



SAANICH ICE AND DRY FLOOR DEMAND ANALYSIS STUDY

FEBRUARY 2023- FINAL

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EXECUTIVE SUMMARY

The District of Saanich (the District) has initiated a review and analysis of arena supply and demand in the Greater Victoria Region. This is in response to the outcomes of the 2019 District of Saanich Market Analysis Study, which noted that the District should plan for at least 1 additional ice sheet within the community to support demand. Arenas within the Greater Victoria Region are used by a number of municipalities, requiring the District analyze the region's arena use before advancing planning work for the additional sheet.

The goals of this study are to:

- Identify arenas within the Greater Victoria region that are used by Saanich residents
- Determine how well each arena is currently utilized for ice and dry floor activities
- Estimate the future demand for ice and dry floor activities within the Greater Victoria Region
- Assuming there is demand for an additional ice sheet:
 - Prepare preliminary space estimates for a facility to support that demand
 - Develop a Class D cost estimate for the design and construction of a new arena
 - Make suggestions for a suitable arena location within the Greater Victoria Region and the District of Saanich

Cornerstone Planning Group in partnership with Licker Geospatial and SSA Quantity Surveyors were contracted to perform the analysis. The work was completed in 2022 over a 10-month period.

Within the 13-municipality region, 10 arenas were identified for inclusion of the analysis. The use analysis revealed that the current inventory of arenas has an average annual utilization of 65%, and 68% during months when ice activities take place. This represents a very well utilized system of arenas given that the analysis did not factor in peak season and prime time (as such data was not available). It is reasonable to conclude that the **current inventory of arenas is near or has reached its theoretical maximum during peak season and prime time**. This outcome was further corroborated through engagement with arena users, operators, and the general public.

Guided by the principle that embracing diversity enriches the lives of all people and enhances the cultural fabric of the District as a whole, Saanich is committed to improving its programs and practices as they relate to Diversity, Equity, and Inclusion. The study builds on the District's commitment by:

- Applying higher future growth factors for ice and dry floor activities with fewer barriers for access. For example, drop-in ice activities allow for a larger demographic to participate given the low fees and minimal time commitment. This type of activity provides more equitable access to the community and therefore are projected to have a larger share of ice usage in the future. This equity lens has been applied to all dry floor and ice activities, which in turn have driven the future demand estimates.



- Including a location analysis based on equity indicators. The analysis assumes that the number of children, number of low-income families and number of Indigenous residents are driving indicators for a suitable potential location.

The future demand for arena activities (ice and dry floor) is projected to grow by 76% (over current state) by 2041 (~20 years into the future). The activities that will see the largest increase in demand are dry floor activities, and leisure and municipal ice programming. **By 2041, the region will have community demand for 13 ice sheets.** The projected growth translates into a **10-year shortfall of 2.5 ice sheets and a 20-year shortfall of 3.9 sheets** (taking into account that the Ian Stewart Rink at University of Victoria will not be replaced).

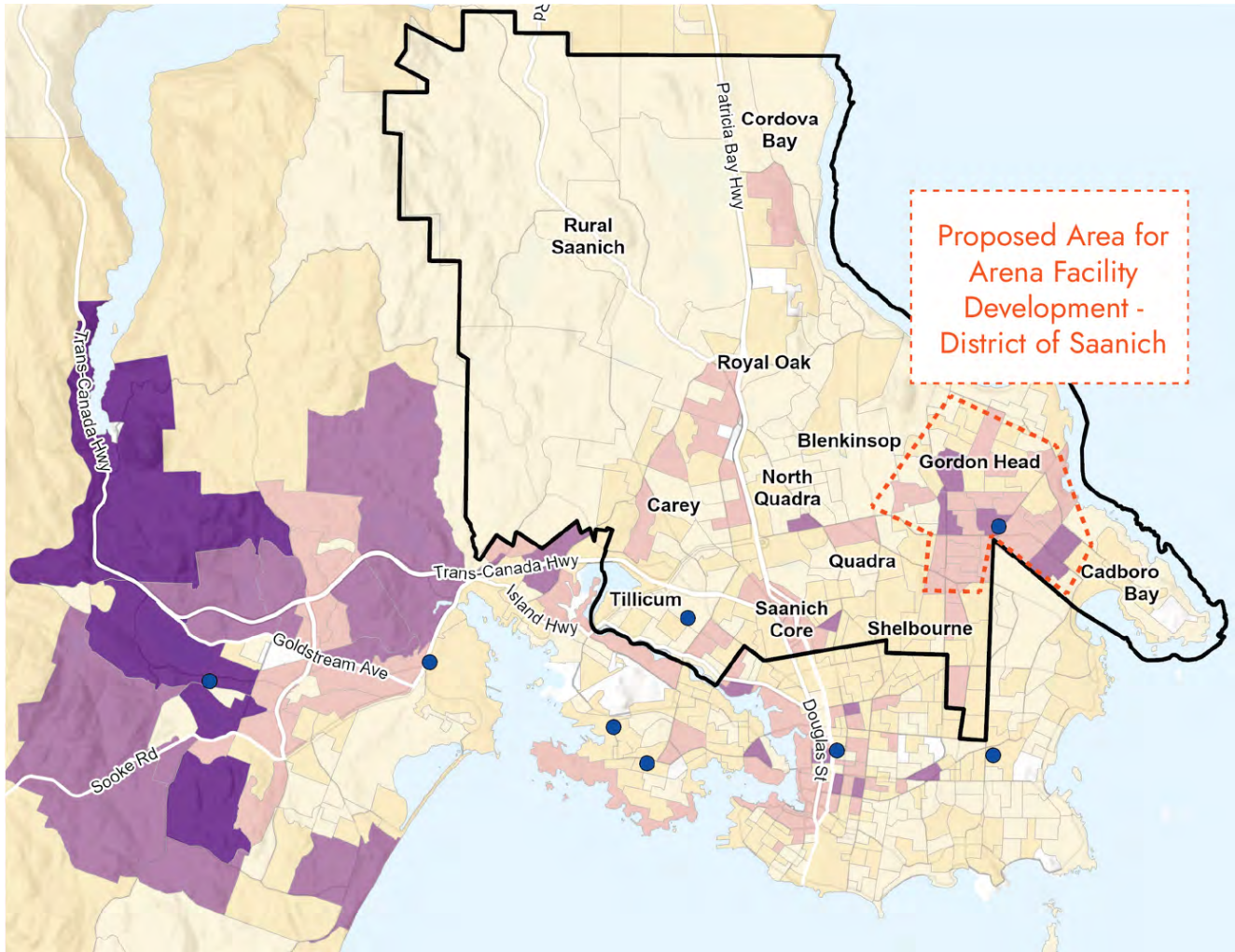
Two accommodation options were prepared to help address the anticipated future arena shortfall – a new single ice sheet arena and a twin ice sheet arena. Neither of these options present a strategy to meet the complete demand as it has been assumed that only a single or twin arena would be considered for development. The following table compares the options explored.

	Option #1: New single ice sheet arena	Option #2: New twin ice sheet arena
Facility and site area requirements	Arena Area = 4,472 m ² (48,141 ft ²) Site Area = 16,572 m ² (178,384 ft ² or ~4 acres)	Arena Area = 7,741 m ² (83,332 ft ²) Site Area = 24,641 m ² (265,235 ft ² or ~6 acres)
Capital cost requirements (CAD, 2022 \$'s)	\$39,899,000 \$8,922 / m ²	\$61,722,000 (\$30,861,000/sheet) \$7,972 / m ²
30-year life cycle costs (including capital costs)	\$63,981,000	\$99,614,000 ~ \$49,807,000/sheet

By 2041, leisure and municipally run ice programming will account for ~25% of the overall arena usage. Such activities do not always require full sized ice sheets. The District could consider the development of a non-standardized ice surface to accommodate a portion of the leisure programming demand, to realize cost efficiencies of operating a leisure ice surface. Depending on the arrangement, a separate leisure ice surface could decrease the ice sheet requirement by up to 1.0 in the 20-year future, helping the District (and the region) to better meet the long-term community demand for ice activities. Detailed option assessment should consider implementation of a leisure ice sheet.

The future location analysis was performed using 4 equity indicators. The original results showed that the most beneficial area for a new arena development within the Greater Victoria Region is largely outside of the District of Saanich's borders. This location analysis purely considered the equity indicators and excludes other factors such as the current inventory physical condition and building age, arena functionality, current user locations etc.

When considering areas within the District’s boundaries and a more holistic set of planning factors, the most beneficial area for the development of a new arena would be around Gordon Head and Cadboro Bay (shown on the next figure). These neighbourhoods currently have close access to the Ian Stewart Ice Rink; however, this facility is closing in 2026 and will be replaced with housing and commercial uses to support the University of Victoria’s new mixed-use university district. The district plan does not include a replacement arena facility, further contributing to the regional ice sheet deficit and leaving the eastern Saanich neighbourhoods with one less accessible arena. These neighbourhoods, especially Gordon Head and Cadboro Bay, also feature a concentration of community members that could benefit from improved equitable access to arenas.



Several actions are recommended for the District of Saanich to improve the arena experience for residents and advance the expanded provision of arena facilities to meet the long-term demand. In the immediate and short term, they are:

Immediate Actions:

- Upgrade the change rooms at G.R. Pearkes Recreation Centre.



- Initiate discussions with neighbouring municipalities (Langford, Colwood, and View Royal, for example) to discuss findings of the study and gauge interest in regional partnerships for project delivery.

Short/Medium Term Actions:

- Explore potential other recreation demand areas for pursuing a multi-use facility. At a minimum, the District should consider potential collocation with aquatic facilities.
- Further explore the impacts of leisure ice provision within the District and its cost and service impacts.
- Develop a funding plan for Option #1 (one sheet), with a viewpoint that Option #2 (two sheets) has a more regional benefit that would require future partnerships.



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We acknowledge that this work is situated on the traditional territories of the Lkwungen (Lay-kwung-gen) peoples known today as Songhees and SXIMELEŁ (Esquimalt) Nations and the W_SÁNEĆ (weh-saanich) peoples known today as W_JOŁEŁP (Tsartlip), BOKEĆEN (Pauquachin), STÁUTW_ (Tsawout), W_SIKEM (Tseycum) and MÁLEXEŁ (Malahat) Nations.

1 INTRODUCTION

1.1 STUDY PURPOSE & APPROACH

The District of Saanich (the District, or Saanich) has initiated a review and analysis of rink supply and demand in the Greater Victoria Region. This is in response to the outcomes of the 2019 District of Saanich Market Analysis Study, prepared by Lees + Associates, which noted that the District should plan for (and identify a location for) at least 1 additional ice sheet within the community to support demand.

Arenas within the Greater Victoria Region are used by a number of municipalities, so it was recommended that the District analyze the region's arena use before advancing arena planning work. The goals of this study are:

- Identify arenas within the Greater Victoria Region that are used by Saanich residents
- Determine how well each arena is currently utilized for ice and dry floor activities
- Estimate the future demand for ice and dry floor activities within the region
- Assuming there is demand for an additional ice sheet:
 - Prepare preliminary space estimates for a facility to support demand
 - Develop a Class D cost estimate for the design and construction of a new arena
 - Make suggestions for a suitable arena location

Cornerstone Planning Group in partnership with Licker Geospatial and SSA Quantity Surveyors were contracted by the District to prepare a study to address the project goals. The work was completed following a 5-phase approach between February - October 2022.

Phase 1: Project Initiation and Preliminary Research/Analysis – Included historical background document review, population and demographic analysis and sport participation trend research.

Phase 2: Stakeholder Engagement – Included engagement with District leadership and staff, G.R. Pearkes arena user groups, the general public, and arena operators from the region.

Phase 3: Current and Projected Arena Utilization Analysis – Included a utilization analysis which captured use patterns for each identified arena and projected demand for a 10- and 20-year future. An arena gap analysis was prepared to understand how well the region's arenas meet community demand.

Phase 4: Accommodation Strategy Development – Included the development of preliminary arena space estimates, capital cost estimating, operational cost estimating and location analysis.

Phase 5: Final Reporting – Included the preparation of the final report which summarizes all project activities and outcomes (this document).



1.2 MARKET ANALYSIS STUDY OUTCOMES

The District of Saanich Parks, Recreation and Culture Services Market Analysis Study (“Market Analysis Study”) was prepared by Lees + Associates in partnership with Carscadden and Mustel Group in 2019. The Market Analysis Study looked at the availability and demand for various recreation infrastructure over a 10+ year horizon within Saanich’s municipal boundary.

The findings of that study led to the initiation of this study to provide a deeper analysis of regional demand and supply. The following points summarize key outcomes of the 2019 study as they relate to arenas in Saanich:

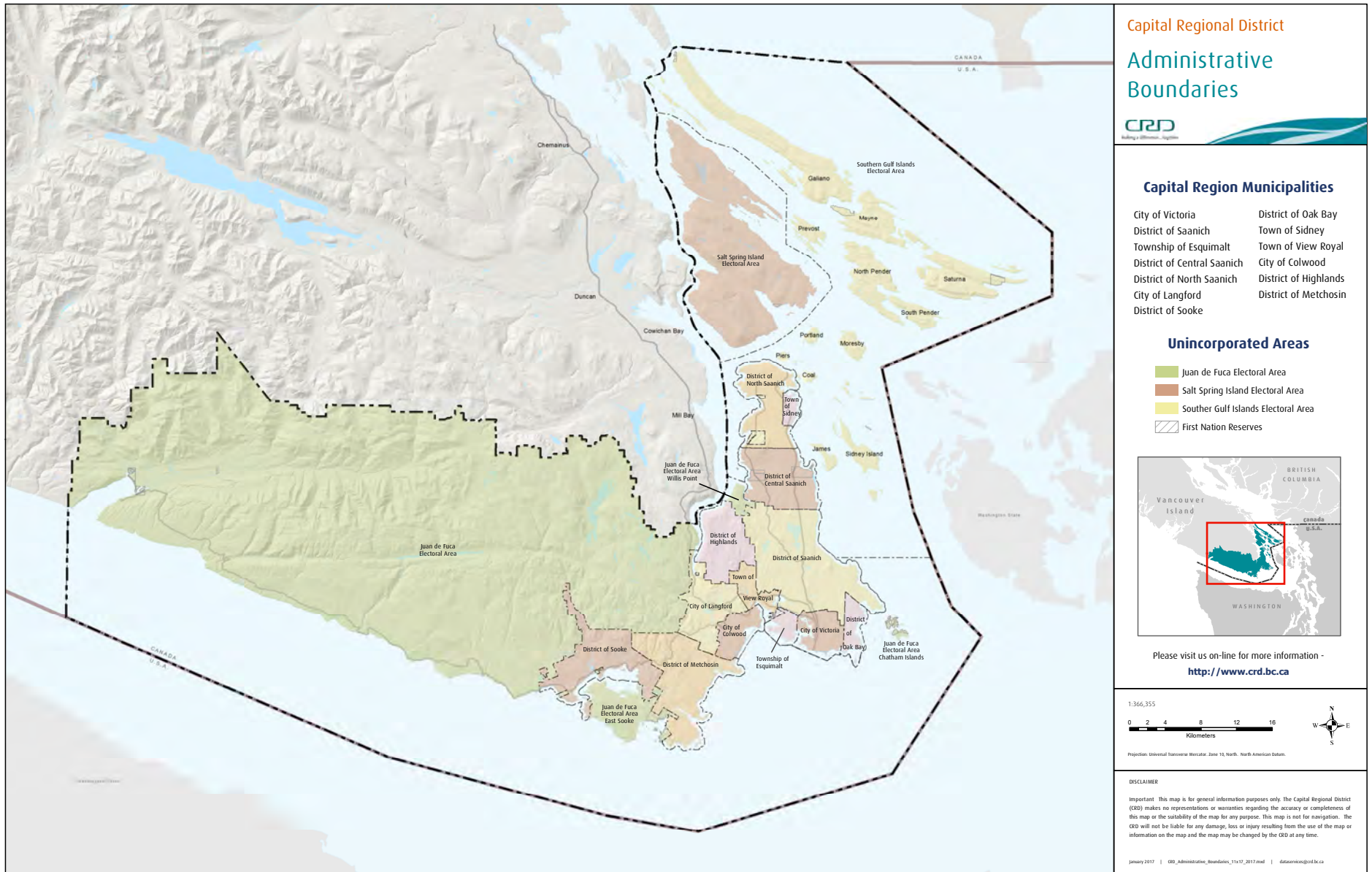
- There is **unmet demand for ice time** from formal organizations, as well as new groups and clubs who would like to provide programs.
- There is **unmet demand for dry floor space**, as there is only one arena available in Saanich for 6 weeks per year. Saanich Minor Lacrosse for example, has no indoor space in Saanich that can be used for its full season. Other groups such as ball hockey and summer camps would likely use a dry floor facility if it was available.
- **Figure skating needs more ice time** and on a consistent schedule. Saanich provides less time to figure skating than other municipalities.
- **Sport academies, such as Spectrum Academy have seen significant growth**, putting pressure on facilities within the region.
- Ice time for the general public has been slowly reduced over time as demand from organized user groups has increased. **There is a need to improve access for the general public and casual users.**
- There are ancillary facility limitations at the G. R. Pearkes arena, such as a lack of changing rooms for co-ed teams, limited accessible changing rooms and limited accessible viewing areas.

The report recommended that the District upgrade the changerooms at G.R. Pearkes Recreation Centre and identify a location for at least one additional ice sheet in the community, to ensure more equitable access for dry floor users, ice users and the general public.

1.3 REGIONAL CONTEXT

The regional context for this study roughly aligns with the Capital Regional District (“CRD”) boundaries, except for the Unincorporated Areas as illustrated on the following map (Figure 1). For this study, the thirteen Capital Region Municipalities as shown in Figure 1 are referred to as the “Greater Victoria Region”.

Figure 1: Capital Regional District Administrative Boundaries



2 CURRENT STATE OF ARENAS

2.1 OVERVIEW

The District of Saanich currently hosts three ice sheets within its municipal boundary. Two are located at G.R. Pearkes in downtown Saanich, and the last is at the University of Victoria (Ian Stewart Ice Rink). To observe a more holistic and realistic view of arena usage by residents, this study looked at the arena usage throughout the Greater Victoria Region. For the purposes of the study, the region is defined as including thirteen municipalities. The majority of these municipalities all fall within a 30-minute driving radius from the District of Saanich, which has been considered the acceptable driving distance for District of Saanich residents to travel for arena activities.

- City of Victoria
- District of Saanich
- Township of Esquimalt
- District of Central Saanich
- District of North Saanich
- District of Langford
- District of Sooke
- District of Oak Bay
- Town of Sidney
- Town of View Royal
- City of Colwood
- District of Highlands
- District of Metchosin

The following map presents an overview of the 30-minute driving radius and identifies the 10 arenas considered as part of the study. Although SEAPARC Leisure Complex in Sooke is located outside the 30-minute driving radius, this arena has been included as a number of stakeholders identified the importance of the facility to service delivery within the regional context.

Figure 2: Arenas analyzed within the Greater Victoria Region



2.2 ARENA INVENTORY

The following table summarizes key characteristics of the 7 arenas (10 ice sheets) considered in this analysis. Additional information on each arena is included within Appendix A.

Table 1: Arena facility summary

Arena	Operator	Year Constructed	Ice Provision	Dry Floor Provision
Archie Browning Arena	Town of Esquimalt	1961	1 NHL ice sheet	1 NHL dry floor
G.R. Pearkes Arena	District of Saanich	1968 (Gold Rink slab replaced 2021)	1 NHL ice sheet 1 < NHL ice sheet	1 NHL dry floor
Oak Bay Recreation Centre	Oak Bay	1975	1 NHL ice sheet	1 NHL dry floor
Panorama Recreation Centre	CRD - Recreation	1977 (renovation in 2017)	2 NHL ice sheets	1 NHL dry floor
SEAPARC Leisure Complex	CRD - Recreation	1976	1 NHL ice sheet	N/A
Save-On-Foods Memorial Centre (SOFMC)	PPP access agreement between GSL Group and City of Victoria	2005	1 NHL ice sheet	1 NHL dry floor
Westshore - Juan de Fuca Arena and The Q Centre	Westshore Recreation	2004	2 NHL ice sheets	1 NHL dry floor

The following facilities are within a suitable driveshed but were not analyzed as part of this study due to their limited possible impact on public access to arena facilities, and/or lack of utilization data:

- Ian Stewart Ice Rink: Located on the University of Victoria campus, this facility was built in the 1970's and generally supports Vikes Athletics and Recreation (collegiate sports); its 1 ice sheet is also available for community use. Existing community users include the Victoria Racquet Club Kings Minor Hockey Association, the Racquet Club of Victoria Skating Club, and recreational hockey players. Utilization data was not available. This facility is planned for closure in 2026 and at the time of writing, there were no plans to replace it. All existing users and programs will need be transferred to other arenas.
- Westhills Arena: A privately run facility that prioritizes hockey academy use.
- Wurtele Arena: Located on the Naden Navy Base, this arena was not included in the analysis as military training is prioritized, limiting public use of the arena.
- Eagle Ridge Community Centre provides dry floor space, however it was reported to have very limited availability and therefore was not analyzed as part of this study.

2.3 ARENA USE PATTERNS

Understanding how well the current arena inventory is utilized is critical to assessing the need for additional facilities to support the region. This study analyzed historical arena booking data from 2018 to 2021 (total 4 years). This period included the COVID-19 pandemic which had a drastic impact on arena use, beginning in 2020.

The following process was followed to complete the current inventory arena use analysis.

1. Obtained ice and dry floor booking data for years 2017-2021 from arena operators, as available. Data was assessed, cleaned and organized into a similar format to allow comparison.
2. Identified the theoretical maximum time each arena could be used for ice and dry floor activity. This was based on operating hours and known schedule disruptions (maintenance, closures, holidays etc.). For example, if an arena was open to the public for January, February and March and then closed for the remainder of the year due to major maintenance/upgrades, the theoretical maximum for ice activity would be three months.
3. Calculated the annual utilization by arena, year, and activity type (ice and dry floor) using the total hours booked divided by the theoretical maximum.

The utilization of each arena was calculated for both one full year, and during the portion of the year that ice activities take place. Overall annual utilization does not account for activity use trends, which include:

- Seasonality of activities: Arenas are most utilized during the fall, winter, and spring seasons as most ice activities operate during these times of year. These may be considered “high season” for arena use.
- Prime time: Peak community demand for arena use most often takes place from ~3pm-8pm Monday to Friday and all-day Saturday and Sunday. These windows of time are considered prime time and may vary by arena location.

The figures on the next page present the annual utilization of each arena facility within the study. The first figure presents the overall annual utilization and the second presents the utilization during high season.

