CITY OF NEW WESTMINSTER

ARENA STRATEGY

FINAL REPORT

JANUARY 2021



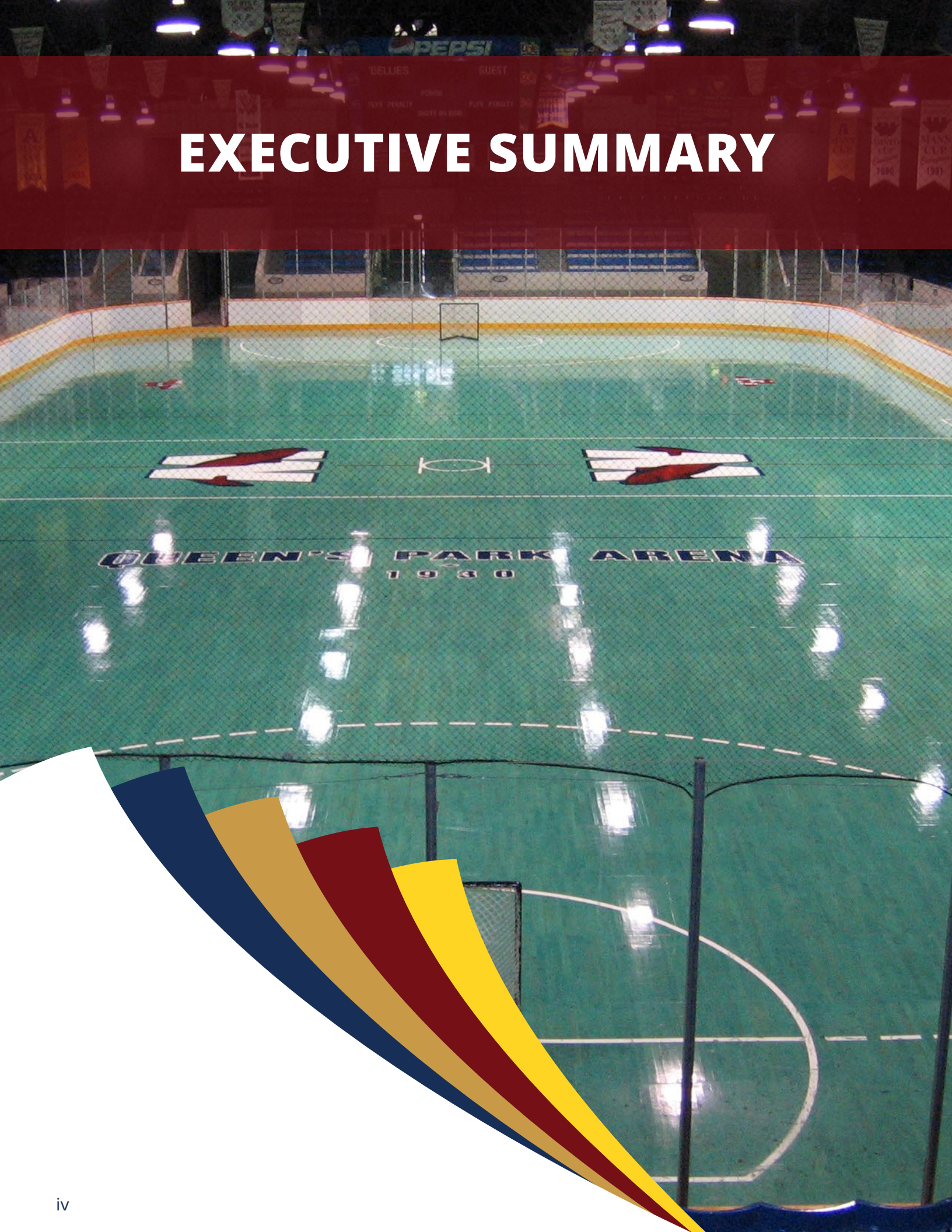
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EXECUTIVE SUMMARY



One of the recommendations in the City's most recent Parks and Recreation Comprehensive Plan is to review long range arena requirements. Also, in 2018 and 2019 the City heard from some arena user groups that additional arena capacity may be needed. For those two reasons the City retained RC Strategies in 2019 to undertake this Arena Strategy. It looks at the need for ice based and dry floor arena capacity over the next 20 years in New Westminster.

For the past 45 years the City has owned and operated two arenas in a coordinated fashion to provide all indoor ice based and dry floor arena services. The Moody Park Arena (MPA), because of its central location and skate shop, provides a great deal of public programming and public drop in opportunities in addition to ice rentals. While it is the younger of the two facilities, it is also the more modest of the two, with less support for spectators. It is approaching the end of its functional lifespan. Therefore, as some of its mechanical systems are replaced to extend its life, they are intended to be relocated to a replacement facility if and when built.

The Queen's Park Arena (QPA) is now 90 years old and is one of the oldest arenas in BC. It provides more of a special event and spectator supported experience in addition to ice rentals. Although older than the MPA, it is a very robustly constructed facility and likely has many more years of functional use.

The two arenas collectively provide capacity for about 4650 hours of ice activity and about 1725 hours of dry floor activity per year. About 75% of the ice-based capacity is utilized in a normal recent year and about 50% of the dry floor capacity. Almost all of the prime-time ice availability is utilized. The 25% of ice capacity that is not used is mostly during school hours and some early morning or late night time slots. Most of the dry floor prime time availability is utilized. There is very little use of the off-peak dry floor capacity.

The biggest single user group is minor hockey (uses about 1500 hours of ice per year for its 340 registered players), followed by minor lacrosse (uses about 1050 hours of dry floor time per year for its 419 players). The City reserves about 1300 hours in a typical year for programs and public skating. The remainder of time is used by other rental groups and the New Westminster School District.

The long term trends in arena use are all downward in New Westminster, the Metro Vancouver region and the province. The proportion of residents that used ice peaked sometime before 2000 and has declined since then. Similarly, the service levels for arena provision have declined. In Metro Vancouver, arenas have been added at the rate of about one per 50,000 residents over the past 20 years; a service level of about half what it was in the 1980's. Similarly, in New Westminster, the City has almost doubled in population since it built the MPA. Together, the two arenas provide a service level of about one arena per 38,000 residents which is close to the average in the Metro Vancouver Region. This is about half the service level of arena supply in 1980. In the more recent past, service levels appear to be stabilizing. So, a service level of about one arena per 30,000 residents is recommended for future planning.

The annual tax supported subsidy for both arenas (net of skate shop and concessions) is about $1.7 million. That equates to an hourly subsidy of about $270 for each of the 6300 hours of use. As an example, that means that minor hockey's 1500 hours of use triggers a subsidy of over $400,000, or a subsidy of almost $1200 for each of its 340 registered players. Because arenas are one of the most expensive facilities a City can provide, with operating subsidies per user among the highest of all recreation facilities, it is important not to overbuild capacity that may not be used. So, total use of both arenas needs to be carefully monitored in the future to adjust the recommended service level to ensure excess, unused capacity is kept to a minimum.

Given the recommended service level, the fact that the MPA may be approaching the end of its functional lifespan, and the new minor sport trend to using smaller ice surfaces, the following is recommended as a path forward.

1. **Add no new arena capacity during the next five to ten years.** It is prudent to monitor and evaluate the impact of new arenas in adjacent communities before making any major decisions in terms of capital investment. With this new capacity coming online at the same time on both north and south borders of New Westminster, there is potential for excess supply in the marketplace that New Westminster users will be able to use and will use.
2. **Explore ways of accommodating spring lacrosse in new Sports Facilities.** Large gymnasia in the City may be able to accommodate some of the need for younger players on a smaller lacrosse surface during the spring period when need is greatest.
3. **Plan for a new full sized sheet to be added to Queen's Park Arena.** Once the impacts of new arenas in New Westminster's borders and the operation of new indoor sports floors have been evaluated, the City should plan for a new full sized playing surface at Queen's Park Arena to replace the Moody Park Arena. This project, which should proceed to construction sometime after 2031, could be coupled with a new lobby to support both arenas and the issue of historic restoration of QPA's windows. The new two sheet venue would operate more efficiently than the two single sheet venues the city currently operates. The savings in operating costs would help to finance the capital investment.
4. Once a new twin pad facility is open at Queen's Park, **plans can proceed for a replacement facility at the Moody Park Arena site.** Adding to capacity with a third venue, more centrally located than Queen's Park, should include the option of atypically sized playing surfaces. It may be that a new facility would not be one full sized sheet, but one or more half sized playing surfaces and/or an irregularly sized surface ideally positioned for pleasure skating and skating lessons during the winter and/or a combination of dry floor activity in one part of the building and ice based activity on a separate surface. This third arena venue would accommodate growth over time in New Westminster.

