projected costs to maintain them and meet asset-related targets.

2.1 Governance, Strategy and Financial State of Recreation Facilities

64. Clear and effective governance for recreation facilities includes approving strategic direction and organizational policies and procedures, making strategic decisions based on the information provided by management and overseeing performance against expectations.
65. An asset management framework, a good practice utilized by leading local governments across Canada, can assist local governments in prioritizing asset-related needs, establishing a long-term vision to support sustainable services and allocating investments to achieve them. An asset management policy or bylaw, asset management strategy, and asset management plans, supported by well-defined roles and responsibilities and accountabilities, are tools included within a framework.

66. To ensure agreed-upon objectives and actions established in asset management plans are realistic and met with appropriate funding levels, they should be well integrated with an organization's financial plans.

What we looked for

67. Several elements are needed for effective municipal asset management. They include:
- Clear and effective governance processes for overseeing recreation facilities;
 - Strategies for effective management of existing recreation facilities;
 - Plans to support the achievement of asset management objectives and service level priorities of the recreation facilities portfolio; and,
 - A comprehensive understanding of the overall financial state of the recreation facilities portfolio and the funding required to sustain it.
68. We examined whether there were appropriate policies, strategies, frameworks and plans in place to support effective recreation facility asset management.

What we found

2.1.1 The City did not have a Council-approved policy or strategy, or a formalized asset management framework, to guide asset management planning for recreation facilities

69. Section 489(1)(a) of the *Charter* establishes the Park Board's responsibility for, among other things, maintaining recreation facilities. However, sections 492 and 493 of the *Charter* establish Council's sole authority to commit funds. As such, the *Charter* establishes a shared responsibility for asset management and the necessity for the Park Board and Council to ensure asset management plans and funding are aligned.
70. Neither the City nor the Park Board had bylaws or a stand-alone policy for asset management.
71. The City and the Park Board also did not have an asset management strategy to articulate its asset-related objectives (including community and technical LoS).
72. The City and the Park Board had established goals for recreation facility assets but lacked a shared, documented framework or facility asset management plan for prioritizing these goals. Although components of an asset management plan had been developed, they were not consolidated into a comprehensive document to ensure agreement between parties and accessible information to City Council and the public.

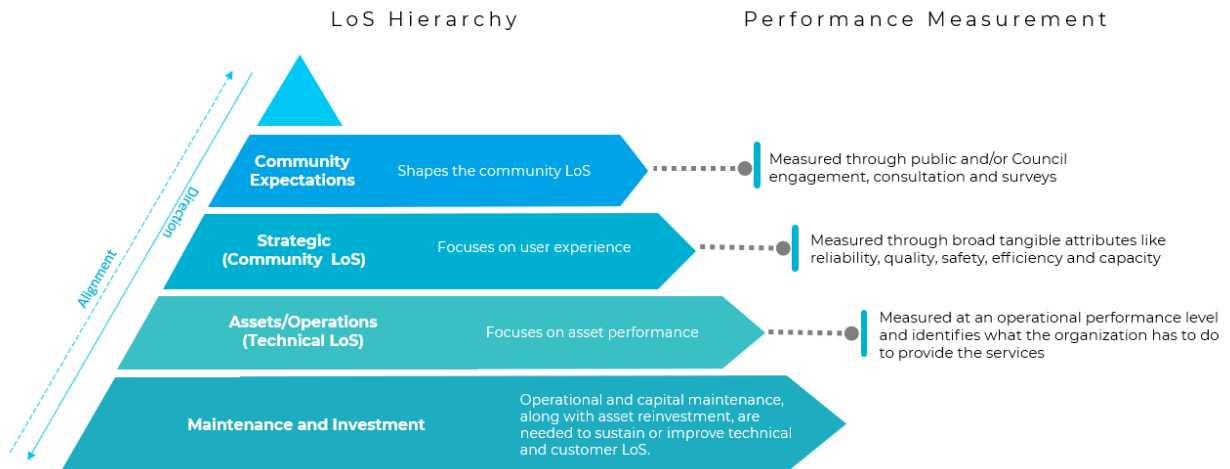
73. At a strategic level, the Park Board and the City's goals to repair and renew the City's aging recreation facilities were aligned, as identified in the City's Vancouver Plan and Capital Plans, and the Park Board's *VanPlay*. As part of a City-wide process, the Park Board developed a draft 30-year vision and 10-year strategy for repairing and renewing the City's recreation facilities and funding was allocated through the City's 2019-2022 and 2023-2026 Capital Plans, annual capital budget approval process, and Capital Plan mid-term updates.
74. The City and the Park Board worked collaboratively to identify facility investment priorities, however, there was a lack of alignment between the Park Board's service level targets and the level of funding approved by Council. For example, while the Park Board set a target to renew two existing community centres per capital plan,⁷ only one renewal was approved in each of the 2019-22 and 2023-26 Capital Plans, reflecting what Council determined to be fiscally achievable.⁸ Additionally, the Mount Pleasant Pool had been identified by the Park Board as a priority for renewal for the 2023-26 Capital Plan, but it was not approved by Council due to funding challenges.
75. Implementing a structured framework to support asset management could provide consistent guidance to all parties and also contribute to transparency and public accountability by documenting how priorities and decisions are made and how trade-offs are assessed.
76. We noted that Council had asked staff to explore the recommendations issued by the Mayor's Budget Task Force in January 2024, which included a recommendation to implement "a rigorous capital asset management framework...to streamline decision-making and enhance financial oversight of the City's capital plans." As of the end of the audit period (June 2024), this recommendation had not been implemented.

⁷ This target was noted in *VanPlay – Strategic Bold Moves* (2019) and the *Community Centre Strategy* (2022)

⁸ Renewal funding for the Marpole-Oakridge Community Centre renewal project was approved in the 2019-2022 Capital Plan and renewal funding for Raycam Community Centre was approved in the 2023-2026 Capital Plan. Subsequent to the audit period, the Raycam was deferred due to BC Housing's delivery schedule as noted in the July 2024 Capital Plan Mid-Term Update.

2.1.2 Although the Park Board identified some desired levels of service in the draft 30-year vision & 10-year strategy for recreation facilities, there was no established framework to assess whether the existing operating maintenance and capital maintenance programs were prioritized in alignment with them

Figure 3: Levels of Service Hierarchy and Performance Measurement



Source: Adapted from Asset Management Framework – Municipal Finance Officers Association of Ontario

77. Community and technical LoS for recreation facilities are directly tied to investments in asset renewal, operational and capital maintenance. When effectively carried out, these maintenance activities ensure that recreation facilities remain reliable, efficient, and capable of delivering on LoS. As illustrated in the LoS hierarchy (Figure 3), maintenance and investment activities form the foundation that supports both community and technical LoS. While consolidated LoS guide the planning and execution of maintenance and renewal activities, the act of performing maintenance also provides critical feedback about whether current service levels are realistic and being achieved. This alignment supports more informed and strategic decisions.
78. Various community and technical LoS elements were embedded in the Park Board strategies, REFM operational processes, and internal planning documents (see [section](#)

Key Components of a Levels of Service Framework

An LoS framework or matrix is the basis for measuring and tracking asset performance against objectives and helps inform decisions based on service performance. An LoS framework contains several key elements:

- Service category
- Performance Measures
- Benchmarks
- Performance Trends
- Target Service Levels
- Performance gaps

Source:

Asset Management BC, 2018: [Asset Management: Levels of Service Guide](#)

[2.1.1](#)). However, the City had not developed a formal and consolidated LoS framework. Without a formalized and integrated framework, it is challenging to ensure consistent alignment between community expectations, service delivery targets, and the maintenance strategies needed to support them.

2.1.3 The Park Board Commissioners and Council received reports and updates but were missing consolidated levels of service and financial analysis to support effective asset management

79. Both Council and the Park Board require high-quality analysis that illustrates asset needs, anticipates future impacts of decisions and considers the downstream effects of near-term trade-offs. Asset management relies on a combination of asset data, performance data and financial information to guide decisions that are cost-effective, to manage risks, and to support long-term service delivery.
80. Council and the Park Board received information from City departments on capital projects, including updates on project status, as part of the initial capital plan approval, quarterly capital budget adjustment and capital plan mid-term update processes.
81. The Park Board approved plans and strategies that included ‘current state’ facility analysis for community and aquatic centres, objectives for strategic community LoS developed through multi-year engagement and public consultation, and an aspirational technical LoS goal.⁹
82. Council indicated support of *VanPlay* through the approved Vancouver Plan and the City’s Capital Plan. However, as this office found in our [2023 Park Board Revenue Management Audit](#), beyond the existing capital planning and budgeting processes, the Park Board had not proactively engaged with Council to align its priorities with funding commitments.⁹
83. The Park Board’s plans and strategies were not facility asset management plans, and REFM had not developed an asset management plan for the City’s facility portfolio (including recreation facilities); consequently, neither the City nor the Park Board were provided with a complete LoS framework that defined community and technical LoS attributes, a comprehensive

⁹ As reported to us in December 2024, the Park Board has fully or substantially implemented the audit recommendation to proactively engage with Council as it develops current and future strategies. In particular, the Park Board reported that it had developed and implemented a standard operating procedure and process diagram to improve how Council is proactively engaged on current and future strategies.

suite of key performance indicators (KPIs), or the funding required or projected to be available to maintain and renew recreation facilities in relation to LoS.

84. A lack of LoS analysis, including how different funding scenarios would impact the City's infrastructure funding deficit (broadly or specifically in relation to recreation facilities) limited the Park Board and Council's ability to make informed decisions about priorities and trade-off risks for capital renewal and maintenance projects and, in the case of Council, funding allocation commitments.

Recommendation 1: The City should implement an asset management framework.

Foundationally, the framework should include:

- An asset management policy to set guiding principles when using asset management practices to meet the requirements of the City's strategic plans; and,
- An asset management strategy to define how the City's strategic objectives translate to levels of service and other objectives, along with associated decision-making criteria, to guide the development of asset management plans.

Recommendation 2: The Park Board and REFM should develop an asset management plan for recreation facilities. The Park Board and REFM should determine which entity should lead the development of the plan, or whether it should be co-led. The plan should:

- Align with the City's asset management framework (see Recommendation 1);
- Be approved by the Park Board and Council;
- Include the following elements:
 - State of infrastructure (asset types, inventory and valuation, age and condition);
 - Current and planned levels of service (community and technical);
 - Lifecycle management strategy (growth and enhancements, refurbishment and renewal, operations and maintenance); and,
 - Financial strategy (infrastructure funding deficit, historic and projected expenditures, funding resources).

Recommendation 3: To support consistent and defensible methodologies for prioritization and trade-off decisions within approved funding envelopes, the City should integrate the recreation facility plan as a component of a broader plan for all City facilities. This plan should be used as an input for City-wide asset prioritization processes.

Recommendation 4: Once levels of service have been defined for asset management, the City should establish and implement the level of asset management reporting (i.e., City-wide, service group or facility type) required by elected officials for effective strategic decision-making.