Note: Due to availability and variances in how booking data is tracked/managed across the region, the results are indicative of the overall use trends in the region but cannot be considered definitive. Seven arenas provided data for analysis.

Figure 3: Annual utilization by arena and year

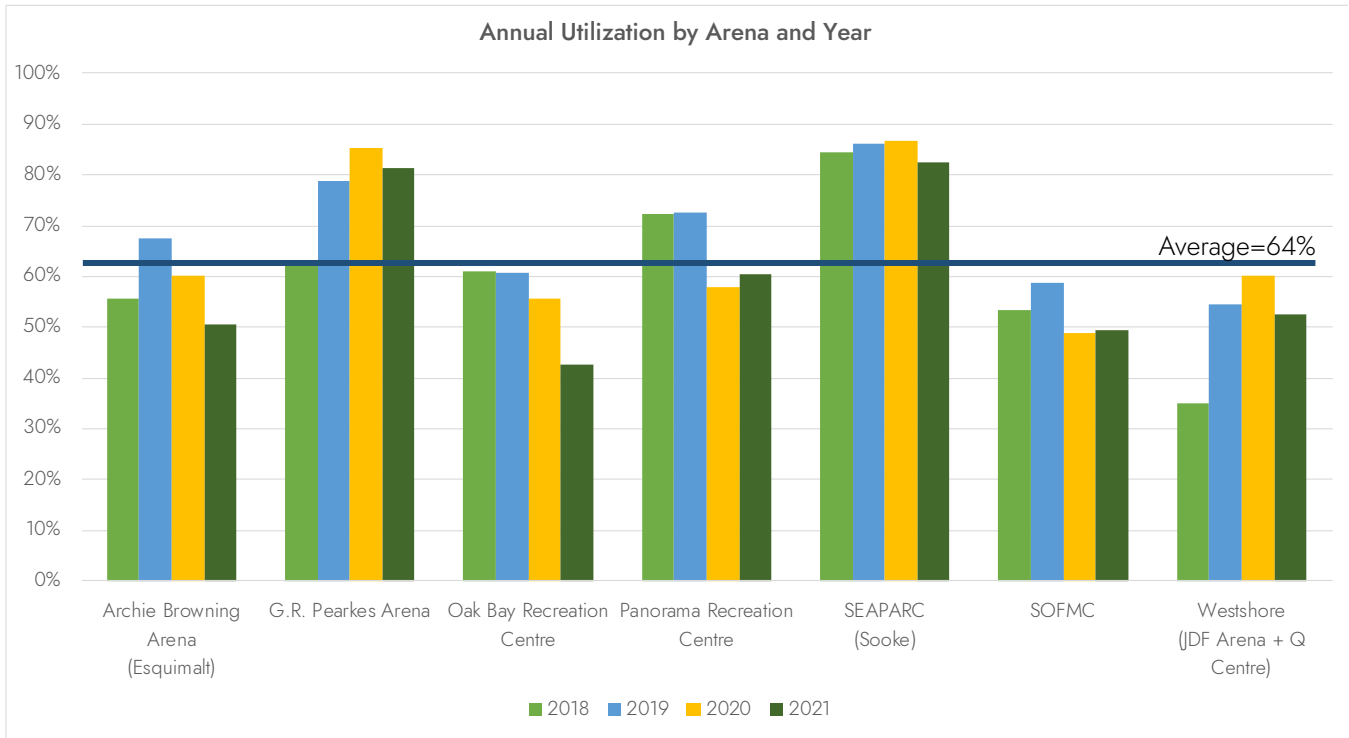
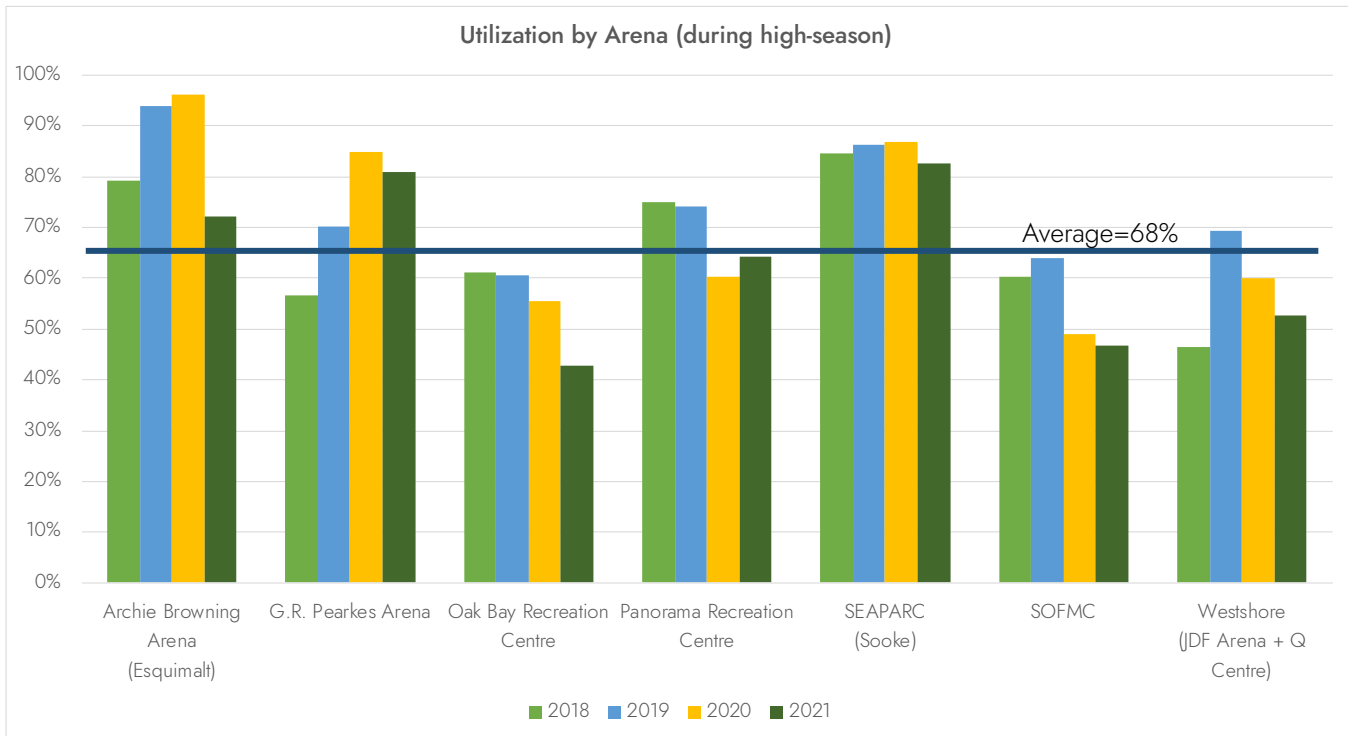
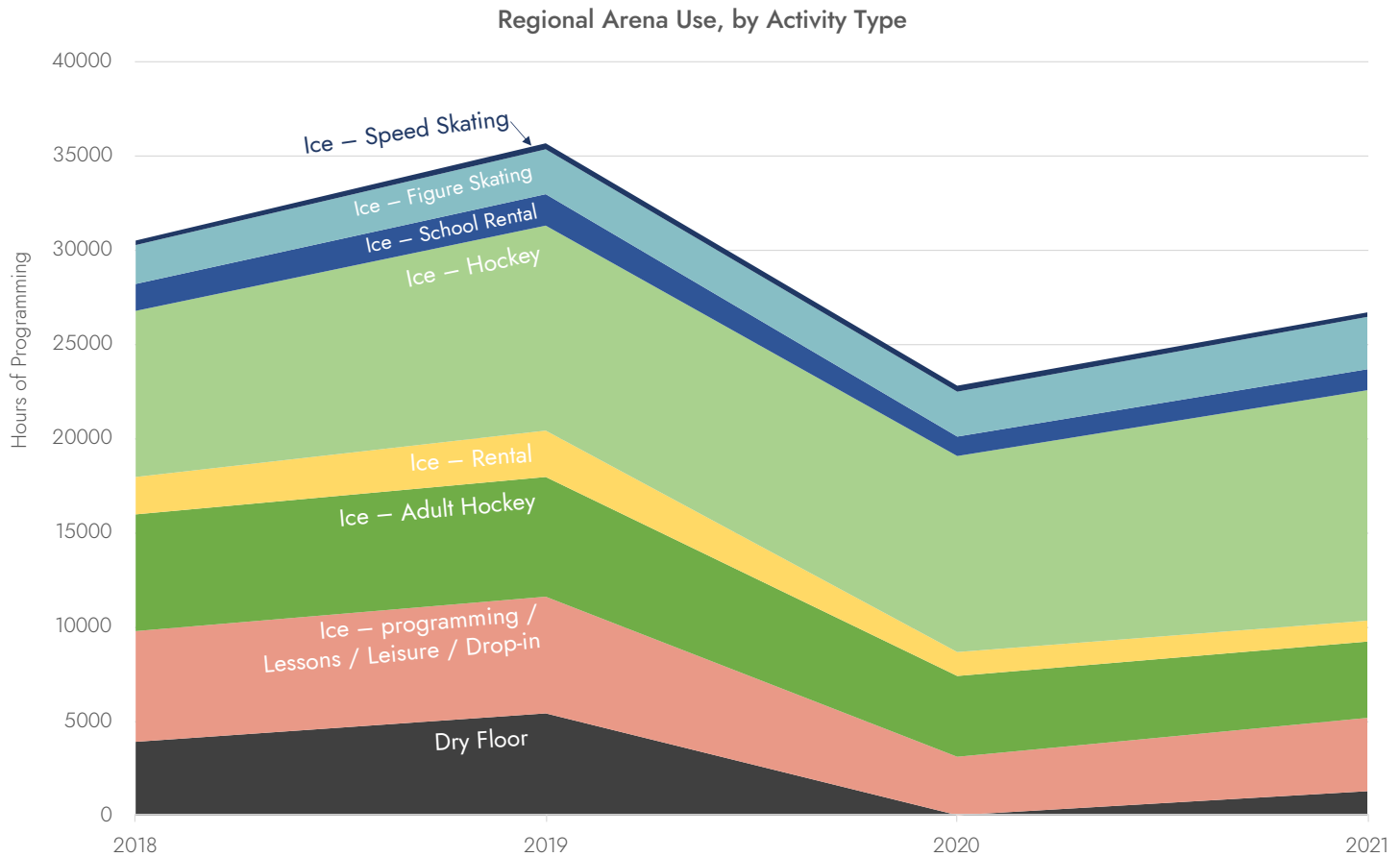


Figure 4: Utilization by arena and year (during high season)



The use analysis also captured the types of activities that occur across the region. Each arena booking has been categorized and summarized by year. The following figure presents the range of activities that community arenas are being used for.

Figure 5: Regional arena use, by activity type



The following conclusions can be drawn from the analysis:

- The average annual utilization for the region ranges between 60-69% over the last four years. While this may initially feel low, it is important to note that due to the seasonality and prime time demand for ice activities, it is extremely rare to see overall annual utilization over 70-80%. As a best practice, arenas with average annual utilization of 60-70% are considered to be at or near maximum capacity.
- The utilization of the region during high season is between 63-74% over the last four years. This presents a more accurate snapshot of utilization during peak seasons. It is worth noting that the utilization of the region is higher if COVID years are excluded.
- The region currently has very little capacity to accommodate more ice activities. **The current inventory of arenas is well utilized and should be considered at or near capacity.**



- The closure of the Ian Stewart Ice Rink in 2026 will increase pressure on the region's arena inventory to accommodate the increasing demand for ice sheets. The transfer of existing users and programs from the Ian Stewart Ice Rink to the region's other arenas was not included in the analysis above, and will likely fill out any remaining utilization, further limiting any opportunity to accommodate ice activity growth.
- The most prominent use of regional arenas is ice hockey (youth and adult), followed by municipally run programming which includes lessons and leisure activities.
- Arena use, as measured in hours, saw a significant reduction during 2020 as a direct impact of the COVID-19 pandemic Public Health restrictions.

3 ARENA USER SENTIMENT

A critical step in the preparation of this study was to obtain the perspectives and viewpoints from stakeholders and the general public. Community engagement was undertaken to understand the current and future demand for ice and dry floor arena activities (qualitatively), and community interests and concerns associated with the region’s arena facilities. Engagement focused on users and stakeholders that are connected to the G.R. Parkes Recreation Centre. The findings of the engagement are assumed to be indicative of the region.

Two surveys were prepared, one to target the general community and the other specifically for arena user groups. Additionally, a series of interviews with stakeholders including arena user groups, facility staff, and potential user groups (e.g., accessible and upcoming sports) provided insights into the community’s perceptions regarding facility demand and future requirements. Due to the COVID-19 restrictions in place during the study’s preparation, all stakeholder discussions were held virtually, and all surveys were completed online. A list of stakeholders consulted can be found in Appendix C.

The following key themes emerged from the engagement with stakeholders:



The region’s arenas are popular, and demand is expected to grow.

- Participation in organized arena sports is popular and teams / leagues / organizations / associations are keen to expand their activities and membership.
- The increasing popularity of dry floor activities such as lacrosse, pickleball, ball hockey, and roller skating will further intensify demand for arena activity space.
- 72% of community survey respondents reported using Saanich’s arena facilities on a regular basis (more than a few times a week) with the most popular arena activities being public/recreational skating and organized ice sports.
- A sentiment of “if you build it, we will come” exists meaning arena user groups would not find it difficult to utilize additional ice and dry floor space if it were to be provided.



Demand is high for arena facilities during high seasons and prime time.

- The inability to access arena activity space at convenient hours was a sentiment echoed across all engagement efforts.
- There is high demand for arena facilities at prime times. Currently, weekday prime time
- The arena user group survey identified the availability of weekday evenings and dry floor time as the most significant challenges when booking arena space time.

ice presents the biggest challenge as there is high demand to use the facilities at favourable hours across all age groups. The demand is expected to grow.

- Community survey respondents cited 'ice not being available at convenient times' as a reason for not regularly using arena facilities.
- Competitive youth organizations are lacking ice time to be able to run speciality development programs for youth players, coaches, officials, skills clinics, referee training etc.
- The lack of convenient ice time is a barrier to recruiting new participants which limits the growth of teams and associations.
- Lack of weekend ice is limiting the ability for Saanich to host tournaments, events, and exhibition games, primarily for hockey.



Arena facilities are inclusive but there is room for improvement.

- The majority of community survey respondents (83%) reported Saanich's arena facilities feel socially inclusive.
- A number of programs intended to increase arena inclusivity (Special Olympics, First Shift, multi-cultural and adult skating lessons, public skate and drop-in sessions, sledge hockey, female hockey associations etc.) are limited in their ability to run or expand their programming due to lack of convenient booking time.
- Community survey respondents cited 'arenas not being accessible for persons with disabilities' and 'too expensive' as reasons why they do not regularly use arenas.
- An additional ice arena would provide opportunities to increase inclusivity and help Saanich achieve its aspirations to provide a broad range of programs that it is currently unable to offer (e.g., Roller Skate Victoria, Canucks programs, special needs lessons).



Funding arena improvements.

- There is community and arena user group support for funding development/improvements to the regions arena inventory.
- 39% of community survey respondents selected the option for the District of Saanich to increase arena use fees and increase property taxes to fund arena improvements.
- 55% of arena user group survey respondents reported that their membership would be willing to pay an increased fee for arena activities and/or sports registration and 2% said their membership would be willing to offer donations.



Other community sentiments regarding the current arena facilities and future planning included:

- Groups want to play locally and would prefer to be based at one facility. Inconsistent schedules (with time at different arenas according to the day of the week) can create challenges for travel arrangements as players need to transport sports equipment and access changing locations.
- There is a healthy collaborative culture as user groups are mindful of the need to leave time for community / leisure / drop-in groups and ensure that younger children are not required to practice on the ice early in the morning or late in the evening.
- There are concerns regarding the environmental impact of an additional arena. Given the region's climate goals, consideration should be made to energy efficiencies that can be realized and ways to reduce the environmental impact associated with new arena facilities.

4 FUTURE DEMAND

4.1 APPROACH TO DEMAND PLANNING

The approach to demand planning required first a calculation of the community’s current demand, followed by a future demand analysis and a comparison between. To quantify the current ice and dry floor demand of the community, the following process was followed:

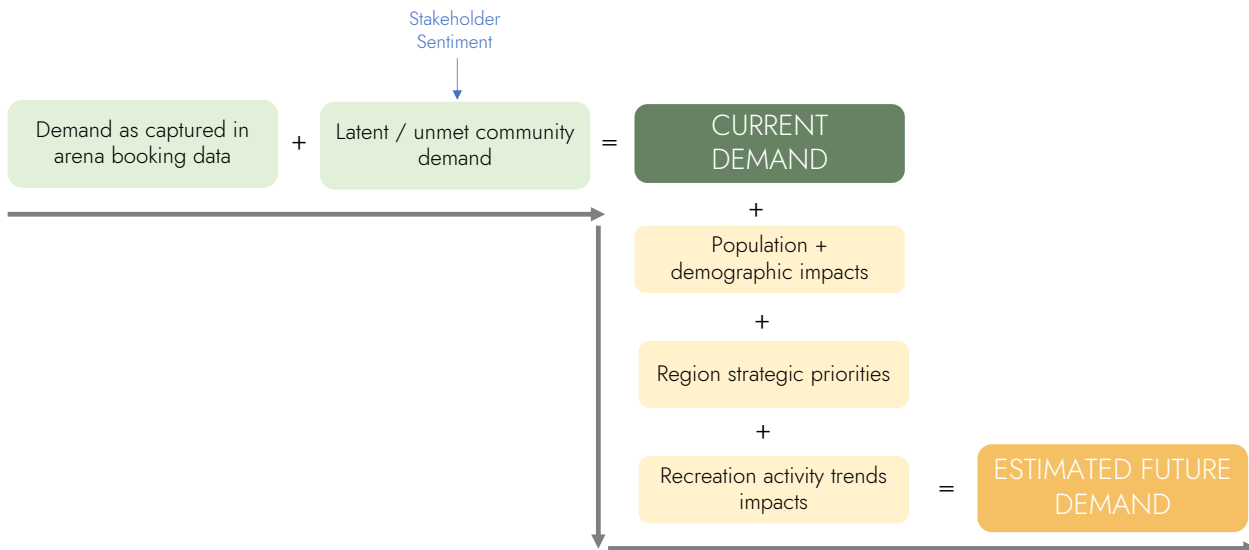
- Obtained and analyzed arena booking data (see Section 2)
- Met with key arena stakeholders to understand how well the current inventory meets their booking requirements and to understand their current booking patterns and volumes
- Polled arena users and general public to identify how well the arenas within Greater Victoria meet their expectations for ice and dry floor activities
- Performed a quantitative analysis that adjusted the current booking data to reflect the actual needs of the community assuming there was sufficient ice and dry floor space available

To reflect the future needs of an evolving community, the future demand analysis looked at several planning factors that impact demand. This analysis has considered the following growth planning factors, introduced below, and explained in the following section.

- Latent community demand
- Population & demographics
- Recreation activity trends
- Region strategic priorities
- Urban development patterns

The approach to quantify current and future arena demand is shown in the following figure.

Figure 6: Approach to estimate current and future community arena demand



4.2 PLANNING FACTORS

4.2.1 Latent Community Demand

Arena historical booking data provides a baseline for analysis, but it does not present a complete picture of current actual demand. A number of stakeholders and community members indicated that they would book more time within the arenas if there was additional capacity in the system, particularly during prime times. This indicates that today there is unmet community demand or latent community demand.

To quantify the actual current demand for arena activities growth adjustment factors have been applied to each category of arena activity based on either a scale of very high, high, medium, low, or no unmet demand.

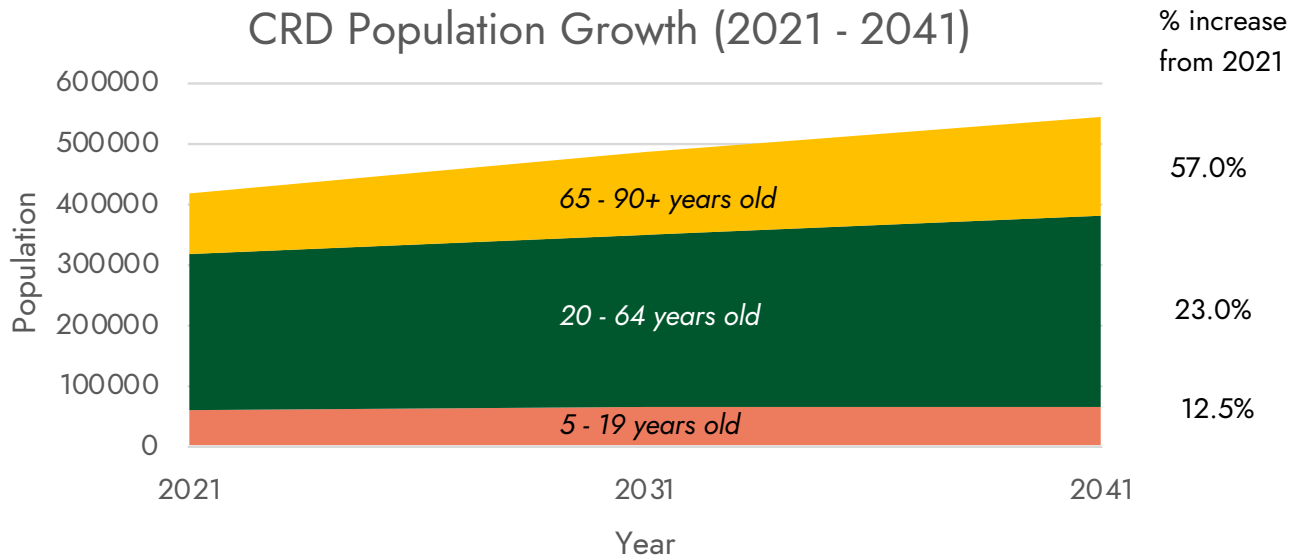
Table 2: Latent community demand growth factors

Arena Activity Categories	Latent Community Demand
Dry Floor Activities	Medium
Ice – Programming / Lessons / Leisure / Drop-in	High
Ice – Adult Hockey	Medium
Ice – Rental	Low
Ice – Hockey	Medium
Ice – School Rental	Medium
Ice – Figure Skating	Low
Ice – Speed Skating	No unmet demand

4.2.2 Population & Demographics

The Capital Regional District boundaries are roughly aligned with those of this study and therefore the CRD’s population projections can be assumed to be indicative of the study’s region, as well. The CRD is expected to experience population growth and demographic shifts over the next 20-years, as shown in the following figure.