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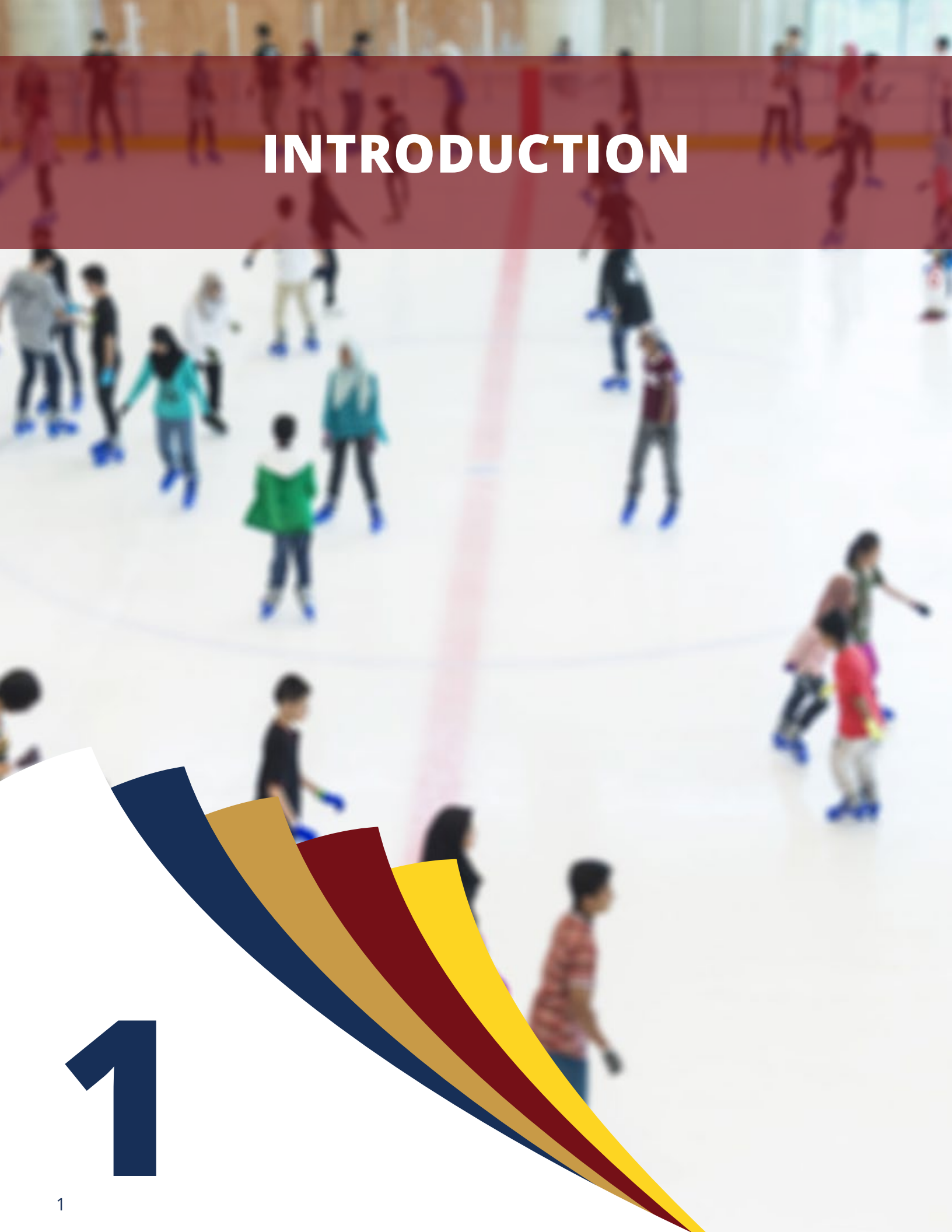
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INTRODUCTION



1

In September of 2019 the City of New Westminster engaged RC Strategies to undertake a review of current arena provision in the City and develop a strategy for moving forward. The goal of the new Arena Strategy is to recommend the most efficient and sustainable path forward in terms of all ice based and dry floor uses of arenas in New Westminster. The Strategy begins with some background, proceeds to lay out long term need and culminates with a recommended service level and additional specific recommendations.

It should be clear that arenas are used in two modes; ice in and dry floor. While the dry floor uses are quite significant and important, it is prudent to initially focus on the ice-based uses as these determine the overall dimensions of space requirements and represent the most expensive category of use from both a capital and operating point of view. Once it is clear that New Westminster has the right amount of capacity for ice uses, the dry floor uses can be considered. If ice-based capacity does not accommodate the dry floor uses in the "off season" other types of facilities can be considered to accommodate outstanding need for dry floor spaces. For example, a fabric frame structure would cost a small fraction of the capital and operating cost of an arena and might do as good a job of accommodating some dry floor uses as a traditional arena.

CITY PROFILE



2

New Westminster is one of BC's oldest cities. The area within its boundaries has virtually all been developed. So, its growth comes from infill redevelopment of land. Additional flat land for indoor and outdoor sports amenities is quite scarce and has already been used for another purpose. Any new sites for parks or recreation amenities required to serve a growing population have to be carved out of and repurposed from some existing spaces.

The City's population is quite stable, but projections call for slow and consistent growth over the next 20 years. The current and anticipated population can be characterized as follows.

- **Consistent growth –** The population in 2020 is estimated to be 77,000[1]. By some estimates that total is projected to be 110,000 by 2041. However, the City's Current Official Community Plan sets a goal of about 104,000 residents by 2041.
- **Relative affluence –** 17.3% of residents of New Westminster are in low income households. This is somewhat lower than the BC provincial average of 18.5%[2].
- **Increasing seniors population –** There are currently about 23,003[1] residents over 55 years of age. By 2041 it is projected that there will be another 20,251 adults in this age group representing a growth of 88%. Residents in this age group currently comprise 29% of the total population. By 2041 they will comprise 39% of the population.
- **More children –** There will likely be about 5100 more children and youth (0-19 years) in the City by 2041. That segment of the population will remain stable at about 15.7% of the total[1] which is about 3% lower than both the Metro Vancouver and the BC average.
- **Fewer working aged adults –** The proportion of the population between 20 and 55 will decline and will trend younger[1], as more of those that move into the City will be in the family formulation age group.
- **Older adult females outnumber males –** In the 40-44 age group there are 1.1 females for every male[3]. By the time residents get to the 95-99 age group there are 4.4 females for each male.
- **Increasing immigration and ethnic diversity –** While by many measures New Westminster is less diverse than the average in Metro Vancouver, diversity appears to be increasing. Residents of the City were more likely in 2016 than in 2011 to be members of a visible minority[3], speak a language at home other than an official language and be an immigrant. The vast majority of all immigrants in New Westminster are of Asian descent.

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1 *BC Stats Population Projections for School Districts*

2 *Stats Can tax filer data base for 2018*

3 *2016 Canada Census*

The implications for future recreation behaviour associated with the above population profile would be as follows:

- Significant increases in elderly residents suggests growth in low intensity fitness, therapy and rehabilitation activities as well as indoor sports like pickleball and a variety of aquatics activities. It also suggests growth in use of Century House.
- Some increase in the number of children and youth suggests proportionate growth in minor team sports, drop in gym activities, gymnastics and trampoline uses, increase in most categories of aquatic services and ice use. It will also require more schools.
- Increasing diversity indicates growth in core activities that are international in nature, such as soccer, aquatics and gymnastics.

Overall, the population projections suggest some support for very modest proportional growth in arena use for minors coupled with a proportional decline in arena use for adults, in order for changes in the population to have a net neutral impact. Demographic change will not likely alter the rate of provision of arenas as New Westminster grows.

HISTORIC CONTEXT OF ARENA PROVISION AND USE IN METRO VANCOUVER



3

At the beginning of 1963, there were only three arenas in the Greater Vancouver area; namely the Forum in Hastings Park, Queen's Park Arena in New Westminster (currently the oldest arena in the region), and the Kerrisdale Arena on the west side of Vancouver. However, that year started a twenty-year construction boom for arenas throughout the region to meet the demands of a new "baby boom" generation that enjoyed a rapidly expanding standard of living and played hockey in growing numbers. By the late 1970s the rate of arena use in the Metropolitan Vancouver Area[4] peaked with almost 14% of all school aged boys participating in formal minor hockey programs, resulting in a total registration of 19,600 players in the region; a peak that has never been breached. Minor hockey had to share their indoor public space with other ice activities that were also growing in popularity. This included figure skating, public skating sessions and learn-to-skate programs. Short track speed skating and adult hockey were also beginning to take off. However, minor hockey still dominated arena use and was the driving force for new arena construction during this period and ringette followed a decade or so later.

A great many arenas were built during the 60s and 70s. However, around 1980 registration in minor hockey started to wane, and other activities didn't have the volumes to pick up the slack. In what was called the Metropolitan Vancouver Area, there were now 45 sheets of ice, but that number would remain almost unchanged for a decade. After 1980, adult hockey became increasingly popular as "baby boomers" who learned to skate in the 60s and 70s went back to playing in adult leagues. These users generally filled the capacity freed up by declining numbers of minor hockey players. So, ice use in the region peaked in about 1980 with almost full use of all available ice time. Although the users and uses shifted during the next ten years, the total of use remained quite constant with almost all ice fully utilized for a decade. Only two new sheets were built in that decade and one old sheet (The Forum) was closed.

