

# A Time for Renewal: Assessing the State of Recreation Facilities in British Columbia

## BC Recreation & Parks Association Community Recreation Facilities

Full Report

May 2009





## Message from Suzanne Allard Strutt

Chief Executive Officer,  
British Columbia Recreation & Parks Association

“Renewing our recreation, parks and culture infrastructure on an ongoing basis will ensure that we meet changing community needs, that we become more energy efficient and that our facilities remain important and sustainable assets in our communities – that’s the ultimate objective that has compelled BCRPA to invest in a Community Recreation Facility Inventory, Assessment Study and Audit.”



## About the BCRPA

The British Columbia Recreation and Parks Association is a not for profit organization dedicated to building and sustaining active healthy lifestyles and communities in BC. Established in 1958, the Association is a central resource agency for members and stakeholders of the parks, recreation, physical activity and culture industry, providing leadership, training and support to help meet national, provincial and local priorities. Through a diverse network of partners and extensive programs and services, BCRPA actively advocates accessibility and inclusiveness to recreation and physical activity and strives to help integrate sport and recreation opportunities.

## Our Vision

The recreation, parks and culture sector is an essential partner for building healthy individuals and communities, as well as fostering economic and environmental sustainability.

## Our Mission

BCRPA is committed to leading the parks, recreation and culture sector in building and sustaining healthy active communities, including fostering economic and environmental sustainability. We inspire and support community leaders and practitioners through advocacy, communication, education, resources and other services.



## Acknowledgements

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BCRPA would like to thank the members of the Facility Assessment Project Task Group who volunteered their time and expertise to the development of this document. Project Task Group members included:

- Suzanne Allard Strutt, CEO, British Columbia Recreation & Parks Association
- Linda Barnes, Councilor, City of Richmond
- Gary Houg, Manager, Maintenance & Engineering Services, North Vancouver Recreation Commission
- Don Hunter, Principle, Don Hunter Consulting
- Sharon Meredith, Operations Manager, British Columbia Recreation & Parks Association
- Kevin Pike, Former Director of Parks & Community Services, District of West Vancouver
- Mark Vulliamy, Manager of Planning & Research, Vancouver Park Board
- Sharon White, Policy Analyst/Sport Consultant, Ministry of Healthy Living and Sport

BCRPA would also like to acknowledge the consultants who contributed to this document:

- Hughes Condon Marler: Architects for development of the Recreation Facilities Assessment Study Inventories and Analysis Phases;
- RDH Building Engineering Ltd. for development of the Validation Audit; and
- HB Lanarc Consultants Ltd. for compilation of this document.

BCRPA is thankful for the time and effort provided by all participants.

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# Introduction

## Introduction

Few people today can dispute the positive benefits that recreation has on our quality of life. Recreation is essential to our well-being, encouraging physical activity, fostering social connections and providing enjoyment for all ages and abilities.

But what about the places we use for swimming, skating, walking and playing? Are they capable of supporting BC’s growing population and the changing face of recreation?

## A Time for Renewal

Our parks, pools, arenas and community centres – BC’s recreation infrastructure – form the hearts of our communities. These are places where people gather for neighbourhood celebrations, where we cheer local sports heroes and where we go to learn new skills and take part in physical activity. Because our recreation, sport and leisure facilities are so important, yet so little was known about their condition, BCRPA launched a Community Recreation Facilities Assessment Study to take stock of these assets and evaluate their condition. This was the first detailed study of its kind in BC. The goal was to develop a clear picture of the state of our aging recreation infrastructure and determine what needs to be done to keep it a vital part of our communities for coming generations.

Armed with this new evidence, our members will be able to help their local governments set priorities and make informed decisions for parks and facilities upgrades or replacement. Meanwhile, BCRPA is using this information to make a case with senior government decision makers to encourage greater support for communities to help them carry through with recreation facility projects. The information contained in this study also pertains to local planners and non-government organizations that own, operate or facilitate planning for recreation facilities. Together, we can ensure our communities continue to have appropriate gathering places that support a high quality of life for all British Columbians.

**A Time for Renewal** is intended to communicate the key findings of BCRPA’s research to date and discuss the implications portrayed by the data. This document examines why our recreation facilities are important to the people of BC and builds a valid case, supported by empirical data, for the thoughtful, immediate and on-going renewal of our recreation infrastructure.

Section 1:  
What is the State of Recreation  
Infrastructure in BC?

Section 2:  
Why is Recreation so Important?

Section 3:  
What Trends Affect Recreation?

Section 4:  
What is Needed for Renewal?

Section 5:  
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Conclusion

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## Key Messages

The findings of the Facilities Assessment Study show that we are now at a critical crossroads for recreation infrastructure renewal and immediate action is necessary.

- More than **68%** of our indoor recreation infrastructure assets are **over 25 years old** and aging rapidly.
- BC's forecasted population growth for the next 10 years is **575,900** new residents.
- Many of our older facilities are now experiencing **functional obsolescence** – that is the inability to accommodate changing demands from users.
- In the past, funding for recreation infrastructure has been **inconsistent**.
- Our investment in recreation facilities has **declined** in the past 25 years.
- BC is now facing an indoor recreation deficit related to backlogged work and deferred maintenance of approximately **\$4.065 billion** and rising.
- To continue providing the current level of service for indoor recreation facilities to accommodate BC's projected population growth, an additional investment of approximately **\$1.200 billion** would be needed.
- These estimates do not factor in the investment needed for our outdoor recreation facilities.

This new evidence makes a compelling case for a long term and sustainable approach to recreation infrastructure renewal. A commitment from all levels of government will be key to the success of any renewal project. BCRPA proposes a new approach to recreation infrastructure renewal that utilizes three distinct components:

- 1 Recreation Renewal Program:** An on-going capital fund for indoor and outdoor recreation projects, both major and minor.
- 2 Recreation Partnership Program:** Incentives for cooperative planning and efficient program delivery.
- 3 Recreation Life-Cycle Program:** A program to promote life-cycle information sharing and preventative action.

To ensure our communities continue to have meaningful, viable places to play and grow, recreation infrastructure renewal needs to begin immediately, with long-term commitment by all levels of government.



## Report Organization

This report is presented in five sections that structure a case to explain and support the immediate and thoughtful renewal of BC's recreation facilities.

### **Section 1: What is the State of Recreation Infrastructure in BC?**

The first section introduces the Facilities Assessment Study and provides a synopsis of the study findings on the state of existing recreation infrastructure in British Columbia.

### **Section 2: Why is Recreation so Important?**

The second section provides a brief literature review of documented health, social, community, environmental and economic benefits that arise from the provision of facilities that support recreation, sport and physical activity.

### **Section 3: What Trends Affect Recreation?**

The trends section looks at how recent trends are affecting the way we must plan for future recreation service provision.

### **Section 4: What is Needed for Facilities Renewal?**

Section 4 of the document summarizes the cost analyses completed in the Facilities Assessment Study and provides figures that depict the current state of deficit.

### **Section 5: Investing for Today & Tomorrow**

In response to the situation described in the first four sections of the document, this last section describes BCRPA's recommended approach to recreation infrastructure renewal in British Columbia.

“The need for a sustainable recreation infrastructure funding strategy has never been greater, and the BCRPA Recreation Facilities Assessment Study has provided a solid evidence base for the development of such a strategy. This report consolidates the research and makes a clear case for action by the province of BC and its municipalities.”

– Don Hunter,  
Principal, Don Hunter Consulting

# Section 1

## What is the State of Recreation Infrastructure in BC?

### Introduction

#### Section 1: What is the State of Recreation Infrastructure in BC?

#### Section 2: Why is Recreation so Important?

#### Section 3: What Trends Affect Recreation?

#### Section 4: What is Needed for Renewal?

#### Section 5: Investing for Today & Tomorrow

### Conclusion

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### An Introduction to the Facilities Assessment Study

Understanding the important role that BC's recreation facilities play in the provision of recreation and sport opportunity, yet seeing that little cohesive information was known about the condition of our facilities, the BCRPA launched a Recreation Facilities Assessment Study.

In Spring 2003, the BCRPA commissioned **Hughes Condon Marler: Architects** to produce an inventory database and complete a study of recreation facilities owned and/or operated by local municipalities in British Columbia. The multi-phased Recreation Facilities Assessment Study examined eight types of indoor and four types of outdoor publicly owned recreation facilities. The data generated through the study revealed a clear picture of the escalating challenges our communities face related to sustaining our recreational opportunities.

The objectives of the Facilities Assessment Study were:

- To provide assistance to communities throughout British Columbia in evaluating the life-cycle stage of their facilities.
- To provide guidance and information to these communities related to the upgrading, maintenance or replacement of existing facilities.
- To ensure that British Columbians have access to the facilities they need in order to live healthy, active lifestyles.

The Facilities Assessment Study included three key components:

- 1 Inventory Phases:** Three inventories were performed to compile a comprehensive database of existing indoor and outdoor recreation facilities in BC.
- 2 Analysis Phase:** The analysis study examined the inventory data and developed theoretical infrastructure replacement and rehabilitation costs for BC's recreation facilities.
- 3 Validation Audit:** 34 existing recreation buildings were selected for detailed evaluation to validate the theoretical analysis assumptions and establish empirical data about facility rehabilitation needs and costs.

A brief summary of each of the three study components is provided on the following pages.

**12 types of facilities were inventoried in the study:**

**Indoor Facilities:**

Ice Arenas, Indoor Pools, Outdoor Pools, Curling Facilities, Community Centres, Youth Centres, Seniors Centres & Community Halls

**Outdoor Facilities:**

Parks, Natural Areas, Trails & Playing Fields

The surveys used for the indoor facilities studied in Inventory Phases 1 & 3 documented:

- Population served by facilities
- Type and number of publicly-owned facilities
- Facility locations
- Travel distance to facilities
- Facility ownership and operation
- Facility size
- Facility usage
- Life-cycle stages
- Upgrades
- Accessibility
- Approximate replacement value
- Specific questions related to each facility type

The surveys used for the outdoor facilities studied in Phase 2 documented:

- Population served by facilities
- Type and number of publicly-owned facilities
- Facility size
- Budgeting for outdoor facilities
- Types of activities accommodated
- Accessibility
- Specific questions related to each facility type

To review the complete Inventory Phases, refer to the Facilities Assessment Study Inventory Phases.

## 1: Inventory Phases

The first component of the Facilities Assessment Study was an inventory to gather relevant data on existing recreation facilities throughout BC. **Hughes Condon Marler: Architects**, working with a BCRPA Project Task Group, completed an extensive data collection process in three phases:

- **Inventory Phase 1:** Ice Arenas, Indoor Pools, Outdoor Pools & Curling Facilities – January 2004
- **Inventory Phase 2:** Parks, Natural Areas, Trails & Playing Fields – June 2006
- **Inventory Phase 3:** Community Centres, Youth Centres, Seniors Centres & Community Halls – June 2006

### Inventory Study Process

The consultants and BCRPA selected a broad-scope inventory process that would begin compiling a complete record of municipally-owned recreation facilities throughout the province. The central tool used for the inventory was a self-reporting survey distributed to all Municipal and Regional District Governments in British Columbia. The use of a province-wide survey permitted the study to cover all recreation communities and assemble an accurate initial picture of the scope of recreation provision province-wide.

The survey process required self-reporting by local government staff. A high rate of response was achieved:

- Phase 1: 185 surveys distributed, 100% return rate
- Phase 2: 185 surveys distributed, 88% return rate
- Phase 3: 185 surveys distributed, 88% return rate

While the study did not achieve a 100% response rate on all phases, the completed surveys provided quality insights and compiled sufficient information to build a current snapshot of the state of recreation facilities in BC. A goal for future inventory data development would be to complete data collection for outstanding communities.

Inventory Phases 1 & 3 recorded indoor facility data using similar survey structures. Phase 2 inventoried outdoor spaces using a different set of survey questions. The consultants compiled the inventory for all facilities into a database and developed summary reports to present the findings.



**Replacement Value:** The cost to fully replace all existing indoor recreation infrastructure in BC.

**Rehabilitation Value:** The cost to erase the existing recreation infrastructure deficit in BC.

To review the complete findings of the Analysis Phase, refer to the Facility Assessment Study Analysis Phase.

## 2: Analysis Phase

The next step in the process was to analyze the data gathered through the inventories and develop a comprehensive overview of the state of recreation facilities in BC.

The Analysis Phase of the study, completed by **Hughes Condon Marler: Architects** in December 2007, undertook detailed analysis of the eight types of indoor and four types of outdoor recreation infrastructure compiled in the Inventory Phases. The analysis allowed the review and comparison of all three phases of the inventory and clarification of the province-wide issues related to recreation infrastructure in BC.