Figure 6: Capital Regional District population growth (2021-2041)

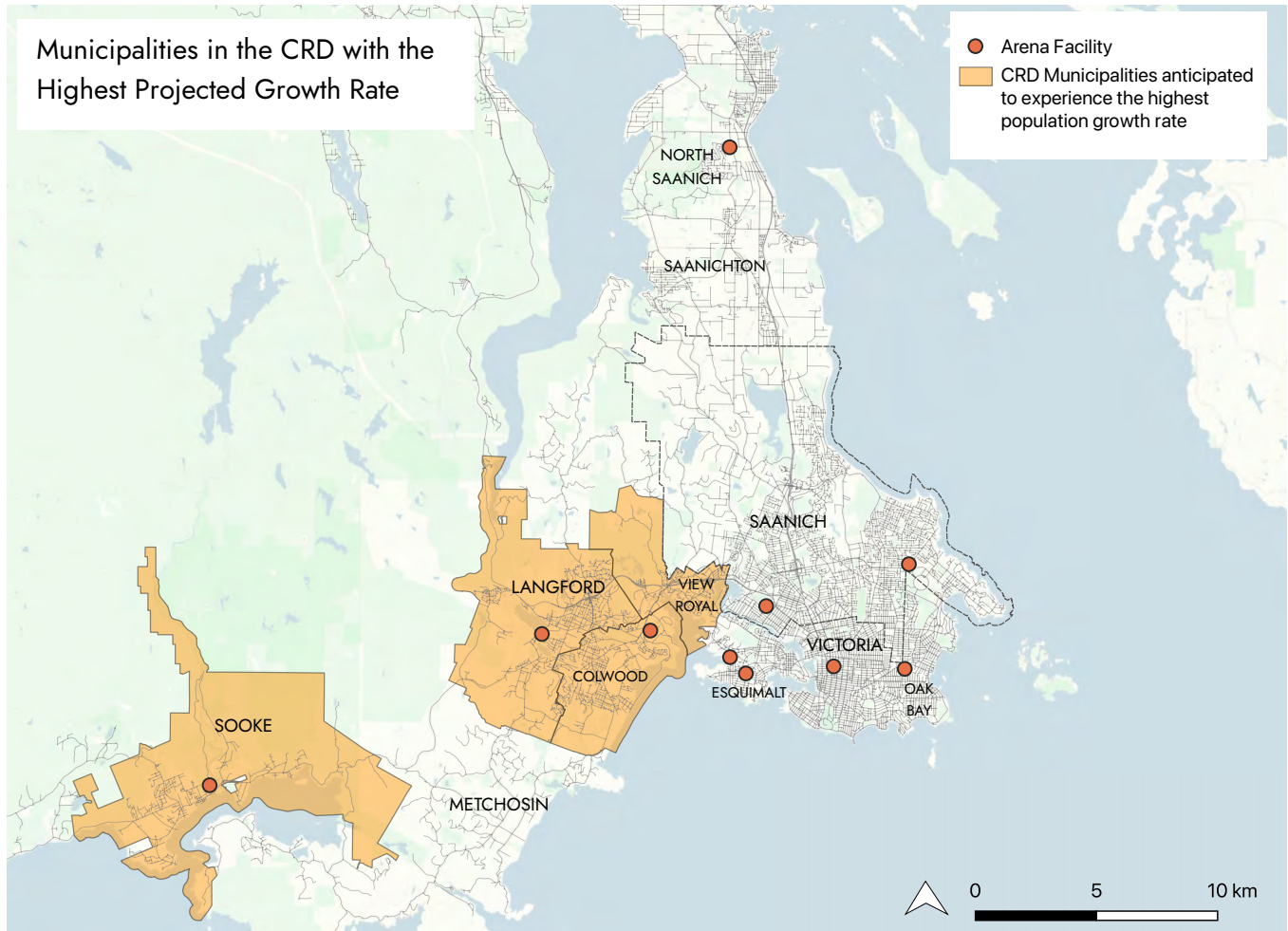


When considering how recreation services will reflect population growth and changing demographics, key indicators include:

- Youth population (5-19):
 - This group is expected to increase by 12% over a 20-year future, with a slight decrease from 2031-2041.
 - The overall increase in youth population will affect registration levels in organized sports (hockey, figure skating) as these activities are mainly subscribed by youth.
- Adult population (20-64):
 - This group is expected to increase by 23% over a 20-year future. Growth is anticipated at a constant rate.
 - The increase in adult population will impact arena demand as programming and activities will likely shift away from time intensive activities (competitive hockey, figure skating etc.) towards less structured activities such as leisure programming, drop-in leagues, and pick-up hockey.
- Senior population (65-90+):
 - This group is estimated to grow by 57% between 2021 and 2041. This cohort is driving the majority of the Capital Regional District's population growth.
 - Currently, there are very few seniors who participate in ice and dry floor activities and this trend will likely continue into the future.

According to a Capital Regional District (CRD) Projection Report, the relative distribution across municipalities will be changing with the highest growth rate reported to be in the Western Communities of Langford, Sooke, View Royal, and Colwood.

Figure 7: CRD leading municipality growth



4.2.3 Recreation Activity Trends

In general, Canadians are increasingly less active which has implications for the participation levels in various sporting activities. Commonly cited barriers include individuals not having enough time, the unaffordability of recreation activities and facilities (e.g., equipment costs), the lack of available facilities, and the lure of an inactive sedentary lifestyle (e.g., social media and videogames)¹. These factors contribute to a trend of decreasing participation levels in sport, especially higher intensity organized team sports. Through research,

¹ (2019). Strathcona County Recreation and Culture Strategy: Trends and Best Practices. Prepared by RC Strategies + PERC. https://www.strathcona.ca/files/files/rpc_-_recreation_and_culture_strategy-update_jan_6.pdf



five general sports participation trends emerged that will influence the future of recreation and arena sports.

1. Increased popularity of unstructured informal activities

Informal recreation and sport activities that provide flexibility in timing and location and can be done individually are becoming increasingly popular. Organized arena sports, particularly at the competitive level, often require a considerable time commitment for training, practices, travel, and other league activities.

The growing desire for drop-in and unstructured activities that can be scheduled at times and places personally convenient for each individual is largely due to increasingly busy lifestyles, a variety of interests, and the inability to commit to structured activities².

To address this trend, municipalities are seeking strategies such as extending hours of ice arena operation, providing more drop-in activities, offering programs at different times of the day, offering short-term low commitment programs (4-6 weeks duration) and more.

2. Affordability & Barriers to Participation

Canadians with a higher personal income are more likely to participate in active leisure³. This is particularly significant with arena sports, where equipment, travel and rental fees result in greater costs to the participant. Saanich's median household income (\$67,320 in 2015) is higher than the Greater Victoria (\$52,126 in 2015) and BC provincial median, suggesting that residents may be more likely to participate in arena activities.

Conversely, income can be a significant barrier to participation in organized arena sports. Financial assistance programs and low-to-no-cost programming options can help alleviate the financial burden of participation and increase the inclusivity of arena activities.

3. Diversity in recreation opportunities

There is more competition in today's recreation market, making it more difficult for some traditional sports to increase - and in some cases maintain - their share of the market. Today, citizens face a vast

² (2020). *Township of North Dumfries Arena Strategy – Phase One and Two*. Prepared by Monteith + Brown Planning Consultants, the JF Group, and WalterFedy. <https://www.northdumfries.ca/en/living-here/resources/Documents/Arena-Strategy-Phase-1-and-2-Arena-Strategy–Oct-2020.pdf>

³ (2012). *Canadian Heritage Sport Participation 2010 Research Paper*. Government of Canada. https://publications.gc.ca/collections/collection_2013/pc-ch/CH24-1-2012-eng.pdf



array of choices including ball hockey and lacrosse, which were formerly summer sports but have become a desired year-round activity for many youths and adults where indoor facilities exist.

An additional factor to consider is the increasing demand for new sports and activities as populations become more culturally diverse. Newcomers may bring sporting traditions and skills with them. As part of this, greater sensitivity to how current facilities accommodate different activities may need to be considered.

4. Aging populations

As the baby boomer generation moves through the age cohorts, many communities in Canada are seeing an aging of the population. In the past 20 years, the number of CRD residents aged over 65 grew by 76%. This is expected to continue, increasing by 57% between 2021 and 2041.

Not only is an aging population influencing municipalities to consider the provision of barrier-free arenas and recreation facilities that adhere to code and legislation, but it means they should expect a shift in demand for programming (e.g., adult pick up leagues, seniors skate, etc.) for older adults and seniors who wish to remain active⁴.

5. National activity trends

Traditional ice and dry floor activity participation is currently changing across the country. The following table details trends in different activities, and how participation might change into the future. For details, please refer to Appendix B.

⁴ (2020). *Township of North Dumfries Arena Strategy – Phase One and Two*. Prepared by Monteith + Brown Planning Consultants, the JF Group, and WalterFedy. <https://www.northdumfries.ca/en/living-here/resources/Documents/Arena-Strategy-Phase-1-and-2-Arena-Strategy–Oct-2020.pdf>



Table 3: Future use participation trends

Sport Type	Activity	Participation Trend
TRADITIONAL ARENA SPORTS	ADULT HOCKEY	STABLE / SLIGHT DECREASE
	WOMEN'S HOCKEY	INCREASE
	YOUTH HOCKEY	STABLE / SLIGHT DECREASE
	SPEED SKATING	STABLE
	FIGURE SKATING	STABLE / SLIGHT INCREASE
	LEISURE PROGRAMMING	INCREASE
	CURLING	STABLE / SLIGHT INCREASE
	RINGETTE	INCREASE
	ADAPTIVE ICE SPORTS	STABLE / SLIGHT INCREASE
DRY FLOOR ARENA SPORTS	BALL HOCKEY	STABLE / SLIGHT INCREASE
	LACROSSE	INCREASE
	PICKLEBALL	INCREASE
	INDOOR SOCCER	INCREASE

4.2.4 District Strategic Priorities

Strategic priorities in delivering recreation services have been identified in several municipal planning documents including OCPs, Parks, Recreation and Culture Master Plans, and the Age-Friendly Cities Report, amongst others. The following overview summarizes key themes across the region’s strategic priorities.

- Parks and Recreation facilities are important amenities in the community that enhance liveability and personal health. The District of Saanich’s OCP contains policies that support the continued provision of accessible, affordable and inclusive recreation programming. As noted within the OCP, “the District must ensure recreation facilities and programs are accessible to people of all ages ethnicity, incomes, and abilities.” Key strategies undertaken by the District of Saanich to increase inclusivity, “involve focusing on high-risk populations and the non-involved (e.g., children and youth, girls and young women, older adults, Aboriginal people, persons with disabilities, and the economically disadvantaged), and improvements to the built environment that encourage and support mobility and social interaction.”
- As the region’s population ages, consideration for creating an age friendly environment will become more and more important. There are common barriers that impede older adults (such as technological advances, mental and physical disabilities, low income, transportation, and accessibility challenges,

etc.), from accessing community services and programs which should be addressed to allow the aging population to participate in society in meaningful ways.

- The region would like to provide equitable access to recreational amenities for the community. As one method of increasing equitable access, municipalities have developed booking policies that outline booking criteria and priorities for user groups. For example, the District of Saanich's policy outlines the allocation of ice and dry floor space at G.R. Pearkes Recreation Centre according to a user group priority order thereby guiding arena use in Saanich. The top three priorities under this policy are municipal-led programs and public sessions, followed by youth non-profit use during prime time and then adult non-profit seasonal use.
- One, if not the most significant challenge for the region will be how to respond proactively to climate change. Climate change has direct and significant impacts on the region and will require collaborative planning to mitigate. Recreation planning is one area that can positively contribute to regional climate targets. For example, the District of Saanich has set targets for reducing the GHG emissions from municipal operations:
 - Reduce emissions to 50% of 2007 levels by 2025.
 - Achieve net-zero emissions by 2040
 - 15% reduction in GHG emissions from Saanich facilities

The environmental impact of developing new recreational spaces should be weighed against the community demand. While meeting community demand by way of developing new facilities may seem logical, it can result in significant increases in GHG emissions, which effectively decrease the regions' ability to reach environmental impact targets.

4.3 PROJECTED REGIONAL ARENA DEMAND

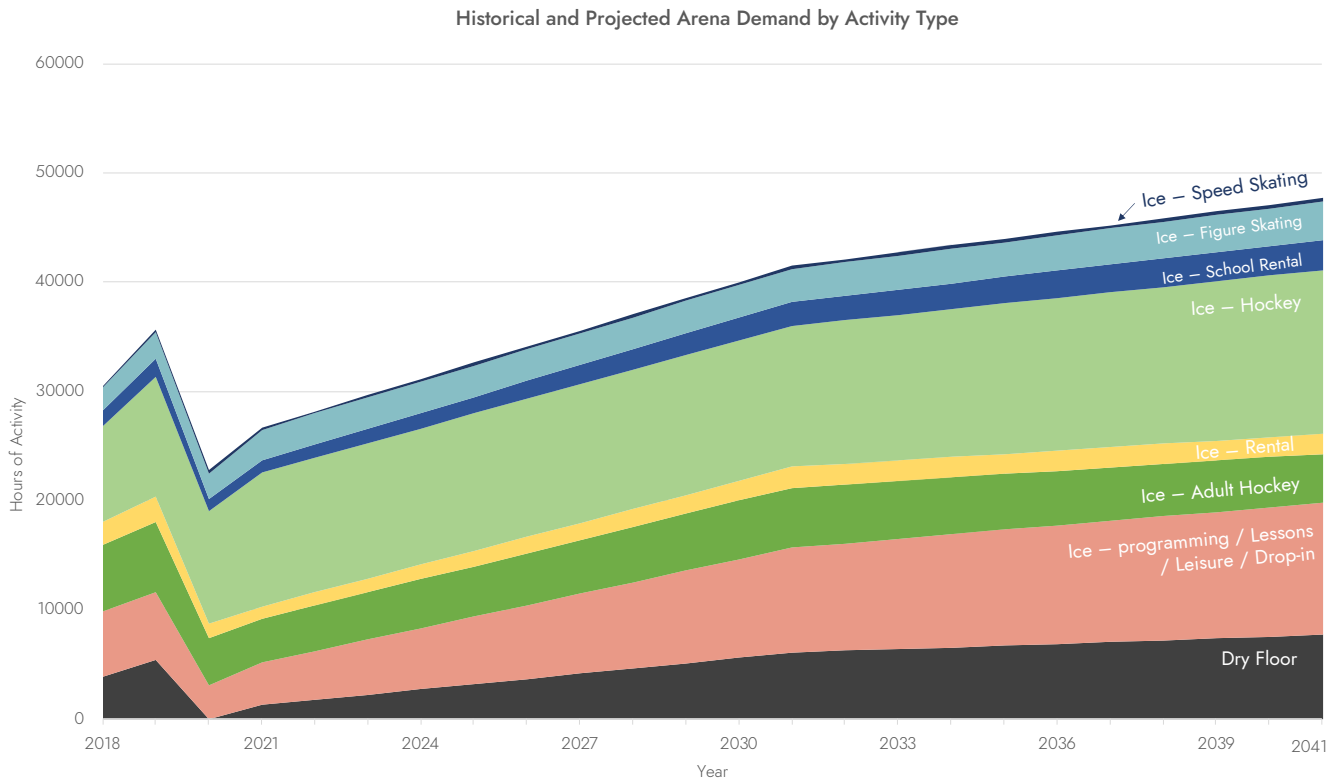
The following table summarizes the growth factors that impact each arena activity type.

Table 4: Growth factors by activity type

Arena Activity Type	Latent Community Demand	Population and Demographic Changes	Activity Trends	Alignment with City Strategic Initiatives
Growth Factor	Very High	Youth	Increase	Strong Alignment
	High	Adults	Stable/Slight Increase	Alignment
	Medium	Seniors	Stable	Not Aligned
	Low		Stable/Slight Decrease	Not Applicable
	None		Decrease	
Dry Floor Activities	Medium	Youth	Increase	Alignment
Ice – Programming / Lessons / Leisure / Drop-In	High	Youth	Increase	Alignment
Ice – Adult Hockey	Medium	Adults	Stable/Slight Decrease	Not Aligned
Ice – Rentals	Low	Adults	Stable	Not Aligned
Ice – Youth Hockey	Medium	Youth	Stable/Slight Increase	Alignment
Ice – School Rentals	Medium	Youth	Increase	Alignment
Ice – Figure Skating	Low	Youth	Stable/Slight Increase	Alignment
Ice – Speed Skating	None	Youth	Stable	Alignment

Future demand can be estimated by applying the growth factors to each arena activity type. The following figure presents the results of the analysis.

Figure 8: Historical and projected arena demand by activity type



As shown, the demand for arenas is anticipated to increase over the 10- and 20-year period. The 10-year growth estimates represent a 37% increase over 2018 demand and 20-year growth estimates represent a 76% increase over 2018 demand. The activities that are likely to see the largest increase in demand will be dry floor, municipal programming, and school rentals.

4.4 GAP ANALYSIS

From future community arena demand it is feasible to estimate how many ice sheets/dry floors are needed to support delivery. The following assumptions have been used to estimate the number of ice sheets/dry floor required.

- The current inventory of arenas is well utilized with little to no opportunity to accommodate additional ice activity growth. High season and prime time are at capacity. Ten sheets of ice are required to deliver ~30,000 hours of use.
- The number of arenas required to meet future demand is primarily driven by ice activities. Dry floor demand will not exceed the community demand for ice.
- The average theoretical maximum time that any one ice sheet is available for community use is ~3,900 hours per year. This average factors in any closure for maintenance, repairs, holidays etc. and has been calculated using data from the seven arenas (10 ice sheets) within the study.



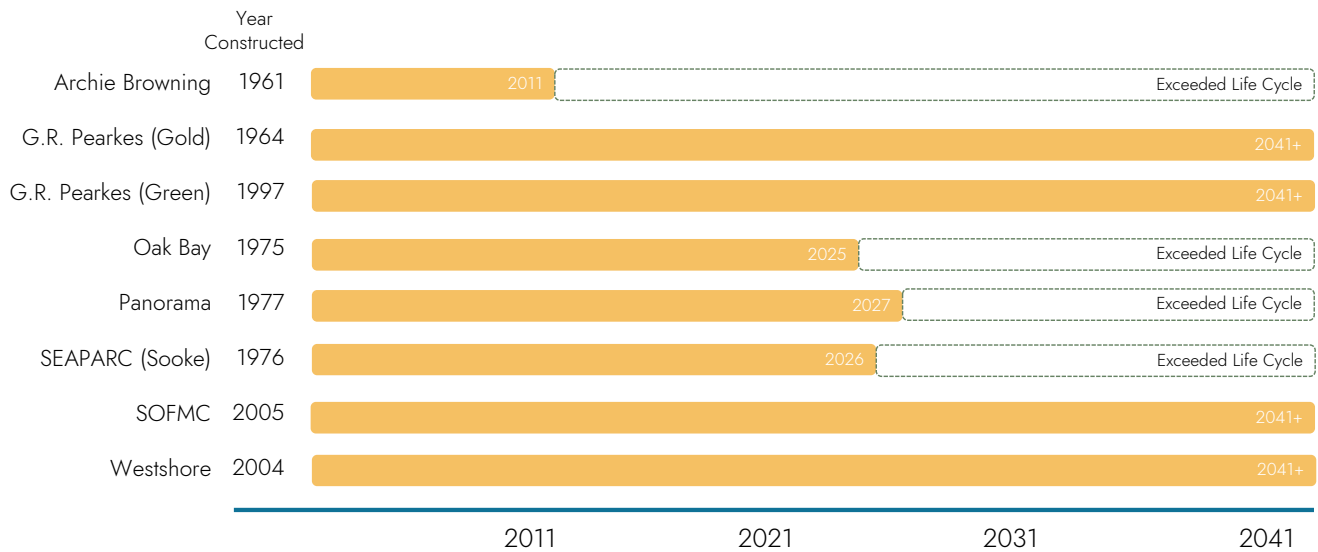
- The closure of Ian Stewart Ice Rink is expected to create demand for a replacement one (1.0) ice sheet.

Using these assumptions, it is estimated that the region will have community demand for:

- **12.5 ice sheets and 1.6 dry floors by year 2031 (10-year future)**
This represents a current regional shortfall of 2.5 ice sheets.
- **13.9 ice sheets and 2.0 dry floors by year 2041 (20-year future)**
This represents a current regional shortfall of 3.9 ice sheets.

The shortfalls presented assume that the current inventory of arenas is maintained over the next 20-years, which may not be possible given the age of some facilities. The following figure presents an estimate of the approximate remaining life by arena under the planning assumption that most facilities require significant investment or redevelopment 50-years after construction.

Figure 9: Estimated arena life cycle



As shown, four arena facilities will require significant investment within 10-years which has the potential to significantly increase the need for additional ice and dry floor arena space.

4.5 SUMMARY

One goal of this study was to identify whether there is sound logic for an additional ice sheet to be developed within the region. Given the results of the future demand and gap analysis, which note that there will be a shortfall of ice within 10- and 20-years (2.5 and 3.9 sheets, respectively, given the closure of Ian Stewart Ice Rink) it is reasonable to conclude that the region has sufficient demand to consider the development of a new / expanded arena.

5 ACCOMMODATION OPTIONS

To support a portion of the current unmet community demand and the anticipated future demand for arena space in the region, additional ice and dry floor spaces are required. Two possible arena accommodation options have been explored as part of this study.

1. Development of a new arena with one ice sheet / dry floor
2. Development of a new arena with two ice sheets / dry floors

Note: The development of Option #1 or Option #2 will not result in a regional inventory large enough to meet the complete projected arena demand. To fully meet the demand of the region it is estimated that 14 ice sheets are required.

Planning assumptions that apply to both options are summarized below. Any changes to these planning assumptions will have an impact on the cost estimate and option evaluation.

- The site of this development has not been selected. It is assumed that the development will take place on municipality owned land within the Greater Victoria Region.
- The facility will support ice and dry floor arena activities, under the assumption that the dry floor will be accessible during summer months (May-August) only. Additional recreational activity spaces have not been identified for inclusion in the development of a new facility although there are potential building, operation, and community benefits. This should be explored in the next phase of planning – Functional Programming.
- The number of parking stalls has been estimated using the District of Saanich’s Zoning Bylaw for on-site parking, which requires “1 space per 4 seats plus 1 space per 10 m² (107 ft²) of ice area plus 1 space per player capacity of other sports.”
 - Development Option #2 assumes an approved variance to the bylaw regulation described above as it meets the required number of stalls per 4 seats but does not include additional stalls based on the ice area stipulation.
 - If the facility is built in a different municipality, the parking area will need to comply with their Zoning Bylaw parking requirements.
- The arena will support a variety of programming for both the general public and organized sports groups.
- The site area estimates are based on a single level arena facility. There may exist some opportunity for a partial two-level facility – this level of detail would be analyzed in the next phase of planning.
- Option #1 must accommodate 1,200 seated spectators for special events, tournaments, and competitions; Option #2 must accommodate 1,800.