Beginning in 1990 there was another spurt in demand for arenas. Adult use peaked and remained constant, but an "echo" appeared in demand for minor arena ice sports. Minor hockey registration started to increase, as did registration in other ice sports. Within the Greater Vancouver Conference of the Pacific Coast Hockey Association, minor hockey registration climbed from 3944 in 1988 to 7394 in 1995, an increase of 87%. An unprecedented round of arena development was spawned. But this time it was a different kind of arena development. The private sector learned that adults were prepared to pay a lot more for better ice times. Therefore, it started to build arenas that would focus on adult users, freeing up capacity in existing arenas for the increasing numbers of young players. In the 1990s a total of 38 sheets of ice were built in the region. Almost all of them were built by the private sector or through public/private partnerships and all of the new sheets were outside of the City of Vancouver. The total number of ice arenas within the Metro Vancouver region was now up to more than 70 sheets of ice (see Appendix A for a full list).

4 An area slightly smaller than what is currently Metro Vancouver, as it didn't go quite as far out the Fraser Valley. Source: Pacific Coast Hockey Association registration numbers.

Minor Hockey registration peaked a second time in two decades in about 1996 and started to decline in the region. Since this was still one of the largest user groups, total arena use also declined in the region. This was consistent with declines in the province and in the Country. In fact, in the last half of the 1990s there was a nationwide decline in ice sports in general. Alberta, which has the most complete data, based on its regular province-wide recreation behaviour survey, showed that the proportion of households that participated in ice sports in 2000 had fallen dramatically from levels ten years earlier. Anecdotal evidence from other centres is consistent. A City official in Regina was quoted in 1999 as saying that, "we may never build another arena in this City".

Since 1996 minor hockey has modulated within a relatively narrow range. While the number of school aged children in the region has declined modestly, registration in minor ice sports has generally declined at a slightly lower rate but there have been years of modest growth.

Within what is currently referred to as Metro Vancouver, the newer, privately run, multi-sheet complexes, which tend to be the most economically viable operations, are located in the suburbs. They tend to focus on adult users; a category of use which represents the most mobile of users, and many teams are composed of adult members residing in a variety of communities within the region.

Since the turn of the century, there has been very little addition to the supply of arenas in Metro Vancouver. A few arenas have been replaced (e.g. Thunderbird Sports Centre in 2008 and North Surrey Recreation Centre Arenas in 2019) and a few have been added (e.g. projects in Maple Ridge, Coquitlam, Burnaby, North Vancouver and Langley Township) but there have also been a few sheets phased out of the inventory (e.g. two sheets at Burnaby Eight Rinks, one sheet at UBC). In summary, over the past two decades, there has been a net increase of about 8 sheets of ice in Metro Vancouver, while the population has increased by approximately 400,000 residents; or an increase of about one sheet per 50,000 new residents. Appendix A shows an inventory of 78 publicly accessible arena sheets in 2019 alongside population figures from the 2016 Canada Census. It shows that there was one arena sheet per 31,875 residents but that service levels varied widely, due in part to regionally used private ice centres.

LOCAL PLANNING CONTEXT



4

The City of New Westminster adopted a long range *Parks and Recreation Comprehensive Plan* in 2009. In that document one recommendation was to ***Undertake an assessment of long range arena requirements***. While that was not implemented until now, there has been very stable use of arenas over the past fifteen years, with no overall growth in use and, in some areas, some decline. That has taken the pressure off the need to review long range requirements.

In 2015 the City of New Westminster adopted the *Queen's Park Master Plan* which outlined a long-range plan for the gradual evolution of Queen's Park including the facilities that should be located within it. That Plan recommended that a second ice sheet be developed at some point in the future on the west side of the existing Queen's Park Arena. The Plan suggested that growth in population and use of both dry floor and ice uses of the facility would justify the need for another full-sized playing surface and that the most logical location in the City would be as an addition to the Queen's Park Arena. It also suggested that restoration of the historic windows in the Queen's Park Arena should be implemented in the short term and that a new lobby supporting the existing and recommended new playing surface should be considered to restore some of the heritage value of the Queen's Park Arena.

EXISTING SUPPLY OF ARENAS IN NEW WESTMINSTER



5

At the present time, the City of New Westminster has two arena facilities; Queen's Park Arena (QPA) and Moody Park Arena (MPA). Built in 1930, the QPA is the oldest arena in Metro Vancouver currently in use as an arena and one of the oldest arenas in British Columbia. The facility has a seating capacity of 3,500. The Moody Park Arena was built in 1975 and has limited seating and equipment storage capacity.

The two facilities share some common uses. However, MPA accommodates the majority of the City's parks and recreation programs and public skating, while QPA accommodates the majority of traditional arena rentals. Both facilities are used for hockey and ringette during the ice season each year and both are also used extensively for dry floor activities. Indoor box lacrosse is accommodated at both arenas and ball hockey is a user of time at MPA each spring.

Both arenas have undergone minor and major upgrades and retrofits over the years. Currently, Queen's Park Arena is assessed as being in relatively good condition, with many years of use predicted in its functional lifespan. While Moody Park Arena is newer than QPA, it was built to a much lower standard, and is now much closer to the end of its functional lifespan. It also lacks some of the support amenities and areas that are part of the QPA. While it has been well maintained, it will likely need to be replaced much sooner than the QPA. Recognizing this, current retrofits to its mechanical systems to extend its life, have been made with the plan to relocate these new systems to a new facility if MPA is replaced while these components still have some useful life. However, MPA had its main concrete floor slab and boards replaced in 2009 so the ice surface itself and more recently the mechanical plant are in good condition. Problems at MPA include the size of the lobby, poor access to dressing rooms, size of dressing rooms, poor spectator experience and insufficient storage.

When the MPA opened the City's population was about 38,000; about half what it is now. At that time the City had one arena surface per 19,000 residents. Today it has one arena surface per 38,500 residents. Although this suggests half the service level than four decades ago, the current service level compares favourably with the current Metro Vancouver service levels as illustrated in ***Figure One***.

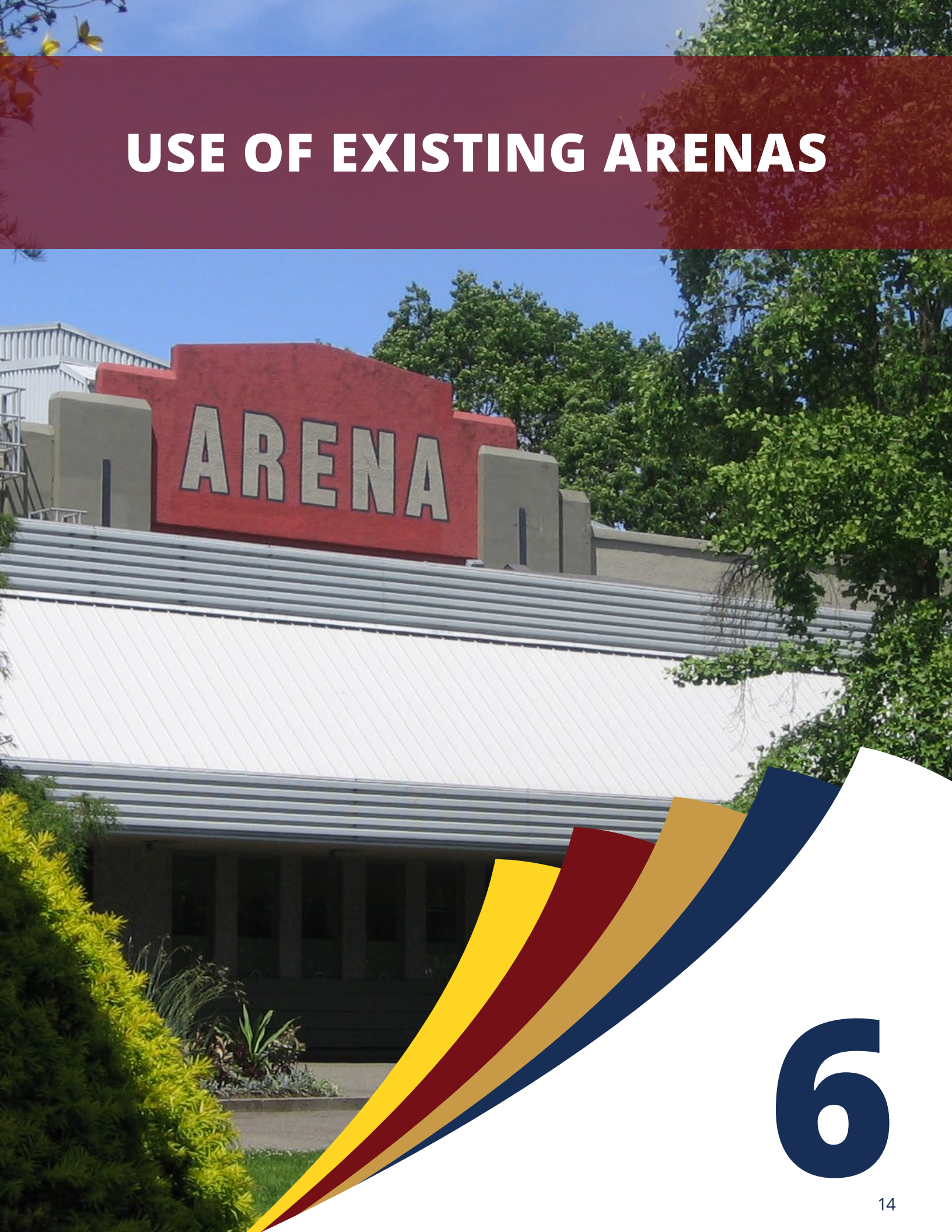
Figure One

Overview of Arenas in New Westminster and Metro Vancouver Over Past 13 Years

	2006	2019
Total Population of the City of New Westminster	58,550	77,000
Total Population in New Westminster between 5 and 19 years of age	8380	8600
Proportion of Total New Westminster population that is between 5 and 19	14.3%	11.2%
Total Registered Players in New Westminster Minor Hockey Aged 4-19	325	340
Registered Minor Hockey players in New Westminster as a percentage of total residents aged 5-19	3.9%	3.8%
Total Population of Metro Vancouver	2.2M	2.5M
Number of Ice Sheets in Metro Vancouver	77	78
Rate of Ice Provision in Metro Vancouver (to nearest thousand)	One sheet per 29,000	One sheet per 32,000