A key component of the Analysis Phase was the development of preliminary **Replacement Value** and **Rehabilitation Value** for all documented recreation infrastructure in BC. The analysis utilized theoretical assumptions based on facility life-cycle stage (age) to form an estimate of the current deficit burdening recreation facilities in BC. Although many factors contribute to the long-term viability of a facility, life-cycle provides a standard scale by which to measure and compare the general state of facilities. Typically, facilities follow similar patterns whereby operational costs and the need for significant capital upgrades increase as a facility ages. See Section 4: What is Needed for Renewal? for a summary of replacement and rehabilitation values.

### 3: Validation Audit

To verify and supplement the findings of the Analysis Phase, a Validation Audit was undertaken.

BCRPA commissioned **RDH Building Engineering Ltd.** to conduct a Validation Audit in July 2008. The main purpose behind the audit was to gather additional technical information for the purpose of validating the existing life-cycle assumptions about the general condition of the recreation facility infrastructure in British Columbia.

Additional objectives of the study included:

- To derive an order of magnitude estimate of provincial recreation infrastructure re-investment and re-capitalization costs, to be incorporated in an advocacy platform regarding provincial funding of the infrastructure deficit.
- To derive a Condition Index to enable comparative analysis of each building in a statistically representative sample of recreation facilities.
- To extrapolate the findings of the sample of buildings across the provincial portfolio in order to derive a defensible estimate of infrastructure deficit.

#### Study Process

The BCRPA selected 34 recreation buildings for data validation in the Validation Audit. The selected facilities provided a cross-section of community centres of varying ages across the Lower Mainland.

The Validation Audit focused only on indoor recreation infrastructure and was undertaken to review the physical condition of structures. Site assets and outdoor spaces were not assessed in the audit.

Consultants visited and examined each of the 34 facilities to develop accurate data about the state of existing building systems. Data was primarily collected through:

- Drawings made available;
- Site observation; and
- Discussions with facility staff and managers.

The consultants created a summary for each building documenting:

- Observations about the existing building systems;
- Concerns and deficiencies related to each building system;
- Recommendations for work required to repair immediate deficiencies, as well as maintenance and renewal improvements that would be required over the next five years; and
- Estimated reinvestment amounts for immediate “catch-up” costs and for five-year “keep-up” costs.

What were the characteristics of the Validation Sample?

**Recreation Region:**  
Lower Mainland

**Number of Facilities:**  
16

**Number of Buildings:**  
34 (some facilities contained multiple recreation buildings)

**Types of Infrastructure:**  
16 community centres  
5 indoor pools  
1 community hall  
1 curling facility  
3 ice arenas  
2 senior centres  
3 youth centres  
0 outdoor swimming pools

**Building Systems Studied:**  
Structural  
Enclosure  
Electrical  
Mechanical  
Finishes

The validation team created three reinvestment categories to describe the anticipated costs associated with facility renewal:

- 1 “Catch-up” Costs:** The costs related to the accumulated backlog of deferred work and outstanding repairs. Catch-up costs reflect that the investment needed to bring the building back to operational standards.
- 2 “Keep-up” Costs:** The costs estimated for renewal projects forecasted over the next five years to ensure that the facility keeps up with normal capital renewal requirements as its assets age.
- 3 “Get-ahead” Costs:** The costs associated with adaptation to avoid functional obsolescence. This is the work required to ensure that a facility continues to meet its current programming needs and capacity.

These three cost categories help decision-makers determine how best to invest in recreation facilities for the short-, medium- and long-term.

The Validation Audit used a consistent evaluation methodology and developed a system for recording accurate and detailed information about building systems. By expanding the sample size of such a study, accurate extrapolations could be made about multiple facility types throughout the province.

See Section 4: What is Needed for Renewal? for a summary of the Validation Audit Findings.



To review the complete Validation Report, refer to the Facilities Assessment Study Validation Audit.

Life-cycle stage assumptions are generalizations. The actual condition of facilities vary on a case by case basis. However, life-cycle assessment provides an insightful overview of the state of BC's recreation infrastructure.

#### What factors contribute to building viability?

- Building age
- Ongoing maintenance and upgrades
- Major renovations and additions
- Premature failure of building systems
- Functional obsolescence



## What has the Facility Assessment Study Found?

### 1: Our recreation buildings are rapidly aging.

68% of BC's indoor recreation facilities are 25 years or older.\*

42% of BC's indoor recreation facilities are 35 years or older.\*

The Inventory and Analysis Phases of the Facility Assessment Study use five "life-cycle stages" based on building age to evaluate the state of BC's facilities. Although many factors contribute to the long-term viability of a facility, life-cycle provides a standard scale by which to measure and compare the state of our facilities. The majority of recreation facilities analyzed in the Facility Assessment Study exhibited physical conditions consistent with age.

#### Life-Cycle Stages

Typically as a facility's life-cycle stage advances, operational costs and the need for significant capital upgrades increase dramatically, while energy efficiency and functionality decline. The life-cycle stages used in the Facility Assessment Study were:

##### Stage 1: Planning and/or Construction

During Stage 1, a facility is in the planning and/or construction phase. Once a facility has been opened to the public it is no longer in Stage 1. During this stage there are typically no maintenance or capital improvement funds required.

##### Stage 2: 1 to 14 Years Old

During this period, standard operating and maintenance budgets are typically adequate to operate the facility.

##### Stage 3: 15 to 24 Years Old

It is during this stage that standard operating and maintenance budgets may not be adequate to address the major refurbishment or replacement of building elements that have deteriorated. The ability of facility operators to fund these additional expenditures can have a significant impact on the future lifespan of the facility.

##### Stage 4: 25 to 34 Years Old

During this stage, many of a facility's major components will require replacement. In addition to standard operating and maintenance budgets, significant capital improvements may be required to extend the life of the facility.

##### Stage 5: Over 35 Years Old

By this stage, facilities typically become more costly to operate and maintain. As well, large scale rehabilitation or replacement may be required in order for the facility to continue serving the community.

\* Facility age statistics are taken from the Facility Assessment Study Analysis Phase completed in 2007. Today these numbers would be higher.

The Facilities Assessment Study Inventories recorded the age of 796 facilities throughout British Columbia.

### Current Life-Cycle Stages of BC's Indoor Recreation Facilities

Life Cycle Stage	Number of Facilities	Percentage of Facilities in Life Cycle Stage
Stage 1: Planned (not built)	8	1%
Stage 2: 1 to 14 years old	149	19%
Stage 3: 15 to 24 years old	97	12%
Stage 4: 25 to 34 years old	207	26%
Stage 5: 35 + years old	335	42%
<b>Total</b>	<b>796</b>	<b>100%</b>

"On average, buildings have a functional life of about 50 years..." (Vander Ploeg, 2006).

With 68% of BC's recreation infrastructure in their last two life-cycle stages, we can see that our facilities are reaching a critical point. Aging facilities are more costly to maintain, reducing what is available to develop new or renew existing facilities. Age significantly contributes to the accumulating deficit as deterioration accelerates as a building ages. Age, compounded by deferred maintenance, has resulted in recreation facilities with maintenance backlogs that require much more investment than regular maintenance budgets allow, and in many cases, have deteriorated to the point of requiring complete replacement (Mirza, 2007).

### Facility Type and Life-Cycle Stages

Certain indoor recreation facility types have a much larger portion of buildings that are in advanced life-cycle stages.

Recreation facility development is influenced by recreation trends, new construction technologies and community demand. For example, many of BC's outdoor pools, seasonal in our climate, were built in the 1960s. When building technologies and indoor pool styles changed in the 1970s and 80s, indoor pools became much more popular recreational resources and they replaced much of the demand for outdoor pools.

The chart on the following page summarizes the life-cycle stages for each of the eight indoor recreation facilities in the Facility Assessment Study. The chart indicates that while reinvestment is needed throughout BC's recreation facilities, certain indoor recreation categories are reaching a critical point more quickly.

### Current Life Cycle Stages of BC's Indoor Recreation Facilities

	Facility Stage	Number of Facilities	Percentage of Facilities in Life Cycle Stage
Community Centres	Stage 1	0	0%
	Stage 2	32	20%
	Stage 3	20	12%
	Stage 4	52	33%
	Stage 5	55	35%
Community Halls	Stage 1	1	1%
	Stage 2	13	13%
	Stage 3	13	13%
	Stage 4	12	12%
	Stage 5	60	61%
Curling Facilities	Stage 1	1	1%
	Stage 2	5	6%
	Stage 3	6	8%
	Stage 4	23	30%
	Stage 5	43	55%
Ice Arenas	Stage 1	3	2%
	Stage 2	28	17%
	Stage 3	12	8%
	Stage 4	47	29%
	Stage 5	70	44%
Indoor Pools	Stage 1	1	1%
	Stage 2	20	19%
	Stage 3	21	20%
	Stage 4	36	35%
	Stage 5	26	25%
Outdoor Pools	Stage 1	1	1%
	Stage 2	2	3%
	Stage 3	4	5%
	Stage 4	17	24%
	Stage 5	48	67%
Seniors Centres	Stage 1	0	0%
	Stage 2	13	22%
	Stage 3	13	22%
	Stage 4	16	26%
	Stage 5	18	30%
Youth Centres	Stage 1	1	2%
	Stage 2	36	56%
	Stage 3	8	13%
	Stage 4	4	6%
	Stage 5	15	23%

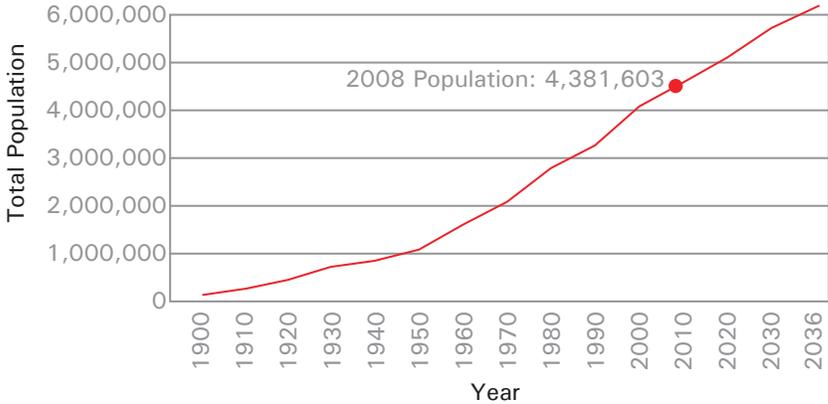
When reviewing the life-cycle stages of facility types a few trends are evident:

- Ice Arenas, Community Halls and Curling Facilities have large portions (73%, 73% and 85% respectively) of existing facilities in either Stage 4 or Stage 5 of their life-cycle.
- The majority of investment in outdoor pools was pre-1980 putting the vast majority (over 90%) of these facilities in Stage 4 or Stage 5 of their life-cycle.
- Community Centres, Indoor Pools and Seniors Centres have had more balanced investment in recent years than other facility types making their life-cycle stages more even.
- Generally, Youth Centres are in much lower life-cycle stages than other types of infrastructure, indicating that much of the investment in Youth Centres has occurred in the past 20 years.
- Community Halls have many facilities (61%) that have been around for longer than 35 years.
- At the time of the study, very few of any type of facility were in the planning stages.

## 2: Our population continues to grow.

In the next ten years, BC Stats population predictions suggest that 575,900 or 13% more people will be living in BC. By 2035 we could have 6 million residents. British Columbia has been one of the fastest growing provinces in Canada over the past 20 years and forecasts suggest this pattern will continue (BC Stats, 2009).

### Past & Forecasted Population Growth in BC



Population Graph based on population data from BC Stats, 2009.

BC's predicted ten-year population growth of **575,900** is equivalent to:

- 1 x the size of the City of Vancouver
- 2 x the size of Greater Victoria
- 5 x times the size of Kelowna

An obvious disparity exists: Our population is increasing steadily while our recreation infrastructure is deteriorating quickly. More people will require more recreation services. The Analysis Phase of the Facilities Assessment Study suggests that if we wanted to provide the same level of service to our population ten years from now as we are providing today, an investment of approximately **\$1.2 billion** would be needed for new recreation infrastructure alone. This is on top of the investment needed to address the existing backlog deficit.

### Outward Expansion

While total population growth plays a major role in the need for new facilities, patterns of growth have an equal role. Low-density urban sprawl burdens infrastructure requirements by increasing demand for new facilities that serve fewer people. These situations are difficult to fund, as low-density development areas often do not provide a large enough tax base to fund high-cost infrastructure (Vander Ploeg, 2006). Dense development or infill allows new infrastructure to be built or existing infrastructure retrofitted to more efficiently serve a growing population. Large multi-use facilities that offer many opportunities for activity and social functions are most effective in high-density communities where many people have local access.