5.1 OPTION #1: NEW, SINGLE ICE SHEET ARENA

5.1.1 Space Requirements

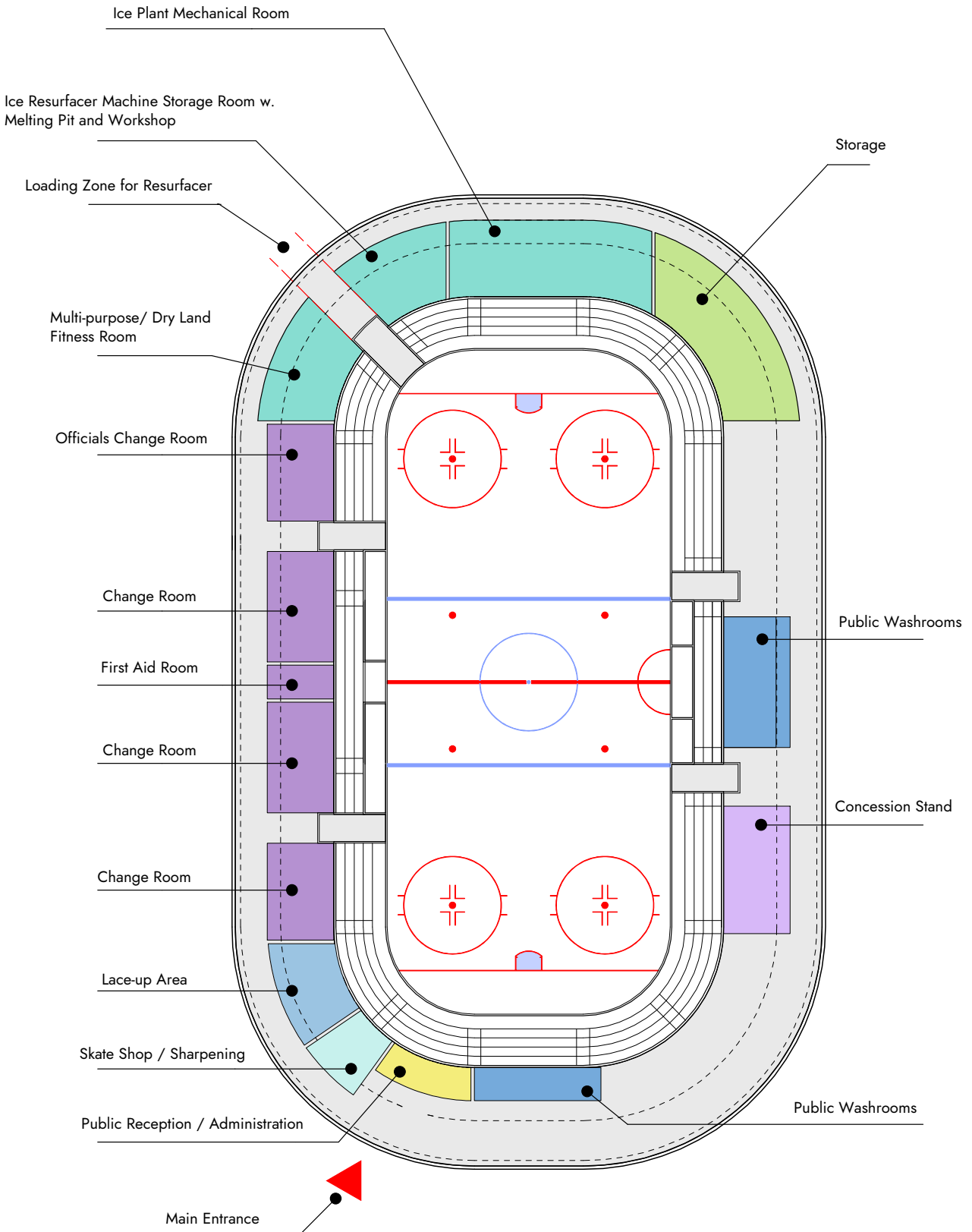
A sample space needs assessment has been prepared for Option #1 (New Single Ice Sheet Arena facility). A typical single ice sheet arena is comprised of 4 components (or zones of activity) to support operation. Each component along with its description is provided in the following table. Detailed Functional Programming is required to confirm space needs.

Table 5: Space requirements for a new single ice sheet arena

Component	Description	Approximate Size (Building Gross Area)
Ice Rink	The ice rink component includes the following spaces: 1 x NHL regulation size ice sheet (200' x 85'), athlete changerooms, officials changerooms, warm up area, athlete benches, spectator seating, scorekeepers' bench and press box.	3,780 m ² (40,683 ft ²)
Public Area	The public area component includes the following spaces: reception/administration area, lace-up area, skate shop, washrooms, concession stand, first aid room, and multipurpose room.	279 m ² (3,005 ft ²)
Back of House	The back of house component includes the following spaces: ice resurfacer machine storage/melting pit/workshop space, storage and mechanical rooms.	413 m ² (4,453 ft ²)
Total Building Gross Area		4,472 m² (48,141 ft²)
Outdoor Spaces	The outdoor component consists of the parking area, which is comprised of: <ul style="list-style-type: none"> • 300 Parking Stalls • 5% of parking stalls are EV charging stalls • Accessible parking stalls • General outdoor circulation and landscaping allowance. 	12,100 m ² (130,243 ft ²)

The total site area required for **Option #1** is **16,572 m² (178,384 ft² or ~4 acres)**. The following arena concepts are indicative of Option #1.

Figure 10: Sample single-sheet arena concept prepared by FaulknerBrowns Architects



5.1.2 Capital and Life Cycle Cost Estimate

Class D capital and a 30-year Life Cycle Cost estimate have been prepared to exhibit the potential costs of developing a new single ice sheet arena. The cost estimates have been prepared using limited project information and should be verified during detailed planning work. The estimates were completed by SSA Quantity Surveyors and using the following assumptions, split into Capital and Life Cycle sections:

Capital Cost Estimate Assumptions:

- Pricing is based upon current early 4th Quarter 2022 unit rates that are considered reasonable, but competitive, for the size, type and complexity of project, and its location in Saanich.
- It has been assumed that the work will be tendered on a Design Bid Build (DBB) basis, competitively tendered to a minimum of 3 competent general contractors, where each trade contract is bid on a competitive stipulated price basis.
- The Goods and Services Tax (GST) has been included with a 100% rebate applied.
- There have not been any discussions with design consultants regarding the potential site and building architecture structure or systems. It is assumed that there are no special considerations to these systems or site.
- Allowances for Development Cost Charges and Building Permit have been included as per the City of Saanich website.
- Exclusions from the estimate are:
 - Land Costs and land servicing.
 - Escalation.
 - Furniture, Furnishings and Equipment.
 - Hazardous Materials identification / removal.
 - Unknown adverse archaeological conditions.
 - Adverse soil and/or subsoil conditions.
 - Project Procurement costs.
 - Project Financing Costs.
 - Significant Utility Upgrades.
 - Costs associated with future expansions.
 - Adverse environmental conditions.
- The following contingencies have been applied: 20% design, 5% construction, and 5% project.

Life Cycle Cost Estimate Assumptions:

- Includes both upfront capital and operating and maintenance costs.
- The Life Cycle Cost values shown are current as well as escalated at 3.5% per annum over 30 years and discounted to present value using a 5% discount rate.



Option #1 is estimated to cost \$39,899,000 to design and construct and will cost \$24,082,000 over a 30-year period. This translates to a \$/m² of \$8,922 and \$5,385, respectively. The following table summarizes the costs. The complete detailed cost report can be found in Appendix D.

Table 6: Option #1 Capital and Life Cycle Cost estimate overview

Cost Item	Cost Value
Building Gross Area (m ²)	4,472 m ²
Construction Costs (including contingency)	\$31,754,000
Total Capital Costs (2022 \$'s)	\$39,899,000
Total Capital Costs / m ²	\$8,922
O & M per Annum (2022 \$'s)	\$983,930
Net Present Value of O & M at Year 30	\$24,082,000
Net Present Value of Capital and O & M at Year 30	\$63,981,000

5.2 OPTION #2: NEW, TWIN ICE SHEET ARENA

5.2.1 Space Requirements

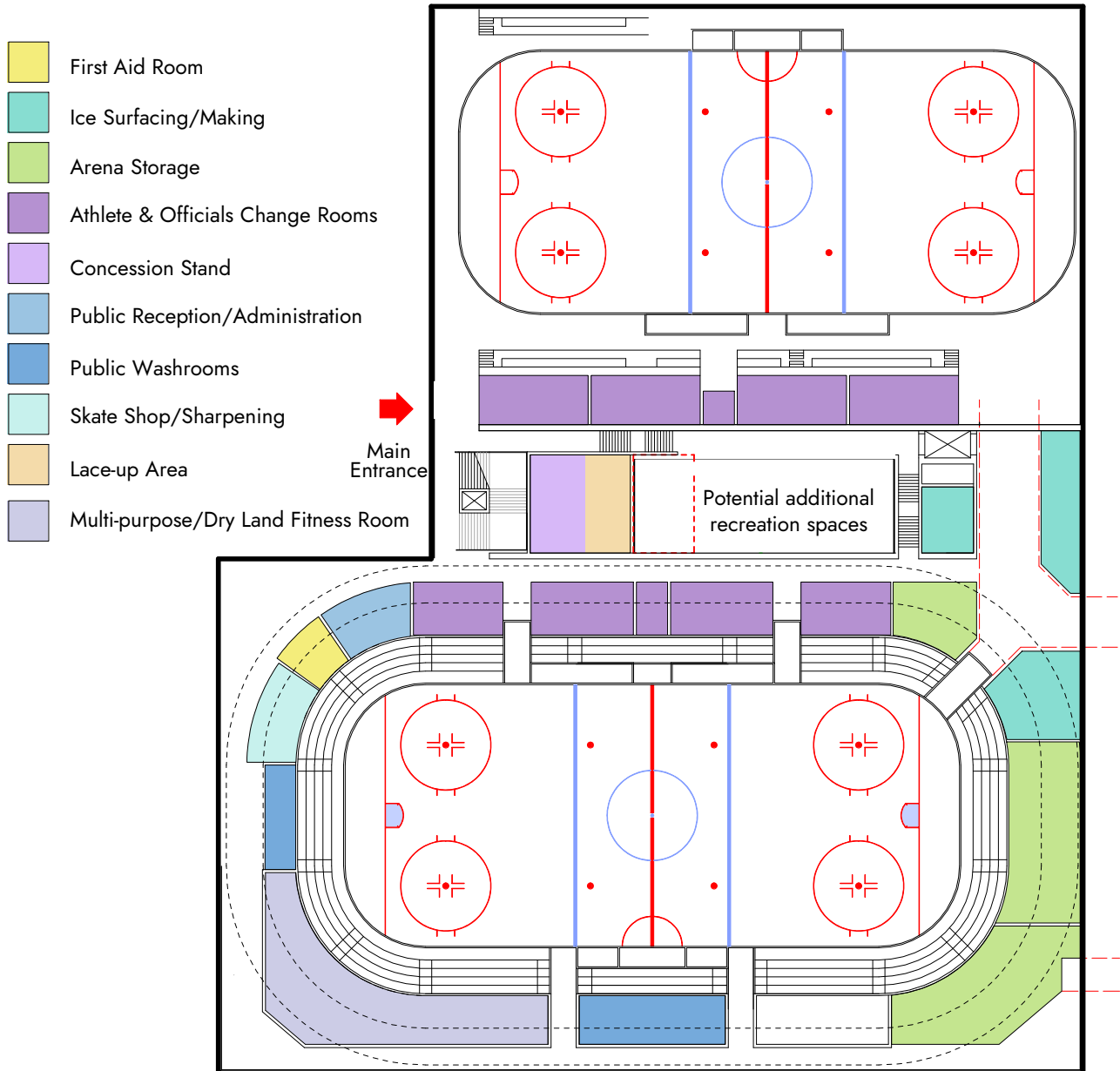
A sample space needs assessment has been prepared for the twin ice sheet arena facility. A typical twin ice sheet arena is comprised of the same 4 components as the single sheet arena. Each component along with its description is provided in the following table. As before, detailed Functional Programming is required to confirm space needs.

Table 7: Space requirements for a new twin ice sheet arena

Component	Description	Approximate Size (Building Gross Area)
Ice Rink	The ice rink component includes the following spaces: 2 x NHL regulation size ice sheet (200' x 85'), athlete changerooms, officials changerooms, warm up area, athlete benches, spectator seating (one large seating bowl for ice sheet #1 and small seating area for ice sheet #2), scorekeepers' bench and press box.	6,876 m ² (74,013 ft ²)
Public Area	The public area component includes the following spaces: reception/administration area, lace-up area, skate shop, washrooms, concession stand, first aid room, and multipurpose room.	451 m ² (4,857 ft ²)
Back of House	The back of house component includes the following spaces: ice resurfacer machine storage/melting pit/workshop space, storage, and mechanical rooms.	414 m ² (4,452 ft ²)
Total Building Gross Area		7,741 m² (83,332 ft²)
Outdoor Spaces	The outdoor component consists of the parking area, which is comprised of: <ul style="list-style-type: none"> • 450 Parking Stalls • 5% of parking stalls are EV charging stalls • Accessible parking stalls • General outdoor circulation and landscaping allowance. 	21,379 m ² (230,116 ft ²)

The total site area required for Option #2 is 24,641 m² (265,235 ft² or ~6 acres). The following arena concepts are indicative of Option #2.

Figure 11: Sample twin arena concept prepared by FaulknerBrowns Architect





5.2.2 Capital and Life Cycle Cost Estimate

Class D Capital and a 30-year Life Cycle Cost estimate have been prepared to exhibit the potential costs of developing a new twin ice sheet arena. The cost estimates have been prepared using limited project information and should be verified during detailed planning work. The estimates were completed by SSA Quantity Surveyors using the same assumptions as stated in Option #1.

Option #2 is estimated to cost \$61,722,000 to design and construct and will cost \$37,892,000 over a 30-year period. This translates to a \$/m² of \$7,973 and \$4,895, respectively. The following table summarizes the costs. The complete detailed cost report can be found in Appendix D.

Table 8: Option #2 Capital and Life Cycle Cost estimate overview

Cost Item	Cost Value
Building Gross Area (m ²)	7,741 m ²
Construction Costs (including contingency)	\$50,374,000
Total Capital Costs (2022 \$'s)	\$61,722,000
Total Capital Costs / m ²	\$7,973
O & M per Annum (2022 \$'s)	\$1,548,183
Net Present Value of O & M at Year 30	\$37,892,000
Net Present Value of Capital and O & M at Year 30	\$99,614,000

5.3 IMPACT OF DEDICATED LEISURE ICE SURFACE

The current state and future demand analysis revealed that leisure programming and municipally run programs are in high demand. This type programming represents ~15% of current arena utilization and is expected to grow to ~25% over the next 20 years. The growth of this program area speaks to the region's commitment to equitable access to ice and dry floor activities and the trend towards shifting away from traditional ice sports.

When considering leisure ice programming, some activities do not require the use of an NHL or Olympic sized ice sheet and instead can be accommodated using a non-standardized ice surface, for example, a leisure ice sheet. If the region considers the development a leisure ice surface to supplement community demand, the overall requirements for ice sheets will decrease. The following scenarios present an overview of the impacts of a leisure ice surface in the region.

- Outdoor, covered leisure ice surface (operational 5 months/year): Assuming the leisure ice can accommodate ~1,600 hours of programming within 5 months, the demand for traditional ice surfaces decreases to 12 sheets in 10-years and 13.5 sheets in 20-years. This represents a decrease of 0.5 ice sheets over both planning horizons.
- Indoor leisure ice surface (operational year-round): Assuming the leisure ice can accommodate ~3,900 hours of programming within 12 months, the demand for traditional ice surfaces decreases to 11.5 sheets in 10-years and 12.9 sheets in 20-years. This represents a decrease of 1 ice sheet over both planning horizons.

At this time, no conceptual plans for this accommodation option are available and no cost estimates have been prepared. The purpose of this section of the report is to provide preliminary planning considerations for a subsequent analysis to help determine feasibility of this option.

Pursuing this option would alleviate pressure on the standard NHL rinks in the region to accommodate leisure programming thereby increasing the availability of these rinks to host organized sport activities that require an NHL sized ice surface.

This option presents opportunity for a phased approach in a multi-use development. Given that the region's arena inventory has several aging arena facilities (Oak Bay Recreation Centre, Archie Browning Arena, Wurtele Arena) that will require significant investment and/or replacement in the coming years, the leisure ice rink could be the first phase of a multi-pad arena development.

If the District proceeds with this option, it is crucial that it considers how to incorporate the leisure ice rink into a larger development, as a standalone facility is not an efficient use of municipal resources and would be detrimental in achieving its climate goals. There are limited examples of standalone leisure ice rinks in British Columbia with the two most notable being the Shipyards Skate Plaza located in North Vancouver and the Robson Square Ice Rink in Vancouver. Both are covered outdoor rinks that operate in the winter season and



offer skate rentals. In both cases, the ice rinks are situated in high-traffic pedestrian areas including tourists, commercial employees, residents, students, and visitors from other municipalities.

This option can be included within Option #1 (single ice sheet) or Option #2 (twin ice sheet arena) or it could be incorporated another community amenity.

5.4 OPTION SUMMARY

While there is adequate demand to support the development of a twin ice sheet arena in the Greater Victoria region, it may not be feasible due to constraints such as siting, costs, operational agreements, etc. To assist with the assessment, a summary of options below identifies key considerations.

Table 9: Option summary

	Option #1 New Single Ice Sheet Arena	Option #2 New Twin Ice Sheet Arena
Ability to meet regional demand	Community demand for arena space is projected to exceed the supply. Option #1 will help alleviate current demand but will not meet the complete requirement for a satisfied current state.	Option #2 will support demand until ~2029 (assuming the closure of Ian Stewart) and will not meet the complete requirement to a 20-year horizon.
Facility and site area requirements	Arena Area = 4,472 m ² (48,141 ft ²) Site Area = 16,572 m ² (178,384 ft ² or ~4 acres)	Arena Area = 7,741 m ² (83,332 ft ²) Site Area = 24,641 m ² (265,235 ft ² or ~6 acres)
Capital cost requirements (CAD, 2022 \$'s)	\$39,899,000 \$8,922 / m ²	\$61,722,000 (\$30,861,000/sheet; 22% savings per sheet). \$7,973 / m ² (-10% over Option 1)
30-Year life cycle costs (including capital costs)	\$63,981,000	\$99,614,000 (\$49,807,000 per sheet)
Key benefits	<ul style="list-style-type: none"> Increases regional supply of ice and dry floor surfaces Support events with spectator seating of 1,200 Increased probability of finding site suitable for development 	<ul style="list-style-type: none"> Supports sport tournaments and events with seating of 1,800 Will likely have a higher cost recovery rate due to operational efficiencies
Key challenges	<ul style="list-style-type: none"> Will likely have a lower cost recovery rate 	<ul style="list-style-type: none"> May be challenging to locate a site suitable to meet requirements Large upfront capital costs requirement

6 LOCATION ANALYSIS

6.1 LOCATION DRIVERS

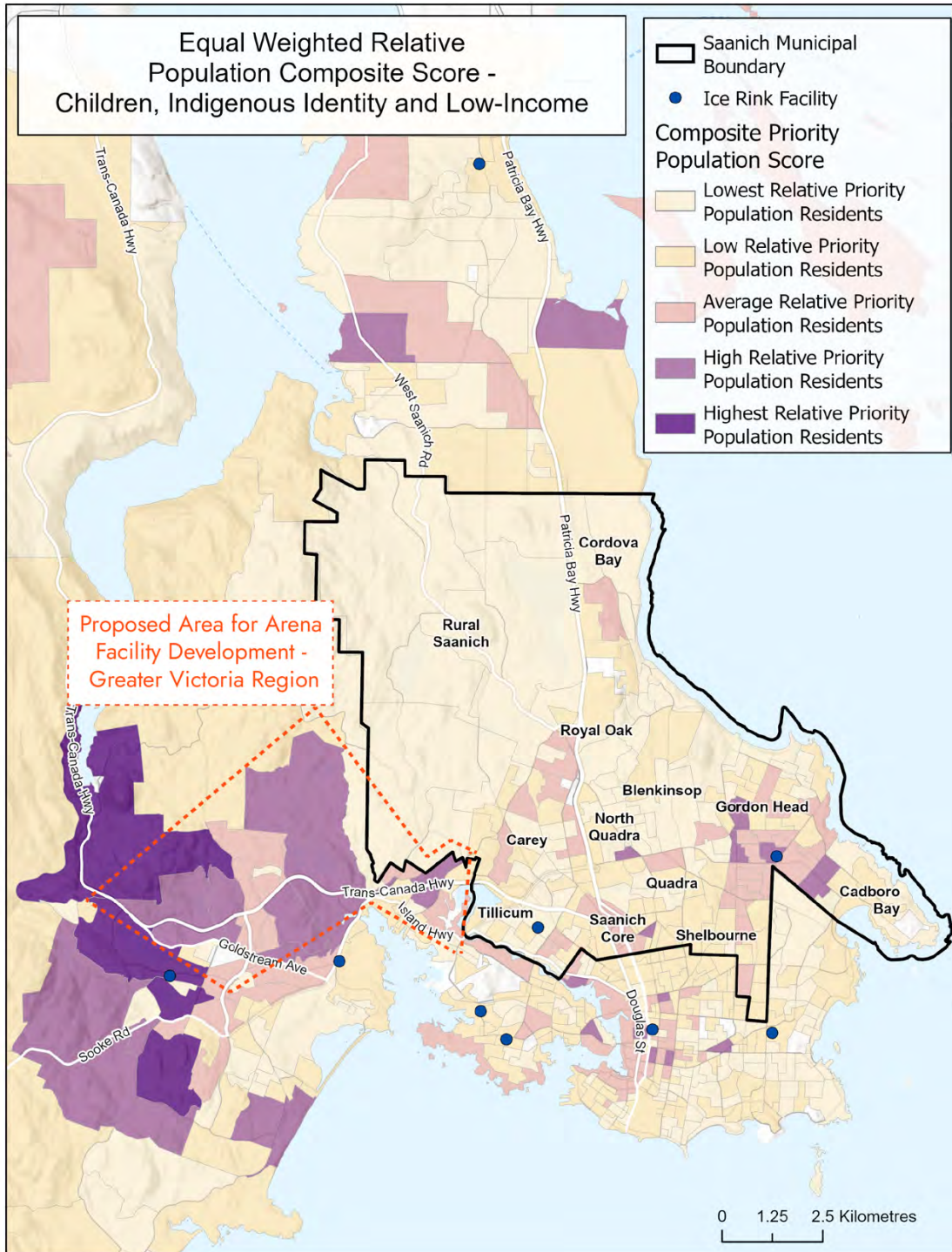
A location analysis has been included within the scope of this study with the intent to identify areas within the Greater Victoria Region where it is logical to consider the development of a new single or twin pad arena. The analysis has been completed using an approach that considers multiple demographic and population indicators.