- Reporting should include risks and impacts to community levels of service related to forecast funding scenarios and technical levels of service targets

2.1.4 The City had developed some high-level targets, estimated asset renewal costs and forecast capital maintenance costs for recreation facilities; however it did not fully calculate lifecycle costs relative to desired service levels

85. Establishing targets for facility renewal and maintenance in alignment with investment priorities and LoS are foundational to sustainable asset management. Asset lifecycle costing assists in making informed decisions as it includes the total costs of operating and maintaining an asset over its lifespan and renewing, replacing or disposing of it at the end of its useful life.
86. As of 2022, REFM's Facility Condition Index (FCI)¹⁰ data showed that only 28% of recreation facilities were in good or fair condition, indicating a substantial need for capital renewal and reinvestment. Facilities categorized as poor or very poor generally cost more to maintain, repair or improve compared to the cost to replace them; however the lower rating does not mean they are unsafe.
87. The City's 2023-2026 Capital Plan included the vision for the City and the Park Board to "significantly improve the condition of recreation facilities" to achieve a state whereby 70-80% of the portfolio is in good or fair condition by 2050. The plan targeted the renewal of at least 20 recreation facilities over 30 years.
88. The Park Board established several 2040 asset targets for aquatics, rinks and community centres via *VanPlay*:

¹⁰ Facility Condition Index (FCI) is an industry standard index used to assess the current condition performance of a facility. It measures current facility condition needs divided by current replacement value.

Figure 4: Park Board Recreation Facility Asset Renewal Targets to 2040

Facility Type	Target	Capital Plan Commitments
Aquatics	One aquatic innovation per capital plan	<ul style="list-style-type: none"> Renewal funding for the Vancouver Aquatic Centre was included as a major renewal project in the 2023-2026 Capital Plan.
Community Centre	Renew an average of two existing community centres per capital plan	<ul style="list-style-type: none"> Renewal funding for Marpole-Oakridge Community Centre was approved in the 2019-2022 Capital Plan; Renewal for Raycam Community Centre was approved in the in 2023-26 Capital Plan.
Rinks	Add access to at least five ice sheets	<ul style="list-style-type: none"> No renewals were committed to however a new North East False Creek Ice rink (in-kind) was approved in the 2023-2026 Capital Plan.

Source: *VanPlay – Strategic Bold Moves*, 2019-2022 Capital Plan, 2023-2026 Capital Plan

89. Estimated costs to renew and maintain recreation facilities were calculated for the City's capital planning process. FSC estimated asset renewal costs at 2.5 per cent of the portfolio's overall replacement value, and REFM forecast different scenarios for capital maintenance costs over a 10-year period (see [section 2.2.5](#) for scenarios compared to approved funding during the audit period).
90. Although the Park Board and the City identified the need to invest in renewal and maintenance to improve the overall condition of recreation facilities, they did not have agreed-upon investment targets specific to renewal or maintenance, or technical LoS targets tied to maintenance. A focus on renewal rather than both renewal and maintenance investments risks under-funding and under-resourcing existing assets.
91. The City had estimated certain asset lifecycle costing components, such as renewals and capital maintenance, but did not have a complete understanding of lifecycle costs for its existing recreation facilities because LoS were not well defined. Additionally, the Park Board and REFM operating maintenance budgets were largely carried over from previous years (adjusted for staffing cost increases) and an activity-based analysis had not been completed during the audit period.

Components of lifecycle costing include

- Initial acquisition or construction one-time capital costs;
- Ongoing maintenance and operational costs that increase as the asset ages;
- Periodic rehabilitation or renewal costs that may require capital investment, but can reduce needs and costs associated with regular maintenance and operations which can extend the useful life of the asset and reduce annual maintenance and operational costs;
- Asset replacement/disposal when an asset is no longer providing adequate service; and,
- Non-infrastructure solutions such as demand management and integrated infrastructure planning (e.g., land use planning, process optimization).

Source: Asset Management Framework – Municipal Finance Officers Association of Ontario – Chapter 5

92. Because information related to different phases of the asset lifecycle was spread across multiple documents, there was no single, comprehensive source that presented full lifecycle costing. This fragmented approach, combined with the absence of an LoS framework, limited the City's ability to align lifecycle costing with desired LoS and long-term financial planning.

2.1.5 The City identified an infrastructure funding deficit for existing City-wide assets and a revenue generating strategy that was projected to partially address the deficit; specific analysis for recreation facilities was not completed

93. As noted earlier in this report, local government infrastructure funding deficits are concerns faced by municipalities across the country. Information about the scope and scale of infrastructure funding deficits can help governments make strategic decisions about which combination of tools they can leverage to address the gaps and how to apply them. Tools include new or revised financing mechanisms, adjusting revenue generating tools like taxes, fees and charges, pursuing new cross-sectoral partnerships, managing demands by adjusting service level commitments, or decommissioning/disposing of assets.
94. In 2022, the City estimated the total infrastructure funding deficit to be approximately \$500 million per year based on its formula of 2.5 per cent¹¹ across \$34 billion of City-wide infrastructure and amenities (\$800 million per year to maintain its assets in a state of good repair minus \$300 million per year that the City had set aside for asset renewal funding).
95. The City's analysis was at a macro-level (including all assets) and it had not calculated the proportion of the overall infrastructure funding deficit that related to recreation assets. The City estimated the total replacement value of its recreation facilities to be \$2.1 billion (as of 2022) based on a standard square footage rate provided by the REFM quantity surveyor team. Using the City's data and methodology, the OAG estimated the infrastructure funding deficit for the recreation facilities within the scope of this audit to be \$33 million per year.¹²

Infrastructure funding deficit: the difference between the estimated amount of annual levelized capital reinvestment required to renew or replace the City's existing infrastructure and amenities, based on current replacement values, and the amount that is currently being funded.

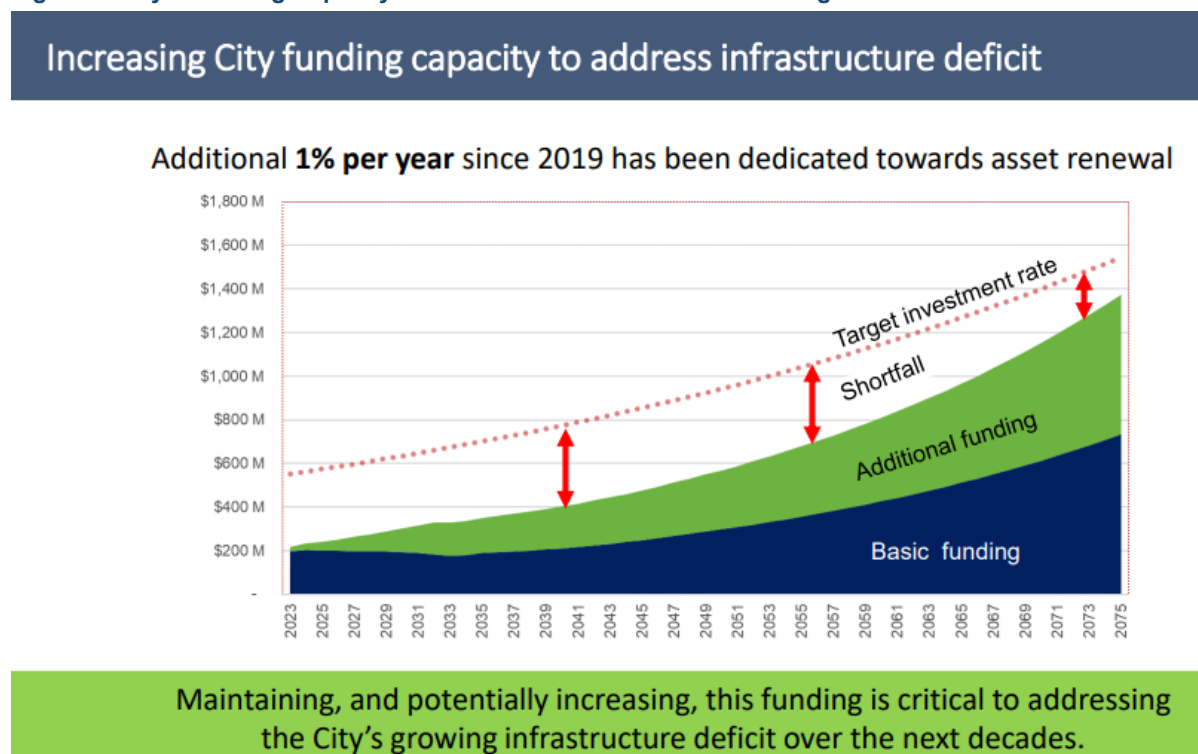
The City calculated the funding needs based on 2.5% of replacement value (renewal of assets and capital maintenance).

¹¹ The City indicated that 2.5% is made up of an estimated 2% for asset renewal and 0.5% for capital maintenance.

¹² Using the City's data, OAG's calculation of the recreation facility infrastructure funding deficit was based on ~\$46 million per year to renew recreation facilities (2.5% of \$1.8 billion of the 46 recreation facilities within our audit scope)

96. The City increased revenue generation as a tool to partially address its infrastructure funding deficit. This included a one per cent increase in property tax and approximately five per cent overall utility fee increase across each year of the 2019-2022 and 2023-2026 Capital Plans, subject to the annual budget process. The calculation was derived from FSC's funding capacity model, which included taxpayer funding but not funding from other levels of government or developer contributions. Based on the City's projections, this level of property tax and utility fee increase would still result in an infrastructure funding deficit in 2075 - long after the useful life of the current recreation asset portfolio (see Figure 5 for the City's projections). The City did not track and had not yet analyzed the actual impact on the infrastructure deficit of revenue increases implemented to date.

Figure 5: City's Funding Capacity to Address the Infrastructure Funding Deficit



Source: Vancouver City Council Capital Planning Workshops March 30, 2022 and April 7, 2022

and ~\$13 million per year of asset renewal and capital maintenance funding approved in the 2019-22 Capital Plan. The \$1.8 billion is less than the \$2.1 billion as the City also included non-Park Board recreation facilities (i.e. Agrodome rink).

Recommendation 5:

The City should:

- Calculate and consolidate relevant lifecycle costs estimates (such as operating maintenance, capital maintenance, renewals and replacement) for recreation facilities to support long-term investment planning;
- Update the infrastructure funding gap calculation to reflect these lifecycle costs; and,
- Analyze the updated funding gap relative to current and planned community levels of service to ensure funding alignment. Levels of service or funding investments should be adjusted as required to address the shortfall.