As BC's population grows, strategic decisions will be required to establish new infrastructure where it will effectively serve a large population and will not facilitate urban sprawl.



The Facility Assessment Study Validation Audit provides a sample of typical scenarios for functional obsolescence:

#### Scenario 1: 5 Year Old Building

The building is in poor physical condition but meets its functional needs. It is a good candidate for restoration, ongoing maintenance and planned renewals.

#### Scenario 2: 17 Year Old Building

The building is in relatively good physical condition with some minor functional obsolescence. It is a good candidate for ongoing maintenance and planned renewals.

#### Scenario 3: 35 Year Old Building

The building is in poor physical condition and exhibits high functional obsolescence. It may be considered a candidate for replacement insofar as a cost-benefit analysis may determine that the facility owners would receive a greater return on investment to rebuild rather than continue to allocate capital to the existing building.

#### Scenario 4: 42 Year Old Building

This building is in good physical condition but exhibits high functional obsolescence. From a physical condition perspective the building requires routine maintenance and renewals. However, since it is functionally obsolete, the facility owners are tasked with having to make a difficult decision to either: a) expand the facility; and/or b) construct another facility; and/or c) make other functional adaptations to the interior spaces and equipment.

These examples serve to demonstrate that functional obsolescence requires case-by-case evaluation.

### 3: Our older buildings don't match our new lifestyles.

Wear and tear is not the only problem a building faces as it ages. Functional obsolescence, which is a loss in building utility due to changing demand from its users, affects older buildings that can't be retrofitted to accommodate new uses. Functional obsolescence can impair the utility of a facility and diminish public support of recreation assets.

Functional obsolescence can be difficult to empirically quantify. Even if a building is deemed to be in relatively good physical condition, it may be functionally obsolete if it is not meeting the requirements of people using the facility.

#### What causes Functional Obsolescence?

A variety of factors contribute to functional obsolescence:

- **Changes to recreation programming.** As user interests and needs change, programming for recreation follows suit. Often this means using our spaces differently from how we originally anticipated. The Validation Audit recorded one example of a facility's solution to changing programming by using existing squash courts to hold exercise machines.
- **Changes in sports regulations and technical standards.** Field and court sizes, pool depths and gym ceiling heights are examples of new technical standards that impact existing facilities, in some cases rendering them functionally obsolete.
- **New standards for health, safety and the environment.** Today more than ever, we are demanding higher standards from our civic facilities, particularly related to health, safety and the environment. This means costly upgrades or complete replacement of facilities that do not adhere to new standards.
- **Increased accessibility.** Inclusivity is an important right, yet many facilities, especially older ones, still require upgrades to provide barrier-free access.
- **Changes in demographics.** Both population age and cultural diversity influence user preferences. As community demographics change, our recreation facilities often require retrofits or additions to accommodate new needs.
- **Changing trends in recreation.** Our activity choices, lifestyles, diversity and approaches to recreation impact our recreation facility needs. For example, the recent rise in independent, non-structured activity has raised demand for outdoor trail networks.

Different facility types exhibit signs of functional obsolescence at varying rates. The Facility Assessment Study suggests that the functional needs of pools and arenas change more rapidly than other building types such as community centres, youth centres and seniors centres. This is attributable to the unique environments of pools and arenas and changing standards, environmental considerations, construction methods and trends related to these uses.



#### 4: Our investments have been inconsistent.

Inconsistent funding has led to uneven investment periods for recreation infrastructure. The late 1960s and the 1970s saw a surge in recreation infrastructure funding and the result was the development of an essential base of facilities that have been serving our communities for over 30 years. The investment surge was followed by a decline in spending on recreation infrastructure.

##### Indoor Recreation Facilities Built by Decade

Decade	Number of Facilities	Percentage of Total Facilities
pre-1900	3	10.5%
1900s	4	10.5%
1910s	3	10.5%
1920s	11	11.5%
1930s	11	11.5%
1940s	28	3.5%
1950s	48	6%
1960s	132	17%
1970s	270	34%
1980s	97	12%
1990s	122	15%
2000s	67	8%

Nationally, recreation deficit trends are consistent. Facility studies performed in Alberta, Ontario and Nova Scotia tell similar stories:

- With 133 facilities assessed, the average facility age of recreation facilities in Alberta is 37 and most facilities are in the last half of their anticipated life span (Alberta Updated Facilities Assessment Report, 2006);
- In Ontario, between 30% and 50% of municipally owned facilities are at or approaching their useful life span (Major Municipal Sport and Recreation Facility Inventory, 2006); and
- In Nova Scotia, most recreation facilities studied were built between 1965 and 1980 (Nova Scotia Recreation Facilities Audit Summary Report, 2005).

This scenario of inconsistent funding has generated a deficit where a large number of our recreation buildings are now nearing the end of their useful life spans and require extensive renovation or complete replacement.

Overall, a large portion of Canada's public infrastructure was built between the end of World War II and the mid 1970s (Vander Ploeg, 2006). Aging recreation infrastructure is one of a number of aging public infrastructure systems including roads, transit, social service facilities, water and sewer and other competing government priorities. Vander Ploeg (2006) references the Canadian Society of Engineering estimate that Canadians have now used almost 80% of the useful life of all public infrastructure in the country.

Aging infrastructure requires more money to maintain and manage, reducing the resources available for capital renewal. Additionally, where maintenance or upgrades are deferred, a deficit compounds and an asset may require premature replacement or decommissioning due to safety concerns. In recent years, local governments, which are responsible for over 52% of Canada's infrastructure (Mirza, 2007), have been experiencing escalating budget pressures. Subsequently, funding requirements for operation and maintenance of recreation facilities have not been met, and in many cases, renewal has been deferred, contributing to the accumulating deficit.

### What is deferred maintenance?

As a facility ages, the cost of maintaining it grows and the repairs and renovations needed on a yearly basis increase. If these maintenance and renovation needs are not addressed when they should be, a deficit compounds and deterioration and potential building failure occur much more quickly.

Deferred maintenance often occurs in the public realm where issues such as requirement for new infrastructure, funding cutbacks or competing priorities reduce the money available for maintenance. Over years of deferred maintenance, an increasingly large deficit accumulates.

Energy inefficiency is another cost of aging infrastructure. When many of our existing recreation facilities were built, people were not aware of the negative impacts of excessive energy consumption and energy resources were readily available and affordable. Today, energy costs are a financial burden to older facilities. Retrofits to energy systems and physical structures of facilities can drastically decrease energy costs while significantly reducing the carbon footprint of recreation facilities.

Infrastructure management and energy consumption planning are often neglected in the planning and funding of new facilities. Generally, typical recreation infrastructure investment considers only up-front capital expenditures and does not require a commitment to maintaining the new infrastructure across its entire life span. Adding new construction that does not consider maintenance, energy use and on-going renewal costs, compounds an already staggering deficit. Vander Ploeg (2006) notes three major consequences of failure to consider the life span costs:

- 1 We now have more facilities than are realistically affordable to maintain. This does not mean that the facilities are unneeded, but governments do not have resources to pay for them.
- 2 Because funds are not available to adequately maintain facilities, we face an accumulating maintenance deficit, escalating renewal costs and need for premature replacement.
- 3 This system of investment has left us with a deteriorating, and in some cases, unsafe stock of facilities (Vander Ploeg, 2006).

This cycle of large capital investment followed by inadequate maintenance and renewal of the investment has significantly depreciated the value of our recreation facility assets.



“Keeping up is not just a matter of replacing aging facilities. It is a commitment to family and community life that lies at the very core of the society we cherish.”

Kevin Pike,  
Former Director of Parks & Community  
Services, District of West Vancouver

“For the past 20 years, municipalities have been caught in a fiscal squeeze caused by growing responsibilities and reduced revenues” (Mirza, 2007).

## 5: Our recent investment hasn't kept up.

By looking at our capital investment in indoor recreation infrastructure over time, we can see that our recent investment rates have not kept up. In the 1970s, our per person investment in recreation infrastructure was almost three times the per person investment of the 1990s.

### Investment in Recreation Infrastructure by Decade

Year	Investment	Population	\$/Person
Pre 1960	\$1.05 billion	1,602,000	\$655
1960s	\$1.18 billion	2,128,000	\$552
1970s	\$3.61 billion	2,745,861	\$1,313
1980s	\$1.22 billion	3,292,111	\$369
1990s	\$1.96 billion	4,039,230	\$484
2000s	\$0.82 billion	4,381,603	\$186

The 1970s were an important time for investment for recreation facilities. The benefits of recreation, sport and leisure emerged as key contributors to healthy societies. New recreation facilities were built to accommodate leisure time and people's desire to participate in activity. After the initial investment surge, funds being spent on recreation infrastructure declined through the late 1970s and 80s. The initial investment was key to providing a base of recreation infrastructure that made recreation more accessible to communities. Today, provision of recreation facilities is a public expectation. However, 35 years after the initial investment surge, our facilities are beginning to deteriorate and are, in many cases, no longer meeting our expectations and needs.

Public infrastructure is only one funding issue that government bodies face. In recent years, the focus for federal and provincial spending has been on reducing public debt and expanding spending on health care and education (Vander Ploeg, 2006). Health care funding needs especially are taking up an increasingly larger portion of senior government budgets. Off-loading of federal and provincial services to local governments has created a new set of competing priorities for the municipal budgets that have traditionally funded maintenance and renewal of recreation infrastructure (Slack, 2006).

Combined, these issues mean that in recent years, less funding has been available for recreation infrastructure and today we are experiencing a rapidly accumulating backlog deficit. The results of the Facilities Assessment Study support the case that investment in BC's recreation facilities is now critical. As many of our facilities reach the end of their life spans, reinvestment is needed. This time, however, we call for more than a large, one-time investment. It is time for long-term renewal that ensures a sustainable, ongoing future for our recreation facilities.

## Section 2

### Why is Recreation so Important?

#### Introduction

#### Section 1: What is the State of Recreation Infrastructure in BC?

#### Section 2: Why is Recreation so Important?

#### Section 3: What Trends Affect Recreation?

#### Section 4: What is Needed for Renewal?

#### Section 5: Investing for Today & Tomorrow

#### Conclusion

#### Sources

Active people lead healthier lives and are more connected to their communities. A strong case exists that investment in recreation infrastructure is a preventative, cost-effective approach to health, social, environmental and economic well-being. Investment in recreation infrastructure is a positive action to developing healthy, happy communities and has the potential to offset reactive spending on infrastructure such as hospitals, social services and prisons.

#### So why should we be investing in recreation?

##### 1: For Healthy Active People

Participation in physical activity and recreation is a key determinant of health status and is known to:

- reduce risk of heart disease and stroke, the leading cause of death in Canada.
- help prevent certain types of cancers including colon, breast and lung.
- help combat type 2 diabetes, the fourth greatest cause of death in Canada.
- reduce occurrence of youth obesity, which often translates to adult obesity.
- reduce the occurrence of adult obesity, a key contributor to chronic health conditions.
- help reduce incidence of fall-related injuries and chronic conditions in older adults.
- foster social opportunities and contribute to mental health by reducing stress, combatting depression and building emotional well-being.

“Given the enormous health care burden of a sedentary lifestyle, health campaigns aimed at promoting regular physical activity, including provision of adequate access to quality sport and recreation programs and facilities for all British Columbians, have the potential to reduce the enormous human and economic burden of physical inactivity” (Colman & Walker, 2004).

“For the majority of Canadians, current physical activity patterns are not optimal for health” (The Integrated Pan-Canadian Healthy Living Strategy, 2005).

“20% or more of the cases of type 2 diabetes, stroke, coronary heart disease and colon cancer result simply from a sedentary lifestyle” (BCHLA, 2005).

“1/4 of Canadian children are overweight, and that proportion has been increasing” (Go for Green, 2000).

“Approximately 80% of youth are not active enough to meet international guidelines for physical activity...” (CFLRI, 2004).

“Half of the decline in function that people experience between the ages of 30 and 70 is directly related to a lack of physical activity, not aging itself” (BCMC, 2005).

“Seventy percent of Canadians aged 45 and older suffer from one or more chronic conditions directly related to physical inactivity” (BCMC, 2005).

According to Colman and Walker (2004) the incidences of chronic diseases in BC attributable to physical inactivity include:

- 14.6% of coronary heart disease
- 18.6% of stroke
- 10.2% of hypertension
- 13.5% of colon cancer
- 10.5% of breast cancer
- 16.0% of type 2 diabetes
- 18.3% of osteoporosis

## Our Physical Well-Being:

A 2005 Speech from the Throne set out Five Great Goals for British Columbia. The second goal is to “lead the way in North America in healthy living and physical fitness” (BC Office of the Premier, 2005).