- Number of children (current and projected): The most prominent participant in ice and dry floor activities is children (aged 0-19). As such, it is important for a new arena to be close to where children reside.
- Number of low-income families: A key strategic goal of the municipalities is to provide equitable recreation access to the community. The current participant profile for arena activities is largely made up of above-average income earning families. One method to promote more equity for the community would be to locate a new arena closer to low-income families effectively decreasing one potential barrier to access.
- Number of Indigenous residents: A second key strategic goal of the region's municipalities is to strengthen relationships with local Indigenous residents. One method to promote a stronger relationship is to provide recreation services closer to the Indigenous residents.
- Development patterns: There are areas within the region where increased development is taking place. In a general sense, an increase in development within an area is likely to increase the density of the population and activity and therefore may impact where a new recreation facility is located.

Four individual population and demographic indicator maps can be found in Appendix E. The following map presents the demographic and population indicators of the region as described above overlaid into one map. Each indicator is weighted equally illustrating that there is a high concentration of children, low-income families, and Indigenous residents within the Western portion of the region (Langford, View Royal, and Colwood). These concentrated populations are located closest to Westhills Arena and the Westshore Recreation Centre.

This concentration is also consistent with the region's expected development patterns, which sees significant development happening within the communities of Langford, View Royal, and Colwood. Assuming these indicators are key drivers for a future location, it would be logical to develop an arena within the area indicated on the map below.

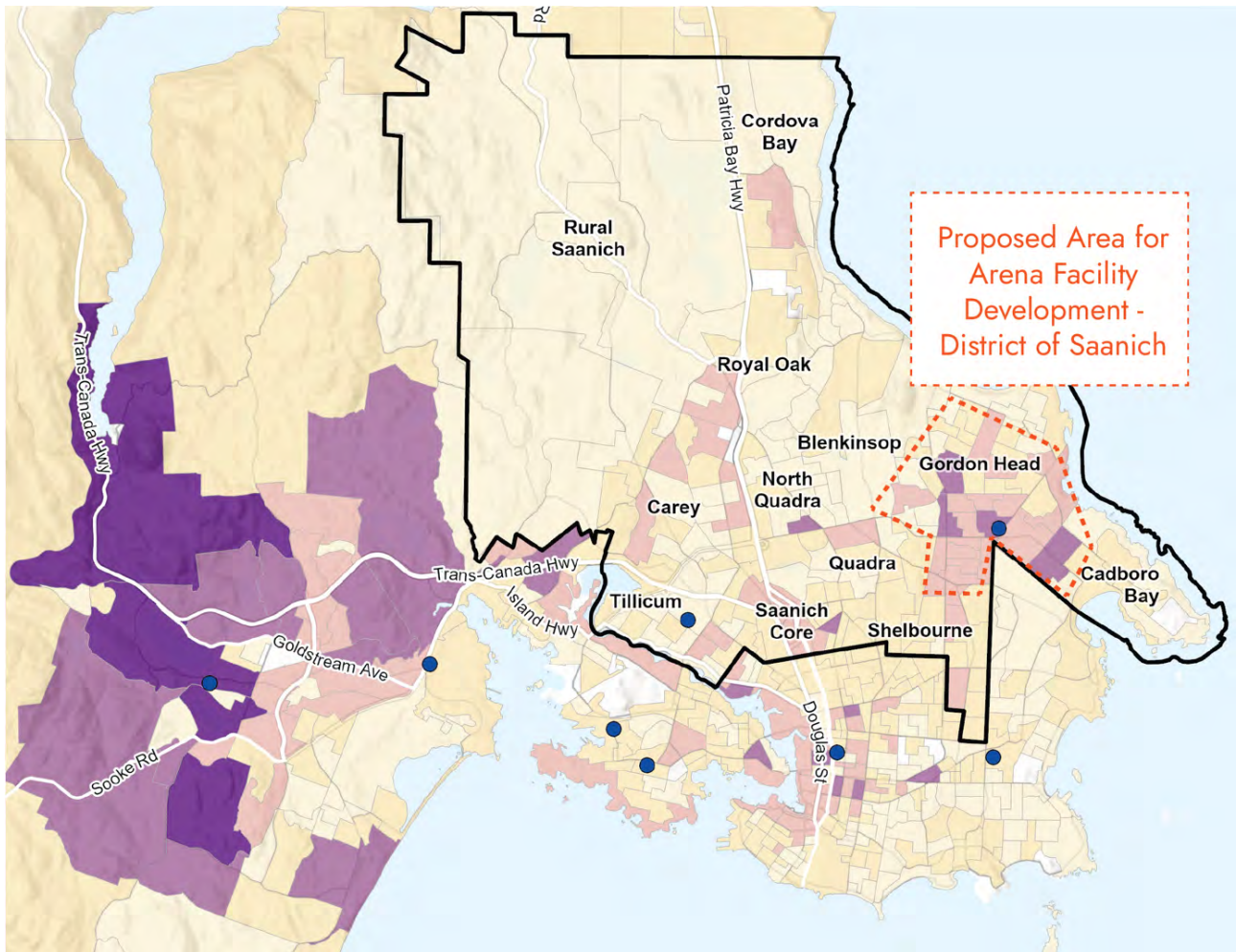
Figure 12: Arena development target area



The most beneficial area, as per the identified location factors, for a new arena development within the Greater Victoria Region is largely outside of the District of Saanich’s borders. This location analysis purely considers the equity indicators and excludes other factors such as the current inventory physical condition and building age, arena functionality, current user locations etc.

When considering areas within the District’s boundaries and a more holistic set of planning factors, the most beneficial area for the development of a new arena would be around Gordon Head and Cadboro Bay (shown on the following figure). These neighbourhoods feature a concentration of community members that could benefit from improved equitable access to arenas based on the equity indicators previously identified. While these neighbourhoods currently have close access to the Ian Stewart Ice Rink, the facility will be closing in 2026 to be replaced with housing and commercial uses. This represents a reduction in community and user group access to arena space and provides further justification for locating an additional ice surface within the area identified in Figure 14.

Figure 13: Most suitable location for development within the District of Saanich



Limitations of the location analysis include:

- The analysis has not considered where the current participants reside. A large portion of the existing participants would benefit from access to another regional ice and dry floor surface.

- The analysis has not considered site zoning, ownership, or availability, which would indicate where a new arena could be developed within each community.
- The analysis has not considered the current location of major roadways, transit and pedestrian access ways which will be very important to ensure equitable access.

6.2 SITE CRITERIA

Ideal characteristics of the future arena site are summarized below, in four categories.

- Site Characteristics**
- Ideal site characteristics include a large site (4 or 6 acres) with relatively flat grades that is connected (or can be connected) to adequate municipal services – electricity, water, sewer, telecommunications.
 - The site is visible to the community.
 - The site is municipally owned or could be acquired for no-cost (land swap for example).

-
- Accessibility & Inclusion**
- Lower income individuals, older adults, and children are less likely to use personal vehicles for transportation so to ensure accessibility and inclusion, the site should be located along transit and pedestrian routes.
 - The site should be accessed via an arterial or collector road.

-
- Land Use and Planning Considerations**
- Arenas and recreation facilities require a large surface area due to their significant size and parking requirements. The site should be located within proximity to compatible amenities including: outdoor recreation amenities/sports fields, schools, community centre and/or public realm amenities.
 - The site should not be located on parkland or result in the removal of parkland.

-
- Development Potential**
- The site could offer potential for facility expansion (for additional ice or other recreational amenities).

7 NEXT STEPS

This report presents logical justification for regional demand for at least one new arena in the Greater Victoria region to support a 20-year demand horizon. The report lays out two options for meeting this demand, in the form of single and twin arena scenarios, including conceptual design, capital costs, and life cycle costs.

Further consideration should be given to co-locating with other functions within a multi-use facility, and the overall sustainability of the options. Specifically:

Multi-use Facilities: One of the most effective approaches in recovering costs and enhancing user convenience with respect to arenas is to invest in multi-use recreation facilities. Centralized recreation centres where residents can access a variety of recreation services (e.g., fitness centre, sport court space, aquatic centres, recreational programming) and other civic and social services (e.g., library, childcare, municipal services) serve as community hubs that also realize economic and operational efficiencies for municipalities. Multi-use facilities generate economies of scale through shared operational resources including staffing, utilities, and maintenance costs. Other demand has not been explored as a part of this study.

Sustainability: The municipalities within the region have climate change reduction goals including specific targets set to reduce the municipalities' facility greenhouse gas emissions. The development of a net new recreation facility will impact the regions' ability to meet the GHG targets. Arenas require significant space for development and rely on energy intense operations (refrigeration requirements for example). Efficient building design can reduce the environmental impact of a new build but a thorough analysis comparing new structures to retrofits/expansions should be completed.

This report has demonstrated that there is demand for 3 ice sheets over the planning horizon. The decision between building Option #1 or Option #2 will depend on the following factors:

- First and foremost, the capital and operating funding available from local, regional, provincial, and federal governments for the development of the project.
- Contributions to operating and capital budgets from Greater Victoria Region partner municipalities.
- The commitment made to the District of Saanich area residents.
- The availability of sites of the required size and characteristics.

There are several recommended actions for the District of Saanich to improve the arena experience for residents and advance the expanded provision of arena facilities to meet the long-term demand. They are summarized in the table on the following page.

Table 10: Summary of recommended actions

Action	Category	Considerations
Immediate Actions	1. Upgrade the change rooms at G.R. Pearkes Recreation Centre.	Arena Improvement This action will immediately increase access and inclusion to Saanich arena facilities.
	2. Initiate discussions with neighbouring municipalities and organizations to discuss findings of the study and gauge interest in partnerships for project delivery.	Partnership Opportunities Start conversations with the municipalities of Langford, Colwood, and View Royal. Engage with select user groups.
Short/Medium Term	3. Explore potential other recreation demand areas for pursuing a multi-use facility.	Additional Research or Analysis At a minimum, the District should consider collocation with aquatic facilities. There are likely other beneficial collocations with other program areas: fitness and wellness, culture and administration.
	4. Further explore the impacts of leisure ice provision within the District and its cost and service impacts.	Additional Research or Analysis Research standalone leisure ice rinks such as the Robson Square Ice Rink and North Vancouver's Shipyards Plaza. To maximize efficiency of resources, explore the feasibility of incorporating leisure ice into a larger arena development project or multi-use facility. Assess potential locations for this type of development while considering the current conditions of aging arenas. Consider other recreation projects that are underway or planned, such as the Lambrick Park upgrades.
	5. Develop a funding plan for Option #1, with a viewpoint that Option #2 has a more regional benefit that would require future partnerships.	Financial Analysis and Planning This action will depend on the outcomes from the engagement with potential partner municipalities and direction from Council.

APPENDIX A: ARENA INVENTORY

G.R. Pearkes Recreation Centre

Address: 3100 Tillicum Rd, Victoria, BC

Owner: District of Saanich

Operator: District of Saanich

Year Constructed: 1968

Gold Rink slab replaced in 2021

Ice Provision:

Green Rink – NHL size; year round

Gold Rink – Not NHL regulation size;
Sept to April

Dry Floor Provision:

Green Rink – N/A

Gold Rink – May to August

Capacity:

Green Rink: <20 seats plus standing room around the rink

Gold Rink: <150 seats



Other Information: Two ice rinks are within the G.R. Pearkes Recreation Centre. They offer skating and hockey programming as well as ice and dry floor rentals for all ages. The Gold Rink is the home of the Saanich Predators (JR B Hockey – VIJHL).

Arena Upgrades: In 2021, the Gold Rink underwent upgrades including replacement of the slab, a new ice melt pit, dasher boards and glass, arena netting, and flooring around the boards. As well, the building's elevator was upgraded.

Save-On-Foods Memorial Centre (SOFMC)

Address: 1925 Blanshard St Victoria, BC

Owner: GSL Group

Operator: PPP access agreement between GSL Group and City of Victoria

Year Constructed: 2005

Ice Provision: 1 NHL Rink

Dry Floor Provision: May to August

Capacity: 7,000



Other Information: The venue regularly hosts large-scale concerts and other special events such as figure skating, curling, plays, trade shows and conferences.

SOFMC also features a fine dining Lion's Den Restaurant, retail & meeting space, a Shaw Communications, TV studio, club lounge, concourse, and retail space.

The arena is home to the Victoria Royals of the Western Hockey League.

Westshore - Juan de Fuca Arena and the Q Centre Arena

Address: 1767 Island Highway Victoria, BC

(Within the Municipality of Colwood)

Owner: Westshore Parks and Recreation (WSPR)

Operator: WSPR

Year Constructed: 2004

Ice Provision: 2 NHL Rinks (1 per)

Dry Floor Provision: May to August

Capacity:

The Q Centre: Over 3000-person seating and standing capacity

JDF Arena: 950 bleacher seats



Other Information:

The **Q Centre** is a spectator facility that hosts major sport tournaments including year-round events for both hockey and lacrosse. The arena has an additional floor capacity of 860 people to hold any type of event, from trade shows to major sporting and entertainment events.

The **Juan De Fuca Arena** hosts tournaments, performances, graduations, concerts, trade shows, and conferences.

Panorama Recreation Centre

Address: 1885 Forest Park Dr
North Saanich, BC

Owner: Capital Regional District (CRD) -
Recreation

Operator: CRD - Recreation

Year Constructed: 1977

Renovation in 2017

Ice Provision: 2 NHL Rinks

Dry Floor Provision: April to August

Capacity: 450



Other Information:

Panorama Recreation Centre has two full-sized arenas. Throughout the winter, various skating programs are offered, including figure skating, learn to skate and hockey for children. Adult hockey is hosted at the arenas, and it is home to Peninsula Panthers of the Vancouver Island Junior Hockey League (VIJHL).

SEAPARC Leisure Complex

Address: 2168 Phillips Rd Sooke, BC

Owner: Capital Regional District (CRD) - Recreation

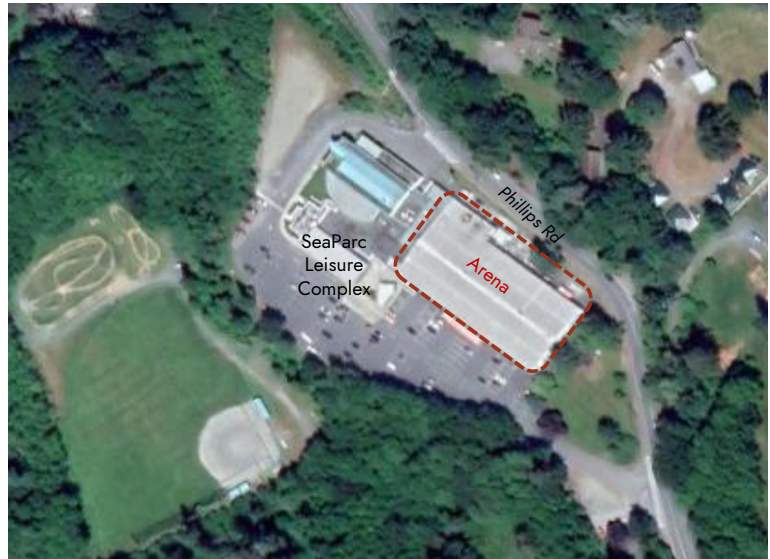
Operator: CRD - Recreation

Year Constructed: 1976

Ice Provision: 1 NHL Rink

Dry Floor Provision: N/A; noted as available on website (April-June), but no utilization data provided.

Capacity: 3,500



Other Information:

SeaParc Arena offers a variety of programs for all ages, including adult, preschool and school age skate lessons, as well as hockey and skating development programs.

Archie Browning Sports Centre

Address: 1151 Esquimalt Rd Victoria, BC

Owner: Capital Regional District (CRD) - Recreation

Operator: Town of Esquimalt

Year Constructed: 1961

Ice Provision: 1 NHL Rink – Sept to March

Dry Floor Provision: April to August

Capacity: 1,500



Other Information:

The Archie Browning Sports Centre is a multi-use facility, which includes an ice arena, a six-sheet curling rink, lounge areas and the Township of Esquimalt Parks & Recreation Department Administrative Office.

Oak Bay Recreation Centre

Address: 1975 Bee Street Victoria, BC

Owner: The District of Oak Bay

Operator: The District of Oak Bay

Year Constructed: 1975

Ice Provision: 1 NHL Rink – Sept to April

Dry Floor Provision: May to August

Capacity: N/A



Other Information:

The Oak Bay Recreation Centre Arena offers public skate sessions as well as lessons for all ages, from learning to skate to playing hockey. There are skating, hockey, and power-skating opportunities for preschool-aged children to adult skaters.

APPENDIX B: PARTICIPATION TRENDS & LEADING PRACTICES

SAANICH ICE AND DRY FLOOR DEMAND ANALYSIS REPORT

Participation Trends and Leading Practices Working Paper

Prepared by Cornerstone Planning Group
October 2022



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1 INTRODUCTION

The following working paper provides an overview of key trends associated with ice and dry floor arena sports participation, as well as the best practices in municipal arena management. It has been prepared to inform the analysis of future ice and dry floor demand in the Capital Regional District (the “CRD”) and it presents opportunities for consideration in the potential development of an additional rink or arena facility.

2 TRENDS IN ARENA SPORTS PARTICIPATION

This first section outlines major trends or system-wide directions that may influence recreation and arena sports in the near future. Some are already starting to impact how facilities and services are being delivered.

2.1 PARTICIPATION TRENDS

Increased popularity of unstructured informal activities



Informal recreation and sport activities that provide flexibility in timing and location and can be done individually are becoming increasingly popular. Organized arena sports, particularly at the competitive level, often require a considerable time commitment for training, practices, travel, and other league activities.

The growing desire for drop-in and unstructured activities that can be scheduled at times and places personally convenient for each individual is largely due to increasingly busy lifestyles, a variety of interests, and the inability to commit to structured activities¹

To address this trend, municipalities are seeking strategies such as extending hours of ice arena operation, providing more drop-in activities, offering programs at different times of the day, offering short-term low commitment programs (4-6 weeks duration) and more.

Affordability & Barriers to Participation



Canadians with a higher personal income are more likely to participate in active leisure². This is particularly significant with arena sports, where equipment, travel and rental fees result in greater costs to the participant. Saanich's median household income (\$67,320, 2015) is higher than the Greater Victoria (\$52,126, 2015) and BC provincial median, suggesting that residents may be more likely to participate in arena activities.

Conversely, income can be a significant barrier to participation in organized arena sports. Financial assistance programs and low-to-no-cost programming options can help alleviate the financial burden of participation and increase the inclusivity of arena activities.

¹ (2020). *Township of North Dumfries Arena Strategy – Phase One and Two*. Prepared by Monteith + Brown Planning Consultants, the JF Group, and WalterFedy. <https://www.northdumfries.ca/en/living-here/resources/Documents/Arena-Strategy-Phase-1-and-2-Arena-Strategy–Oct-2020.pdf>

² (2012). *Canadian Heritage Sport Participation 2010 Research Paper*. Government of Canada. https://publications.gc.ca/collections/collection_2013/pc-ch/CH24-1-2012-eng.pdf

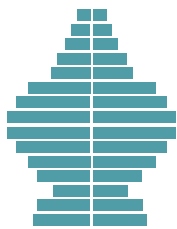
Diversity in recreation opportunities



There is more competition in today's recreation market, making it more difficult for some traditional sports to increase, and in some cases maintain, their share of the market. Today, citizens face a vast array of choices, many of them being offered all year long.

An additional factor to consider is the increasing demand for new sports and activities as populations become more culturally diverse. Newcomers may bring sporting traditions and skills with them. As part of this, greater sensitivity to how current facilities may need to be considered.

Aging populations



As the baby boomer generation moves through the age cohorts, many communities in Canada are seeing an aging of the population. In the past 20 years, the number of Capital Regional District residents aged over 65 grew by 76%. This is expected to continue, increasing by 57% between 2021 and 2041.³

The implications of an aging population on indoor ice utilization are potentially significant. On the one hand, there may be new opportunities to utilize ice in non-prime time hours due to the growing market or older adults who may make sure of daytime ice for dedicated skating times and hockey leagues. On the other hand, an aging population also means that the child and youth market, the most common users of ice arenas, is shrinking in terms of both proportion and number.









Not only is an aging population influencing municipalities to consider the provision of barrier-free arenas and recreation facilities that adhere to code and legislation, but it means they should expect increasing demand for programming for older adults and seniors who wish to remain active (e.g., adult pick up leagues, seniors skate, etc.)⁴



³ Derived from BC Stats custom Population Estimates and Projections for British Columbia. Accessed Oct 3, 2022.



⁴ (2020). *Township of North Dumfries Arena Strategy – Phase One and Two*. Prepared by Monteith + Brown Planning Consultants, the JF Group, and WalterFedy. <https://www.northdumfries.ca/en/living-here/resources/Documents/Arena-Strategy-Phase-1-and-2-Arena-Strategy—Oct-2020.pdf>

2.2 OVERVIEW OF ARENA SPORT TRENDS

The following section details a variety of trends with respect to different ice-based and dry floor activities. Looking at the statistics, there is a general decline in these activities, but this can largely be attributed to an overall decline in structured, organized sports. Emerging arena sports such as pickle ball and indoor soccer have also been included.