2.1.6 The roles and responsibilities of the Park Board and the City's REFM department were not sufficiently defined in the 2014 Partnership Agreement to ensure clarity for both entities

97. The 2014 Partnership Agreement established the scope and coverage of services that REFM would provide to the Park Board related to planning, development, and maintaining/operating Park Board facilities. The Partnership Agreement identified some performance measures and indicators, however, it did not define REFM's accountability requirements to the Park Board, such as reporting results against technical LoS.
98. Although the Partnership Agreement itself was not actively referenced by staff in either department, we found that the REFM services outlined in the Agreement were generally provided to the Park Board. However, we heard from staff that there were disagreements about which budget maintenance tasks and materials should be charged to. This was related to the lack of a comprehensive and shared definition of what was included in maintaining "base building" elements that REFM was responsible for.
99. Prior to the audit period, in 2018, Park Board Commissioners directed staff to develop an operating level agreement (OLA) with REFM, to supplement the Partnership Agreement. The OLA was intended to clarify roles, responsibilities and service level expectations between the Park Board and REFM; address budget and staff resourcing gaps in both REFM and the Park Board; reduce service times and improve work prioritization; improve communication and collaboration between the service groups; and improve data collection and reporting tools to support performance management. The Park Board had targeted a report back on the OLA in 2020.
100. The OLA, as it was described to us, had the potential to make meaningful improvements over the Partnership Agreement and to help clarify the gaps we noted. However, the OLA was only partially drafted and never finalized or approved. Staff cited challenges ranging from operational

(e.g., staff turnover and reprioritization during the COVID-19 pandemic) to scope (lack of clarity on how to “right-size” the agreement) to budgetary (e.g., no clear connection between activities captured in the plan and budget) as some of the key reasons the new agreement had not been completed.

Recommendation 6: The Park Board and REFM’s Partnership Agreement should be updated to include:

- REFM’s accountability requirements to the Park Board, including defining and reporting on metrics that include targets and results related to technical levels of service;
- Defined roles and responsibilities for the development of an asset management plan for recreation facilities (as per Recommendation 2);
- A definition of ‘base building’ and detailed guidance on which entity is responsible for maintenance of base building components vs programming equipment; and,
- Alignment between maintenance responsibilities and budgets.

2.2 Facility Asset Lifecycle Management

101. Effective facility lifecycle management ensures that community infrastructure provides the services it is intended to and that it remains safe, reliable, and cost-efficient throughout its lifespan. A strong foundation of accurate and up-to-date asset information—including condition, usage, and maintenance history—supports timely decision-making and long-term planning. Operating maintenance includes both preventative maintenance—regular inspections and servicing to reduce the risk of equipment breakdown—and demand maintenance, which addresses urgent and unexpected repairs. As infrastructure ages, capital maintenance is carried out to repair or replace major systems, such as roofs or HVAC units. Major capital projects are undertaken to rebuild or renew the entire facility. This structured approach helps cities reduce risk, optimize investment, and maintain consistent service levels for the community.

What we looked for

102. To determine whether the City has an effective asset lifecycle management process, we examined the current system used for recording asset information. To understand the practices established to optimize the lifecycle stages of recreation facilities, we examined three separate programs: the operating maintenance program, which includes preventative maintenance and reactive maintenance (i.e. demand maintenance); capital maintenance program; and major capital projects program.

What we found

2.2.1 REFM used two systems for asset maintenance management which were adequate to store information and data but not well integrated for analysis and reporting purposes

103. An effective asset register should be a centralized, complete, and regularly updated repository of all asset-related information. When multiple systems are used to record asset-related information, they need to be connected to provide “one version of truth.” The register should include not only descriptive information (e.g., asset type, location, construction year) but also detailed technical and financial data such as condition assessments, maintenance history, replacement cost, performance ratings, and risk indicators. Maintenance data should be integrated to ensure that inspection, corrective action, and maintenance trends are recorded, traceable and available for planning and decision support. With comprehensive and up-to-date asset data, cities can proactively manage recreation facilities, prioritize maintenance or replacement, and align infrastructure decisions with community needs and strategic goals.
104. REFM used a web-based enterprise asset management system as the primary register for recreation facilities. It held a record of geographic location, construction year, facility ID, site size, facility description, and classification using Uniformat II, which is a classification for building specifications. Additionally, building condition, current replacement value (CRV), and CRV including soft costs were recorded.
105. In addition to this system, REFM used a different system to record maintenance plans, work orders and associated costs. However, the lack of linkages or data integration between the two systems limited the team’s ability to view a complete asset history in one place to create a full picture of each facility’s operational and capital needs. To improve data alignment across systems and improve data quality, REFM proposed two major data enablement projects through the Technology Services Annual Technology Plan (ATP) prioritization process; both projects are currently in progress.

Recommendation 7: The City should implement an integrated information technology solution to manage and report on its capital asset related data.

2.2.2 A preventative maintenance program was in place for Park Board recreation facilities, but it lacked formalized reviews and adjustments for aging facilities and predictive maintenance capabilities, which limited its effectiveness for fully optimizing asset performance and lifespan

106. Preventative maintenance (PM) is the regular and routine maintenance of equipment and assets in order to keep them running and prevent costly, unplanned downtime from unexpected equipment breakdown. An effective approach to preventative maintenance is proactive and aims to maintain assets in a safe and operational condition, thereby extending their lifespan and mitigating the risk of unexpected breakdown and associated costs.
107. The PM program for recreation facilities was managed by REFM, with funding allocated from the operating budget. REFM's Maintenance Planners administered the program by scheduling PM activity based on the requirements in its operations manuals. Ad hoc reviews of maintenance schedules were conducted; however, there was no formal process to systematically review all assets on a periodic basis (e.g., annually or bi-annually) to ensure that all recommended PM plans were accurately captured in the system. The PM schedules were not tailored or adjusted as facilities aged (i.e. increasing the frequency of inspections or maintenance activities to align with current conditions). This increases the risk that some maintenance needs may be missed, potentially leading to asset breakdown, safety issues, or higher long-term repair costs.
108. Preventive maintenance work orders were executed by trade shops, on-site Park Board mechanical technicians, or REFM mobile crews. REFM had developed the *Maintenance Planning Process Guide* to assist the maintenance planner in scheduling the PM program and to provide guidance for staff on entering actual hours spent on maintenance work. However, maintenance staff were not required to and did not consistently enter the hours worked into their system. These inconsistent practices created challenges for resource planning, as actual operating costs for completing maintenance work orders could not be accurately determined.
109. Another type of proactive maintenance is predictive maintenance, which is the use of data to monitor a system and continuously evaluate it against historical trends to identify potential issues before they impact system performance or reliability. Using predictive data to inform maintenance can optimize performance and lifespan. REFM did not have a predictive maintenance program in place. Predictive maintenance can enable more efficient prioritization of maintenance resources, support long-term lifecycle planning, and strengthen data-informed, risk-based decision-making.

Recommendation 8: REFM should formalize a process to regularly assess the effectiveness of preventative maintenance schedules and leverage data analytics to support predictive maintenance.

2.2.3 A demand maintenance program was in place for the Park Board recreation facilities; however, there were delays in closing work orders and issues with data accuracy

110. Demand maintenance should be systematically tracked and analyzed to identify root causes and support future planning. Emergency repairs should be prioritized based on severity to manage risk and allocate resources effectively. A high volume of emergency repairs often signals underlying issues such as aging assets, deferred maintenance (preventative or capital), or gaps in preventative efforts.
111. Demand maintenance (including emergency repairs) work orders were dispatched by the REFM Work Control Centre team through a formalized process, with funding allocated from the operating budget. To initiate requests facility staff (supervisors or onsite mechanical technicians) submitted facility work order request forms. The Work Control Centre team prioritized requests based on defined criteria, including safety risks, major facility disruptions, risks of further property damage or security breaches, non-compliance with regulation, or significant impact to the City's reputation.
112. REFM's Maintenance Planning Process Guide specified that:
 - High-priority work orders must be addressed within 1-2 business days;
 - Medium-priority work orders must be addressed within 1 week; and,
 - Low-priority work orders must be addressed within 30 days.

113. We analyzed the City's demand maintenance work order data for in-scope facilities covering the audit period from January 1, 2019, to June 30, 2024 and found that work orders were not closed by the agreed timeline for 56% of high priority work orders (275/492), 42% of medium priority orders (2063/4899), and 34% of low priority orders (4882/14220). Although we were told that the delay rates may not be accurate as physical work was sometimes completed prior to



Work order delays in selected facilities

Using the City's data, OAG analyzed the delay rates for demand maintenance work orders during the audit period across the six selected facilities we visited (details provided in Paragraph 40).

The results showed a delay rate of 44% for high-priority, 37% for medium-priority, and 35% for low-priority demand maintenance work orders across the six facilities.

the work orders being closed in the system, it was the best information available and formed the basis of our analysis.

114. Actual delays in addressing high and medium priority maintenance can increase the risk of asset breakdown and compromise service levels and potentially lead to higher long-term repair costs or safety concerns.

Recommendation 9: REFM should improve its data reliability to accurately assess work order completion rates, and the Park Board and REFM should implement risk-informed measures to reduce the delays in demand maintenance completion.

2.2.4 The City used a reactive approach to maintaining recreation facilities that were not prioritized for capital maintenance investment

115. Reactive maintenance is an intentional approach to operate assets without repair until a failure occurs. This approach can be appropriate and cost-effective when applied to low cost, non-critical assets, such as items that are easily and quickly addressed with readily available replacement parts. However, it poses risks when utilized for significant components of a facility that are crucial for maintaining LoS and quality, or for life safety. For assets that require more maintenance time, higher replacement costs, or risks of cascading failures, reactive maintenance can lead to much higher long-term costs and operational disruptions.
116. REFM used a reactive approach for low-cost and non-critical assets, and those that were not prioritized for investment. The decision to use reactive maintenance should be based on a risk and criticality assessment, which was not formally in place for recreation facility assets.

Brine Leak – Kerrisdale & Britannia

Kerrisdale Rink, a historic facility with over 75 years of service, remains one of Vancouver's oldest operational ice rinks. In March 2024, a brine pipe leak beneath the ice surface caused soft spots, raising safety concerns. A temporary repair was completed, but it only offered short-term mitigation.

That same month, a similar brine leak was identified at Britannia Rink, another aging facility in the city. The rink floor was 50 years old at the time of the leak, exceeding its expected lifespan of 30 years. A provisional fix was applied, but as with Kerrisdale, the repair was not a long-term solution.

Though a planned repair was subsequently scheduled for Britannia, concerns were expressed that the Kerrisdale leak may recur, and another unplanned repair may be required before a longer-term solution is implemented. If not fully addressed, recurring issues could impact the rink's ability to deliver planned recreational programs, reduce available ice time, and compromise service levels.

These simultaneous issues highlighted systemic risks in Vancouver's aging recreational infrastructure, where deferred maintenance and outdated systems increase the likelihood of operational disruptions.