Each year many British Columbians “sit” themselves to death. “Just over 1,400 British Columbians die prematurely each year due to physical inactivity, accounting for 5.0% of all premature deaths” (Katzmarzyk, et.al, 2000). Chronic conditions such as cardiovascular disease and diabetes are sometimes known as lifestyle diseases due to their strong correlation to personal behaviour choices. Twenty percent or more of the cases of type 2 diabetes, stroke, coronary heart disease and colon cancer result from a sedentary lifestyle; being obese more than doubles an individual’s risk of dying early – or losing an average of seven years of life (BCHLA, 2005). Statistics Canada (2004) reports that in 2004, 26% of youth between the ages of 2 and 17 were overweight or obese. This is over 2-1/2 times higher than the prevalence of youth obesity 25 years ago.

Physical inactivity is identified as a major contributor to chronic diseases. In BC, approximately 1.2 million people, or 36% of adults suffer from some type of chronic condition (BCHLA, 2005). Chronic diseases are long-lasting conditions that are rarely cured completely. For people suffering from chronic diseases, the effect is felt physically, emotionally and mentally. It is often a challenge to maintain normal routines and relationships. Studies show that chronic diseases cost BC’s economy around \$3.8 billion annually (BCHLA, 2005). The good news is that a large proportion of the chronic disease incidences in BC could be prevented through increased physical activity.

Regular, life-long physical activity can help increase overall wellness and reduce illnesses. Over the long term, it can postpone disability and allow for longer independent living in elderly individuals. According to Torjman (2004), older adults who are physically active show characteristics of being physiologically one to two decades younger than their sedentary counterparts.

Physical activity does not have to be overly strenuous or prolonged – moderate levels of physical activity can have significant health benefits. Many experts believe that building physical activity into daily routines through accessible recreation opportunities and active transportation is one of the most effective ways to improve community fitness.

According to Colman and Walker (2004) sedentary Canadians are 60% more likely to suffer from depression than those who are active.

From EBIC 98 information, Colman and Walker state that mental illness costs BC about **\$613.3 million** annually in direct drugs, hospital and physician costs.



“We need to focus on keeping citizens healthy, safe and connected through sustainable and well-planned recreation facilities.”

Linda Barnes, Councilor,  
City of Richmond

### Our Mental Well-Being:

More than just improving physical health, recreation has been linked to mental health. It is connected to improved self-esteem, decreased stress and anxiety and overall well-being.

Generally, physical activity makes people feel better about themselves and helps reduce physiological reactions to stress and anxiety. It is also known to help sleep and improve mood. “Physical activity can be considered both for its therapeutic effects on mental illness, and also for its impact on mental health in the general population” (Britain’s Department of Health, Physical Activity, Health Improvement and Prevention, 2004). Overall, physically active people feel happier and more satisfied with life, regardless of socioeconomic or health status.

Activity and recreation have been shown to be important to the mental health of older adults. Recreation provides opportunities for social interaction which is key to combatting isolation and depression. Physically active older adults are often able to preserve independence longer.

The mental health benefits for youth and teens are also acute. Studies show that teens between 15 and 17 years of age who participate in organized sports are more likely to report being very satisfied with their level of self-esteem compared to those who did not participate (Torjman, 2004). Recreational activities can reduce boredom and associated irresponsible behaviours. Boredom is considered a particular problem for youth because of its relationship to depression, hopelessness and loneliness. Boredom has been linked to alcohol use and smoking, deviant behaviour at school and overeating among high school students (Torjman, 2004). Attitudes and social behaviours formed during our youth often persist into adulthood.

According to an article published by the Chief Medical Officer for Britain in 2004, physical activity is well associated with reduced risk of depression and has been shown to be effective in the treatment of clinical depression. Studies show that physical activity may be as helpful as psychotherapy or medication when treating some cases of mental illness, particularly in the long-term (Britain’s Department of Health, Physical Activity, Health Improvement and Prevention, 2004).

Connections with the community and a supportive environment can both prevent and mitigate the impact of mental health disorders in some people and encourage overall well-being. Recreation facilities, parks and trails can be places for safe physical activity and mental solace.

Physical activity levels have multiple definitions. Statistics Canada measures physical activity levels of Canadians through survey responses in the Canadian Community Health Survey and calculates physical activity levels. Physical activity levels classify participants as active, moderately active or inactive.

- Active = Expend over 3.0 kcal/kg/day
- Moderately Active = Expend 1.5-2.9 kcal/kg/day
- Inactive = Expend less than 1.5 kcal/kg/day



According to Colman and Walker (2004) if just 10% fewer British Columbians were physically inactive, the province would save:

\$18.3 million/yr	on direct health care costs
+ \$31.1 million/yr	on indirect health care costs
<hr/>	
\$49.4 million/yr	total would be saved on health care

## How many people are “Inactive”?

According to the Statistics Canada 2005 Canadian Community Health Survey, 40.1% of British Columbians are classified as inactive. Further, only 31.7% of British Columbians are classified as being physically active enough to obtain the full health benefits related to physical activity. While BC has the most active population in Canada, this still means that over two-thirds of our residents do not incorporate sufficient activity into their daily lives.

### Physical Activity of British Columbians in 2005

Physical Activity Level	Approximate Population	Percentage of Population
Physically Active	1,142,461	31.7%
Moderately Active	934,677	25.9%
Physically Inactive	1,443,648	40.1%
Not Stated	81,158	2.3%
<b>Total</b>	<b>3,601,945</b>	<b>100.0%</b>

Physical Activity data from Statistics Canada, Canadian Community Health Survey, 2005.

## What is Physical Inactivity Costing Us?

In a study prepared for the BC Ministry of Health Planning in 2004, it was suggested that physical inactivity has a very real price tag for British Columbians. Findings of the study provide startling numbers:

### \$211 million/year

are the direct costs (hospital, physician, drug, institutional, etc.) related to physical inactivity.

### + \$362 million/year

are the indirect costs (productivity losses due to premature death and disability) related to physical inactivity.

### \$573 million/year

is what we lose due to physically inactive lifestyles in British Columbia (Colman & Walker, 2004).

In BCHLA’s “The Winning Legacy” it is reported that 43% of BC’s operating expenditures in 2002/2003 were being used for health care. If health care costs continue to escalate as they have in the past, an increasingly smaller proportion of money will be available for investment in other key services, including infrastructure development. While many factors contribute to physical inactivity, Canadians feel that access to affordable infrastructure is very important to supporting active lifestyle choices (CFLRI, 1998).

The costs of physical inactivity make a strong case for investing now in recreation infrastructure to help offset escalating health care costs associated with health conditions that could be easily prevented through physical activity.

Carmichael (2008), citing Nichols, suggests several reasons why youth sport and recreation participation reduces crime:

- Keeps young people busy and out of trouble
- Meets a need that youth have for excitement
- Makes young people feel empowered
- Meets a need that youth have for risk-taking
- Increases feeling of connectedness
- Develops problem-solving skills
- Fosters teamwork
- Develops athletic abilities
- Increases self-esteem
- Develops cognitive competencies
- Provides positive role-models and mentors
- Develops decision-making skills
- Makes youth feel special
- Provides employment opportunities

## 2: For Social Engagement

Recreation builds stronger individuals and families by helping to reduce negative, self-destructive behaviours including smoking, substance abuse and juvenile delinquency. Providing recreation facilities is a positive approach that helps reduce reactive spending on social services and justice. Recreation has the ability to break down cultural, class and identity barriers, improving the quality of life for all British Columbians (Bloom et.al, 2005).

Youth crime in Canada is currently on the rise. According to Carmichael (2008) the rate of violent crimes by youth has increased 30% in the last 15 years. While youth crime in Canada can be attributed to many causes, organized sports and recreation have the capacity to contribute to youth crime reduction by providing young people with self-esteem, positive identity and social development. There are many examples of sport and recreation programs that have successfully reduced crime in communities today (Carmichael, 2008). BC's Policy on Sport and Physical Activity affirms that longitudinal studies show that children who participate in organized recreation, including sports, music and culture activities, have higher self-esteems and lower incidences of incarceration and vandalism. The positive skills and social growth an individual gains during youth are often carried throughout his or her lifetime.

Personal growth and development are also a benefit of participation in recreation, sport and physical activity. On a daily basis, we interact with other people while we live, work, learn and play. Our health and well-being are continuously influenced by these connections. Those who pursue recreation have the confidence to explore new interests and skills, feel more competent, have an outlet for stress, create new friendships and develop lifelong attributes of fair play and team building (Bloom et.al, 2005). Generally, active people perform better at their jobs, have stronger family connections and lead more productive lives.



### 3: For Community Spirit

Recreation engages our people and builds social cohesion resulting in communities with civic pride and participation. People feel an emotional connection to the places that bring them enjoyment, making recreation nodes truly a heart within our communities.

As the single largest citizen participation mechanism in BC, indoor and outdoor recreation facilities enable hundreds of thousands of British Columbians to participate in leisure activities. Park, recreation and cultural facilities offer places and programs for us to meet and build relationships. The resulting social capital – relationships and norms that are created when people come together out of a shared purpose – creates communities where people feel connected, children have positive role models and celebrations occur (Bloom et.al, 2005).

In communities that offer a wide variety of facilities and recreation options, there are opportunities for all residents to participate regardless of economic or cultural background. Sport, culture and other recreational pursuits can encourage mutual respect, inclusion, tolerance and understanding.

Recreation is an important component of culture. It aids in self-expression and celebration, story-telling and learning lessons. Through recreation, it is possible to explore values and model behaviours that apply to all aspects of society – hard work, discipline, the value of fun, teamwork, respect for others and fairness.

Every citizen is a potential participant and can be involved according to their needs, preferences, abilities and goals. Participation can act to address and promote social change by incorporating safety, gender equity, equitable access and violence prevention.

Users of recreation facilities say it best:

- “It’s a great place to get to know people and re-connect as I move into a new phase of life.”
- “It’s the community hub.”
- “It helps you get through the tough times and lifts you up.”
- “It provides a sense of community and a way to get to know the community” (BCRPA Investing in Healthy Communities through Recreation Infrastructure, 2005).

“Healthy, active people who are positively interacting with other members of the community enhance not only their individual lives but the social fabric of the community.”

Investing in Healthy Communities through Recreation Infrastructure, BCRPA, 2005



## 4: For Environmental Responsibility

Recreation goes hand in hand with environmental protection:

- 1 Parks, open spaces and natural areas protect habitat, improve air quality and clean water resources.
- 2 Active people seek opportunities to incorporate exercise and recreation into their daily lives which helps take vehicles off the road.
- 3 New and retrofitted recreation facilities reduce energy and resource consumption.

### Open Space Protection

Significant natural environments are encompassed by the parks and recreation sector, and as such they have a strong role to play in stewardship of our communities. Outdoor recreation spaces can:

- Educate communities about the natural environment and build an ethic of stewardship within those communities;
- Play a key role in the protection, enhancement and management of ecosystems and landscapes; and
- Offer carefully managed recreational access to natural areas.

### Active Communities

Initiatives that encourage people to participate in reducing their carbon footprint are rising. In addition to the preservation and enhancement of habitat and natural areas through parks provision, urban form and greenway elements of recreation can assist in addressing climate change by supporting active transportation. Active people that choose to walk or cycle for daily transportation reduce CO<sub>2</sub> emissions and air pollution. Transport Canada reports that in 2006, urban passenger vehicles produced almost half of Canada's transportation greenhouse gas emissions. By incorporating exercise and recreation into their daily lives, as well as nearby access to quality, multi-use facilities, people can reduce their personal carbon footprints. Recreation infrastructure must play its part in BC's campaign for the environment by encouraging the active recreation choices.

### Green Infrastructure

Aging recreation infrastructure is generally energy inefficient. Retrofits to energy systems and physical structures can drastically reduce the energy consumption of our public recreation resources. Public infrastructure should be leading the way in environmental design and construction. British Columbia's recreation infrastructure must support our environmental commitment by providing energy-efficient, green places for people to play.



## 5: For the Economy

Investment in recreation infrastructure has the capacity to boost our economy. The Sectoral Strategic Plan, “The Way Forward” (2008), produced by BCRPA, documents several important contributions that recreation makes to the economy:

- 1 Playing a direct and supporting role for the tourism industry;
- 2 Offering inclusive opportunities for fulfilling employment and supporting the supplier and services industries;
- 3 Stimulating local economy by encouraging spending within communities;
- 4 Stimulating urban renewal which increases property values and tax revenues; and
- 5 Providing cost benefit to the health care and justice systems.