When the rate of participation in minor hockey figures in ***Figure One*** are compared with the population growth projections in an earlier section. It is reasonable to assume that if roughly 3.8% of the school aged population were to play hockey in 2041, it could add an additional (3.8% of 5100) 158 registrants to the minor hockey program in New Westminster which would add the need for approximately 10 games and 10 practices per week during the hockey season. The proportion of residents in the age group that registers for hockey is stable. Therefore, if the rate of registration remains stable over the next 20 years or so, the projected 158 new registrants might be expected. But, if the popularity of minor hockey continues a long-term downward trend, the growth in registration could be more limited. **The rate of registration in minor hockey over the next twenty years needs to be tracked along with the growth in population in that target age group.**

USE OF EXISTING ARENAS



6

Although operating formats vary within a narrow margin year to year, in a typical recent year Queen's Park Arena is available for ice use about 90 hours per week for 28 weeks per year and is available for dry floor uses for an additional 60 hours per week for 22 weeks per year. During the ice-in season, a very high proportion of all the out of school hour time is booked for minor or adult ice use with some of that use waning toward the end of the season. This time is monopolized primarily by minor hockey, ringette and adult hockey. School hour time slots are used to a much lower proportion of capacity as very few adult or minor participants and groups can arrange to make use of that time other than school rentals which have limited use of QPA due to its lack of a skate rental shop. During the dry floor season, a very high proportion of available time is utilized by adult and minor lacrosse except for a few days which are rented for special events.

In a recent typical year, Moody Park Arena has been available for ice use about 90 hours per week for 29 weeks during the winter and a further 80 hours per week for 8 weeks of summer ice. It is also available for dry floor activities for about 60 hours per week for 13 weeks during the spring. The ice use is a mixture of rentals to minor hockey and ringette, City sponsored skating programs and public skating sessions, with some school use during school hours. The dry floor season is mostly rentals to minor lacrosse teams supplemented with some ball hockey rentals and a few special events.

The recent arena operating format has significantly fewer hours than were available in the 1970s and 80s when demand for late night ice and early morning ice expanded operating formats beyond the currently situation. ***Figure Two*** summarizes current arena use in relation to capacity

Figure Two

Arena Use in Relation to Capacity for Use in 2019

Facility	Fall/ Winter Ice in	Spring/ Summer Ice in	Spring/ Summer Dry Floor	Full Year
Queen's Park Arena Capacity for Use in Hours	2545.5		2305	4,850.5
Queen's Park Arena Hours of Use	1822		989.75	2,811.8
Use as a Percentage of Capacity	72%		43%	58%
Moody Park Arena Capacity for Use in Hours	2918.5	765.25	1234	4,917.8
Moody Park Arena Hours of Use	2277.8	538.5	733.5	3,549.8
Use as a Percentage of Capacity	78%	70%	59%	72%
Capacity in Both Arenas in Hours	5464	765.25	3539	9,768.3
Hours of Use of Both Arenas	4099.8	538.5	1723.25	6,361.6
Use as a Percentage of Capacity for Both Arenas	75%	70%	49%	65%

As ***Figure Two*** shows, there is some excess capacity for ice use in the system. However, as more details in ***Appendix C*** show, almost all that excess capacity is within school hours for which demand is much lower. Historically, there has been a great deal of use of ice in New Westminster's arenas during school hours. However, over the past decade, this category of use initially declined. It has recently begun to increase again. When this category declines it leaves excess capacity that no other users in the City are able to utilize.

Figure Two also suggests that more of available capacity in MPA is used than at QPA. However, that difference is largely due to the fact that some public skating and skating instruction programs are accommodated at MPA during school hours. School hours at QPA have a very low utilization rate due to the lack of a skate shop.

Figure Two also shows that there are more hours of ice time available at MPA than at QPA. That is due to the fact that a summer ice season is part of the operating schedule at MPA but not at QPA. All demand for ice use during the summer months in New Westminster is accommodated at MPA while QPA is in high demand for dry floor uses.

Figure Two shows that during the dry floor seasons at both arenas, much less use is accommodated in relation to capacity for use. That is primarily due to the fact that dry floor sports such as lacrosse and ball hockey are not currently structured to use early morning time slots, nor time slots immediately after school or late at night. Therefore, while a facility is available for use from 6 am to 11 pm during weekdays, it is typically used from 4pm to 9pm. However, minor lacrosse would prefer a narrower window of use from 6pm to 8:30pm. During weekends, it is used to a much higher proportion of its capacity for use.

The major ice use and dry floor use categories that make up the roughly 6540 hours of total arena use in a typical year are shown in ***Figure Three***.

Figure Three

Summary of Categories of Arena Use in 2019

Category of Arena Use	Total Hours of Use in 2019	Proportion of Total Arena Use
Ice Uses		
Minor Hockey Association	1494.5	23%
Ringette Association	232.25	4%
City Sponsored Programs and Public Skates	1290	20%
Other Renters	1621.58	25%
Subtotal of Ice Use	**4,638.33**	**73%**
Dry Floor Uses		
Minor Lacrosse	1050.25	17%
Junior/Senior Lacrosse	324.5	5%
Other Renters	175	3%
Special Events	173.5	3%
Subtotal of Use	**1723.25**	**27%**
Total Use	**6,361.58**	**100%**

As ***Figure Three*** shows, the largest single user of all arena capacity is New Westminster Minor Hockey. What it doesn't show is that Other Renters include a great many adult hockey teams as well as some ball hockey use at MPA. Because minor and adult hockey constitute more than one fifth of all use and more than 30% of all ice time, it is worth some additional analysis on this category of use.

In 2000 the The British Columbia Amateur Hockey Association, more commonly known as BC Hockey, had 44,325 registered hockey players in the province. By 2006 that number had dropped to 36,025 registered players. In 2018 that number had fallen further to 33,273.

In New Westminster, the number of registered players in minor hockey declined quite significantly over several decades and bottomed out early in this century. Numbers now seem to be relatively stable with small amounts of growth in the last two years. Adult hockey and other ice sports have been relatively stable also over the past two decades.

As the second largest sport use of arenas in New Westminster, box lacrosse also demands some additional attention. Registration in minor lacrosse in the City has declined about 5% over the past five years. While junior and senior lacrosse have a long and esteemed history in New Westminster, and the number of players at this level has remained relatively constant over the past ten years, attendance at lacrosse games has declined as understood through a recent analysis of user data.

Each year youth groups that use New Westminster arenas submit their total membership numbers to the City. That information for the years 2009 and 2019 is supplemented with information for a few additional adult groups and is summarized in ***Figure Four*** in order to show trends in registration over the past ten years.

Figure Four

Summary of Arena User Group Registrations

Name of Stakeholder Group	Registered Members in 2009	Registered Members in 2019
New Westminster Minor Lacrosse Association (box lacrosse numbers only)	595	419
Burnaby/New Westminster Ringette (only New West residents)	38	28
New Westminster Minor Hockey	377	340
New Westminster Salmonbellies & Royal City Capital Lacrosse Clubs	60	60
Women's Senior Box Lacrosse	30	30

INPUT FROM USER GROUPS



7

Early in the study process each significant arena user group was invited to attend a meeting to discuss long term arena needs. Several themes evolved during the various stakeholder input sessions. There was consensus on the following points:

- QPA is in good condition and needs to be continued;
- MPA is approaching the end of it's functional life span and needs to be replaced;
- Users would appreciate more capacity right now; especially during prime time;
- Demand for use most exceeds capacity during the spring when there isn't sufficient dry floor capacity to accommodate all need for lacrosse and ball hockey during prime time;
- There is some need for a year-round dry floor venue.

While some facility user groups ideally want more/better access to arenas in New Westminster in order to make the organization of the sport easier and facility use more convenient, there was little or no indication that adding capacity so that more users could use more convenient hours would significantly increase the number of users registered with arena using groups.

At draft report stage of the study, user groups were again invited to provide some comments. Generally, they provided overall support for the direction in the report.

TRENDS IN ARENA USE IN NEW WESTMINSTER



8

Data from ***Appendix B*** combine to show some trends in overall use of arenas in New Westminster.

- Actual visits to QPA by minor hockey players have remained relatively stable for the past ten years, as have visits by ringette players. However, visits by adult hockey players have declined, along with visits by minor lacrosse players. Visits by Junior and Senior Lacrosse players have varied year to year depending on whether or not teams make the playoffs.
- At the MPA, skating lesson registrations have declined quite significantly over the past ten years, as have other categories of visits such as Parent and Tot Hockey sessions and minor hockey visits. Private rentals have increased, as have school visits during school hours and attendance at family skates. Visits by ringette players and attendance at public skating sessions have remained relatively stable.
- Total visits to MPA have declined over the past ten years.