2.2.5 REFM had a capital maintenance program in place that provided services for recreation facilities; however, the approved funding levels were insufficient to address REFM's forecast costs to address critical needs and reduce the maintenance backlog

117. The Capital Maintenance Program for the Park Board's recreation facilities was focussed on the renewal of major building systems and components such as ammonia/ice plant, roofs, mechanical, electrical, and plumbing systems, with work priorities determined through condition assessments and investigative audits.
118. REFM had two methods to categorize facilities for prioritizing maintenance investments:
- Building System Tiers, which categorized systems as high, moderate or lower impact (see Figure 6).
 - Development Category Indicators (DCIs), developed by REFM to capture a full picture of all buildings and how long the service groups wanted to continue operating those buildings. DCIs assigned facilities to one of six investment categories: full, moderate, limited, minimal, 'no,' or 'not responsible.' (see Figure 7).

Figure 6: Building Tiers

Building Tier	Description	Potential Impact	Average Planned Life	Average Current Life (2022)
Tier I	Higher Impact Building Systems: Electrical Supply Panels, HVAC Supply, Units, Fire Alarms, Controls	Potential of Building Closures/Impacts	20 yrs	34 yrs
Tier II	Moderate Impact Building Systems: Electrical Wiring, Distribution Piping, Building Lights	Potential of Localized/Room Level Impacts	21 yrs	45 yrs
Tier III	Lower Impact Building Systems: Foundations, Superstructure, Exterior Doors and Windows	Unlikely to impact base building in short term, Impacts to comfort	17 yrs	44 yrs
Tier IV	Other Renovations: Interior Finishes/Fittings, Wall/Floor Finishes, Commercial Equipment, Furnishings and Landscaping	Not Considered Capital Maintenance	18 yrs	41 yrs

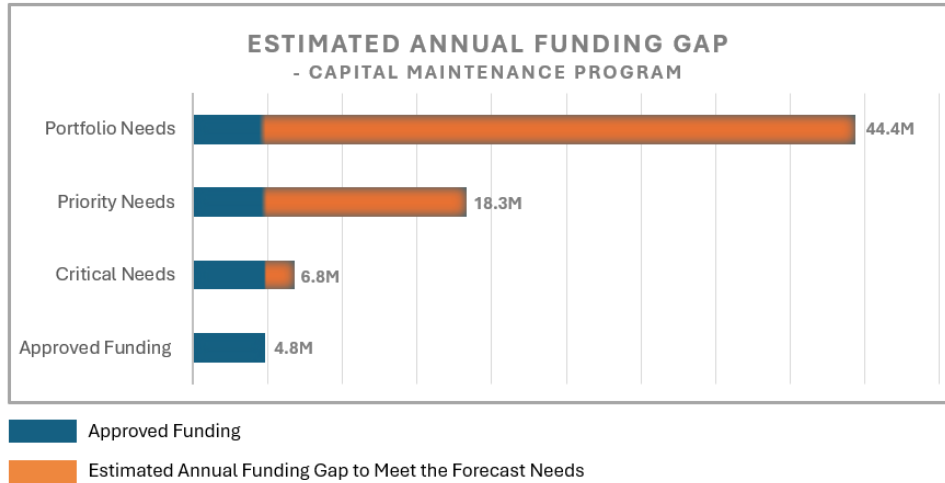
Source: Adapted from the REFM Facilities Sustainment presentation, 2023–2032 Capital Planning: Capital Maintenance Program – Facilities Portfolio Summaries and Forecasts, dated March 21, 2022.

Figure 7: DCI Categories

DCI	Description	# of Building	% Total
1	Full Investment: Full lifecycle, replacement & renewal	14	29%
2	Moderate Investment: Full lifecycle replacement, some major systems renewal	10	20%
3	Limited Investment: Lifecycle replacement of major systems	13	27%
4	Minimal Investment: Critical systems only	11	22%
5	No Investment	1	2%
Total*		49	100%
*There were 9 facilities categorized as DCI 9, which are not under the City's responsibility for capital maintenance and therefore were excluded from the analysis.			

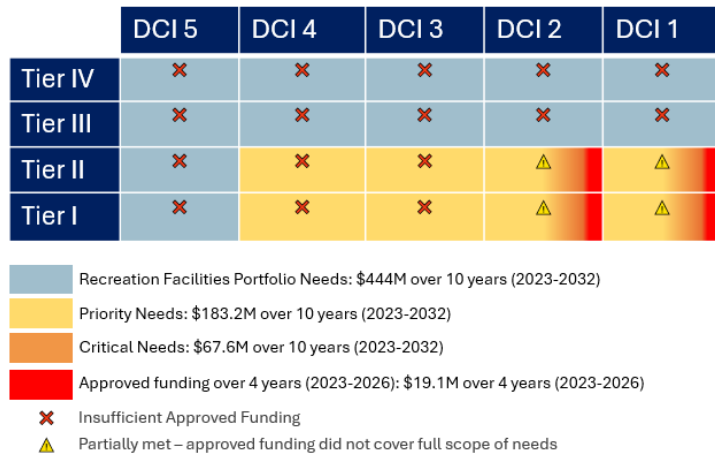
Source: Adapted from the REFM Facilities Sustainment presentation, 2023–2032 Capital Planning: Capital Maintenance Program – Facilities Portfolio Summaries and Forecasts, dated March 21, 2022.

119. During the 2023–2026 Capital Planning process, REFM developed 10-year forecasts (2023–2032) outlining funding needs under various scenarios. \$67.6 million (or \$6.8 million per year) was estimated to be required over 10 years to address critical capital maintenance needs that, if unaddressed, could result in facility closures covering only a portion of Tier I/II building systems and facilities rated DCI 1–2 (see Figure 8). The approved funding for capital maintenance was \$19.1 million over 4 years (about \$4.8 million per year), which is approximately 29% below the forecast.
120. Funding required to cover Priority Needs (crucial systems requiring immediate investment) was estimated to be \$183.2 million (\$18.3 million per year over 10 years), and the cost to address all recreation facility portfolio needs and address the maintenance backlog was estimated to be \$444 million (\$44.4 million per year over 10 years).
121. In 2022, REFM requested \$33.2 million for the 2023–2026 period (\$8.3 million per year), and \$19.1 million (approximately \$4.8 million per year) was approved in the 2023–2026 Capital Plan.

Figure 8: Estimated Annual Funding Gap – Capital Maintenance Program

Source: Created by the OAG based on REFM Facilities Sustainment presentation, 2023–2032 Capital Planning: Capital Maintenance Program – Facilities Portfolio Summaries and Forecasts, dated March 21, 2022.

122. This approved funding level fell significantly short of the most conservative estimate to address the capital maintenance needs of recreation facilities, meaning critical maintenance needs were projected to be unmet with the funding provided. As a result, only a subset of higher impact systems and facilities could be addressed with the approved funding, while buildings in DCI 3–5 condition—representing 51% of the portfolio—remained unfunded.
123. In addition, as per Figures 6 and 7, the average age of all categories of building system had exceeded their planned service lives, with Tier II, III & IV (by average) more than double that which had been planned.
124. Based on REFM's forecast information, the City's approved funding level was inadequate to address the capital maintenance needs of Tier III and Tier IV building systems (see Figure 9). Delaying maintenance on aging systems compounds future capital needs and increases the risk of safety concerns and service disruptions. Without timely investment, the City will face increased lifecycle costs due to system breakdown, emergency repairs, and a loss of service reliability.

Figure 9: Capital Maintenance Program Funding Gap Heat Map

Source: Created by the OAG based on REFM Facilities Sustainment presentation: 2023–2032 Capital Planning: Capital Maintenance Program – Facilities Portfolio Summaries and Forecasts, dated March 21, 2022.

Roundhouse Community Centre

The Roundhouse Community Arts & Recreation Centre, originally built in 1888 as a Canadian Pacific Railway roundhouse was rebuilt into a community center in 1996. Its Exhibition Hall serves as a venue for weddings and summer events. Due to their deteriorating condition, the Roundhouse's barn doors have required maintenance. In 2021, a smaller set of the doors was replaced and in 2023, the Hall was closed for over two months in anticipation of repairs to the remaining doors. The repairs were deferred, which resulted in a loss of potential revenue as no events had been booked for this time.

The repair project was deferred to 2024, then postponed again after assessments confirmed a full replacement would be needed. Critical repairs to the building's 36-year-old roof (that was well past a typical 20-year renewal cycle and had started leaking) and its aging HVAC system became a higher priority for capital maintenance investment.

Despite these challenges, we heard that good coordination between the Park Board and REFM staff resulted in improved scheduling that minimized service disruptions. Proactive planning and communication enabled operations to continue where possible, reflecting a balanced approach to preserving this historic site while addressing urgent maintenance needs.

2.2.6 REFM had not analyzed how suspended or delayed capital and preventative maintenance affected demand maintenance costs, service disruptions, and levels of service

125. Regularly monitoring and analyzing data and trends related to proactive (preventive) and reactive (demand) and capital maintenance enhances the ability to identify opportunities to shift from reactive to proactive approaches. It also helps pinpoint asset types with chronic issues and uncover cost-saving opportunities through improved planning and scheduling.
126. While REFM had conducted some analysis of maintenance activities within each program, it had not undertaken a comprehensive or systematic review of how delays in preventative or capital maintenance impact demand maintenance levels and overall LoS. Without integrated analysis across all three types of maintenance—preventative, demand, and capital—the City may miss opportunities to identify chronic asset issues, optimize maintenance strategies, and reduce long-term costs through improved planning.

Recommendation 10: In conjunction with the Park Board, REFM should assess the benefits of implementing a balanced maintenance strategy that shifts focus towards planned and predictive maintenance. This includes:

- Ensuring that maintenance data is of sufficient quality to support analysis (complete and accurate);
- Assessing the gap between the operating maintenance and capital maintenance required to reduce demand maintenance (i.e. how much demand maintenance is the result of planned/preventative maintenance or capital maintenance projects not being completed as required);
- Developing and using a risk and criticality matrix to determine which asset components can be left to reactive maintenance without significant negative impact on levels of service;
- Determining the budget and staff capacity required; and,
- Developing a funding strategy to efficiently and effectively carry out the preventative and capital maintenance required to shift the balance from reactive to proactive maintenance and address the capital maintenance backlog of recreation facilities.
 - This strategy should incorporate the service levels specified in Recommendation 2 and be included in the overall funding gap analysis in Recommendation 5.

2.2.7 The City had a process for prioritizing renewal and replacement projects however, there were no documented capital planning procedures to ensure a consistent and defensible framework was applied during each capital plan cycle

127. Best practices for prioritizing capital renewal projects involve using lifecycle strategies, asset condition, risk, and service level assessments to identify and rank needs. Projects should be prioritized within both short- and long-term capital plans based on data-driven criteria, with clear integration into the capital budgeting process. This includes identifying priorities, aligning with service expectations, and using scenario modeling to guide informed decisions and manage financial constraints over time.



Ammonia Plan Upgrades – Kerrisdale and Britannia

Ammonia (used in ice rinks) release was identified by Technical Safety BC as one of the top five safety risks from regulated technologies in B.C. We observed two ammonia plant upgrades at Kerrisdale and Britannia. In 2018 & 2019, REFM completed several ammonia reduction projects, replacing aging ice plant components with newer reduced-charge ones. This resulted in a 56% ammonia reduction at Kerrisdale and 75% ammonia reduction at Britannia. In addition, REFM completed projects at Kerrisdale and Britannia from 2018 to 2024 (\$3.16 million) to upgrade the ammonia plant equipment.