### Tourism

Canadians spend a large portion of their disposable income on sport and recreation as participants or spectators. Likewise, visitors also participate in these experiences — more than 80% of Americans who reported staying in Canada during their travels took part in sport and recreation activities as either a participant or a spectator. Tourism in BC is a significant economic generator and is one of the largest resource industries in the province, ahead of forestry, mining, agriculture and fishing. It is estimated that sport-related tourism alone generates more than \$360 million/year in BC (BC Ministry of Tourism, Sport and the Arts, 2007).

### Employment

In addition to tourism employment, the sport sector alone employs over 10,000 workers in the province, not including the retail sector or municipal employment (BC Ministry of Tourism, Sport and the Arts, 2005). Jobs related to municipal recreation delivery, environmental management, facility management and more are also supported by recreation facilities. Additionally, development of new facilities or rehabilitation of existing infrastructure is a significant source of employment for design, planning and construction related jobs.

### Local Stimulus

Participation in recreation and sport encourages people to spend money locally on goods and services, enhancing and supporting local businesses and keeping money within the community (Bloom et.al, 2005). Physical activity participants spend money on equipment, fees, apparel, food and accommodation in BC’s communities.



“A province comprised of vibrant and thriving communities is an attractive region to work, live, invest in and visit. It is more economically viable because proactive health strategies reduce the costs related to health care, support services, justice and increase productivity.”

Investing in Healthy Communities through Recreation Infrastructure, BCRPA, 2005



## Urban Renewal

A city’s “livability” entices more than just tourists. Vibrant communities attract and retain skilled workers. Recreational and cultural resources are quality of life indicators that increase economic vitality. Investment in public recreation facilities can:

- Help restore and revitalize communities by providing an anchor for downtown redevelopment and cultural renewal;
- Create public places that contribute to a positive community image, attracting business and residents that expand the tax revenue base; and
- Support a region’s ‘innovation habitat’ by making communities more attractive to desirable, knowledge-based employees and facilitating the growth of the knowledge-intensive sectors.

## Health Care & Justice Costs

Investment in parks and recreation can substantially offset costs related to health care. In 2004, the BC Healthy Living Alliance estimated that physical inactivity costs the BC economy \$621 million annually. These costs are borne by the general public, many who will not benefit from this money. Investment in public recreation facilities is an investment of public money that maximizes benefit to all.

A strong recreation sector can reduce crime and delinquency, particularly in youth. By improving youth access to productive recreational resources, many negative social behaviours may be avoided and as a result, costs related to social service intervention and juvenile justice reduced.

BC’s Policy on Sport and Physical Activity refers to Statistics Canada’s estimate that \$7.16 is saved in justice and health care costs savings for every \$1 invested in high quality sport and recreation for disadvantaged children.

# Section 3

## What Trends Affect Recreation?

### Introduction

### Section 1: What is the State of Recreation Infrastructure in BC?

### Section 2: Why is Recreation so Important?

### Section 3: What Trends Affect Recreation?

### Section 4: What is Needed for Renewal?

### Section 5: Investing for Today & Tomorrow

### Conclusion

### Sources

Society today is not the same as it was 50 years ago. Our interests, leisure time and activity choices have changed. We cannot expect recreation facilities built 50 years ago to support our new lifestyles and so we must think clearly about our recreation needs today and for the future.

### What trends must we consider?

#### 1: Our Activity Choices

In today's hectic society, people tend to opt for less-structured activities that can easily fit into varied schedules and changing routines. Many are pursuing a greater diversity of activities and looking for ways to incorporate lifestyle and wellness into daily schedules and throughout lifetimes.

The message of overall health and well-being is beginning to resonate with individuals, families and communities across the province. As a result, people are looking for ways to incorporate activity into their lives. To provide for a growing number and diversity of users, a greater variety of recreation options and flexible scheduling is needed. The time of day and week people are using recreation facilities is becoming more varied as well. As society's hectic pace continues, recreation users are looking for more condensed periods of activity that can be accessed at any time. Individualized, short-term activities may better fill this need for convenience and diversity than organized, multi-session group activities.

This trend points to a need to re-evaluate the composition of recreation facilities, including the size, layout, operations and nature of spaces. Outdoor facilities are especially conducive to self-regulated physical activity and will play a key role in the future of recreation provision. Cumulatively, our approach to recreation should be flexible and based in community needs and desires.



## 2: Our Shifting Demographics & Diversity

Our aging society, increasing ethno-cultural diversity and changing environment all play roles in the recreation systems of BC.

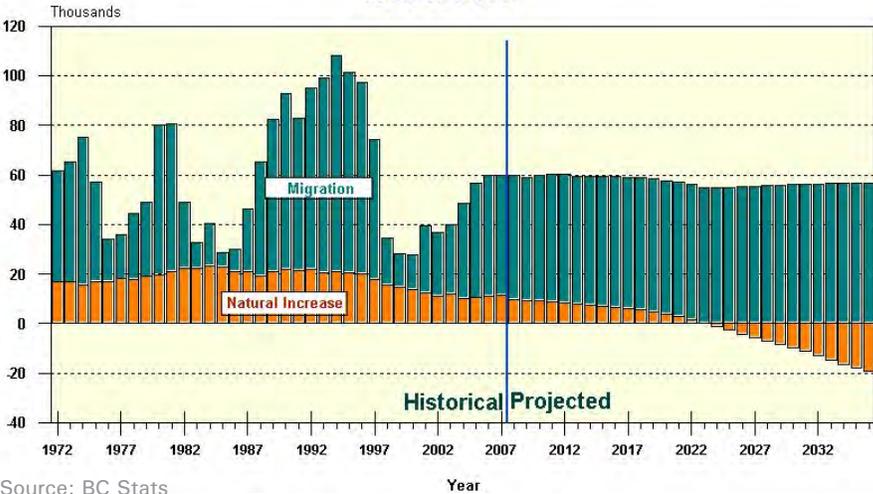
Our population is aging. As we age our preferences, capacity and ability to participate in recreation change. The baby boom generation now accounts for one-third of Canada’s population; by 2031, it is estimated that the proportion of adults over the age of 65 will be 24% (Statistics Canada). This change will affect the expectations for recreation provision in BC communities. Baby boomers will continue to be active and will place a high demand on services. Their desired activities, however, will shift from strenuous physical activities to lower impact and/or culturally-based activities. To help our aging population stay active, our recreation facilities must offer opportunities for them to be active for life.

At the same time, the proportion of children under 14 is dropping (Statistics Canada). This could result in the closure of more elementary schools, possibly with a concurrent loss of youth access to school facilities and parks. Planning will need to ensure adequate, appropriate programs remain available for all children.

Accessibility and affordability of recreation will be especially important for young families as budgets continue to tighten. Recreation can be a low-cost approach to leisure time if opportunities are available. Studies indicate that high socio-economic status groups currently are more likely to have nearby recreation facilities; access to facilities influences whether or not a child is active (Gordon-Larsen, et al, 2006). This reminds us of the importance of equitable access to recreation.

Population growth in British Columbia is projected to continue. Future population growth for British Columbia will be largely due to migration, rather than natural increases through birth.

**Components of Population Growth - British Columbia  
1972 to 2036**



Source: BC Stats

Migration increases cultural diversity, particularly in urban centres. Increasing social diversity offers benefits and challenges in cultural richness – physically, culturally and linguistically. The development of facilities, programs and services must reflect our growing diversity and ensure all residents of a community have access to relevant recreational experiences. We need to take the time to hear all voices and identify what combination of facilities reaches the people living there. Recreation that reaches all ethnicities and cultures has the capacity to break down cultural barriers and encourage community harmony.

Finally, as time passes, our geographical patterns shift. Some communities will grow, while others will decline based on changing economy, commercial enterprise and personal preference. It will be important for communities to be aware of their unique patterns of change and make decisions that reflect these situations. BC Stats provides an ongoing record of BC's population mobility that is useful in community decision making. By anticipating these changes we can be prepared to invest in our recreation infrastructure where our dollars will have the greatest benefit.



### 3: Our Approach to Recreation

Today's approach to recreation provision recognizes the value of integrating multiple recreation levels and services in one multi-use facility. This integrated approach combines overall building costs while increasing the utility, accessibility and operational benefits of a single facility. Multi-use facilities quickly become community hubs, but also require extensive planning and large capital investments.

Increasingly, parks, recreation and culture facilities are seen as an integral part of life. Having vibrant, well-used and appropriate recreation facilities in a neighbourhood – with walkway and bikeway connections – increases people's opportunity to make healthy lifestyle choices.

Multi-use facilities are especially well-suited to fulfill the range of interests displayed by youth. The most successful facilities provide elements that attract a range of youth interest groups. This integrated approach to recreation facilities also promotes the creation of multi-generational facilities. Facilities that have programs that appeal to a wide range of age groups have the advantage of being used throughout all times of the day and week.

Facilities that include public health, libraries, and community services are being combined with recreation, providing multi-service centres. Such facilities may require a broadened scope of partnerships, with recreation facilities linking to partners in health, justice, education, community and social services and the corporate sector.

The environmental benefits of multi-use facilities are clear. Multi-use facilities reduce land consumption required by multiple facilities and provide opportunities such as combined parking and reduction of building materials. Multi-use facilities share energy resources creating a much smaller carbon footprint than would be generated by multiple single-use facilities.

Multi-use approaches require thoughtful decision-making, careful planning and clear agreements between partners.



“The issue is not only more people requiring better facilities. It is also the need for lower operating costs, both in staffing and utilities, and we can deal with these through upgrading, replacement and modern design.”

Kevin Pike,  
Former Director of Parks & Community  
Services, District of West Vancouver

**The results of the Facility Assessment Study Inventory indicated:**

- 35% of respondees rated physical accessibility in Ice Arenas, Indoor Pools, Outdoor Pools and Curling Facilities as poor;
- 43% of respondees rated physical accessibility in Parks, Natural Areas, Trails and Playing Fields as poor; and
- 27% of respondees rated physical accessibility in Community Centres, Youth Centres, Seniors Centres and Community Halls as poor

**A study by the Canadian Fitness and Lifestyle Research Institute (2004) reveals that the top three elements people feel are very important to their participation in physical activity are:**

- Access to safe streets and public places (42%);
- Affordable facilities, services and programs (42%); and
- Access to paths, trails and green spaces (35%).

## 4: Our Desire to be Inclusive

Access to recreation is important for all British Columbians. However, many facilities are not yet capable of providing access to everyone. Over a quarter of the indoor and almost half of the outdoor recreation facilities in BC rate as poor in terms of physical accessibility. While accessibility varies by activity type and site conditions, a significant number of facilities in BC require upgrades in order to provide barrier-free access to all.

Physical accessibility is not the only restriction to use of recreation facilities. Young families are now twice as likely to live in poverty as those over 65. Access to recreation is important to quality of life, regardless of social economic status. Goren-Larsen, et.al (2006) performed a study on inequality in the built environment and its effects on physical activity and obesity. The findings of the study noted that in locations where adolescents have limited or no access to community facilities, lower physical activity levels and increased weights are present. Incidences of overweight adolescents declined with an increase in the number of physical activity facilities available. The study found that neighbourhoods in the United States with lower social economic status and high-minority populations typically had less local access to recreation facilities and concurrently, members of these communities were less likely to participate in physical activity and were more likely to be overweight. Equitable opportunity for recreation, accessibility and affordability for recreation services and facilities needs to be ensured, with special attention to children living in poverty.

Communities have a responsibility to ensure that all citizens have access to parks, recreation and culture services regardless of physical ability, age, economic circumstance, ethnicity, gender or interests. Recreation is essential to the health and well-being of all individuals, families and communities.



The Fraser Basin Council's 2009 Revised document "Energy Efficiency & Buildings: A Resource for BC's Local Governments" describes several commonly used energy standards for institutional buildings:

- **ASHRAE 90.1** - Developed by the American Society of Heating, Refrigerating and Air-conditioning Engineers is a comprehensive building standard.
- **MNECB** - The Model National Energy Code for Buildings is a Canadian building code.
- **LEED®** - Leadership in Energy and Environmental Design is a sustainability rating system developed by the US Green Building Council adapted to use in Canada by the Green Building Council.

"Often, energy efficient or green features are considered an 'extra' and not included in a new building's construction budget. As such, they are often not installed, even though they may pay back many times over the life of the building" (Fraser Basin Council, 2009).

## 5: Our Environmental Awareness

As appreciation and awareness of the environment grows, people are supporting protection of the environment. Public stewardship is gaining momentum and new technologies allow development of public infrastructure with a much smaller carbon footprint. Combined, awareness and opportunities are increasing the viability of, and need for, environmental accountability and green decision-making.

The health of the environment ranks high on the list of priorities for residents of BC. Water and air quality, natural areas, wildlife habitat, and climate change are occupying social and political space. The role played by environmental health in human well-being is gaining recognition, further fueling our interest in ecological stewardship.