TRADITIONAL ICE SPORTS		
	ADULT HOCKEY	Stable / Slight Decrease
	WOMEN'S HOCKEY	Increase
	YOUTH HOCKEY	Stable / Slight Decrease
	SPEED SKATING	Stable
	FIGURE SKATING	Stable / Slight Increase
	RINGETTE	Increase
	LEISURE PROGRAMMING	Increase
	CURLING	Stable / Slight Increase
	ADAPTIVE ICE SPORTS	Stable / Slight Increase

DRY FLOOR		
	BALL HOCKEY	Stable / Slight Increase
	LACROSSE	Increase

EMERGING ARENA SPORTS		
	PICKLE BALL	Increase
	INDOOR SOCCER	Increase

2.2.1 Adult Hockey

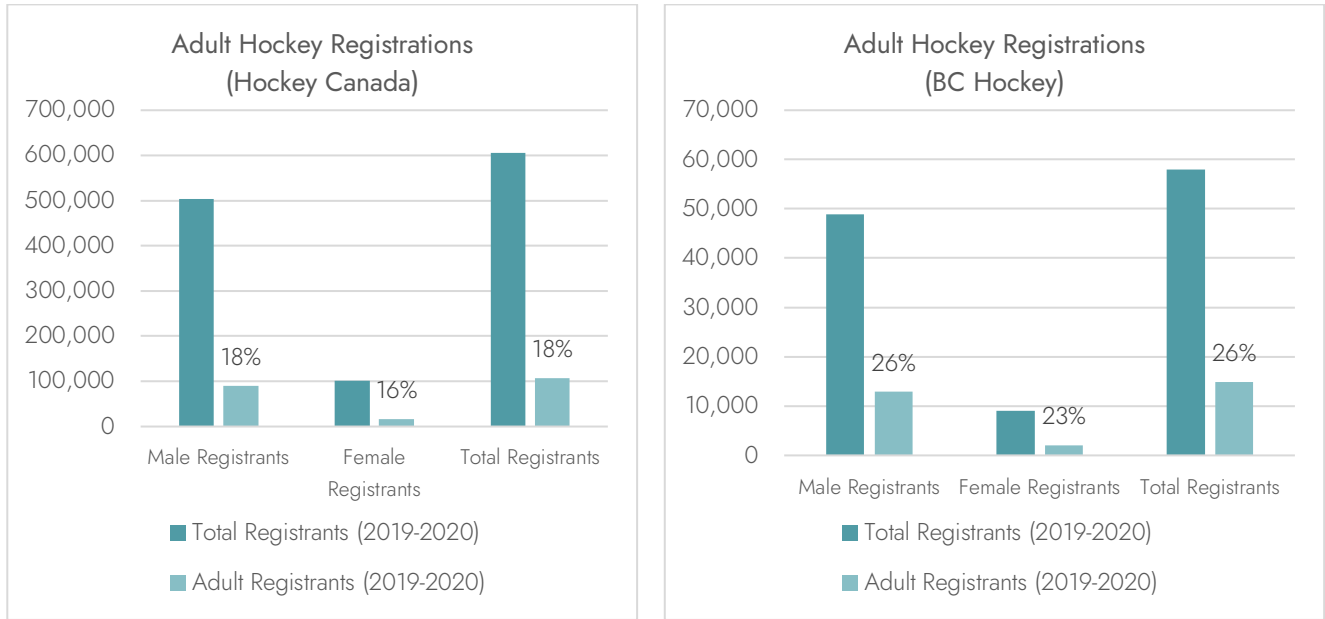
Hockey participation is in a slight decline due to the trend away from high intensity organized sports that have significant time commitments and substantial equipment costs. The following charts illustrate this phenomenon through the slight decline / steady retention in overall registration to Hockey Canada and BC Hockey. This decline is driven primarily by the slight decline in male members as traditionally it is a male-dominated sport. However, recent growth in female registrants counteracts this decline slightly.

Figure 1: Total Registrants 2010 to 2020. Source: Hockey Canada 2019-2020 Annual Report.



It is worth noting that most hockey participants are youth (playing in U7 to Major Junior Divisions). The figures below show the proportion of adults registering with Hockey Canada or BC Hockey. On average, ~25% of BC Hockey registrants are adult players, compared to ~17% of Hockey Canada adult registrants. Not all adult leagues register with Hockey Canada (or BC Hockey), therefore, the number of adult players may be underestimated. Data on adult leagues that are not registered with provincial or national sport associations is not readily available, therefore, it is assumed that this trend is only indicative. It is assumed that the proportions of adult and youth players has not changed dramatically in recent years.

Figure 2: Adult Hockey Registrations. Source: Hockey Canada 2019-2020 Annual Report

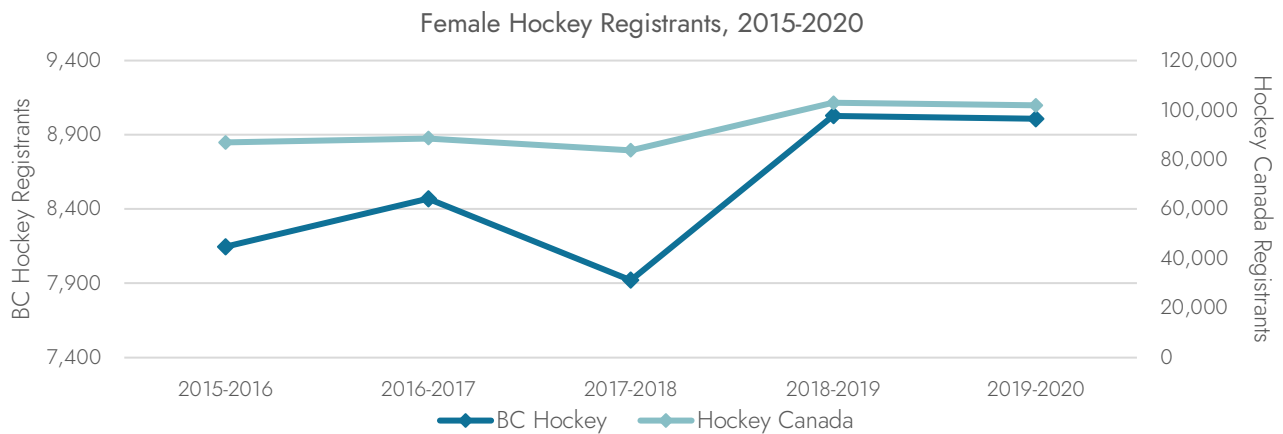


GENERAL PARTICIPATION TREND = STABLE / SLIGHT DECREASE

2.2.2 Women’s Hockey

As mentioned in the Adult Hockey section, in recent years, female participation in hockey has increased quite rapidly relative to male participation. The following graph illustrates provincial and national trends in recent years. This registrant data is used as a proxy for hockey participation more generally.

Figure 3: Source: Hockey Canada Annual Report 2019-2020



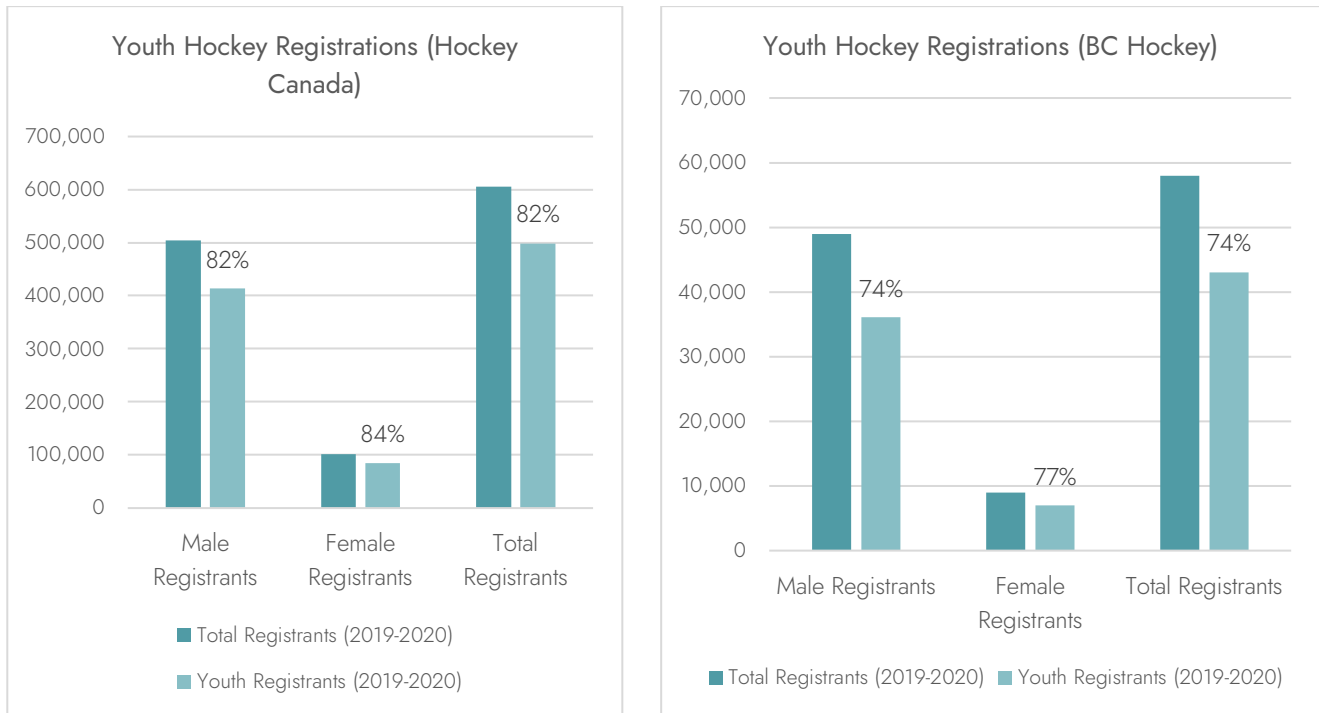
This increase in female participation is likely due to the variety of community-based efforts to improve access to hockey through more open dialogue and the removal of gender barriers. That said, hockey will likely remain a male-dominated sport in the short to medium term.

GENERAL PARTICIPATION TREND = INCREASE

2.2.3 Youth Hockey

In Hockey Canada and BC Hockey organizations, youth and young adult hockey registrants make up the majority of the total number of registrants. The following graph illustrates the proportion of youth hockey registrants (playing in U7 to Major Junior Divisions) compared to the total number of registrants. This registrant data is used as a proxy for youth hockey participation more generally.

Figure 4: Youth Registrations. Source: Hockey Canada 2019-2020 Annual Report

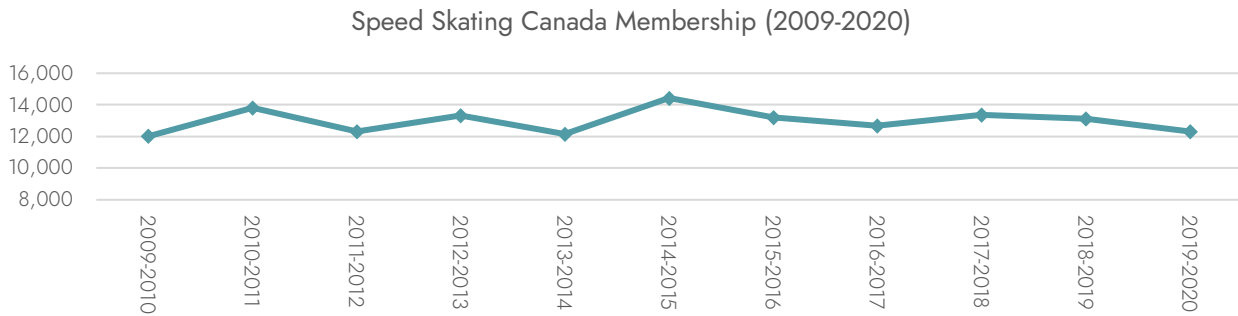


GENERAL PARTICIPATION TREND = STABLE / SLIGHT DECREASE

2.2.4 Speed Skating

Over the last decade, Speed Skating Canada membership numbers have remained relatively stagnant / stable with 12,000 - 14,500 members nationally (as show in in the following graph).

Figure 5: Speed Skating Canada Total Memberships. Source: Speed Skating Canada Annual Reports (2018-2019 & 2019-2020).



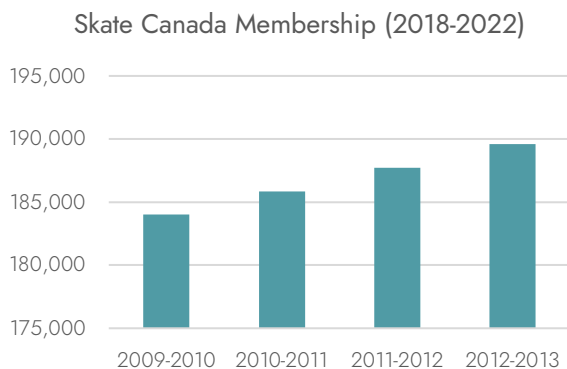
There is no definitive explanation as to why or how speed skating participation has remained stable. Some commentators have pointed to the fact that speed skating is not necessarily team-based and that it is not a full contact sport (this is not to diminish the fact that it is a very physical sport and injuries are common from falls, but it is not inherently contact-seeking). The specialized nature of speed skating may also limit its capacity for substantial growth going forward.

GENERAL PARTICIPATION TREND = STABLE

2.2.5 Figure Skating

Skate Canada (the national governing body for figure skating) has shown in their 2018-2022 Scorecard that registration in Skate Canada figure skating membership (a proxy for participation) has steadily increased over recent years and is projected for continued growth.

Figure 6: Skate Canada Figure Skating Registrants (2018-2022). Source: Skate Canada 2018-2022 Strategic Plan



Similar to speed skating, figure skating likely remains appealing due to its individual focus. It is possible that the slight increase in participation in figure skating can simply be attributed to population growth.

Figure skating is likely to remain popular in the future given that it incorporates artistry with sport, making it more accessible / appealing to a wider audience.

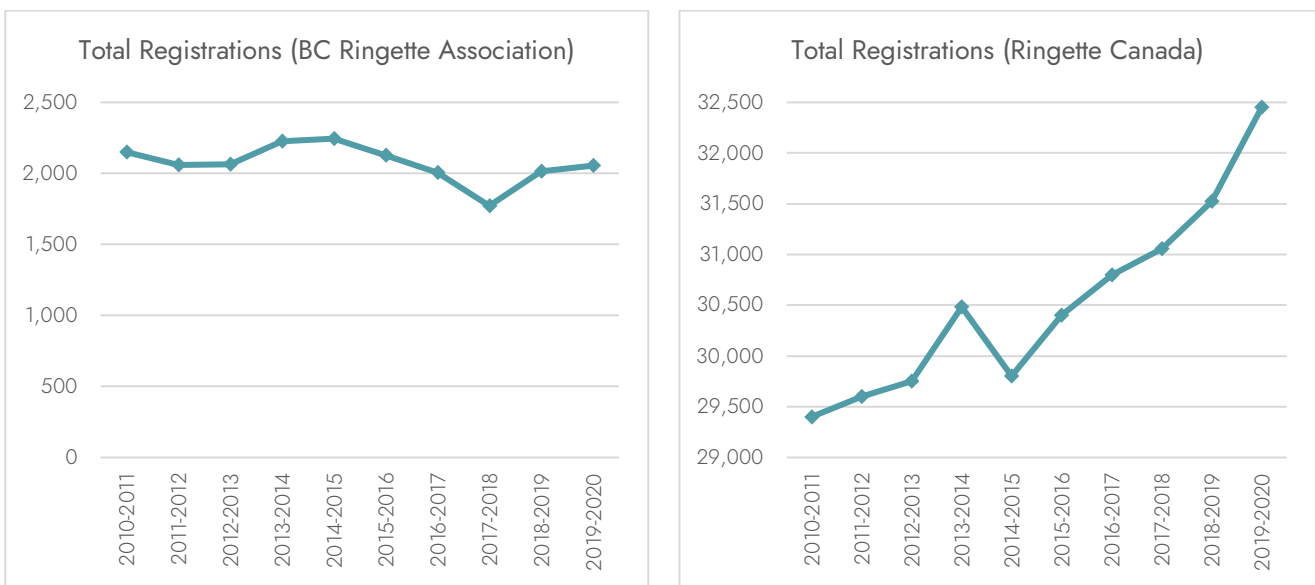
GENERAL PARTICIPATION TREND = STABLE / SLIGHT INCREASE

2.2.6 Ringette

Both national and provincial ringette associations have experienced growth in registration numbers in recent years, as shown below in Figure 7. Between 2015 and 2020, Ringette Canada experienced five consecutive years of growth in registrant numbers. In BC, the number of children and youth division players have continued to increase over recent seasons. BC Ringette has reported changes in participant demographics, with fewer female children and youth participants than there has been in the past and an increased retention of male participants into adult divisions.

Figure 7: Ringette Registrations

Sources: BC Ringette Association, Annual Report 2015 and 2019-2020; Ringette Canada Annual Report 2019-2020.



GENERAL PARTICIPATION TREND = INCREASE

2.2.7 Leisure Programming

Most of Canada's communities are made up of an overall aging population. As a result, there will likely be an increase in older adults who make use of non-peak time hours during the day for leisure programming and hockey. The City of Fernie has cited increasing demand in leisure ice use Canada-wide (City of Fernie Leisure Services Master Plan, 2013). Likewise, the City of Coquitlam has seen a growth in demand for leisure ice use (i.e. public skate / learn to skate) as well.

The Canadian Fitness & Lifestyle Research Institute's 2011-2012 Sport Monitor bulletin reported that most Canadians prefer non-competitive sports or activities. Nearly half (44%) of Canadians surveyed preferred non-competitive sports, while 40% like both competitive and non-competitive sports. Only 8% of Canadians prefer only competitive sports or activities and an additional 8% prefer neither⁵. A survey conducted by Statistics Canada in 2016, the General Social Survey on Canadians at Work and Home, reported that for Canadians who regularly participated in sports, 86% did so recreationally and 14% did so competitively⁶.

Canadians' physical activity preferences are changing, and a shift towards more leisure activities is being reported. The Canadian Parks and Recreation Association's Re-Imagine RREC Highlights Report (2021) identified an increase in "household-centric," unstructured recreation and physical activity as result of the Covid-19 pandemic which will have implications for sport and recreation programming.⁷

GENERAL PARTICIPATION TREND = INCREASE

2.2.8 Curling

In 2020 there was a steady increase in the number of all curlers of all ages in BC from 20,083 in 2018 to 23,219 (Curl BC Annual Report 2020). This trend would suggest that curling is stable, with some growth likely attributed to outreach campaigns from curling organizations. It should be noted however that many curling rinks are getting converted for other more flexible uses – this has impacted participation already and will continue to do so in the future. In fact, in the last 10 years, the number of BC curling clubs has decreased by 10% due to municipal parks & recreation staff, particularly in urban areas, repurposing them for other sports such as ice hockey or skating. This is an inexpensive way for municipalities to provide another ice surface, but results in 500 to 600 curlers having to drive to a curling facility in another city. This has resulted in a "domino effect" in which curling facilities in the adjoining cities of North Vancouver, Burnaby, Coquitlam and Port Coquitlam (total

⁵ (2012). *2011-2012 Sports Monitor - Bulletin 9: Preferences for Sport*. Canadian Fitness and Lifestyle Institute. https://cflri.ca/sites/default/files/node/1249/files/CFLRI_B9.Preferences_En_2011_12.pdf

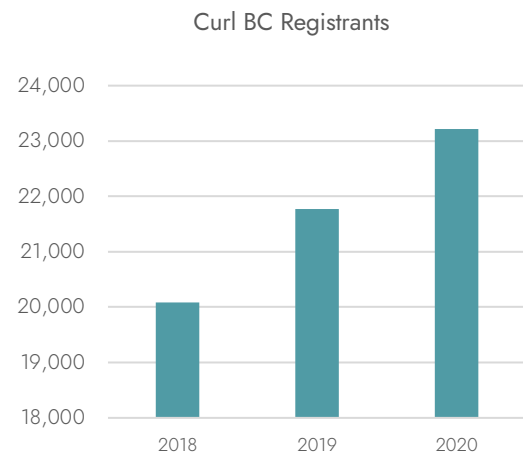
⁶ (2016). *Sports for Fun and Fitness*. Statistics Canada. <https://www150.statcan.gc.ca/n1/pub/11-627-m/11-627-m2019039-eng.pdf>

⁷ (2021). *ReImagine RREC*. Canadian Parks and Recreation Association. https://cpra.ca/wp-content/uploads/2021/06/ReImagine_RREC_highlightsEN-2.pdf

population of ~500,000) no longer have a curling rink and the remaining curling facilities in Vancouver (2), Port Moody (1) and New Westminster (1) have reached capacity.

Figure 8 reveals that curling participation – by way of a proxy measurement of registration to Curl BC – has increased in recent years. Similar to speed skating, the specialized nature of the sport, its equipment and arena requirements is likely to put significant constraint on the potential growth of curling.

Figure 8: Curl BC Total Registrants (Youth & Adult)
Source: Curl BC Annual Reports 2018, 2019, 2020).



GENERAL PARTICIPATION TREND = STABLE / SLIGHT INCREASE

2.2.9 Adaptive Ice Sports

Adaptive arena ice sports, such as para ice hockey (formerly known as sledge hockey), are becoming increasingly popular. Many larger cities have para ice hockey teams and offer a combination of recreational and competitive programming. Participation in BC is open to both people with physical disabilities and people who are able bodied.

GENERAL PARTICIPATION TREND = STABLE / SLIGHT INCREASE

2.3 DRY FLOOR SPORTS

2.3.1 Ball Hockey

While there is the overarching trend of decreased participation in high intensity organized sports, ball hockey benefits from having a lower barrier to entry and lower equipment costs (compared to ice hockey). The Canadian Ball Hockey Association estimates that their membership has remained stable and hovered around ~44,000 over the last few years (though Covid-19 restrictions are likely to cause a decrease in membership). The Association anticipates the number of registrants to grow steadily⁸, however many local associations are reporting a lack of dry floor facilities and limited arena time continue to inhibit potential growth.

GENERAL PARTICIPATION TREND = STABLE / SLIGHT INCREASE

⁸ Canadian Ball Hockey Association. Accessed Mar 3, 2022. http://cbha.com/page.php?page_id=85300

2.3.2 Lacrosse

Despite the trend of decreased participation in high-intensity sports such as lacrosse, the sport appears to be growing overall. For instance, Nick Sakiewicz, Commissioner of National Lacrosse League states that “over the last decade or so, lacrosse participation at the grassroots had begun to percolate, then explode, a pattern remarkably similar to soccer in the 1980s.” Research from the St. Catherine’s Arena Strategy (2019) corroborates this and supports the claim that participation in lacrosse is growing nationally.

GENERAL PARTICIPATION TREND = INCREASE

2.4 EMERGING INDOOR ARENA SPORTS

2.4.1 Pickleball

With an aging population, non-traditional and low-impact sports such as pickle ball, are showing increased community demand (predominantly amongst older demographics). The President of Pickleball BC estimates growth in their membership varying between 20-40% per annum prior to the pandemic. This growth is reported to have continued despite the COVID-19 restrictions from 2020 onwards.⁹

GENERAL PARTICIPATION TREND = INCREASE

2.4.2 Indoor Soccer

Soccer (indoor and outdoor) is the largest participatory sport in Canada and is considered the fastest growing sport in the country (Canada Soccer, 2021). Soccer is also the most played sport by Canadian children aged 5-14 (Canadian Heritage Sport Participation 2010, 2013). The appeal of indoor soccer is that it can be played year-round. Provincial trends indicate that there is increased community interest and demand for indoor soccer. This demand is slightly lower in the lower mainland as the climate enables outdoor soccer to take place most consistently.