While accurate figures for spectator attendance at a variety of sports events are not clear, long tenured staff indicate that overall attendance has declined over the past two decades. Current records show that the Senior Salmonbellies Lacrosse team draws the most spectators on a regular basis. Spectator at Salmonbellies games in 2019 totaled 5546 over nine regular season games (for an average of 616 per game) and 6439 spectators over five playoff games (for an average of 1288 per game). Total spectators at senior lacrosse games, like other sports, varies significantly depending on the number of playoff games for each team.

THE ECONOMICS OF ARENA OPERATION



9

The total operating costs and revenues for 2018 for both arenas are summarized in ***Figure Five***. The expenditures in those totals include some transfer to a capital reserve to ensure maintenance of the current functionality of the facilities.

Figure Five

Summary of Arena Operation Revenues and Expenditures for 2018 Not Including Skate Shop or Concession Operations

Arena	Operating Expenditures	Operating Revenues	Net Operating Deficit
Moody Park Arena	1,441,775	543,507	898,268
Queen's Park Arena	1,206,793	333,145	873,648
Total for Both Arenas	**2,648,568**	**876,652**	**1,771,916**

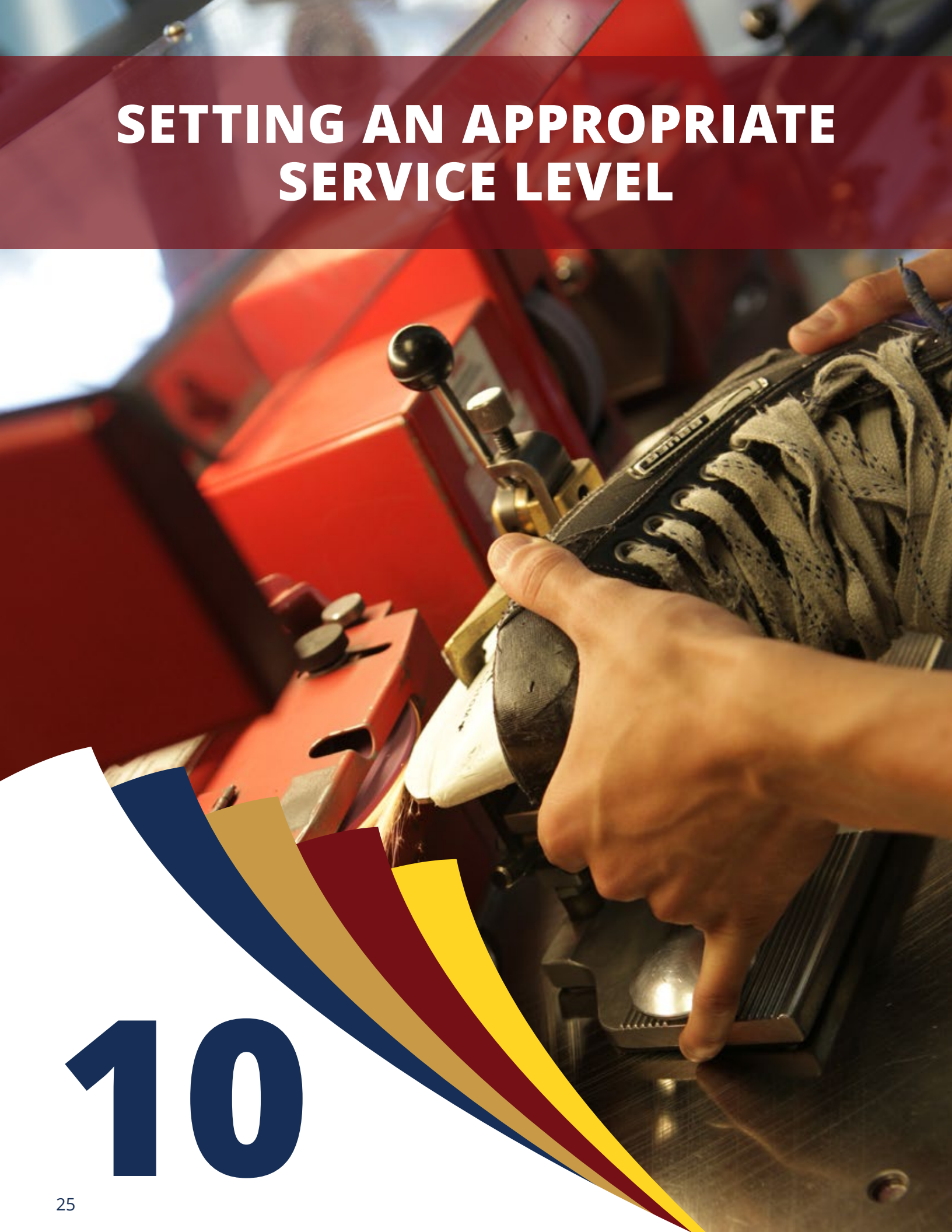
**Regulations impacting staffing levels began in 2018.*

As ***Figure Five*** shows, operating revenues are much higher at MPA. This is due primarily to the skating lesson revenue ($249,000) which is one of the most lucrative sources of arena revenue in New Westminster, with more revenue per hour in this category than any other category of arena use. Operating expenditures at MPA are also higher due to the higher participant visits. In fact, the differences in operating costs are even more substantial than the above figures show, because the QPA expenditures include a $300,000 transfer to capital reserve while the MPA figures include a $100,000 transfer to reserves. This is because transfer to capital reserves is in proportion to replacement cost.

A recent analysis of arena user data showed a total of 281,000 visits to both arenas in 2018: a figure which includes all participants and all spectators. The net subsidy of $1,771,916 represents a subsidy of over $6 per visit. It also represents a subsidy of about $270 per hour of use. However, a review of user fees suggests that the subsidy for adult rentals, dry floor uses, public skating and skating lessons is much less than the average. The subsidy for each hour of minor sport ice use is higher than the average. It is therefore interesting to note that the City subsidizes minor hockey in the amount of almost $400,000 and that means that each minor hockey player is subsidized with almost $1200 worth of net tax support for arena ice time.

Overall, the above data shows that single sheet arenas are among the most expensive facilities to operate on a per use basis with high levels of subsidy per user. That means that it is prudent not to overbuild such facilities which would result in even higher rates of subsidy if capacity is developed and operated but not used. It should be noted that multi-sheet arenas are much more cost effective and would result in lower subsidy per use.

SETTING AN APPROPRIATE SERVICE LEVEL



10

As ***Appendix A*** shows, the level of arena provision varies dramatically throughout the region. Some of the largest communities have 80,000 residents per arena sheet, while a few communities have rates of supply as high as one sheet per 6200 residents. The variance appears to be attributed to two factors as follows.

- **Provision of large private arena complexes –** Because private arenas cater predominantly to the most mobile segment of the population – adult teams – they operate regionally rather than locally and are located in the most accessible and central places in the region. This masks community-by-community provision rates. For example, including them suggests that Burnaby has a very high level of provision while Vancouver has a very low one. However, if Burnaby's eight rinks, with its six sheets of arena ice close to the border between Burnaby and Vancouver, is taken out of the equation, the rate of supply in the two communities is virtually identical.
- **Intentional intermunicipal positioning –** Pitt Meadows has one of the highest provision rates in the region, precisely because when it was built, Pitt Meadows and Maple Ridge were in an intermunicipal agreement that also served the much larger municipality of Maple Ridge, which shows a significantly lower rate of supply for the same reason. Taken together, they have a rate of supply close to the average.

If rates of supply are adjusted for those two factors, the variance becomes less dramatic. Indeed, most communities provide publicly accessible arena sheets at rates which converge on the average of one sheet per about 30,000 residents, which is close to where New Westminster stands now.

It is recommended that the City of New Westminster adopt a service level for arenas of one sheet per 30,000 residents.

This is an appropriate service level for the following reasons.

- The proportion of residents in New Westminster and the region using arenas has been relatively stable over the past decade, which suggests that tying provision rates to population is prudent. As the population grows, so will the supply of arenas.
- It conforms to the average rate of arena supply for the Metro Vancouver Region which has in itself been quite stable for more than a decade.
- Current use of the two existing arenas is at a high proportion of their capacity for use and has been for many years. Increasing this service level would result in facilities being used to much less than their capacity for use and that would increase the subsidy per hour of arena operation. Reducing the service level would result in some current arena users having to travel out of the community for ice use.