As awareness about climate change and greenhouse gas emissions rise, the public is expecting that municipal recreation departments will demonstrate conservation and environmental sensitivity in their operations and planning. Local governments have the opportunity to lead by example, choosing to develop new facilities and renew old facilities to meet defined environmental standards, ASHRAE, MNECB, LEED® or beyond.

"Energy efficiency retrofits of existing buildings are the best way to reduce energy use and greenhouse gas emissions in local government operations" (Fraser Basin Council, 2009). In almost all cases, recreation facilities, notably pools and arenas, are a local government's highest energy consumers. As energy costs and awareness of the impacts of excessive energy use increase, energy efficient built form will play an increasing role in the long-term sustainability and livability of our communities. New technologies are emerging and more opportunities are becoming available for local governments to make cost-effective, energy efficient choices. Energy efficient buildings reduce CO<sub>2</sub> emissions, which are directly connected to climate change, air quality, water quality and land impacts (Fraser Basin Council, 2009).

Along with environmental accountability, energy efficiency helps reduce the life span costs of facilities. Life-cycle analysis shows that energy savings, as well as reduced maintenance and replacement costs, over the life of an energy-efficient project can provide significant cost savings (Fraser Basin Council, 2009).



Local governments are now equipped with many tools that allow environmentally conscious decisions related to civic facilities. In the Fraser Basin Council's Revised 2009 document, "Energy Efficiency & Building: A Resource for BC's Local Governments" there are many examples of new energy-conscious policies being employed by BC's local governments:

- **Civic Building Policy** - A local government commits to constructing all new civic facilities to a certain energy or environmental standard.
- **Purchasing Policy** - Commits local governments to reducing energy use through purchase of energy efficient equipment and appliances for facilities.
- **Comprehensive Retrofits** - A community-wide project that completes a coordinated examination and retrofit of all or some of a community's civic facilities, looking at the life-cycle costing and understanding both the short- and long-term benefits of retrofit approaches.
- **Official Community Plans** - As a guiding document for the future of a community, thoughtful, directive green policies in an OCP provide a context for making green decisions (Fraser Basin Council, 2009).

Many communities are also taking an active approach to environmental protection and enhancement in outdoor spaces, through natural area designation, urban forest management and environmental best practices such as efficient water use, drought tolerant planting and integrated pest management. Trail connections are being designed and planned to provide alternative transportation options.

Citizens are expressing an increasing interest in becoming directly involved in stewardship of their outdoor spaces. Stream and riparian restoration, removal of invasive species and restoration of sensitive environmental areas are all projects in which residents can participate.

Combined with a growing desire to protect and preserve natural areas, people are demonstrating an interest in learning about their environments. Interpretative programs, signage and environmental education can engage citizens to connect with their surroundings. Opportunities to learn about and reflect on nature can be provided in parks, open spaces and trails. Educated citizens are more aware of how decisions they make impact our environment.

Environmental protection is a key consideration for both indoor and outdoor recreation spaces as recreation renewal occurs.

# Section 4

## What is Needed for Renewal?

### Introduction

#### Section 1: What is the State of Recreation Infrastructure in BC?

#### Section 2: Why is Recreation so Important?

#### Section 3: What Trends Affect Recreation?

#### Section 4: What is Needed for Renewal?

#### Section 5: Investing for Today & Tomorrow

### Conclusion

### Sources

There is a strong case for investment in recreation facilities for our communities. The BCRPA Facilities Assessment Study has undertaken a critical step in dealing with the recreation deficit by completing preliminary cost analyses to determine the level of investment needed for renewal of BC's recreation facilities.

### Determining the Investment Needed

The work completed in the Analysis Phase and Validation Audit of the Facilities Assessment Study developed and verified preliminary cost analyses for the recreation infrastructure deficit. These numbers are intended to provide a broad picture of the recreation infrastructure deficit.

The **Analysis Phase** assigned **theoretical** infrastructure costs based on facility life-cycle stages (age) to 796 indoor facilities inventoried province-wide.

The **Validation Audit** undertook detailed **empirical** research of 34 of BC's indoor recreation buildings to develop infrastructure cost estimates based on physical observation.

The methods of these two studies and the findings of each are summarized on the following pages. Refer to the complete Analysis Phase and the Validation Audit documents for detailed information on each of these studies.

## Overview of the Analysis Phase & Validation Audit

The Analysis Phase and Validation Audit utilized different methodologies to investigate the state of recreation infrastructure in British Columbia.

	Analysis Phase	Validation Audit
<b>Recreation Region Studied</b>	British Columbia	Lower Mainland
<b>Facilities Studied</b>	855 indoor facilities	34 indoor buildings within 16 facilities
<b>Method</b>	Theoretical study based on building age	Empirical study based on building observation
<b>Data Collection Method</b>	Survey utilizing voluntary reporting from municipal government participants	Consultant site visits, interviews, drawing and document review
<b>Methodology Strengths</b>	<ul style="list-style-type: none"> <li>• Relatively quick production of estimates from readily available data</li> <li>• Province-wide results based on data compiled for facilities throughout BC</li> <li>• Relatively simple and inexpensive to produce meaningful results</li> </ul>	<ul style="list-style-type: none"> <li>• Empirical data based on detailed facility observation and scientific process</li> <li>• Accounts for facility upgrades or deterioration not reflected through building age</li> <li>• Develops a study methodology for future facility audits</li> <li>• Results could be used to develop province-wide extrapolations</li> </ul>

The two methods in this study were selected to provide both a broad province-wide representation of BC's recreation infrastructure system and detailed examination and record of facilities at the individual building scale. More information about each methodology is provided on the following pages.

At this time outdoor recreation facilities have not been studied in similar depth to their indoor counterparts.





## The Analysis Phase

To create an estimate of the existing deficit that BC's indoor facilities are facing, the Analysis Phase first determined the total dollar amount of our existing recreation assets. This is represented through replacement costs.

### Replacement Costs

Using the data collected through the Facility Assessment Study Inventory Phases, the Analysis Phase was able to assign order of magnitude cost estimates for all indoor public facilities contained in the database. The purpose of this process was to provide a clear picture of the value of our recreation facility assets. Cost estimates were developed based on construction assumptions in January 2008 dollars. The breakdown of replacement costs is as follows:

Facility Type	Gross Area of all facilities (m <sup>2</sup> )	Unit Rate (\$/m <sup>2</sup> )*	Estimated Replacement Cost
Community Centres	596,485	\$5,220	\$3,114,000,000
Community Halls	62,733	\$4,000	\$251,000,000
Curling Facilities	167,034	\$4,790	\$800,000,000
Ice Arenas	671,590	\$4,575	\$3,075,000,000
Indoor Pools	367,208	\$6,075	\$2,231,000,000
Outdoor Pools	67,586	\$4,150	\$280,000,000
Seniors Centres	46,786	\$4,150	\$194,000,000
Youth Centres	33,182	\$4,290	\$142,000,000
<b>Total</b>	<b>2,012,664</b>		<b>\$10,085,000,000</b>

The total Estimated Replacement cost for all indoor recreation facilities contained in the Inventory Study is **\$10.085 billion**.

Recognizing that not all communities reported on their existing facilities during the study, the consultants estimated that if all community facilities were included in the study, the number would be closer to **\$11.5 billion.\*\***

\* For information on calculation of unit rates refer to Section 8.1 of the Analysis Phase.

\*\* The estimate was created by assuming that non-reporting facilities were proportional in average size to those contained in the inventory database.

## The Analysis Phase

Knowing the replacement cost for facilities, the consultants were able to make estimates for renewal.

### Renewal Costs

The Analysis Phase used infrastructure age to determine what percentage of the full replacement cost would be needed to renew existing recreation infrastructure. The assumptions are theoretically based on typical physical and functional characteristics of aging facilities. The table below summarizes the renewal assumptions.

Age of Facility	Assumption (% of Replacement Cost)	Rational
Pre 1960	100%	These facilities will be over 50 years old in 2010. It is assumed many will require complete replacement and could require an increase in size and amenities.
1960 - 1979	50%	These facilities will be between 30 and 50 years old in 2010. Typically, physical upgrades are required including mechanical systems, roofing, flooring ice slabs, pool systems, etc.
1980 - 1989	40%	These facilities will be between 20 and 30 years old in 2010. Typically, physical upgrades are required including mechanical systems, roofing, flooring ice slabs, pools systems, etc.
1990 - Present	5%	These facilities will be between 1 and 20 years old in 2010. They will require less rehabilitation.



Based on facility age, renewal of existing indoor recreation infrastructure in BC is estimated at **\$4.065 Billion**.

### Investment for Renewal

Using the above renewal assumptions and the age of existing facilities contained in the inventory database, the approximate funding requirement for renewal of the existing indoor recreation facilities is:

Facility Age	% of Total Facilities	Approximate Replacement Value	Assumed Cost Factor	Approximate Funding Requirement
< 1960	11%	\$1,050,000,000	100%	\$1,050,000,000
1960s	12%	\$1,175,000,000	50%	\$588,000,000
1970s	37%	\$3,605,000,000	50%	\$1,800,000,000
1980s	12%	\$1,215,000,000	40%	\$486,500,000
1990s	20%	\$1,955,000,000	5%	\$97,500,000
2000s	8%	\$815,000,000	5%	\$40,825,000
<b>Total</b>	<b>100%</b>	<b>\$10,085,000,000</b>		<b>\$4,065,000,000</b>



## The Analysis Phase

In addition to renewal of existing infrastructure, population growth must also be considered when planning recreation renewal.

### Investment For Growth

When the Analysis Phase was completed in 2007, BC's estimated population growth was predicted to be more than 500,000 or 12% over the next ten years. If BC were to proportionately increase its recreation infrastructure stock to this anticipated population growth, we would need to invest **\$1.2 billion** in new facilities to maintain the level of service provided today.

### Summary of Analysis Phase Recreation Infrastructure Renewal

A key objective of the Facilities Assessment Study Analysis Phase was to develop preliminary insight into the degree of recreation infrastructure deficit currently faced in BC. The study estimates:

	<b>\$4.065 Billion</b>	is needed for the rehabilitation of existing indoor facilities based on life-cycle stage assumptions.
+	<b>\$1.200 Billion</b>	is needed to build new indoor facilities to proportionately accommodate BC's ten-year population growth predictions.
<hr/>		
	<b>\$5.265 Billion</b>	is the total needed over the next ten years to address the indoor infrastructure deficit and population growth.

### To provide a frame of reference:

"The total value of indoor facility infrastructure (in January 2008 dollars) built during the decade of the 1990s was \$1.9 billion and the total built from 1980 to present was approximately \$3.9 billion. **Therefore, the funding required is over 2-1/2 times than what was spent by local governments in the 1990s and a third more than what has been spent over the past 25 years**" (Hughes, Condon, Marler: Architects, 2007).

The significance of this level of investment underscores the need to consider long-term, sustainable approaches to funding the renewal of our recreation facilities.

## The Validation Audit

The Validation Audit was undertaken after the completion of the Analysis Phase with the purpose of examining in-depth the condition of existing recreation facilities and validation of the Analysis Phase findings. In addition, this process developed a framework for performing detailed site audits of recreation facilities in BC.

A total of 34 recreation buildings were selected from the inventory database for validation. The facilities chosen represented a cross-section of community centres with varying age and sizes, geographically centered in the Lower Mainland.

Professionals evaluated each facility, looking specifically at the building systems. The evaluations considered seven primary physical systems:

- Structure
- Enclosure
- Mechanical
- Sitework (excluded in audit)
- Fire Safety
- Electrical
- Finishes

Specific elements, such as pools and refrigeration were studied where applicable.

## Reinvestment Categories

To determine the amount of reinvestment needed for the renewal of the facilities studied, reinvestment categories were developed. The purpose of the categories was to provide a clear classification that provides a meaningful picture of what is needed for renewal immediately, in the short-term and in the long-term.

“Catch-up” Costs	The accumulated backlog of deferred work and outstanding repairs. It is the work that needs to be done in order to catch up facilities to current needs and standards. It is based on empirical data from facility evaluations.
“Keep-up” Costs	This is the projected work that needs to be done over the next few years in order to ensure that a facility keeps up with its capital renewal requirements. It is based on empirical data from facility evaluations.
“Get-Ahead” Costs	This is the work required to ensure a facility meets current programming needs and represents upgrades to existing infrastructure. It is based on theoretical data developed from age and type of facility.

The Validation Audit identified two different forces of retirement acting on recreation infrastructure:

1. **Physical Deterioration** - Degradation of the facility due to the elements, wear and tear and environmental factors. Physical deterioration is easily quantifiable based on physical indicators. Generally, the study found that the majority of facilities exhibit physical conditions consistent with age.
2. **Functional Obsolescence** - Loss in qualitative and quantitative vitality of buildings and spaces due to program changes, new regulations and community growth. Obsolescence is much more difficult to quantify as site specific factors apply. The study found correlation between physical age and functional obsolescence.