GENERAL PARTICIPATION TREND = INCREASE

⁹ Correspondence via email with the President of Pickleball BC

3 LEADING PRACTICES IN ARENA MANAGEMENT

3.1 TRENDS IN ICE ARENA INFRASTRUCTURE

Given the significant capital investment required to enhance existing facilities and to develop new ice arenas, private and public sector providers are increasingly interested in best practices and trends in ice arena infrastructure. The following trends are being observed in indoor ice arena infrastructure.

3.1.1 Multi-pad ice arenas

Across Canada, single-sheet ice facilities are being de-commissioned and replaced at other locations by twinning, or even adding four to six sheets. Multi-pad arenas are now considered to be standard in new arena construction, as they provide efficient use of resources through the economies of scale they can achieve.¹⁰

3.1.2 Integrating arenas into multi-use 'hub' facilities

Multi-pad arenas are increasingly being developed in conjunction with other recreation and culture facilities to create community 'hub' facilities, as opposed to the traditional approach of developing 'stand-alone' facilities. This approach capitalizes on several efficiencies, and provides a range of benefits to users:

Arena users can benefit from access to additional convenience and social amenities such as dryland training spaces for practices and warm-ups, and food and beverage vendors. For people accompanying arena users (e.g. spouses, caregivers), the opportunity exists for them to concurrently participate in physical or social activities (swimming, fitness, socialising at a cafe, etc.) elsewhere in the building rather than solely being relegated to being a spectator in a single-purpose arena. Multi-purpose facilities provide increased opportunities for event hosting, tournaments, and rental opportunities. Operational costs (e.g., staffing, equipment, and maintenance costs) can be reduced as programming and opening hours can be streamlined in a way that optimizes staff time.

3.1.3 Expanding the non-ice season utilization with new dry floor opportunities

A current trend being observed is that some arena operators are trying to increase dry floor utilization during the summer months in effort to use the facilities at their maximum capacity. This is largely due to the significant

¹⁰ (2019). *St Catherine's Arena Strategy*. Prepared by Monteith + Brown Planning Consultants. <https://stcatharines.civicweb.net/document/68244/>

costs that are incurred when developing and operating ice arena facilities.¹¹ This practice has been fuelled by the increasing popularity of emerging dry floor sports such as lacrosse, ball hockey, and roller derby which some municipalities have played a role in encouraging through providing subsidies and setting allocation priorities for these sports.

Some municipalities are enabling the use of arenas for alternative activities during the non-ice seasons through the installation of amenities and equipment. For example, netting for baseball/golf, portable nets for pickle ball/tennis/badminton, skateboard structures and temporary flooring and alternative surfaces (artificial turf, rubberized flooring, etc.) are being installed to better accommodate activities such as soccer, lacrosse, and court sports.¹²

3.1.4 Providing 'leisure ice' surfaces

Smaller 'leisure ice' rinks, typically non-board ice surfaces are increasingly being designed alongside full-sized rink to provide fun and safe ice-skating opportunities. These are often separated from the full ice pad and more free form in design. Benefits include:

- Increased separation between skill/age groups and improved safety
- Reduced user conflict
- Increased flexibility to provide drop-in public skating, programs, and events.

3.2 ENERGY EFFICIENCY & ENVIRONMENTAL SUSTAINABILITY

Arenas are highly energy-intensive businesses. Energy efficiency and environmental sustainability are increasingly at the forefront of renovation and new construction projects. Some municipalities have adopted policies that establish specific LEED certification levels and/or energy efficiency targets in effort to reduce emissions from municipal operations. These approaches require additional capital investment during the construction phase of the project. However, a payback is normally seen over time as cost economies are realised or additional costs are avoided.

Climate-friendly solutions can be used in the design of new arena builds or can be applied through retrofitting aging arena facilities. In addition, solar orientation of arena buildings, ultra-efficient building envelope construction, reduced building footprints, and multi-pad arenas can all increase the energy efficiency of ice rinks. The following electricity reduction measures range in scale and can have a significant impact on arena electricity usage¹³:

¹¹ (2016). *The City of Red Deer Ice Facilities Plan Research Report*. Prepared by RC Strategies.

<https://www.reddeer.ca/media/reddeerca/city-government/plans-and-projects/2016-08-16-RDI-Research-Report-FINAL-SM.pdf>

¹² (2016). *The City of Red Deer Ice Facilities Plan Research Report*. Prepared by RC Strategies.

<https://www.reddeer.ca/media/reddeerca/city-government/plans-and-projects/2016-08-16-RDI-Research-Report-FINAL-SM.pdf>

¹³ *Use Less Electricity*. Arena Guide. Accessed Sept 28, 2022. <https://arena-guide.com/go-green-measures/use-less-electricity/>

- Upgrading arena lighting to LEDs
- Removing micro air bubbles from resurfacing water
- Harvesting solar energy to run the refrigeration plant
- Optimizing ice thickness
- Adding low emission ceiling and improve arena insulation
- Adjust inside air temperature
- Optimize brine use and upgrade brine pumps

3.3 COST RECOVERY - CHARGES AND FEES

As operational costs rise, more municipalities are establishing cost recovery ratios to justify rental fees. Traditionally, municipalities have relied on historical precedent and regional benchmarking, but this is gradually being eliminated in favour of policy-driven pricing strategies. Financial performance targets based on annual operating expenses are the most common approach (generally ranging from 50% to 95% recovery for arenas, depending on the user type), but there are some municipalities that include small capital reserve contributions in their pricing strategies. For example, a municipality may contribute to an annual repair and maintenance fund that is considered as part of the operating budget; the pricing policy is then based on the hourly operating cost (including the reserve contribution), discounted by user type. The matter of capital reserves is often addressed more directly through an hourly fee surcharge. Surcharges are commonly applied for a pre-determined number of years at a consistent rate. Typically, municipalities consider surcharges when there is an identified project on the horizon, which makes it more likely for users to support this form of capital fundraising. Depending on the charge, it may take several years for the contributions to accumulate, which is why alternate forms of funding and/or financing are required for major capital projects.

3.4 FUNDING PARTNERSHIPS

As traditional arena funding sources (taxes, provincial and federal grants) have been reduced in recent years, municipalities have had to look to partnerships with the private sector to support arena services and facilities. This has led to the development of a number of management and funding organizations within the private sector interested in partnering on facilities with revenue generating potential. In many cases, arena partnerships have involved facilities with multiple ice pads catering to a higher-end adult market or licenced restaurants within those facilities.¹⁴ Similarly, some municipalities are entering into financing agreements with major user groups (e.g., minor hockey association), sometimes requiring this as a prerequisite of future capital outlays.

Public-private partnerships (P3s) are alternative methods of delivering public infrastructure and infrastructure services that transfer responsibilities and risks that traditionally have been taken by government, to the private

¹⁴ 2007). *City of Edmonton 10-Year Arena Capital Development Strategy (2009-2019)*. Prepared by the City of Edmonton. <https://webdocs.edmonton.ca/OcctopusDocs/Public/Complete/Reports/Cs/CSAM/2007-07-09/2007CSR012%20Att-1.pdf>

sector. With a P3, some or all these tasks are bundled and offered to the private sector for an all-in proposal. In addition, with some forms of P3s, the private sector also finances the asset and is paid back by government over a long-term contractual period. The choice of P3 model is very project-specific, as the objective is to optimally allocate the risks associated with designing, building, operating, and maintaining an asset over its full lifecycle between the municipality and the private sector partner. Optimally allocating risk reduces the likelihood of risk events occurring and the severity of their impacts if they occur. This contributes to the overall value the municipality receives for its investment.¹⁵

¹⁵ (2007). *City of Edmonton 10-Year Arena Capital Development Strategy (2009-2019)*. Prepared by the City of Edmonton. <https://webdocs.edmonton.ca/OcctopusDocs/Public/Complete/Reports/Cs/CSAM/2007-07-09/2007CSR012%20Att-1.pdf>

APPENDIX C: ENGAGEMENT SUMMARY

SAANICH ICE AND DRY FLOOR DEMAND ANALYSIS REPORT

Engagement Summary

Prepared by Cornerstone Planning Group
October 2022



Executive Summary

The perspectives and viewpoints from a variety of stakeholders and the public were captured through several forms of consultation as community engagement is critical in the Saanich Third Rink Analysis study. To help inform the project outcomes, community engagement was undertaken to understand:

- the current and future demand for ice and dry floor arena activities
- community interest and concerns associated with the regions arena facilities

Two surveys were developed targeting both the general Saanich community and arena user groups. In addition, a series of interviews were conducted with stakeholders such as arena user groups, facility staff, and potential arena user groups. The following report summarizes the public engagement findings which is divided into two sections:

Section 1: Community Survey Findings (406 responses)

Section 2: User Group Survey Findings (51 responses)

Both surveys were prepared by Cornerstone Planning Group and were live for ~3 weeks. The key findings and takeaways from the public engagement are as follows:

Arenas in Saanich are popular and there is community support for an additional ice sheet/arena

72% of community survey respondents reported using Saanich's arena facilities on a regular basis (more than a few times a week) with the most popular arena activities being **public/recreational skating** and **organized ice sports**. When asked about how Saanich can improve arena facilities, community survey respondents prioritized **'increase the availability of ice floor time'** and **'increase opportunities for drop-in and leisure skating'** suggesting there is community appetite for an additional arena.

Demand is high for arena facilities during peak times

The inability to access arena activity space at convenient hours was a sentiment echoed across all of the engagement efforts. The arena user group survey identified the **'availability of weekday evening or dry floor time'** as the most significant challenge when booking arena space time. Community survey respondents cited **'ice not being available at convenient times'** as a reason for not regularly using arena facilities.

Saanich's arena facilities are inclusive but there is room for improvement

The majority of community survey respondents (**83%**) reported Saanich's arena facilities feel socially inclusive. Feedback received throughout the engagement process indicates that a number of programs intended to increase arena inclusivity (Special Olympics, First Shift, multicultural and adult skating lessons, public skate and drop-in sessions, sledge hockey, female hockey associations etc.) are limited in their ability to run or expand their programming due to lack of convenient booking time.

Funding Arena Improvements

There is community and arena user group support for funding development/improvements to Saanich's arena inventory. **55%** of arena user group survey respondents reported that their membership would be willing to pay an increased fee for arena activities and/or sports registration and **2%** said their membership would be willing to offer donations. **39%** of community survey respondents said the District of Saanich should increase arena user fees and increase property taxes to fund arena improvements. This funding model could be viewed as conflicting with the concerns regarding the affordability of arena activities. Alternative funding opportunities should be explored.

1. Community Survey Findings

A community-wide survey was developed to solicit feedback from members of the public who may not be active arena facility users to understand the range of activities they (and/or their families) currently partake in and to help identify any barriers that currently impede their participation in arena activities. The intent of this survey was to receive input that would inform Saanich's rink demand analysis and future facility planning.

The survey was advertised using a variety of methods:

- A poster with QR codes linking to the survey was put up in the four Saanich Recreation Centres for the duration of the survey.
- A link to the survey was included in the April 28th, 2022 edition of the e-newsletter which was sent to 40,995 recipients.
- The survey was shared multiple times via the District of Saanich's social media channels - Facebook and Twitter.

A total of 406 community members completed the survey and the findings are as follows:

Key Findings

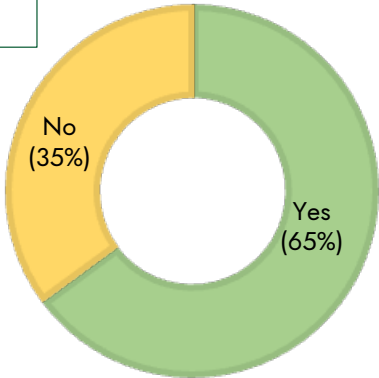
- There is community support to increase ice floor time for both organized sport teams and unstructured/leisure activity.
- There is high demand for arena facilities at peak times. Currently, weekday prime time ice presents the biggest challenge as there is high demand to use the facilities at favourable hours across all age groups. The demand is expected to grow.
- The increasing popularity of dry floor activities such as lacrosse, pickleball, ball hockey, and roller skating will further intensify this demand.
- Additional ice would provide more opportunities to expand programming such as skills development clinics, referee training, learn to skate programs, tournaments and competitions, and inclusionary and school programming.
- There are concerns regarding the environmental impact of an additional arena. Given the District's climate goals, the study should consider energy efficiencies and ways to reduce the environmental impact associated with arena new facilities.

Survey Respondent Characteristics

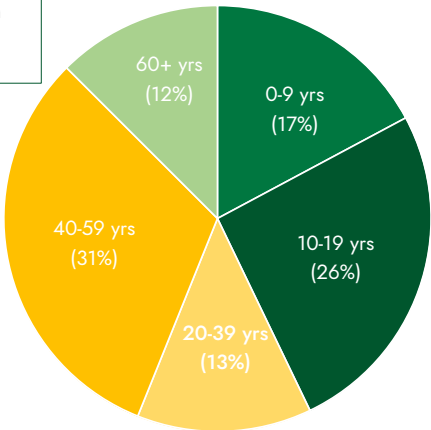
The respondents who completed the survey can be characterized by the following points:

- **65%** of survey respondents reported their households *did* belong to an organized arena user group.
- **55%** of survey respondents reported having a total household income of over \$100,000. **14%** of respondents had a household oncome of \$79,000 or less. The median household income in Saanich is \$77,282. ¹
- The survey respondents represented members of the community across all age groups.

Do you, or anyone in your household belong to an organization, team or league that regularly use arenas in/around Saanich?

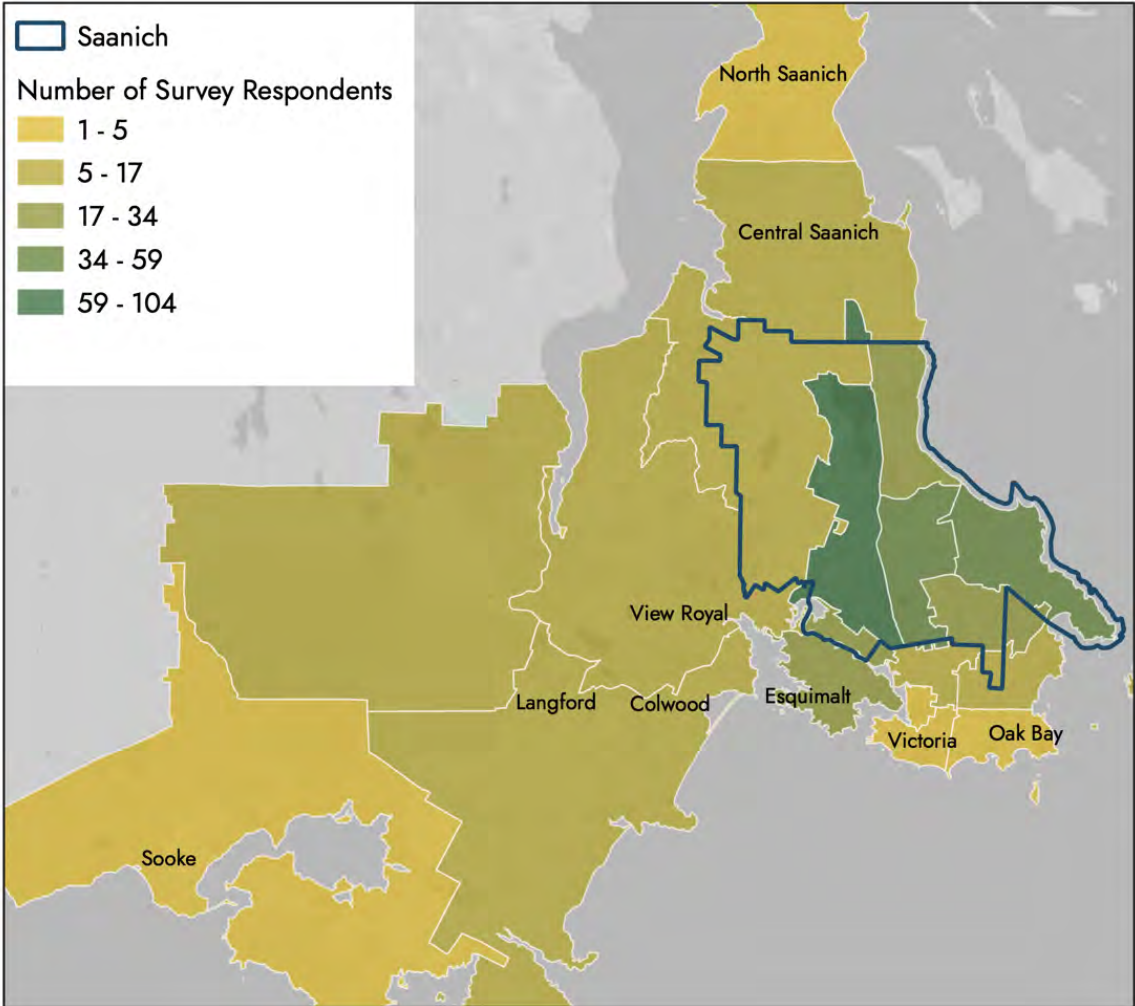


Please describe your household by checking the age groups which best represent your household.



The map below illustrates the distribution of survey respondents with respect to where they reside. The medium and dark green areas represent the highest number of survey respondents which indicates that the majority live within the District of Saanich.

¹ Saanich Housing/Demographic Conditions – 2019



Respondents living in the municipalities surrounding Saanich also completed the survey which speaks to the regional usage of arenas in the area.

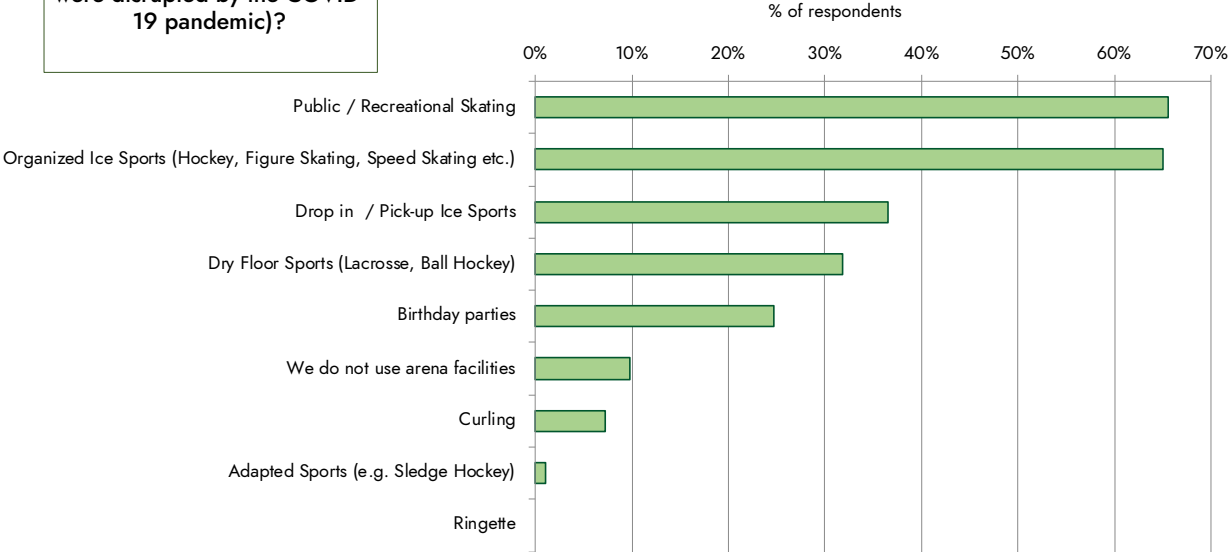
Current Relationship + Use of Arenas

Approximately **90%** of survey respondents reported that they had participated in arena activities before. Public skating and organized ice sports were identified as the most popular activities engaged in among the community members – **65%** of respondents had participated in public skating and organized sports recently.

72% of respondents said they visited arenas regularly (i.e., more than a few times a month) either as an ice user or spectator. Of the regular ice arena users, approximately **53%** reported that their household visited an arena multiple times a week. As for dry floor arena

activities, **40%** of respondents said they visited an arena multiple times a week as a dry floor user or spectator.

What arena activities did you and your household normally participate in (before activities were disrupted by the COVID-19 pandemic)?



Survey participants who do not regularly use arenas were asked for reasons as to why this is the case. Participants were provided with eight reasons and were asked to rank the options that were most relevant. The responses were scored based on rank order and are listed in order of importance below:

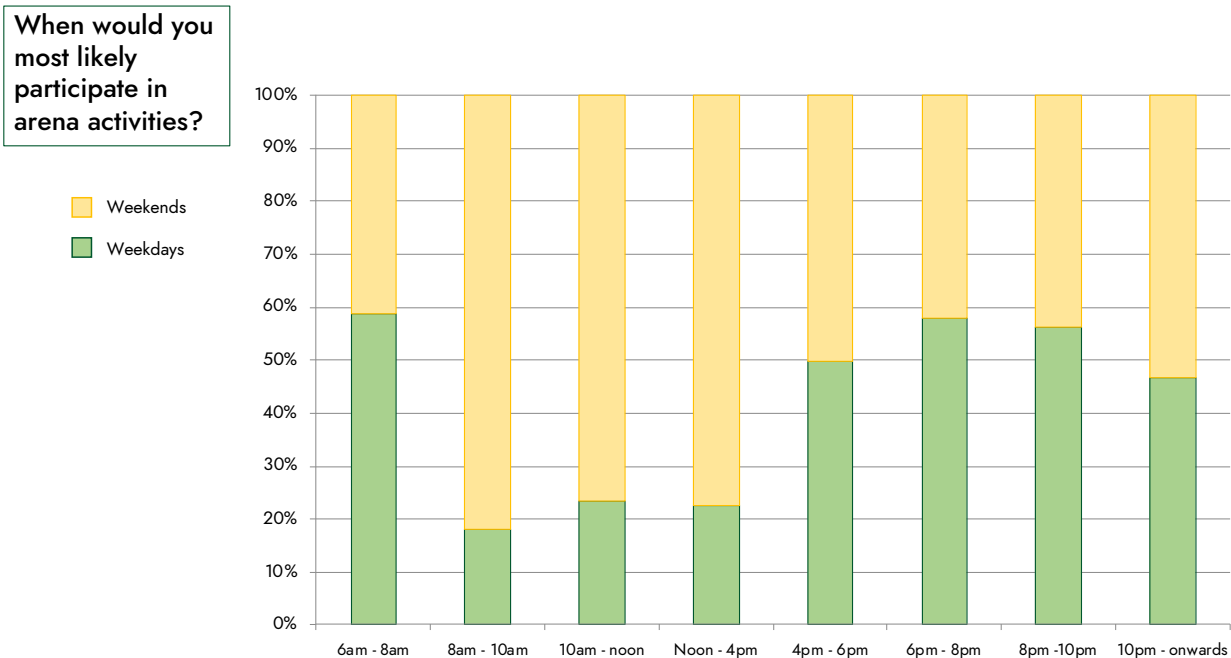
- Not interested in using arenas
- Lack of information / unaware of ice or dry floor opportunities
- Too busy - I am not able to commit time to arena activities
- Ice is not available at convenient times
- Too expensive
- The atmosphere of arenas is not welcoming
- Arenas are not accessible for persons with disabilities
- Other

To obtain additional reasons for arena non-usage, survey respondents who answered 'other' in the previous questions, were asked to explain. The following sentiments were gathered from these responses:

- Respondents listed a variety of non-arena based activities that they regularly participate in implying there is no need for them to visit arenas.
- Respondents said they do not use arenas due to concerns about their impact on the environment.