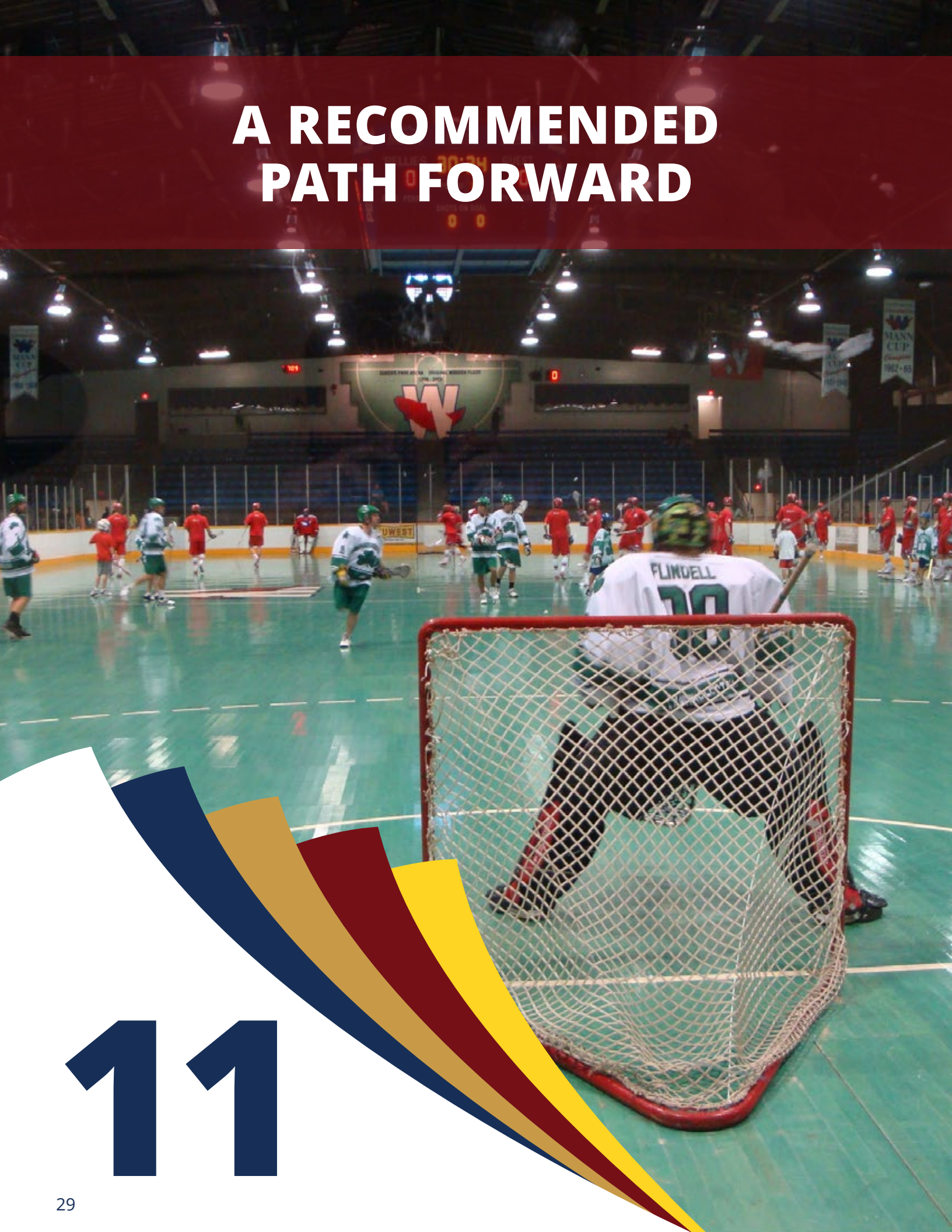
- Burnaby has recently begun construction of two new sheets of ice close to their southern border with New Westminster. This will quite significantly increase that community's service level. The experience with indoor pools suggests that when Burnaby increases service levels significantly along its southern border, New Westminster users can and will be drawn across the border to fill some of that capacity. Surrey has recently opened a new three sheet arena on New Westminster's south border (The North Surrey Sport & Ice Complex) which represents the increase of one new sheet as it will replace the twin pad at the North Surrey Recreation Centre. Adding to capacity in New Westminster in the short term, before the impact of new arenas in Burnaby and north Surrey has been fully evaluated, would not be prudent.



With a service level of one full sized sheet of arena capacity per 30,000 residents, the problem will be when to add capacity. In the past, building a partial sheet of ice or dry floor playing surface has not been an option as all organized sport users have become accustomed to using a full sized playing surface. However, in the future, a full-sized playing surface will not be the only option. Hockey Canada is now supporting smaller ice surfaces for younger players as this has been found to be a better size for teaching skills and furthering the sport. The sport of lacrosse and ringette have also started to discuss smaller playing surfaces for the youngest players. As skating lessons and recreational public skating can also be accommodated on smaller playing surfaces, it means that as a community grows it will become possible to add half sized playing surfaces for both ice based and dry floor activities for every fifteen thousand residents rather than waiting for growth of a full 30,000 residents before adding capacity.

It should be noted in the discussion of service levels that a half-sized ice sheet located by itself will not be as economical to operate as a full-sized ice sheet on its own. A half-sized ice sheet will likely generate roughly half the revenue of a full-sized ice sheet but will trigger more than half the cost of operation per hour. However, when ice sheets are collocated, a half-sized ice sheet will be just as economically viable as full-sized ice sheet. In other words, adding a half-sized ice sheet to another ice sheet will generate more operating revenue than it will trigger additional operating costs.

A RECOMMENDED PATH FORWARD



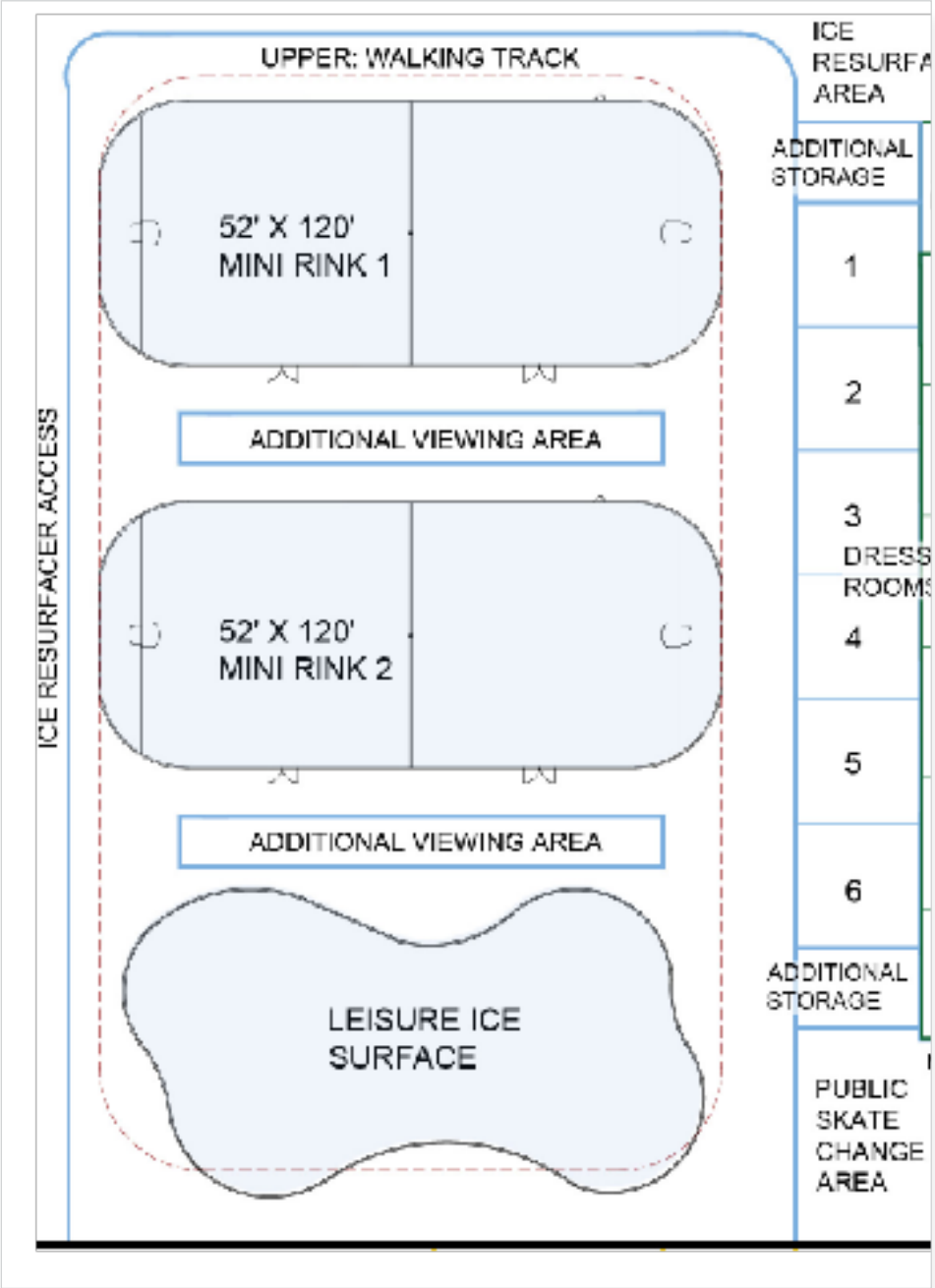
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In implementing and maintaining the recommended service level, there are four significant issues that the City of New Westminster has to deal with. In no particular order they are:

- Moody Park Arena is coming to the end of its functional lifespan and will need some significant reinvestment or replacement over time. Given the quality of the building and the limitations to some spaces, replacement will likely be a better option than reinvestment.
- In any consideration of adding arena capacity, location will be a challenging issue. Options are very limited. The economic imperative of amassing inventory in multi-sheet centres is clear. That leaves only one option, and that is adding to Queen's Park Arena. However, adding more indoor facilities to Queen's Park that will require their own added parking is a challenging consideration.
- The size of new playing surfaces will be another important issue. While historically only full-sized playing surfaces have been considered, it may be that half sized sheets positioned for younger players is a prudent option and that opens new possibilities for both siting and more incremental additions to the inventory of arenas.
- Other options for dry floor uses is an additional issue that deserves attention. If half sized floor sizes for younger players become an increasingly attractive option, it may be that a local large gym can help to fill some of that need.