128. The City's capital planning process for recreation facilities incorporated several key elements aligned with recognized best practices, including the consideration of asset condition (i.e. Facility Condition Index and Extended Facility Condition Index ratings), risk (such as seismic vulnerabilities and ammonia-related safety concerns), some desired service levels, and lifecycle costs.
129. Collaboration between REFM, the Park Board, and FSC supported project prioritization. Asset renewal decisions were guided by both quantitative and qualitative criteria—such as facility condition, seismic risk, service gaps, and environmental performance—derived from strategic documents including *VanPlay*, *VanSplash*, and the *Community Centre Strategy*.



Vancouver Aquatic Centre

The Vancouver Aquatic Centre (VAC) was built in 1974, and the Park Board's VanSplash (2019) identified that it was reaching the end of its functional lifespan. Concerns about the VAC were raised by the Park Board in February 2022 during management discussions about trade-offs that Council would need to make between criticality and affordability related to capital investments. Risks related to the VAC's condition included structural seismic performance and its precast wall panels, one of which then failed in May 2022 when a three metre by 10 metre section of the outside wall above the entrance doors fell off the building. Additionally in 2024, a piece of concrete fell from the ceiling while the pool was closed during maintenance work.

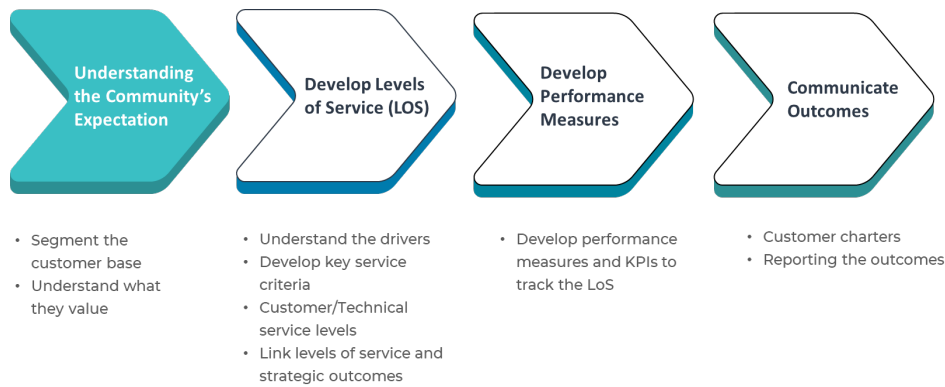
In 2019 VanSplash estimated a replacement cost for the VAC of \$94 million. Subsequently, the 2023-2026 Capital Plan allocated \$140 million for a phased approach of the facility renewal.

130. However, there were no formally documented capital planning procedures to ensure consistency, transparency, and defensibility in prioritization across planning cycles. While the DCI scale was developed to support investment decision-making, it lacked a clear linkage to service level priorities. Additionally, as mentioned in the previous sections, there was no formal service level framework in place to guide capital investment decisions.
131. Although the 2023–2026 Capital Plan articulated long-term renewal goals, as referenced in paragraph 87, there were no clearly defined or agreed-upon investment targets for maintenance.
132. Furthermore, while enterprise-wide risks were identified, they were not systematically integrated into capital planning decisions, and remediation plans for departmental-level risks were not consistently developed or documented. Overall, while the City has adopted some foundational elements of good asset management practices, the absence of a formalized, integrated framework limited its ability to ensure consistent, evidence-based, and target-oriented capital investment decision-making.

Recommendation 11: With input from the Park Board, the City should develop a standardized framework for prioritizing recreation facility asset renewal, replacement, and disposal. The framework should incorporate clear evaluation criteria and documented rationale to support transparent and defensible decision-making.

2.3 Performance Measurement and Monitoring

133. Performance measures allow municipalities to assess the performance of assets and LoS over time. These measures help identify actions—such as capital investments or resource allocations—needed to meet LoS objectives. As illustrated in Figure 10, developing LoS and performance measures is essential to translating community expectations into measurable outcomes. A documented suite of LoS performance measures enables a common understanding of what LoS customers currently receive, and the associated cost of maintaining infrastructure assets to provide this service.
134. Annual and financial reports should include progress on the asset management objectives and outcomes identified in the asset management strategy and asset management plans, including performance on the indicators selected.

Figure 10: Process for Developing and Adopting Levels of Service

Source: Adapted from Asset Management Framework – Municipal Finance Officers Association of Ontario

What we looked for

135. We examined whether the City and the Park Board defined performance metrics for service levels for facilities and compared existing service levels to established targets. We also looked at whether the Park Board monitored the performance metrics for asset management service levels provided by REFM through the Partnership Agreement.

What we found

2.3.1 There was no overarching framework for asset management performance which limited the opportunities to assess community and technical levels of service and financial performance

136. As mentioned in section 2.1.2, LoS analysis includes using performance measures among other elements. Quantifying community and technical LoS in performance measures enables meaningful tracking of performance over time. This is critical for ensuring the City achieves agreed-upon LoS and allocates sufficient funding to support LoS results.

2.3.2 The Park Board and REFM had a partial understanding of facility asset operating efficiency, as they tracked different and unaligned sets of metrics.

137. During our audit period, the City's Service Plans included four performance metrics related to recreation facilities, that were developed by the Park Board. In addition, the Park Board tracked customer LoS and REFM staff tracked technical LoS (see Figure 11). However, there was no consolidated set of KPIs that combined program utilization, maintenance performance and cost efficiency to provide an overall review of recreation facility operating efficiency relative to LoS.

Figure 11: Performance Metrics Tracked by Park Board and REFM

Park Board	REFM
# of participants for arenas	Actual vs. budget per capital plan
# of swim participants/attendees	Work order completion rates, work order backlog
Utilization of registered aquatic and ice arena programs	Facility operations customer satisfaction (city departments) of maintenance orders being completed
Participant visits to aquatic, arena, and fitness drop-ins	Greenhouse gas emissions and waste diversion (tracked at a City-wide level, not by asset class)
	Asset condition metrics, such as facility condition ratings and seismic scores

Source: Created by the OAG based on the City's annual budget documents and information provided by REFM.

Recommendation 12: The Park Board and City should review and update their current metrics to create key performance indicators that integrate measures of utilization, maintenance and cost efficiency. This would allow for more comprehensive monitoring and reporting of recreation facility performance relative to community and technical service levels.

2.3.3 REFM was not required to report performance metrics to the Park Board to demonstrate its fulfillment of obligations under the Partnership Agreement

138. The Partnership Agreement included a section on KPIs, with a range of indicators, measures, and targets for the services provided by REFM to the Park Board. However, as mentioned in section 2.1.6, the Partnership Agreement did not require reporting against these KPIs. As a result, REFM did not provide consolidated reports on technical LoS results to Park Board staff or Commissioners as a function of demonstrating the fulfillment of its obligations under the Agreement. Reporting on metrics related to targeted and delivered technical LoS would improve the Park Board's ability to monitor the asset management services provided by REFM in fulfillment of the Partnership Agreement.

Recommendation 13: After accountability requirements have been updated in the Partnership Agreement (as per Recommendation 6), REFM should report its results against agreed-upon performance measures and targets to the Park Board to demonstrate its fulfillment of facility asset management obligations.

Appendix A: Management Response and Action Plans from the Park Board, REFM and FSC

Overall Comments

The September 2025 audit report on Recreation Facility Asset Management offers a timely and constructive evaluation of practices from the audit period (January 1, 2019 – June 30, 2024), highlighting the absence of a formalized asset management plan and the need for improved data collection. While REFM have undertaken steps since the audit period to move towards many of the recommended improvements, these findings are consistent with internal observations from REFM and Park Board and underscore the importance of advancing our asset management maturity.

While the report offers valuable insights, its tone may come across as somewhat unbalanced, placing emphasis on internal shortcomings without fully accounting for the broader systemic challenges that have shaped the current state. In particular, the report makes only limited reference to the chronic underfunding that has persisted across operating budgets and capital renewal plans. These financial limitations have significantly restricted our ability to proactively manage assets, resulting in deferred maintenance, reactive repairs, and growing lifecycle costs.

In responding to the report, we are including an executive preamble that acknowledges the validity of the recommendations while also providing essential context. This includes:

Operating and capital renewal funding shortfalls: Persistent underfunding has limited our ability to maintain service levels, invest in preventative maintenance, and renew aging infrastructure. This has led to a reactive approach to asset management, where urgent needs often displace strategic priorities.

Systemic impacts: The lack of sustained investment has contributed to a growing backlog of renewal needs, reduced asset reliability, and increased risk exposure. These outcomes are not solely the result of internal management decisions but reflect broader structural and fiscal realities across all departments.

Public expectations: Demand for high-quality, accessible recreation facilities continues to rise, placing additional pressure on already constrained resources and widening the gap between expectations and feasible delivery. Population growth and visitor increase also contributed to widening the gap.

Governance of Facilities: The governance of facilities is increasingly recognized as a broader strategic conversation that extends beyond operational management. It encompasses alignment with organizational priorities, risk management, sustainability goals, and stakeholder engagement. We are open and willing to explore this expanded dialogue, recognizing that effective governance frameworks can enhance decision-making, accountability, and long-term value. This approach invites collaboration across departments and leadership levels to ensure facilities are managed not only efficiently but also in a way that supports the organization's

evolving mission and values.

We remain committed to addressing the gaps identified in the report and view this as an opportunity to advocate for a more sustainable, well-supported, and strategically aligned asset management framework for all city-owned assets. Acknowledging the systemic challenges is essential to ensuring that future recommendations are both actionable and appropriately resourced.