## The Validation Audit

### Reinvestment

Upon reviewing the buildings contained in the Validation Audit the consultants determined that the reinvestment needed for the 34 buildings was as follows:

#### Validation Analysis Cost Summary

Costs	Per Building	Total for all Buildings
"Catch-up" Costs	\$714,000	\$26,430,000
"Keep-up" Costs	\$423,000	\$15,660,000
"Get-Ahead" Costs	\$1,560,000	\$57,560,000
<b>TOTAL</b>	<b>\$2,700,000</b>	<b>\$99,700,000</b>

### Facility Type Investments

The Validation Audit provided feedback on which facility types would most need investment in the short-, medium- and long-term.

#### Greatest & Lowest Average Renewal Costs of Facility Types

	Greatest Average Renewal Costs	Lowest Average Renewal Costs
"Catch-up" Costs	Ice Arenas Indoor Pools	Community Centres Community Halls Youth Centres
"Keep-up" Costs	Ice Arenas	Youth Centres
"Get-ahead" Costs	Ice Arenas Community Halls Indoor Pools	Youth Centres Curling Facilities

The validation sample size for Community Centres is adequate to facilitate extrapolation province-wide. Additional audits for all other types of facilities would be required to enable extrapolation.



## The Analysis Phase & The Validation Audit

The Validation Audit compares the findings of the Analysis Phase and the Validation Audit findings. Generally, physical condition of the validation sample reflected the characteristics of the life-cycle stages assigned in the Analysis Phase.

The buildings in the validation sample that did not conform to life-cycle assumptions usually had been subjected to upgrades and renovations that extended their physical life (affecting Stage 5 assumptions). Additionally, some of the younger facilities (typically those built in the 1990s) had experienced premature failure of building enclosure and required premature renewal (affecting Stage 2 assumptions).

### Conclusions

Based on the findings of the Validation Audit, the estimated cost to renew the 34 buildings contained in the audit would be approximately **\$99.7 million**.

The Validation Audit subjected the same 34 buildings to the theoretical life-cycle assumptions of the Analysis Phase (see page 36 for assumptions). The estimated cost to renew them based on theoretical assumptions would be approximately **\$139.5 million**.

It can be seen that the theoretical Analysis Phase produces a higher estimate than the Validation Audit. The main reason behind this is the use of different methodologies. One key difference is that the Validation Audit estimates do not include site development and soft costs (ie. design, engineering, financing and legal fees), while the Analysis Phase values factor these additional costs into their unit rates.

Though the renewal costs differ, the Validation Audit findings support the life-cycle assumptions used in the Analysis Phase. Both study findings show similar patterns that relate to building age. While additional facility audits could refine the theoretical estimate further, the estimated indoor recreation facilities deficit of **\$4.065 Billion** is a sound estimate of the challenge we now face.

Compounded by the estimate of **\$1.200 billion** for the addition of new indoor facilities to meet growing demand due to population growth means our indoor recreation facilities require an investment of approximately **\$5.265 billion**.





Survey results of the Facilities Assessment Study: Inventory Phase 2 show that many local governments currently do not have planned budgets for outdoor recreation spaces:

- 58% do not have annual budgets for parks acquisition.
- 40% do not have annual budgets for parks development.
- 44% do not have annual budgets for capital renewal of facilities.
- 4% do not have annual budgets for maintenance.

## What about our Outdoor Spaces?

Studies to date have focused on our indoor recreation deficit. Outdoor spaces play an equal role in providing recreation opportunities and improving quality of life. The aging of our outdoor spaces is reflected in degraded playing fields, unused playgrounds and deteriorating trails. Land development puts pressure on the space available for outdoor recreation areas and trail connections. This is compounded by our growing population which increases the need to accommodate more users where less green space is available.

Trends suggest that outdoor spaces have a greater role than ever in providing transportation alternatives, opportunities for unstructured recreation and activities that encourage participation by all ages, abilities and cultures. Survey feedback from the Facility Assessment Study estimates that over half of municipal governments do not have annual budgets for parks acquisition while just under half do not have annual budgets for capital renewal or parks development.

While budget numbers for outdoor spaces are typically smaller than indoor spaces, the benefits of investment in outdoor recreation are proportionately large. Renewal programs should balance both indoor and outdoor recreation investments.

## What Outdoor Spaces do we have Now?

According to the Facility Assessment Study the approximate total size of BC's outdoor recreation facilities are:

Outdoor Facility	Number of facilities recorded	Approximate total size reported
Parks	4,458	64,576 ha
Natural Areas	12,951	111,968 ha
Trails	3,874	9,096 km
Playing Fields	1,767	-

The Analysis Phase of the Facilities Assessment Study shows that provision of parks, open spaces and trails vary greatly between communities. Some municipalities currently provide large areas of dedicated open space and many kilometres of trails; other communities do not have any recorded park or trail dedication. Outdoor recreation is a key recreation element for all communities. The varying capacities of communities to provide outdoor space demonstrates that a more consistent community approach for the provision of public outdoor space is necessary.

## Key Findings about Outdoor Spaces

A few key findings from the Facility Assessment Study warrant consideration:

- Survey responses indicated that 65% of local governments do not believe current funding levels are adequate to sufficiently maintain growing parks and trails systems.
- In about 40% of survey responses, budgets for parks and trails had not been increased in the past five years.
- Survey respondents stated that about 43% of outdoor spaces do not currently provide adequate accessibility.
- Reporting determined that about 72% of playgrounds currently meet CSA standards.
- Softball diamonds and soccer pitches are the main type of playing fields provided by municipalities.
- Municipalities also recorded provision of outdoor fields for: baseball, football/rugby, running track, ultimate frisbee, field hockey, lacrosse boxes, lawn bowling, bocce ball, cricket and other sports.
- The existing information available about outdoor recreation facilities provides relatively little context on their current condition.

The inventory database provides a preliminary snapshot of our outdoor recreation spaces, but further analysis is required to determine how best to invest in our outdoor facilities.



## Section 5

### Investing for Today & Tomorrow

#### Introduction

#### Section 1: What is the State of Recreation Infrastructure in BC?

#### Section 2: Why is Recreation so Important?

#### Section 3: What Trends Affect Recreation?

#### Section 4: What is Needed for Renewal?

#### Section 5: Investing for Today & Tomorrow

#### Conclusion

#### Sources

With more than 68% of our recreation infrastructure over 25 years old and an over \$4 billion deficit and \$1.2 billion growth expectation, we are now at a critical crossroads. It is time to turn away from one-time short sighted investments and to a life-cycle approach to recreation infrastructure renewal.

#### What must be done?

New funding arrangements and partnerships that utilize a sustainable, long-term approach are needed to address both the deficit and balance our investments among new construction, facility renewal and maintenance accounting.

#### Participation

**Local governments** have traditionally had the greatest role in planning and funding recreation infrastructure. Competing capital priorities require that these bodies make well-planned decisions about where local money is spent. This is especially difficult today as local governments face increasing budget pressures without parallel increases in municipal revenues, generated mainly through property tax which is slow to increase (Slack, 2006). Local governments are also responsible for funding the operations, maintenance and upgrades that facilities incur over their life spans.

**Provincial and Federal governments** provide grant programs and transfers that supplement local government funds for infrastructure development. These programs are intermittent, require fund matching and often include a cap that restricts the level of investment. Fiscal restraint by senior governments in the 1980s and 1990s reduced the money available to support municipal infrastructure investments. Capital grants, a driving force behind many large municipal projects, were scaled back, and even today tend to be smaller and less consistent (Vander Ploeg, 2006).

**Sponsors, private and public institutions and non-government bodies** are playing increasingly supportive roles in recreation infrastructure development and delivery.

An immediate commitment from all levels of government is essential to begin addressing the recreation infrastructure deficit. It is time for renewal that utilizes innovative, well-planned and cooperative funding arrangements.

## Planning for Investment

How do we revise our thinking about investment in recreation infrastructure to successfully renew our existing assets and ensure we do not fall into a cycle of future deficits?

### Sustainable Funding

While existing grant programs provide a critical first step to capital investment, the current deficit emphasizes the need for ongoing investment in parks and recreation infrastructure. Continual investment will provide renewal of facilities and increase capacity to serve our growing population. Long-term funding programs that include partnerships between all levels of government will help circumvent future recreation deficits.

### Multi-Level Planning

Quality facilities should be available throughout the province. Planning at a regional capacity helps avoid duplication of venues and maximizes equitable access to recreation for all communities. It is critical to match facilities to communities, ensuring people have access to the activities they desire.

Multi-use facilities that integrate sport, recreation and/or culture help maximize the function of a facility. Partnerships with other community service providers including health, justice, education, community and social services help broaden utility and support of facilities. The success of multi-use facilities is well-proven throughout the province, with many facilities fulfilling the needs of communities. However, such facilities require sound planning and extensive funding to be successfully implemented.

### On-going Research and Data Management

Through the Facilities Assessment Study, the BCRPA has developed extensive data about the current state of recreation infrastructure in BC. This information provides valuable insights, and with completion and regular updates, it would continue to inform recreation planning and decision-making.

The Validation Audit has developed a detailed framework for performing audits on recreation facilities throughout BC. Future audits would develop data that could be extrapolated province-wide so our recreation infrastructure needs will continue to become clearer.

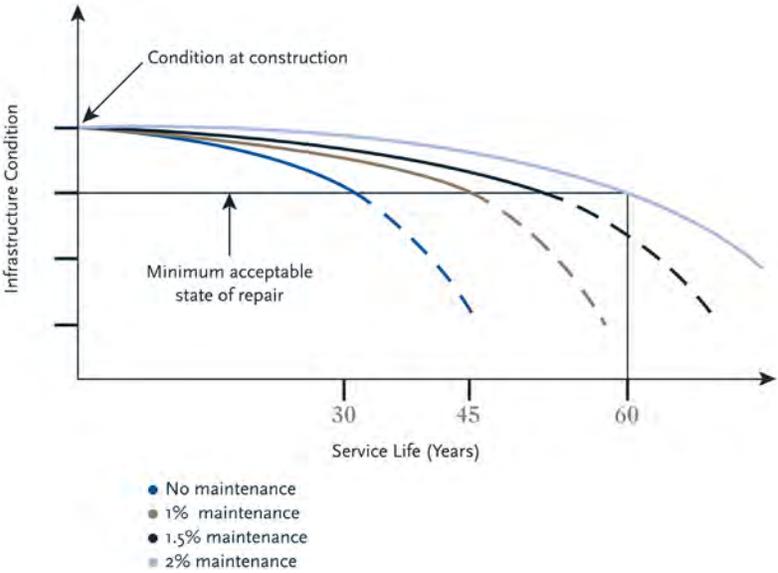
Additionally, work on developing assessments for outdoor recreation resources would add a new dimension of information to our information base. It could also provide communities with a typical level of service to strive for in the provision of outdoor recreation facilities.

“In order to provide sport and physical activity for all and opportunity to achieve, BC’s infrastructure will require sustainable and a diversified public and private resource base for providing better access, full and/or improved use of facilities and innovative partnerships” (BC’s Policy on Sport and Physical Activity).

### Facility and Life-cycle Management

Ongoing maintenance and life-cycle management enhances the long-term viability of infrastructure and helps avoid maintenance backlogs and deficits. All infrastructure assets require ongoing upgrades. When facility upgrades occur when they are needed, a facility’s lifespan increases dramatically. Strategic life-cycle management forms a clear picture of how a facility is expected to age and allows planning for what will be needed to protect and enhance its performance.

### Infrastructure Condition as Determined by Maintenance



Source: Danger Ahead: The Coming Collapse of Canada’s Municipal Infrastructure, Mirza 2007.

The above figure shows the impact maintenance has on the life span of an infrastructure resource. By investing just 2% of the capital cost of an asset into maintenance its deterioration rate slows considerably, potentially doubling the service life of a facility and significantly offsetting replacement costs.

A key component of successful life-cycle management is employing staff that are knowledgeable in proper ongoing maintenance routines. Maintenance training and regular facility assessments are critical for all facilities.

### Tracking our Investments and Performance

Recreation infrastructure planning should not be static. By tracking where and how our infrastructure funds are spent and monitoring the success of our investments we can continue to make better decisions about how BC’s recreation system should grow.



“What cannot be effectively measured cannot be managed” (Vander Ploeg, 2006).