Given the above issues and challenges, the consultants recommend one path forward.

1. **Add no new arena capacity during the next five to ten years.** It is prudent to monitor and evaluate the impact of new arenas in both North Surrey and Burnaby before making any major decisions in terms of capital investment. With this new capacity coming online at the same time on both the north and south borders of New Westminster, there is potential for excess supply in the marketplace that New Westminster users will be able to access and will use. The situation with New Westminster arenas has been quite stable for many years and does not pose any urgent need to add capacity. Adding capacity runs the risk of creating excess capacity in one of the City's most expensive categories of service. It is also prudent to see if any of the demand for additional dry floor uses can be accommodated within any other gym before making long term investment decisions for new arena capacity.
2. **Explore ways of accommodating spring lacrosse in large local gyms.** Large local gyms may be able to accommodate some of the need for younger players on a smaller lacrosse surface during the spring period when need is greatest.
3. **Plan for a new full-sized sheet to be added to Queen's Park Arena.** Once the impacts of the new arenas in New Westminster's borders and the operation of new indoor sports floors have been evaluated, the City should plan for a new full sized playing surface at Queen's Park Arena to replace the Moody Park Arena. This project, which should proceed to construction as early as 2031, could be coupled with a new lobby to support both arenas and the issue of historic restoration of QPA's windows. The new two sheet venue would operate more efficiently than the two single sheet venues the city currently operates. The savings in operating costs would help to finance the capital investment.
4. **When the new arena opens it will be possible to replace the concrete floor in the existing arena.** This will require several months during which the main floor cannot be in use.
5. Once a new twin pad facility is open at Queen's Park, **plans can proceed for a replacement facility on the Moody Park Arena site.** Adding to capacity with a third venue, more centrally located than Queen's Park, should include the option of atypically sized playing surfaces. It may be that a new facility would not be one full sized sheet, but one or more half sized playing surfaces and/or an irregularly sized surface ideally positioned for pleasure skating and skating lessons during the winter and/or a combination of dry floor activity in one part of the building and ice based activity on a separate surface.


UPPER: WALKING TRACK
ICE RESURFA AREA
ADDITIONAL STORAGE
1
2
3
DRESS ROOMS
4
5
6
ADDITIONAL STORAGE
PUBLIC SKATE CHANGE AREA
52' X 120' MINI RINK 1
ADDITIONAL VIEWING AREA
52' X 120' MINI RINK 2
ADDITIONAL VIEWING AREA
LEISURE ICE SURFACE
ICE RESURFACER ACCESS

RISK

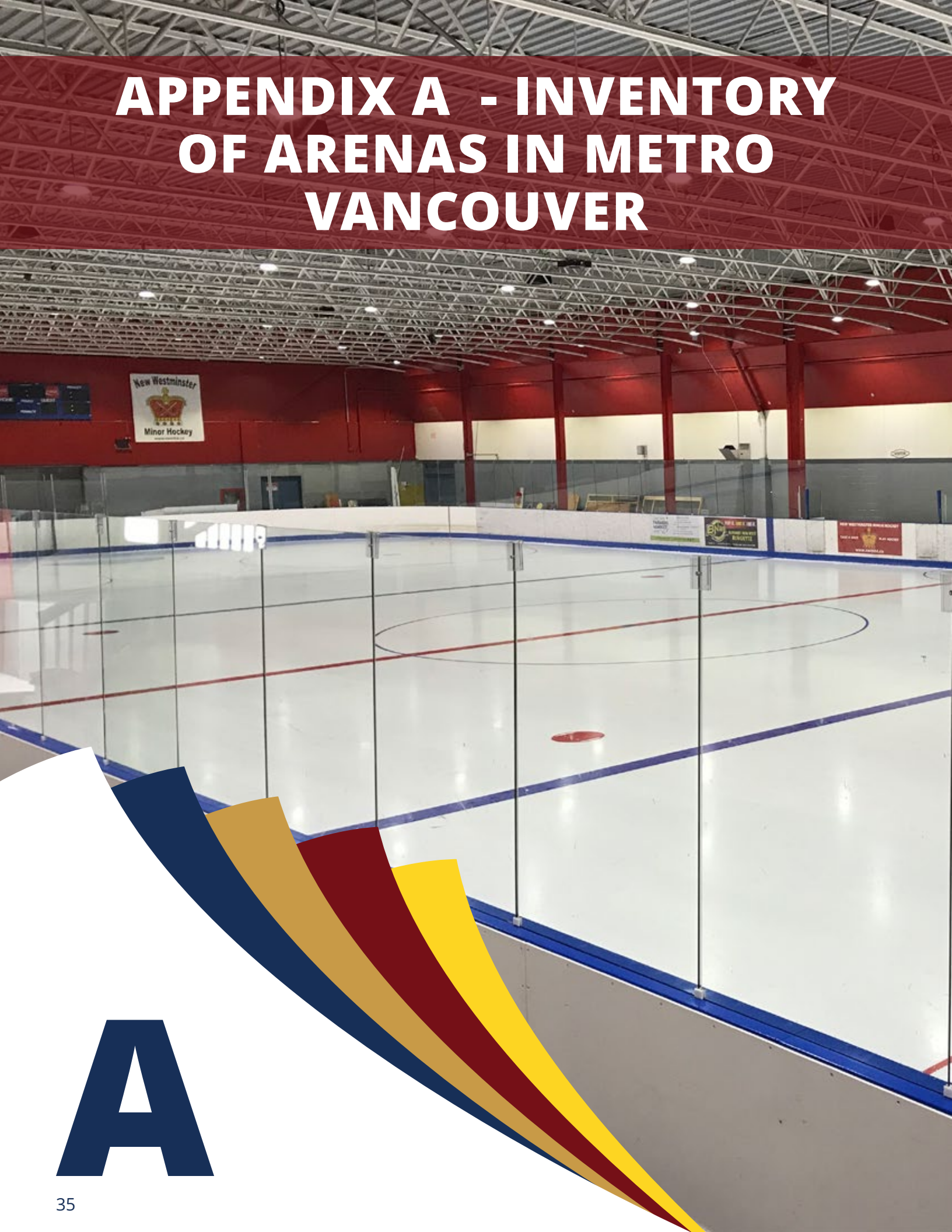


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The path forward suggests improvements to the quality and positioning of arenas in New Westminster in the short term and adding supply in the long term. The primary risk of such a strategy is significant reliance on existing aging arenas in the short term. If a technical issue arose with either of the existing arenas, there is no ability in the system to make easy adjustments. The City of New Westminster would be entirely reliant on adjacent communities to accommodate displaced arena users. The most obvious way of mitigating this risk would be to advance the building of the third arena sheet. However, the risk of one of the existing arenas becoming unusable for a significant amount of time is much smaller than the risk of overbuilding capacity in the short term, spending capital before it is needed and increasing annual net subsidies of arena usage. Advancing the development of a third arena sheet is not recommended as a risk mitigation strategy.

An additional risk is that ice sports that are currently not accommodated in the two existing arenas could start up in New Westminster and this could expedite the plans outlined in the previous section. Sports such as figure skating and sledge hockey are examples of this potential expansion of need for ice sport capacity.

APPENDIX A - INVENTORY OF ARENAS IN METRO VANCOUVER



A

In 2016, according to the Census Canada estimates, there were 2,454,378 residents in Metro Vancouver's 22 members. At that time there were a total of 77 sheets of arena ice that were avaialble for public use. There were also such venues as Rogers Arena and the Vancouver Coliseum which had little or no availability for public ice or dry floor recreational use and some private club facilities that also had little or no general public use. The breakdown is provided in ***Figure A–1***. Since that time a few arena projects have proceeded in Metro Vancouver, but as of the close of 2019 none have been fully open to the public.