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Steve Jackson

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Auditee's Action Plan

Exhibit 2: Auditee Action Plan

Recommendation	Management Response and Next Steps	Responsibility	Target Date
<p>Recommendation 1</p> <p>The City should implement an asset management framework. Foundationally, the framework should include:</p> <ul style="list-style-type: none"> • An asset management policy to set guiding principles when using asset management practices to meet the requirements of the City's strategic plans; and, • An asset management strategy to define how the City's strategic objectives translate to levels of service and other objectives, along with associated decision-making criteria, to guide the development of asset management plans. 	<p>Management agrees with the recommendation with the caveat that this is a City-wide initiative and thus must be undertaken with all City departments with asset management responsibilities and is subject to resource, funding availability and prioritized in the upcoming capital plan.</p> <p>Action: Parks and Recreation and Real Estate & Facilities Management (REFM) have reached an agreement in principle to support the establishment of a comprehensive asset management framework for facilities assets. This initiative aligns with Recommendation 13 of the Mayor's Task Force Report, which calls for the implementation of a rigorous capital asset management framework across the City.</p> <p>The intent of Recommendation 13 is to 'establish appropriate processes, structures, and resources to optimize capital allocation and asset management decisions.' It is recognized that this recommendation</p>	CMO, FSC, REFM, with support from PB	Project will be proposed in the 2027-30 Capital Plan for approval

Recommendation	Management Response and Next Steps	Responsibility	Target Date
	<p>represents a City-wide initiative, with implications for all City of Vancouver departments.</p> <p>This agreement in principle is made with the understanding that the framework will be developed collaboratively across departments, and that the specific components of the framework will be determined by those with the relevant expertise.</p>		
<p>Recommendation 2</p> <p>The Park Board and REFM should develop an asset management plan for recreation facilities. The Park Board and REFM should determine which entity should lead the development of the plan, or whether it should be co-led. The plan should:</p> <ul style="list-style-type: none"> Align with the City's asset management framework (see Recommendation 1); Be approved by the Park Board and Council; Include the following elements: <ul style="list-style-type: none"> State of infrastructure (asset types, inventory and valuation, age and condition); 	<p>Management agrees with the recommendation with the caveat that an asset management plan must be integrated within a broader civic context.</p> <p>Parks and Recreation and Real Estate, Environment and Facilities Management (REFM) support, in principle, the Office of the Auditor General's (OAG) recommendation to establish a comprehensive asset management framework. This support is provided with the caveat that any asset management planning for recreation facilities must be integrated within a broader civic facility asset management plan, rather than developed in isolation.</p> <p>Furthermore, any additional asset planning efforts must be undertaken in coordination with the larger portfolio of civic facilities managed by REFM, and with</p>	REFM, FSC with support from PB and other City departments as required	2027-2030 Capital Plan

Recommendation	Management Response and Next Steps	Responsibility	Target Date
<ul style="list-style-type: none"> ○ Current and planned levels of service (community and technical); ○ Lifecycle management strategy (growth and enhancements, refurbishment and renewal, operations and maintenance); and, ○ Financial strategy (infrastructure funding deficit, historic and projected expenditures, funding resources). 	<p>consideration given to available funding and resources.</p> <p>It is important to note that the current state of recreation facility asset management has been significantly shaped by long-standing shortfalls in both capital renewal and operational funding. These financial constraints have limited the ability to perform timely maintenance, invest in lifecycle renewals, and implement strategic asset planning. As a result, many facilities are operating beyond their intended service life, with deferred maintenance contributing to increased risk, reduced reliability, and higher long-term costs. Addressing these systemic funding gaps will be critical to the successful development and implementation of any asset management plan.</p> <p>This agreement in principle is made with the understanding that the framework will be developed collaboratively across departments, and that its specific components will be defined by those with the appropriate subject matter expertise.</p> <p>Action: Subject to resource availability, Parks and Recreation, other City departments and REFM will</p>		

Recommendation	Management Response and Next Steps	Responsibility	Target Date
	<p>work collaboratively with Finance and Supply Chain Management (FSC) to:</p> <ul style="list-style-type: none"> ▪ Determine the best approach to the asset management plan for facilities including recreation facilities, and confirm lead department; ▪ Establish regular meetings and/or workshops to identify and highlight what should be included in the plan; ▪ Develop an outline of the plan and work towards finalizing an asset management plan which aligns with a broader civic facility asset management plan. ▪ Investigate potential funding strategy(s) ▪ Seek approval from elected officials where required. 		
<p>Recommendation 3</p> <p>To support consistent and defensible methodologies for prioritization and trade-off decisions within approved funding envelopes, the City should integrate the recreation facility plan as a component of a broader plan for all City facilities. This plan should be used as an</p>	<p>Management agrees with the recommendation.</p> <p>Action: Parks and Recreation and REFM agree with the overall recommendation and recommend conducting further analysis to assess how the Public Infrastructure Improvement Framework (PIIF) will support this recommendation. It is understood that</p>	<p>CMO, FSC, REFM</p>	<p>2027- 2030 Capital Plan</p>

Recommendation	Management Response and Next Steps	Responsibility	Target Date
input for City-wide asset prioritization processes.	the PIIF, currently being implemented, is intended to establish funding envelopes for asset categories, incorporate existing methodologies, and guide City-wide asset prioritization.		
<p>Recommendation 4</p> <p>Once levels of service have been defined for asset management, the City should establish and implement the level of asset management reporting (i.e., City-wide, service group or facility type) required by elected officials for effective strategic decision-making.</p> <ul style="list-style-type: none"> Reporting should include risks and impacts to community levels of service related to forecast funding scenarios and technical levels of service targets 	<p>Management agrees with the recommendation.</p> <p>Action: Parks and Recreation and REFM agree with the overall recommendation and recommend that further analysis be undertaken to clarify the implications of the PIIF.</p> <p>It is understood that the City intends to report PIIF funding allocations by asset type to elected officials. However, it remains unclear whether the reporting will include associated risks and impacts to levels of service.</p> <p>Given that elected officials are responsible for strategic, high-level decision-making rather than operational matters, reporting will be structured to align with this governance role</p>	CMO, REFM with support from PB	2027- 2030 Capital Plan
<p>Recommendation 5</p> <p>The City should:</p> <ul style="list-style-type: none"> Calculate and consolidate relevant lifecycle cost estimates (such as operating maintenance, capital 	Management agrees with the recommendation and notes that steps are being taken to address this concern. Further analysis is recommended to clarify the implications of the Public Infrastructure Investment	FSC, REFM	2027- 2030 Capital Plan

Recommendation	Management Response and Next Steps	Responsibility	Target Date
<p>maintenance, renewals and replacement) for recreation facilities to support long-term investment planning;</p> <ul style="list-style-type: none"> • Update the infrastructure funding gap calculation to reflect these lifecycle costs; and, • Analyze the updated funding gap relative to current and planned community levels of service to ensure funding alignment. Levels of service or funding investments should be adjusted as required to address the shortfall. 	<p>Framework (PIIF) and its alignment with the Office of the Auditor General's (OAG) recommendation.</p> <p>Action: The PIIF is expected to estimate high-level growth and renewal needs, incorporate levels of service, and support long-term infrastructure investment planning. However, the extent to which technical and community levels of service will inform service delivery and infrastructure decisions remains unclear. Management will undertake further analysis to address this gap and ideally ensure alignment with the OAG's recommendation.</p>		
<p>Recommendation 6</p> <p>The Park Board and REFM's Partnership Agreement should be updated to include:</p> <ul style="list-style-type: none"> • REFM's accountability requirements to the Park Board, including defining and reporting on metrics that include targets and results related to technical levels of service; • Defined roles and responsibilities for the development of an asset management plan for recreation facilities (as per Recommendation 2); • A definition of 'base building' and detailed guidance on which entity is 	<p>Management concurs with the recommendation, with the caveat that governance-related matters require broader discussion and resolution. Furthermore, Park Board staff and REFM continue to engage in ongoing dialogue to clarify accountabilities and establish a more clearly defined governance framework.</p> <p>Action: In keeping with the broader discussion on governance and accountabilities which are on-going, Park Board staff and REFM will collaborate on the development of an update to the Partnership Agreement through addendum. This addendum will aim to enhance clarity regarding:</p>	REFM, PB	2027- 2030 Capital Plan

Recommendation	Management Response and Next Steps	Responsibility	Target Date
<p>responsible for maintenance of base building components vs programming equipment; and,</p> <ul style="list-style-type: none"> Alignment between maintenance responsibilities and budgets. 	<ul style="list-style-type: none"> Base building responsibilities and definition Departmental roles and accountabilities Funding mechanisms Reporting structures and channels Performance metrics and their updates <p>This joint effort reflects a shared commitment to strengthening interdepartmental coordination and ensuring transparent, accountable operations.</p>		
<p>Recommendation 7</p> <p>The City should implement an integrated information technology solution to manage and report on its capital asset related data.</p>	<p>Management agrees with the recommendation and acknowledges the importance of an integrated information technology solution to support effective capital asset management and reporting.</p> <p>Action: This work is currently underway by REFM and Technology Services (TS) through the development of more refined reporting tools and enhanced asset mapping. These efforts aim to improve reporting, data integration, accuracy, and accessibility, thereby strengthening long-term planning and decision-making related to capital assets.</p>	TS, REFM	2027- 2030 Techonolgy Capital Plan
<p>Recommendation 8</p> <p>REFM should formalize a process to regularly assess the effectiveness of preventative</p>	<p>Management agrees with the recommendation and recognizes the importance of periodically evaluating preventative maintenance schedules and leveraging data analytics to support predictive maintenance.</p>	REFM	2027- 2030 Capital Plan

Recommendation	Management Response and Next Steps	Responsibility	Target Date
maintenance schedules and leverage data analytics to support predictive maintenance.	Action: REFM has taken steps to improve preventative maintenance schedules and is formalizing a process to assess the effectiveness of preventative maintenance through enhanced reporting tools and asset mapping. These tools will also support the integration of data analytics to inform predictive maintenance strategies and optimize asset performance.		
<p>Recommendation 9</p> <p>REFM should improve its data reliability to accurately assess work order completion rates, and the Park Board and REFM should implement risk-informed measures to reduce the delays in demand maintenance completion.</p>	<p>Management agrees with the recommendation and acknowledges the need to improve data reliability to accurately assess work order completion rates. While implementing risk-informed measures is not currently feasible due to the high-level nature of asset tracking, steps are being taken to enhance data quality and asset visibility.</p> <p>Action: REFM and the Park Board will continue to improve data reliability through the following measures:</p> <ul style="list-style-type: none"> ▪ Enhanced Asset Mapping: Develop more detailed asset inventories to support granular tracking and analysis. ▪ Refined Reporting Tools: Implement tools that improve visibility into work order status and completion rates. 	REFM with support from PB	2027- 2030 Capital Plan

Recommendation	Management Response and Next Steps	Responsibility	Target Date
	<ul style="list-style-type: none"> Standardized Data Collection: Establish consistent protocols for capturing asset and maintenance data across departments. System Integration: Integrate asset data across platforms to support more comprehensive analysis. Asset Tracking: Evaluate the feasibility of implementing barcoding at a more granular level to enhance asset tracking. This approach would improve the ability to monitor asset location, usage, and condition, thereby supporting more effective maintenance and lifecycle management. <p>These efforts which are currently underway will strengthen the foundation for future consideration of risk-informed maintenance strategies and improve overall operational efficiency.</p>		
<p>Recommendation 10</p> <p>In conjunction with the Park Board, REFM should assess the benefits of implementing a balanced maintenance strategy that shifts focus towards planned and predictive maintenance. This includes:</p> <ul style="list-style-type: none"> Ensuring that maintenance data is of sufficient quality to support analysis (complete and accurate); 	<p>Management agrees with the recommendation and supports the development of a balanced maintenance strategy that prioritizes planned and predictive maintenance. It is important to note that the Park Board operates as a strategic board and does not have direct operational responsibilities. As such, REFM will lead the operational aspects of this work, in consultation with Park Board staff.</p>	<p>REFM with support from PB and FSC</p>	<p>2027- 2030 Capital Plan</p>