“The facilities that support sport, the arts, culture, heritage, and outdoor recreation sites and trails are important shared assets. Many communities are finding it challenging to maintain their aging infrastructure. Strategic partnerships to support management and investment at the local, regional, and provincial levels will help each of these sectors in achieving their full potential, supporting community vitality as well as tourism” (Ministry of Tourism, Sport and the Arts 2007-08 - 2009/10 Service Plan).

## A New Approach to Recreation Infrastructure

The BCRPA is suggesting a new approach to partnership programs for recreation infrastructure funding – one that supports life-cycle management. Three program components are envisioned:

- 1 **Recreation Renewal Program:** An on-going capital fund for indoor and outdoor recreation projects, both major and minor.
- 2 **Recreation Partnership Planning Program:** A component to encourage co-operative and efficient program delivery.
- 3 **Recreation Life-Cycle Program:** A new program to promote life-cycle information sharing and preventative action.

Each proposed program may include funding from local, provincial and federal governments, although the proportion of funding may vary among program components.

Current infrastructure programs are focused on rejuvenating the economy in the short term. In addition to this stimulus, we recommend that recreation infrastructure funding programs be designed for the long-term. This will provide sustainable funding and avoid a ‘once in 30-year wave of investment’ scenario that leads to recurring recreation deficits.

### Recreation Renewal Program

The combined recreation deficit and predicted population growth in BC necessitates the renewal and new development of recreation facilities. To provide sustainable funding and avoid a future deficit, we recommend that recreation renewal funding programs for recreation infrastructure become long-term arrangements.

The proposed **Recreational Renewal Program** would utilize a similar arrangement to existing federal, provincial and local shared funding agreements for infrastructure capital projects, but would occur on an on-going basis. Refinements to program funding requirements would change project delivery to include additional partnership and life-cycle approaches.

Projects receiving funding should include in their planning detailed life-cycle maintenance and operations plans that:

- Set out timing and budgets for on-going maintenance;
- Establish the expected longevity and replacement costs of all major facility components; and
- Identify and set aside funds for continued renewal of the asset.

A recommended element for the Recreation Renewal Program is a central, standardized web-based data system that compiles capital, operating and maintenance cost reporting from new or renewed facilities. The development of such a tool would allow a province-wide database on recreation facility life-cycle planning to be created and maintained.

At the 2007 Federal-Provincial/Territorial Conference of Ministers Responsible for Sport, Physical Activity, and Recreation it was stated:

“Provincial and territorial ministers agreed that sport, recreation and physical activity infrastructure continues to be their top priority in support of healthy, active lifestyles and sport participation. The federal minister reiterated the government of Canada’s commitment to working in cooperation with provinces and territories in developing a comprehensive plan for infrastructure in general” (News Release, Feb. 22, 2007).

### Recreation Partnership Planning Program

Use of recreation and sport facilities often transcends municipal boundaries and recreational interests. Funding construction and operation of such facilities is best accomplished through partnerships among neighbouring jurisdictions, private interests and/or non-governmental organizations, with assistance from senior governments. To ensure funding opportunities are explored and effective partnerships are formed, we propose a **Recreation Partnership Planning Program** to provide a pool of funds to:

- Promote co-operative facility planning among adjacent municipal and regional governments, with a goal to maximize benefits and inclusivity and avoid facility redundancy;
- Seek opportunities for private and/or NGO partnerships for capital and operational funding;
- Fund studies to analyze the demand for both high-performance sport facilities and recreational facilities to achieve an appropriate gradation of services throughout the province;
- Support production of preliminary designs and accurate cost estimates for capital, maintenance and life-cycle planning; and
- Support partnership organization and fund-raising efforts.

Proper planning processes for facilities can be difficult to fund. Without an effective planning process, communities often pursue available grants or affordable solutions that may not reflect the best solutions for their community. By providing planning support, communities will be encouraged to undertake a key planning step to determine what is most viable for their community.

A Recreation Partnership Planning Program would support co-operative arrangements that may benefit many. As we manage the deficit, innovation and new approaches will be required. New cooperative methods for planning and funding recreation infrastructure, with the best interests of residents in mind, has the capacity to open previously closed doors.

## Recreation Life-Cycle Program

When facility maintenance and upgrades occur when needed, a facility's lifespan increases dramatically. Competing demands for municipal operating finances has often left gaps in local funding for maintenance. These difficult funding situations can lead to premature obsolescence or unsafe facilities, translating into requests to senior governments for replacement funding. To avoid premature facility failure, we propose a joint **Recreation Life-Cycle Program** to:

- Support development of a province-wide database on typical life-cycle best management practices, needs and associated budget requirements;
- Complete and maintain a province-wide database on existing recreation facilities;
- Provide on-going training to maintenance and operations personnel on appropriate life-cycle maintenance practices;
- Publish print and web-based information in support of life-cycle maintenance and renewal practices; and
- Develop challenge grants for on-going life-cycle maintenance, to encourage identified 'preventative maintenance or greening initiative' projects that extend a facility's usefulness and efficiency and/or lower its operating expenses.

"The renewal of park and recreation facility infrastructure across the province will be a huge undertaking; the resulting benefits in terms of health and social cohesion will be equally enormous."

Mark Vulliamy, Manger of Planning & Research, Vancouver Park Board

## Undertaking Programs for Recreation Renewal

The **Recreation Renewal Program**, along with the **Recreation Partnership Planning Program** and the **Recreation Life-Cycle Program**, should be sustained at an adequate level to address the recreation deficit and required new capacity over a 20-year period. Once the recreation deficit is erased, funding should be steady-state to provide on-going life-cycle renewal and increased capacity in step with population change.



## Defining Funding Priorities

As we plan our investments in recreation infrastructure, we need to ensure recreation funding is strategic and based on priorities.

The following principles should guide the evaluation of all potential recreation facility projects.

- 1 Distribute projects equitably throughout the province using region- and province-wide planning to reduce facility redundancy and gaps and to maximize benefits.
- 2 Encourage productive partnerships between adjacent municipalities, private organizations, NGOs or other agencies.
- 3 Design projects to anticipate and respond to current and future recreation needs and trends.
- 4 Target strategic outcomes that can be measured and reported.
- 5 Balance investment in indoor recreation and sport facilities with improvements and additions to outdoor spaces.
- 6 Create facilities that are multi-purpose and flexible, integrating sport and recreation and allowing for adaptation to meet changing programming trends.
- 7 Develop effective life-cycle maintenance programs and educate personnel to successfully perform these programs.
- 8 Encourage well-planned, multi-year initiatives that support effective facility planning.
- 9 Set high environmental standards for new recreation infrastructure and seek opportunities to retrofit existing infrastructure to reduce recreation's carbon footprint.
- 10 Engage recreation organizations, sport communities and key industry stakeholders when making decisions about the future of recreation facilities.
- 11 Assess the capacity of municipalities to take on the maintenance, operations and rehabilitation funding required for new recreation facilities.
- 12 Choose inclusive projects that target all segments of a community.
- 13 Seek opportunities that address economic, health and social outcomes.
- 14 Coordinate projects to contribute to community renewal.
- 15 Support creative design and use of up-to-date construction techniques.
- 16 Complement and respond to existing federal, provincial and local recreation related initiatives.



## Innovative Funding

Beyond government programs, communities often look for other innovative ways to finance recreation facilities.

### Partnership Approaches

Recreation facilities have the advantage of appealing to a broad range of user and interest groups, entrepreneurs and NGOs. When a successful partnership can be formed, it eases pressure on government spending while providing a particular service or asset to the partner.

dmA Planning & Management Service performed a review of successful partnerships operating in Canada today for the Federal-Provincial/Territorial Sport Committee in 2006. These examples provide a strong case for looking at new ways to fund our deteriorating recreation infrastructure. Often these partnerships arise out of necessity, when a community is faced with a problematic scenario such as a failing roof in an arena, or an upcoming sporting event that requires field improvements. However, a better approach could be to seek out these partnerships with foresight to what our recreation needs will be for the future.

Partnerships can take many forms with varying levels of participation from both the government and other parties. Public-private partnerships (PPPs) are any one of a number of arrangements between a government body and a private sector party to deliver infrastructure traditionally delivered by the public sector alone. This approach has both advantages and disadvantages with recorded successes and failures. Successful PPPs occur when a project has a clearly identified public need and a well-defined private interest. Accountability, risk allocation, shared contribution, guarantees, communication, programming and realistic expectations all play a role in the success or failure of a partnership (Vander Ploeg, 2006). As we face our accumulating deficit it may be time for communities to seriously consider well-planned approaches to partnership funding. In any approach that utilizes outside partnerships for public infrastructure a clear structure and thoughtful planning is critical.

“The current methods of financing, funding, delivering and maintaining urban infrastructure are insufficient and inadequate, as is evidenced by Canada’s mounting urban infrastructure debt. For this reason, municipal, provincial and federal governments together must begin using innovative tools that can provide expanded financial resources to increase the supply of infrastructure and leverage other policy objectives such as keeping demand for infrastructure in check” (Vander Ploeg, 2006).





## Alternative Funding Sources

Traditional funding for recreation infrastructure has been largely through grants and property taxes. Often these amounts are too small to finance large-scale facilities or deliver necessary maintenance and renewals. By looking to alternative funding sources, municipalities may be able to secure funding sooner and may have the ability to assign funding for projects most needed in their community. [dmA \(2007\)](#) suggests the following alternative funding sources:

- 1 **Local Improvement Charges:** This is a surtax levied only on a specific district that will most benefit from an improvement.
- 2 **Development Cost Charges:** Municipalities have access to DCCs which require developers to pay for municipal infrastructure in new developments. This is done to ensure new developments do not excessively burden existing taxpayers.
- 3 **User Fees:** User fees are already a source of revenue in many communities, but care must be taken to ensure they do not prohibit facility use. Alternative ways to implement user fees that do not impact all users should be considered. For example, paid parking would encourage users to take public transit.
- 4 **Density Bonusing:** This allows developers to add more density to their developments in exchange for establishment of public amenities, including recreation infrastructure.
- 5 **Leveraging:** Opportunities to partner with other public agencies, such as health authorities, or non-profit partners, such as sport bodies, with interests in the project can help build facilities. Municipal governments often supply land and some type of agreement that provides use for the partnering organization.
- 6 **Capital Surcharge:** A surcharge that is added to user fees and directed into a reserve account to pay for specific capital projects or pay off debt related to capital improvements can help renewal occur when it is needed.
- 7 **Loan Guarantees or Joint Venture Policies:** Some communities have provided guaranteed loans to incorporated community organizations to help build infrastructure related to their activity. Often these agreements are formed to fund facilities that are needed in the community for a smaller user group, but are not necessarily basic user services.
- 8 **Fund-raising:** Fund-raising can be a community wide effort to support facility development or renewal. In some cases, larger corporate sponsorship can be attracted through sponsor recognition such as naming rights.
- 9 **Staff for Revenue Generation:** Some municipalities are now hiring staff dedicated to searching for nontraditional sources of revenue, including grant acquisition, donations, fund-raising and partnerships.

- 10 Operating Cost Reductions:** By reducing operating costs through green initiatives, low-maintenance design and efficient operating and maintenance regimes, money saved can be earmarked for capital improvements or renewal.

Many of these practices are known and utilized in communities throughout British Columbia. It is necessary for municipalities to recognize all the options available to them, and choose a combination of approaches that will be most effective for their community and their facilities. A case for renewal has been made, and we will require new approaches to begin solving the deficit.



# Conclusion

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### Section 1: What is the State of Recreation Infrastructure in BC?

### Section 2: Why is Recreation so Important?

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## Sources

Just as healthy living and environmental consideration require a new focus and on-going commitment, recreation infrastructure urgently needs on-going investment. With sustainable maintenance and funding for renewal, recreation facilities are one of the most cost-effective prescriptions for good health and engaged citizens.

The Facilities Assessment Study provides us with a current snapshot of our recreation facilities. With a current \$4.065 billion deficit for indoor recreation infrastructure that is growing, and an anticipated \$1.200 billion for new facilities to accommodate population growth, clearly it is time for us to rethink our approach to providing this essential public service. Strategic planning is needed to develop a clear vision for a future that protects and enhances our recreation assets.

The BCRPA's suggested approach requires a commitment from all those involved in the provision of recreation for BC's communities. The implementation of a **Recreation Renewal Program** and its components will provide the necessary on-going capital needed to erase our current recreation deficit and prepare to meet the needs of our future residents.

### Now is the Time for Renewal.

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## A Time for Renewal

Just as healthy living and environmental consideration require a new focus and on-going commitment, recreation infrastructure urgently needs on-going investment. With sustainable maintenance and funding for renewal, recreation facilities are one of the most cost-effective prescriptions for good health and engaged citizens.

## For More Information

Access the complete Facilities Assessment Study at:

[www.bcrpa.bc.ca](http://www.bcrpa.bc.ca)



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