Figure A-1

Metro Vancouver Arena Service Level in 2016

Municipality	**Population**	**Number of Publicly Accessible Full Sized Arena sheets** (including P3s and Commercial Arenas)	**Service Level**
Anmore	2210	0	0 residents per sheet
Belcarra	643	0	0 residents per sheet
Bowen Island	3680	0	0 residents per sheet
Burnaby	232,755	9	25,862 residents per sheet
Coquitlam	139,284	6	23,214 residents per sheet
Delta	102,238	9	11,360 residents per sheet
Langley (City)	25,888	2	12,944 residents per sheet
Langley (Township)	117,285	8	14,661 residents per sheet
Lions Bay	1334	0	0 residents per sheet
Maple Ridge	82,256	2	41,128 residents per sheet
New Westminster	70,996	2	35,498 residents per sheet
North Vancouver (City)	52,898	1	52,898 residents per sheet
North Vancouver (District)	85,935	4	21,484 residents per sheet
Pitt Meadows	18,573	3	6,191 residents per sheet
Port Coquitlam	58,612	2	29,306 residents per sheet
Port Moody	33,551	2	16,776 residents per sheet
Richmond	198,309	8	24,789 residents per sheet
Surrey	517,887	7	73,984 residents per sheet
Vancouver	631,486	8	78,936 residents per sheet
West Vancouver	42,473	1	42,473 residents per sheet
White Rock	19,952	1	19,952 residents per sheet
Electoral Area A (and UBC)	16,133	2	8,067 residents per sheet
Total	**2,454,378**	**77**	**31,875 residents per sheet**

APPENDIX B – SUMMARY OF ARENA USE IN NEW WESTMINSTER OVER THE PAST TEN YEARS



B

LESSON REGISTRATIONS AT MPA OVER THE PAST 11 YEARS

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
WINTER											
Preschool	729	726	701	671	664	583	567	551	572	515	475
School Age	727	770	722	774	762	696	738	709	731	734	593
Adult	76	100	81	97	76	62	50	57	83	93	89
Private Lessons	1	6	1		1	28	14	17	34	7	101
Daycare Lessons	11	8	12	5	11	16	6	8	7		
Power Skating	72										
Goal Getters	37	37	43	43	32	32	24	18	16	24	13
Ice Hot Shot Tot	16	20	11	11	21	30	13	10	8	6	
Figure Skating	12	10	7	10		9	2	4	3	9	10
Ice Speed Blades	2										
TOTAL	**1,683**	**1,677**	**1,578**	**1,611**	**1,567**	**1,456**	**1,414**	**1,374**	**1,454**	**1,388**	**1,281**
SPRING											
Lacrosse	9	16	16	11	8	23	3	9			
Action & Art	29	8	19	16	6						
Tot Sports	26	21	27	35	39	40	21	49	46	18	15
TOTAL	**64**	**45**	**62**	**62**	**53**	**63**	**24**	**58**	**46**	**18**	**15**
SUMMER	*										
Preschool		372	332	360	327	347	265	217	318	127	217
School Age		457	484	516	449	474	444	428	503	280	400
Adult		17	22	28	16	1	10	2	22	9	25
Private Lessons						4	1	9	4	23	39
Daycare Lessons				27							
Goal Getters		6	20	13	19	20	21	22	18	9	10
Ice Hot Shot Tot		23	9	9	9	2	12				
Figure Skating				7							
Hockey School		38	18	21	24	26	23	27	14	17	15
TOTAL	**0**	**913**	**885**	**981**	**844**	**874**	**776**	**705**	**879**	**465**	**706**

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
FALL											
Preschool	552	529	566	574	557	540	494	439	472	367	
School Age	627	613	643	638	676	617	692	688	673	514	
Adult	68	70	72	54	52	43	43	68	63	60	
Private Lessons					1	6	23	31	5	63	
Daycare Lessons	10	22	7	5	11		12	14		4	
Goal Getters	22	34	23	26	18	19	14	13	19	7	
Ice Hot Shot Tot	11	14	5	20	11	6	8	8	7		
Figure Skating	6	9	11	2	8	14	9	11	6	5	
TOTAL	**1,296**	**1,291**	**1,327**	**1,319**	**1,334**	**1,245**	**1,295**	**1,272**	**1,245**	**1,020**	**0**
GRAND TOTAL	**3,043**	**3,926**	**3,852**	**3,973**	**3,798**	**3,638**	**3,509**	**3,409**	**3,624**	**2,857**	**2,002**

**Closed for maintenance June 7-October 2, 2009*
**All day kindergarden started Sept 2010*

Staff in both arenas note total visits to the facility after each type of use. The following two tables from those records. They include both participants and spectators.

QUEEN'S PARK YEARLY ATTENDANCE

YEAR	ARENA							
	Minor Hockey	Ringette	Adult Hockey	Minor Lacrosse	Int A/JR A/ JR B/SR B	SR A	Other	Arena Total
2019	17,164	660	4,157	19,619	8,532	6,682	5,212	**62,026**
2018	44,075	3,550	8,335	22,443	10,223	6,976	12,032	**107,634**
2017	41,554	2,198	8,432	21,334	11,680	27,039	5,391	**117,628**
2016	47,427	4,021	9,918	20,902	11,212	5,892	18,311	**117,683**
2015	52,411	4,648	10,743	23,206	7,901	7,896	6,209	**113,014**
2014	42,741	3,587	9,764	29,666	11,648	7,740	10,810	**115,956**
2013	43,445	4,430	12,053	23,145	19,681	9,497	6,817	**119,068**
2012	49,391	3,006	14,040	24,105	9,935	8,515	6,874	**115,866**
2011	33,264	7,585	8,651	37,021	10,578	13,728	6,333	**117,160**
2010	32677	787	8207	26555	13391	13023	15931	**110,571**
2009	50679	3401	11713	29868	14917	27825	7029	**145,432**

YEARLY MOODY PARK ARENA FACILITY ATTENDANCE

YEAR	TOTAL	PUBLIC/ LOONIE	ADULT	FAMILY	P&T	P&T/ YOUTH	LESSONS	SCHOOL	MH	RINGETTE	PRIVATE	DRY FLOOR
2018	**173,785**	24389	2124	3206	487	0	66344	2965	10999	5535	30860	26876
2017	**175,204**	25108	1949	2339	535	566	69011	2460	14028	5637	28256	25315
2016	**176,844**	26664	1790	1972	607	1243	66804	2763	13923	5745	26407	28926
2015	**199,724**	26019	1810	2092	593	1659	62298	1646	13198	4483	56714	29212
2014	**199,562**	25845	1649	1694	637	1794	71974	1392	12425	5268	50226	26658
2013	**193,789**	25288	1545	2331	396	1752	95335	1598	14058	4955	19211	27320
2012	**152,185**	28335	1965	2977	579	1420	70687	1690	15164	7625	21,743	
2011	**194,949**	24532	1811	2270	622	3227	92554	339	15888	5088	21462	27156

APPENDIX C – ARENA USE IN RELATION TO CAPACITY FOR USE



C

The City Arena staff prepared the following summary of arena use and capacity for the calendar year 2019. It breaks down capacity and use into two periods of the week (school hour use and out of school hour use) and breaks the seasons into two ice use periods and one dry floor use season.

Total Use

Ice QPA		
Total	**Non School Hours**	**School Hours**
MH / ML	1112.5	26.75
Ringette	50	8.25
Renters	346	116.5
Programs	2.5	159.5
Total	1511	311
Grand Total Booked		**1822**

Ice MPA - Winter/Fall		
Total	**Non School Hours**	**School Hours**
MH / ML	308	16.25
Ringette	144.5	1
Renters	609.5	264.3
Programs	702	232.25
Total	1764	513.8
Grand Total Booked		**2277.8**

Ice MPA - Summer		
Total	**Non School Hours**	**School Hours**
MH / ML	31	0
Ringette	28.5	0
Renters	231.5	53.75
Programs	45.75	148
Total	336.75	201.75
Grand Total Booked		**538.5**

Capacity for Use

Ice QPA				
Capacity	**Hours/ day**	**# days**	**Non School Hours**	**School Hours**
Weekdays - non school	8	128	1024	0
Weekdays - school	6.25	129	0	806.25
Saturdays	13.25	28	371	0
Sundays	12.75	27	344.25	0
Total			1739.25	806.25
Grand Total Capacity			**2545.5**	

Ice MPA - Winter/Fall				
Capacity	**Hours/ day**	**# days**	**Non School Hours**	**School Hours**
Weekdays - non school	8	151	1208	0
Weekdays - school	6.25	151	0	943.75
Saturdays	13.25	29	384.25	0
Sundays	12.75	30	382.5	0
Total			1974.75	943.75
Grand Total Capacity			**2918.5**	

Ice MPA - Summer				
Capacity	**Hours/ day**	**# days**	**Non School Hours**	**School Hours**
Weekdays - non school	8	40	320	0
Weekdays - school	6.25	40	0	250
Saturdays	13.25	8	106	0
Sundays	12.75	7	89.25	0
Total			515.25	250
Grand Total Capacity			**765.25**	

Dry Floor QPA		
Total	**Non School Hours**	**School Hours**
Minor Lax	523.5	31.25
Jr/Sr Lax	284	1
Renters	33	0
Misc	85.5	31.5
Total	926	63.75
Grand Total Booked		**989.75**

Dry Floor QPA				
Capacity	**Hours/ day**	**# days**	**Non School Hours**	**School Hours**
Weekdays - non school	7	107	749	0
Weekdays - school	7.5	105.5	0	791.25
Saturdays	13.5	21.5	290.25	0
Sundays	12	23	276	0
Total			1315.25	791.25
Grand Total Capacity			**2305**	

Dry Floor MPA		
Total	**Non School Hours**	**School Hours**
Minor Lax	482	13.5
Jr/Sr Lax	39.5	0
Renters	122.5	19.5
Misc	7	49.5
Total	651	82.5
Grand Total Booked		**733.5**

Dry Floor MPA				
Capacity	**Hours/ day**	**# days**	**Non School Hours**	**School Hours**
Weekdays - non school	7	64	448	0
Weekdays - school	7.5	64	0	480
Saturdays	13.5	12	162	0
Sundays	12	12	144	0
Total			754	480
Grand Total Capacity			**1234**	




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