Recommendation	Management Response and Next Steps	Responsibility	Target Date
<ul style="list-style-type: none"> Assessing the gap between the operating maintenance and capital maintenance required to reduce demand maintenance (i.e. how much demand maintenance is the result of planned/preventative maintenance or capital maintenance projects not being completed as required); Developing and using a risk and criticality matrix to determine which asset components can be left to reactive maintenance without significant negative impact on levels of service; Determining the budget and staff capacity required; and, Developing a funding strategy to efficiently and effectively carry out the preventative and capital maintenance required to shift the balance from reactive to proactive maintenance and address the capital maintenance backlog of recreation facilities <ul style="list-style-type: none"> This strategy should incorporate the service levels specified in Recommendation 2 and be included in the overall 	<p>Of note and critical to this strategy, a sustained shortfall specifically in capital maintenance renewal funding has significant and compounding effects on aging infrastructure. Without adequate investment, facilities are unable to undergo timely upgrades or replacements, leading to accelerated deterioration and increased vulnerability to system failures. Deferred renewal work often results in higher long-term costs, as minor issues evolve into major repairs or complete asset replacements. This reactive approach undermines service reliability, reduces operational efficiency, and could potentially compromise safety and user experience. Moreover, the inability to address aging infrastructure due to funding constraints proactively limits strategic planning and contributes to a growing backlog of capital needs, placing further strain on already constrained budgets.</p> <p>Action: REFM has more recently initiated and will continue on with work on the following efforts to strengthen asset management:</p> <ul style="list-style-type: none"> Data Quality Improvement: Enhance the completeness and accuracy of maintenance data to support meaningful analysis. 		

Recommendation	Management Response and Next Steps	Responsibility	Target Date
<p>funding gap analysis in Recommendation 5.</p>	<ul style="list-style-type: none"> ▪ Maintenance Gap Assessment: Evaluate the relationship between deferred operating and capital maintenance and the volume of demand maintenance. ▪ Risk and Criticality Matrix: Develop a framework to identify asset components suitable for reactive maintenance without compromising service levels. ▪ Resource Planning: Assess staffing and budget requirements to support a shift toward proactive maintenance. ▪ Funding Strategy Development: In partnership with FSC, further explore the development of a funding strategy that incorporates defined service levels (Recommendation 2) and aligns with the infrastructure funding gap analysis (Recommendation 5), in accordance with the City's established funding processes, to address the capital maintenance backlog. <p>These efforts will support a more strategic and sustainable approach to asset management across recreation facilities.</p>		
<p>Recommendation 11</p> <p>With input from the Park Board, the City should develop a standardized framework for</p>	<p>Management acknowledges the intent of the recommendation and agrees that a standardized framework for prioritizing recreation facility asset</p>	<p>FSC, REFM with support from PB</p>	<p>2027- 2030 Capital Plan</p>

Recommendation	Management Response and Next Steps	Responsibility	Target Date
<p>prioritizing recreation facility asset renewal, replacement and disposal. The framework should incorporate clear evaluation criteria and documented rationale to support transparent and defensible decision-making.</p>	<p>renewal, replacement, and disposal could support more transparent and defensible decision-making. However, further analysis is required to determine the feasibility and appropriateness of such a framework, taking into account the diverse needs of departments, governance context, strategic priorities, and funding limitations.</p> <p>Action: REFM will engage relevant stakeholders, including the Park Board in its strategic advisory role, to explore the potential benefits and implications of a standardized prioritization framework. This analysis will consider service delivery impacts, interdepartmental priorities, and alignment with broader City planning and financial strategies.</p>		
<p>Recommendation 12</p> <p>The Park Board and City should review and update their current metrics to create key performance indicators that integrate measures of utilization, maintenance and cost efficiency. This would allow for more comprehensive monitoring and reporting of recreation facility performance relative to community and technical service levels.</p>	<p>Management acknowledges the recommendation and agrees that performance metrics play an important role in monitoring recreation facility performance. However, key performance indicators are developed to serve all client departments and must remain focused and manageable to ensure consistent and meaningful reporting.</p> <p>Action: REFM will work with Parks and Recreation staff and other stakeholders to assess opportunities for refining existing metrics. This review will consider how best to incorporate utilization, maintenance, and cost efficiency measures—while maintaining a</p>	<p>REFM with support from PB</p>	<p>2027- 2030 Capital Plan</p>

Recommendation	Management Response and Next Steps	Responsibility	Target Date
	streamlined set of indicators that support cross-departmental reporting and decision-making.		
<p>Recommendation 13</p> <p>After accountability requirements have been updated in the Partnership Agreement (as per Recommendation 6), REFM should report its results against agreed-upon performance measures and targets to the Park Board to demonstrate its fulfilment of facility asset management obligations.</p>	<p>Management acknowledges the importance of performance reporting as a key component of effective asset management and agrees with the intent of Recommendation 13. Establishing clear accountability and reporting mechanisms will help reinforce transparency and alignment with strategic objectives.</p> <p>However, it is important to recognize that the ability to implement robust performance reporting is contingent on adequate resourcing. The current and projected shortfalls in capital maintenance renewal funding pose a significant challenge to fulfilling asset management obligations in a proactive and sustainable manner. Without sufficient investment, REFM's capacity to meet performance targets—particularly those related to lifecycle renewal, preventative maintenance, and service reliability—will be constrained. This may result in performance outcomes that reflect systemic funding limitations rather than operational inefficiencies.</p> <p>As such, while REFM will undertake further analysis to determine appropriate reporting mechanisms following the update of accountability requirements in the Partnership Agreement (as outlined in Recommendation 6), it is essential that these mechanisms are developed with a clear</p>	REFM with support from PB	2027- 2030 Capital Plan

Recommendation	Management Response and Next Steps	Responsibility	Target Date
	<p>understanding of the financial context. Performance measures must be realistic, aligned with available resources, and reflective of both operational responsibilities and the strategic oversight role of the Park Board. This approach will ensure that reporting is meaningful, actionable, and appropriately contextualized within broader City governance and asset management practices.</p>		

Appendix B: About the Audit

This report presents the results of a performance audit conducted by the Office of the Auditor General for the City of Vancouver (OAG) under the authority of the *Auditor General By-Law No 12816*. All audit work was performed to a reasonable level of assurance in accordance with the Canadian Standard on Assurance Engagements (CSAE) 3001 – Direct Engagements, set out in the CPA Canada Handbook – Assurance.

The Office of the Auditor General applies Canadian Standards on Quality Management, CSQMs 1 and 2, which require it to maintain a comprehensive system of quality management, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

The OAG complies with the independence, other ethical requirements and rules of professional conduct of Chartered Professional Accountants of British Columbia (CPABC) applicable to the practice of public accounting and related to assurance engagements and the standards of conduct of the City of Vancouver.

Objective

The objective of this audit was to determine if the Vancouver Board of Parks and Recreation and the City of Vancouver effectively manage existing recreation facilities to align with strategic goals, meet service level priorities and optimize asset lifecycles.

Period Covered by the Audit

The audit covered the period of January 1, 2019 to June 30, 2024. The scope included the Park Board and the City's policies, frameworks, guidelines, processes, reports, data and other documentation related to facility asset management. It also included materials produced prior to January 2019 that were used as policies, guidance or administrative processes during the audit period. We conducted our examination work between August 2024 and April 2025, and completed the audit on August 29, 2025.

Audit Scope and Approach

Our audit scope included the pools, rinks, and community centres the Park Board is responsible for, including the assets and services covered under the Partnership Agreement with REFM.

The audit scope did not include evaluating:

- Governance processes by the Park Board or City unrelated to the management of existing facility assets such as the proposed dissolution of the Park Board;

- Non-building assets such as those related to parks and open spaces;
- City facilities/buildings and equipment unrelated to the Park Board;
- Planning, designing, budgeting, procuring and construction of new assets;
- Procurement processes related to facilities management;
- An assessment of the City's approach to capital asset management for other infrastructure assets such as water, sewer, roads and bridges;
- A "maturity model" assessment of the Park Board's and/or City's approach to capital asset management based on a specified framework;
- City funds and revenue generating processes that are not available or used for managing existing capital assets;
- An assessment of how the City accounts for its assets in compliance with Public Sector Accounting Board requirements; and,
- An assessment of the City's Capital Budget process, beyond the scope of how capital investments for recreation facilities are prioritized for inclusion in the City's Capital plans.

We used several methods to obtain sufficient and appropriate evidence. This included analysing policies, strategies, frameworks, agreements, financial information and asset management activity records related to existing Park Board recreation facilities; interviews with staff and analysis of data such as maintenance records.

Audit Criteria

A performance audit uses specific criteria that are determined in advance to assess how the department or program is performing in the area being examined. Criteria are intended to be reasonable expectations of how a program, operation, system or practice is managed to achieve intended results.

We used the following criteria in this audit:

Exhibit 3: Audit Criteria

Lines of Enquiry	Criteria
Governance, Strategy and Plans	<p>There are clear and effective governance processes for overseeing recreation facilities</p> <p>Strategies have been developed for effective facility asset management of existing recreation facilities.</p> <p>Plans are in place to support the achievement of asset-management objectives and service-level priorities of the recreation facilities portfolio.</p>

Asset Lifecycle Management	<p>There is a comprehensive and current inventory of facilities and their conditions.</p> <p>Asset management processes have been established to optimize the lifecycle stages of recreation facilities.</p> <p>Facility lifecycles have been effectively managed.</p>
Financial State of Assets	<p>There is a comprehensive understanding of the overall financial state of the recreation facilities portfolio and the funding required to sustain it.</p>
Performance Measurement and Monitoring	<p>The performance of facility asset management is monitored against established service-level targets.</p>

The Park Board and the City of Vancouver acknowledged their responsibility for the subject matter of this report and agreed with the suitability of the criteria we applied.

Follow Up

The recommendations within this report will be included as part of the OAG's semi-annual follow-up process agreed to by Council.

Appendix C: Facility Asset Management Terms

Glossary of Facility Asset Management Terms

Term	Description
Asset Management Policy	The intentions and directions of the City as formally expressed by its senior management in the form of a suite of guiding principles for a structured and cohesive approach to AM.
Asset Management Plan	A written document (plan) detailing the required management of infrastructure assets over the entire lifecycle of the asset in a manner to cost-effectively and efficiently provide an identified levels of service.
Asset Inventory (Register)	A record of assets that includes unique identifying information and key attribute data such as installation or construction date, size, material, location and any other relevant operational and technical information.
Critical Assets	Assets for which the financial, business, or service-level consequences of failure are sufficiently severe to justify proactive inspection and rehabilitation. Critical assets have a lower threshold for action than non-critical assets.
Current Replacement Cost (Current Replacement Value)	Is the total estimated amount that it is would cost to replace the tangible capital asset today. The cost includes administration, survey, design and management costs as well as the construction costs.
Disposal	The activities necessary to dispose of decommissioned assets.
Facility Condition Index (FCI)	An industry standard index used to assess the current condition performance of a facility. It measures current facility condition needs divided by current replacement value. It ranges from 0% (new) to 100% (very poor).
Funding Gap	The difference between the current capital funding and the recommended capital funding.
Infrastructure	The system of core assets, facilities and/or equipment.
Infrastructure Funding Deficit	The difference between the estimated amount of annual levelized capital reinvestment required to renew or replace the City's existing infrastructure and amenities, based on current replacement values, and the amount that is currently being funded.
Levels of Service (LoS)	The defined service quality for a particular asset or service, against which performance can be measured.

Maintenance and repairs	Maintain the predetermined service potential of a tangible capital asset for a given useful life. Such expenditures are charged in the accounting period in which they are made.
Maintenance – Emergency Maintenance	Maintenance repair works carried out after a failure has occurred. The repair works are intended to restore the asset to operational status i.e. it can perform its required function. Ideally this should be equivalent to 'corrective maintenance' however sometimes the emergency repair involves some temporary works as an interim measure. These are usually replaced at a later time after the initial crisis with more permanent or suitable repair works.
Maintenance – Preventative Maintenance	Maintenance works that repair or protect an asset to avoid a more serious failure occurring. Also referred to as planned maintenance.
Performance Indicator/Measurement	A qualitative or quantitative measure of a service or activity used to compare actual performance against a standard or target. Performance indicators commonly relate to statutory limits, safety, responsiveness, cost, comfort, asset performance, reliability, efficiency, environmental protection and customer satisfaction.
Procedure	The sequence of steps taken to implement and achieve an activity within a process.
Process	The structured transformation of inputs into outputs. Processes typically operate across many functions and may cross department lines. A complex process may contain many procedures.
Renewal	Works to upgrade, refurbish or replace existing assets with assets of equivalent capacity or performance capability. See also Replacement.
Replacement	The complete replacement of an asset that has reached the end of its life, so as to provide a similar or agreed alternate levels of service. See also Renewal.
Useful Life	Is the estimate of the period over which the owner expects to use the asset. For a tangible capital asset it is the shortest of the physical, technological, commercial and legal life. The physical life of an asset may extend beyond its useful life.

Sources:

Guide for using the Asset Management BC Roadmap https://www.assetmanagementbc.ca/wp-content/uploads/Guide_for_using_the_Roadmap20-AMBC-Sept_23_2011.pdf

New Westminster Facilities Asset Management Plan (2024)

https://www.newwestcity.ca/database/files/library/CNW_DOCS_2466239_v1_ENG_2024_CBP_FAMP_2024_Final_Endorsed_by_Council.pdf

Appendix D: Good Practice Frameworks, Standards, Guides and Asset Management Lifecycle

139. The Province of B.C. does not have a regulation related to municipal infrastructure asset management (in contrast to the Province of Ontario). However, in 2014, B.C. introduced a requirement for local governments to strengthen asset management practices in order to access the Canada Community-Building Fund (CCBF) (a tripartite agreement between Canada, B.C., and the Union of B.C. Municipalities) that delivers over \$2.4 billion annually to build and revitalize public infrastructure.
140. To align with the terms of the CCBF funding agreement, local governments in B.C. must increase their capacity and strengthen their asset management practices guided by B.C.'s framework: Asset Management for Sustainable Service Delivery, which is based on best practices such as ISO 55000 Standard for Asset Management and the International Infrastructure Management Manual. The framework is a systematic approach (*represented in the sidebar on the right-hand side of this page*) supporting local governments to advance their asset management practices and continually improve service, asset and financial sustainability.

Ontario's Asset Management Planning for Municipal Infrastructure Regulation

The province of Ontario requires that municipal governments have:

- A **strategic asset management policy**;
- An **asset management plan** for all municipal infrastructure assets that identifies levels of service and costs associated with maintaining those levels; and,
- **Proposed levels of service and activities and funds required to meet these levels** built into their asset management plan by July 2025.

Source: Ontario Provincial Government, 2019: [Municipal asset management planning](#)

Asset Management BC Framework



Source: Asset Management BC: [Framework and Primers - Asset Management BC](#)

141. Key components of a municipal asset management program include¹³:

- **An Asset Management Policy or Bylaw**, confirming the organization's commitments and expectations for decisions, activities and behaviour concerning asset management and the support for the municipality's objectives. Ideally the Policy should be approved by Council.
- **An Asset Management Strategy** defining the municipality's asset management objectives and strategies on achieving the Policy requirements. The Strategy is focused on improving the municipality's asset management practices.
- **An Asset Management Plan** providing the current state of the infrastructure assets, the levels of service expected from them, planned actions to ensure the assets are providing the expected levels of service, and financing strategies to implement the planned actions. Asset management plans should be updated on a periodic basis.

Asset Management Policies, Strategies and Plans

Although not required of local governments in B.C., there are multiple municipalities that have Council-approved asset management policies, strategies and/or plans. For example:

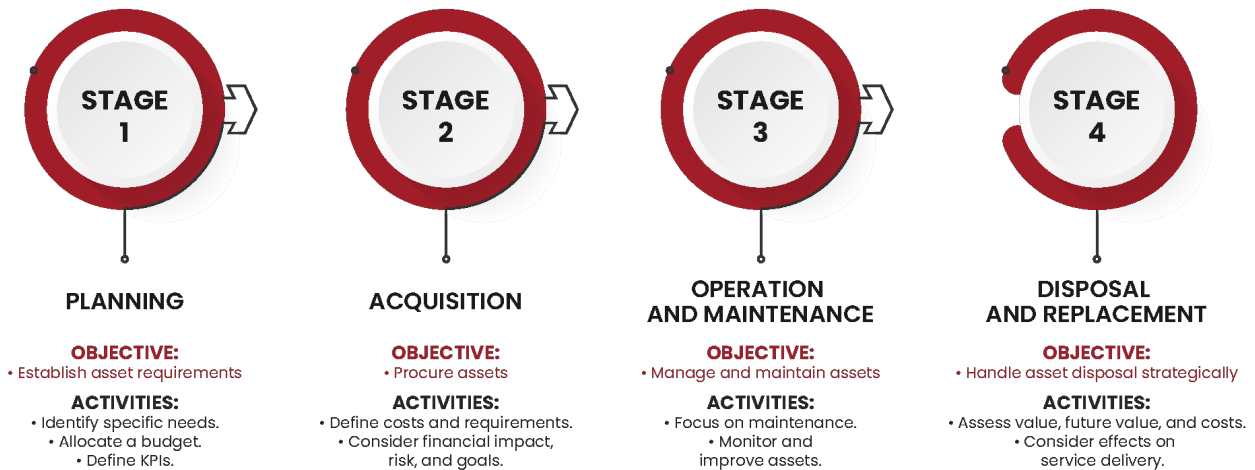
- Langley, Saanich, Courtenay, Mission and other Cities in BC have council-approved policies or bylaws;
- The District of North Vancouver, Port Coquitlam, Revelstoke, Cowichan Valley, and New Westminster among other cities have Asset Management Strategies; and,
- The Cities of Port Coquitlam and New Westminster have facilities asset management plans (that include recreation facilities) that follows the strategies and direction of the broader strategic asset management plan.

Facility Asset Management

142. Facility asset management starts with a planning stage where the assets required to deliver specific public services are identified, a budget is allocated, and performance expectations are outlined. Next, tangible assets that meet the planning specifications are procured or constructed. Once a facility asset is operational, the objectives and activities of a local government shift to the operation and maintenance of the asset, including necessary capital maintenance, preventative maintenance and demand maintenance.

¹³ Source: [Canadian Infrastructure Report Card – Asset Management Primer](#)

Asset Management – Life Cycle



Source: Professional Evaluation and Certification Board, 2023 - [4 Key Stages of Asset Management Life Cycle](#)

143. A robust approach to capital asset management requires planning for and duly considering the impact of capital assets within financial plans. This means including asset-related costs within the operating budget and the multi-year capital plan in order to allow for preventative maintenance and emergency repairs designed to keep an asset in good working order and avoid costly system failures and service disruptions caused by deferred maintenance.

Appendix E: Departmental Responsibilities for Recreation Facility Management

The following tables outline each department's key responsibilities for recreation facility management.

Department	Roles and Responsibilities
Finance and Supply Chain Management	<p><i>Financial Planning and Analysis</i></p> <ul style="list-style-type: none"> Responsible for the budgeting, forecasting and reporting processes with input from REFM and Park Board staff Manages the capital maintenance budget for all City facilities (including recreational facilities) <p><i>Long-Term Financial Strategy & Planning</i></p> <ul style="list-style-type: none"> Develops the City's Long-Term Financial Strategy and Capital Plan, including elements associated with the Park Board; gathers input from all service groups, including REFM and Park Board staff
Parks and Recreation	<p><i>Recreation Services</i></p> <ul style="list-style-type: none"> Responsible for the delivery of recreational services and programming from City assets (rinks, pools, fitness centres, community centres) Responsible for the onsite coordination of vendors procured by REFM for delivery of services Responsible to complete preventative maintenance as assigned (deemed in scope) on critical assets and process work requests when assistance is required from REFM subject matter expert group <p><i>Parks Operations</i></p> <ul style="list-style-type: none"> Provides some trade services such as welding and fabrication, asphalt and drainage, construction, painting and signage <p><i>Strategic Operations Division</i></p>

	<ul style="list-style-type: none"> Provides input to Long-Term Financial Strategy & Planning on capital planning
Real Estate, Environment and Facilities Management (REFM)	<p>The scope and coverage of REFM's services to the Park Board relating to planning, development, and maintaining/operating Park Board facilities established by the <i>REFM and Park Board Partnership Agreement</i></p> <p>Business Initiatives & Operational Excellence</p> <p>Civic Maintenance and Operations</p> <ul style="list-style-type: none"> Provides trade services such as carpentry, mechanical, electrical and plumbing Executes preventative maintenance and demand maintenance work orders Undertakes building systems maintenance and operations Operates mobile crews to service recreation facilities which do not have an on-site mechanical technician <p>Facilities Management and Operational Excellence</p> <ul style="list-style-type: none"> Manages the capital maintenance program and budget for all City facilities including recreational facility assets System life-cycle replacement planning Execution of life-cycle replacements Creates preventive maintenance plans and associated tasks lists for shops and onsite teams to execute within set reoccurring frequencies Operates the Work Control Centre that reviews and assigns expected work execution priorities to the appropriate department for all of REFM and Parks Operations Coordinate contracts of critical based maintenance through procured vendors for compliance-based maintenance (elevators, fire and life safety) Tracks and reports metrics <p>Facilities Planning and Development</p> <ul style="list-style-type: none"> Facility renewal planning (new, replacement, and major renovations and upgrades of facilities) Public benefits and quality assurance Project planning and management Interiors planning and design