Peak Arena Use Times

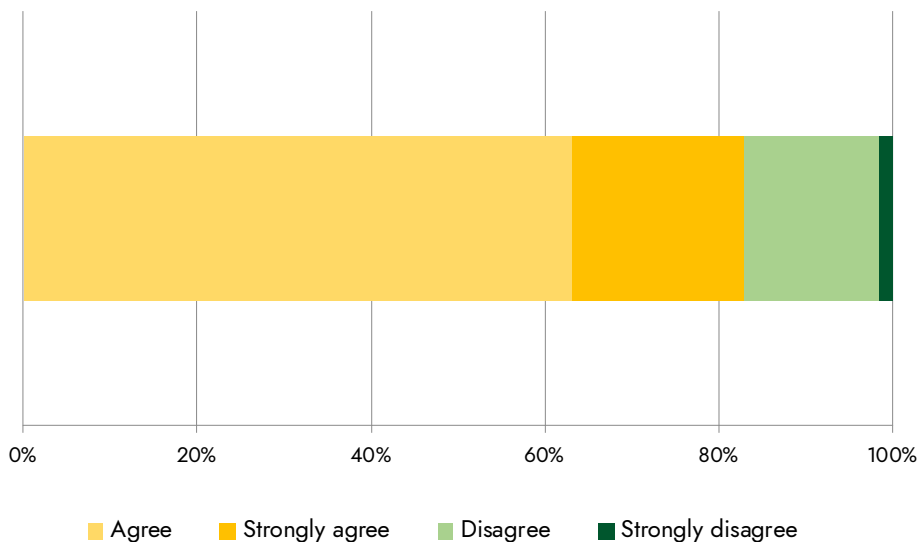
As mentioned above, the lack of ice availability at convenient times is a barrier to arena usage. When asked about the most likely time they would participate in arena activities, most survey respondents cited the following peak times:



As weekends offer more flexibility, the challenge is accommodating the variety of arena-based activities at peak times during the weekdays. Afterschool and evenings are the most popular times across most age groups, organizations, and activity type so increasing ice availability from 3 pm to 10 pm is important to ensure arena accessibility.

A significant majority of respondents (**83%**) said that they ‘agree’ or ‘strongly agree’ that arena activities provided by the District of Saanich feel socially inclusive.

The arena activities provided by the District of Saanich feel socially inclusive to people of all ages, genders, ethnicities and ability levels:

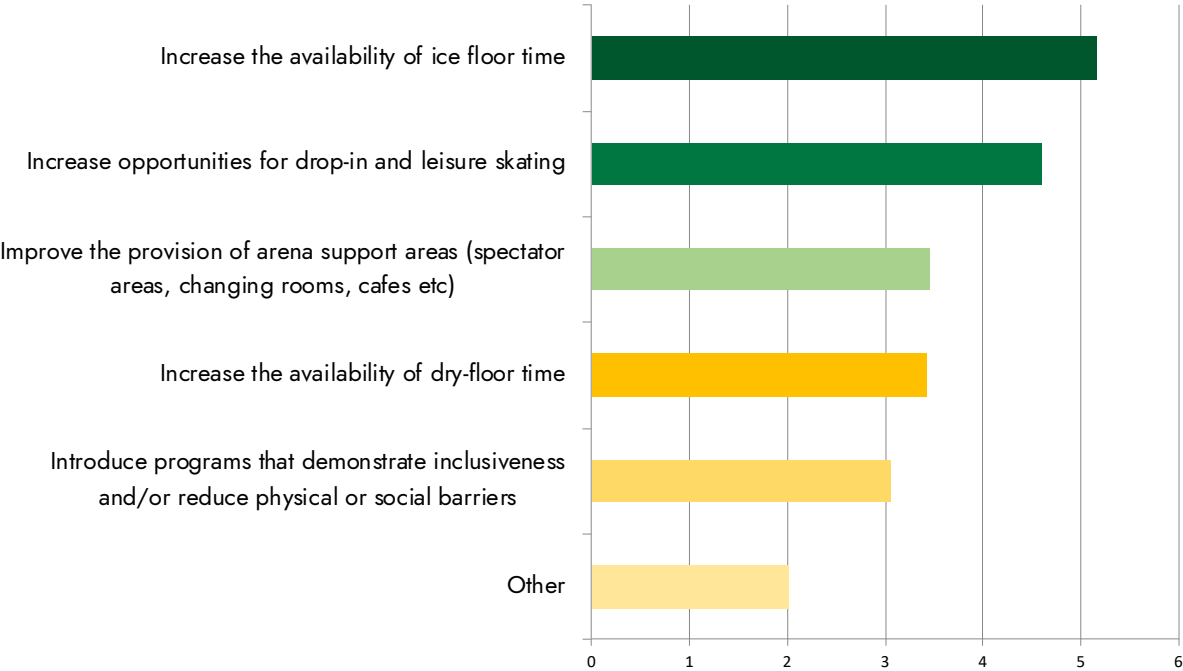


Future Directions

Survey respondents were asked about whether they think there is a general trend in sports and recreation towards a preference for unstructured, spontaneous and/or self-directed recreation activities. This question received a comparable split with **57%** disagreeing/strongly disagreeing and **43%** agreeing/strongly agreeing.

Opportunities for Improvement

How can the District of Saanich improve arena facilities and activities for you in the future?



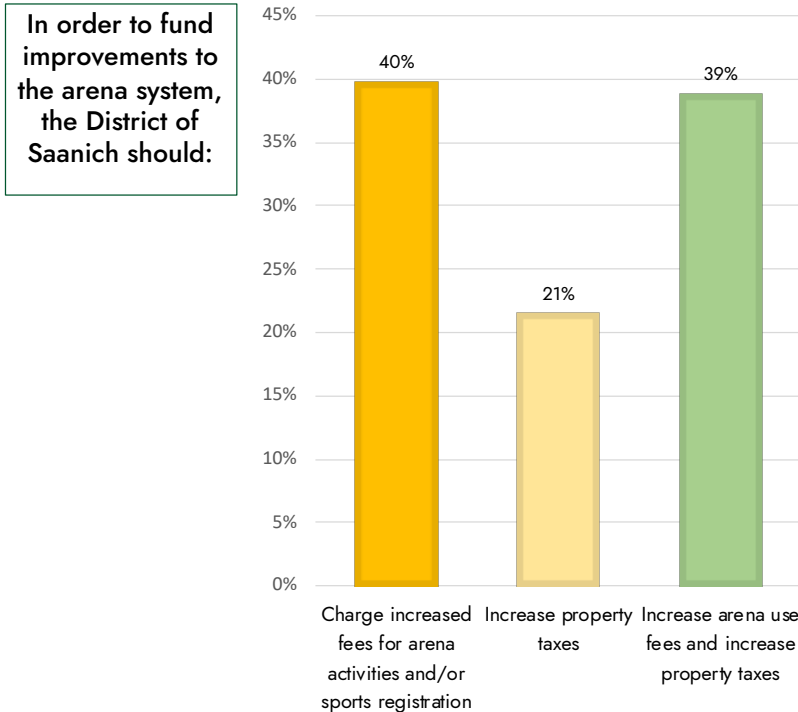
Survey respondents who selected the ‘other’ option were asked to provide additional comments. Generally, the responses fell into the categories listed above, however several nuances were identified, including:

- Additional ice floor time for women’s hockey
- Based on concerns around safety, allow only one activity on the ice surface at a time
- Increase the availability of skating lessons and family skate events
- Upgrade the existing aging arena facilities
- Provide more opportunities for curling in Saanich

Funding

The graph below illustrates how survey participants responded to the question of how the District should fund improvements to the arena system. ‘Charge increased fees for arena activities and/or sports registration’ and ‘increase arena use fees and increase property taxes’ received a comparable amount of responses.

Engagement Summary



Additional comments regarding funding opportunities included:

- Attract more revenue-generating activities like industry shows (home-improvement, wedding, fashion, youth, job fairs, etc.) and special events to fund arena improvements
- Explore P3 partnerships
- Pursue relevant grant applications

2. User Group Survey Findings

To help inform the Saanich Third Rink Analysis project, Cornerstone Planning Group conducted a series of stakeholder interviews with existing arena users and potential arena users. Connecting with 9 different community groups/organizations provided insight into several topics, including:

- the current utilization of Saanich arenas and programming information
- the current and future demand of arena-based activities
- challenges with the current arena inventory

The 9 community groups/organizations included:

- BC Hockey
- Saanich Figure Skating Club (SFSC)
- Capital Region Female Minor Hockey Association (CRFMHA)
- Junior B Predators
- Victoria Minor Ball Hockey
- Spectrum
- Victoria Ringette
- Victoria Minor Hockey Association (VMHA)
- District of Saanich Recreation Staff

Saanich Lacrosse, Sledge Hockey Victoria, and Sport Ability BC were invited to participate but were unable to attend the interview sessions.

In addition to these conversations, a targeted survey was distributed to existing arena users and potential arena users. A survey link was sent to 75 email addresses on file representing 57 unique ice user groups. A total of 51 respondents representing 34 organizations completed the survey and the results, along with the findings from 9 interviews, are presented below.

Key Findings

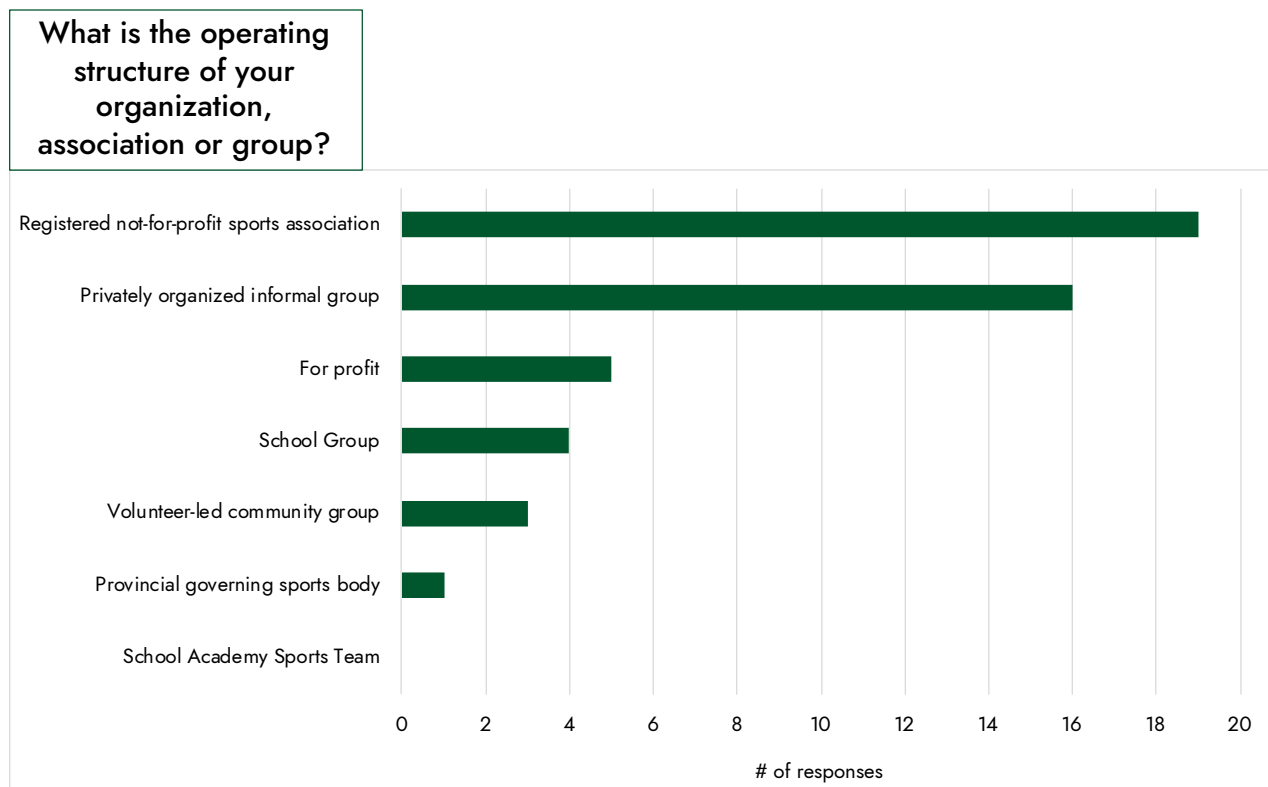
- Participation in organized arena sports is popular in Saanich and teams/leagues/organizations/associations are keen to expand their activities and membership.
- Demand is high for both ice and dry-floor arena space as most groups reported that convenient arena space availability presents challenges in retaining and attracting membership. In addition, the lack of arena space availability impedes their ability to deliver programs and host tournaments/competitions.

Engagement Summary

- An attitude of “if you build it, we will come” exists meaning arena user groups would not find it difficult to utilize additional ice and dry floor space if it were to be provided.
- Funding facility improvements and additional arena space may be challenging due to concerns about affordability. Increasing membership and registration costs could exacerbate the barrier to entry that currently exists. This limits the ability for organizations to grow, but so does a lack of ice/dry floor time. Alternative funding opportunities should be explored.

Survey Respondent Characteristics

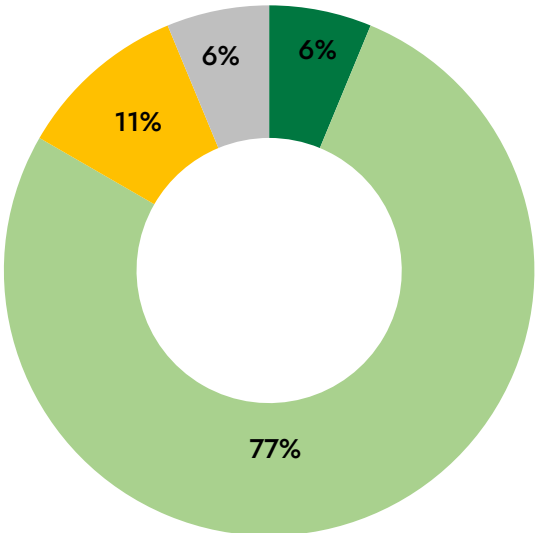
With a strong organized sports scene in Saanich, most of the arena users that completed the survey were non-for-profit sports associations (19 responses) or privately organized informal leagues (16 responses). The arena activities these groups represented were ice hockey, lacrosse, figure skating, recreational skating, ringette, ball hockey, and special events/concerts.



Male participants represented a strong majority across the arena user groups that participated in the survey. **77%** of organizations were male only or male majority teams, leagues or groups while only **11%** were female only or majority teams.

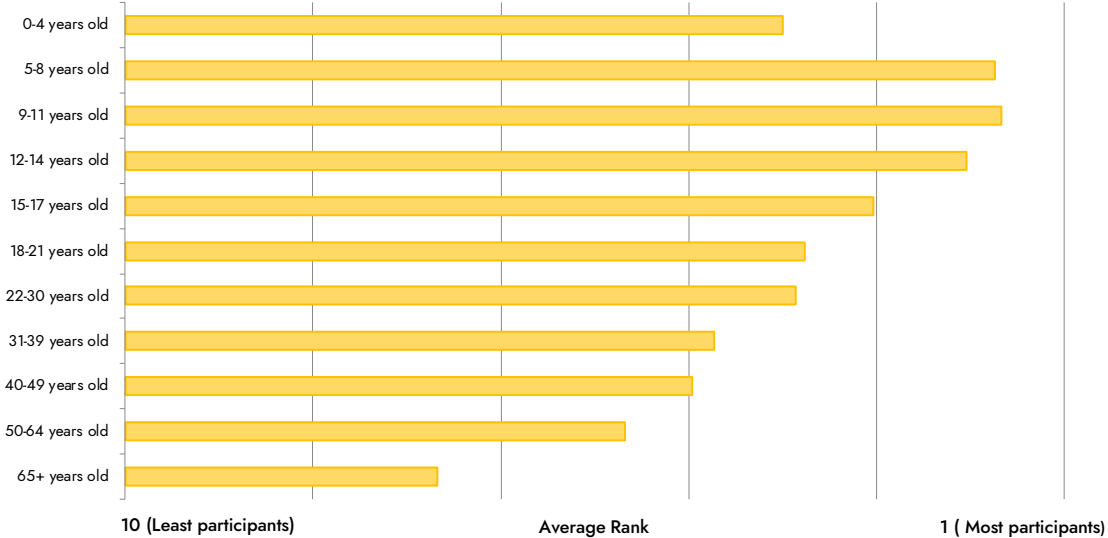
What is the gender make up of your group's participants?

- 50/50 gender balance
- Majority male participants
- Majority female participants
- Prefer not to disclose



The arena user groups that engaged in the survey represent organizations that mostly provide programming for school-aged participants. Organized arena use drops off as the school-aged participants become young adults and enter the work force or attend post-secondary education.

What age of participants make up your group?



Current Relationship + Use of Arenas

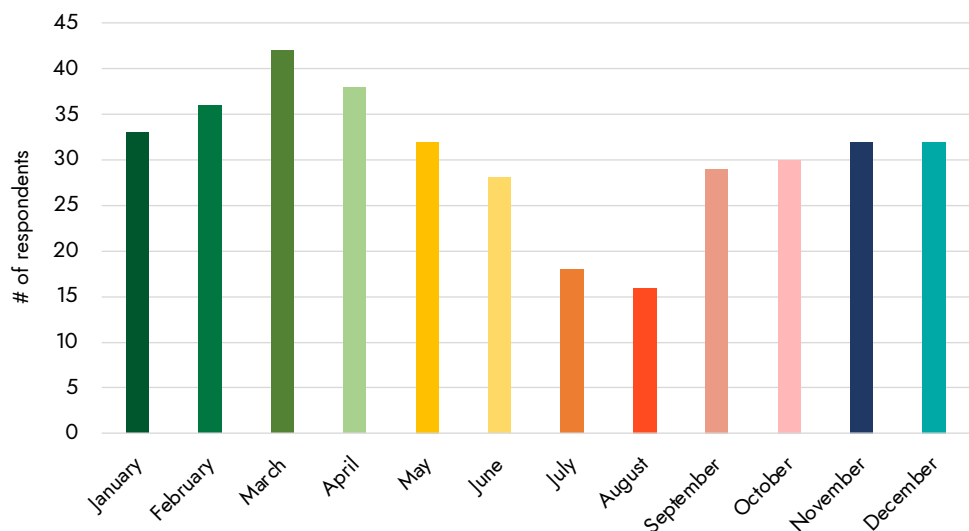
The majority of participants that make up the arena user groups live in Saanich and Victoria, however many come from View Royal, Oak Bay, Esquimalt and Langford as well.

When asked to rank the arena facility that they use the most, survey respondents indicated that the G.R. Pearkes Arena was used most frequently. The Save on Foods Memorial Centre, Panorama Recreation Centre, Juan de Fuca and Q Centre Arena, and Archie Browning facilities were close behind G.R. Pearkes and scored comparably.

Anecdotally, during the stakeholder interviews with the school group arena users, G.R. Pearkes was identified as a preferred location due to its centrality and proximity to surrounding municipalities.

The graph below illustrates that the fall and winter months are the busiest seasons for program delivery for Saanich arena user groups.

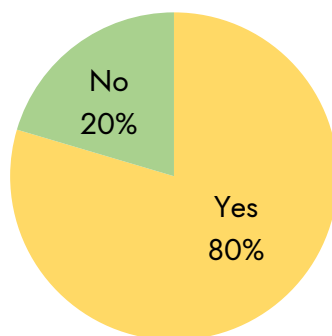
What months of the year does your group provide programming?



Challenges

When asked if their group was currently facing challenges in booking the amount of ice or dry floor hours required to deliver programming, a vast majority (**80%**) responded 'yes'.

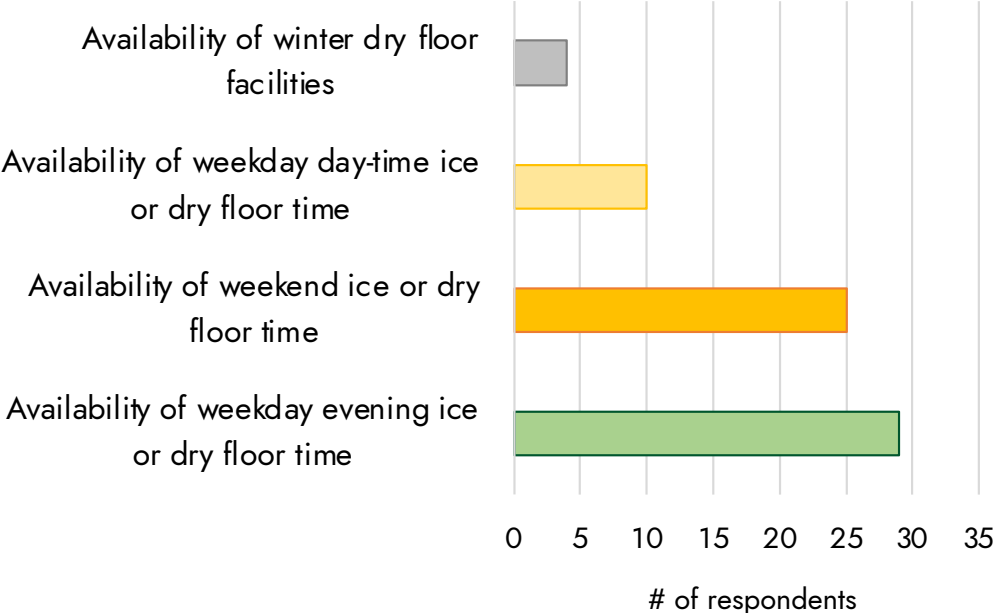
Is your group currently facing challenges in booking the amount of ice or dry floor hours required to deliver programming?



Survey respondents also reported that the booking availability for ice/dry floor time was most challenging for the following time periods:

- weekend ice or dry floor time
- weekday evening ice or dry floor time

Which option best describes the challenge you face in booking ice / dry floor time?

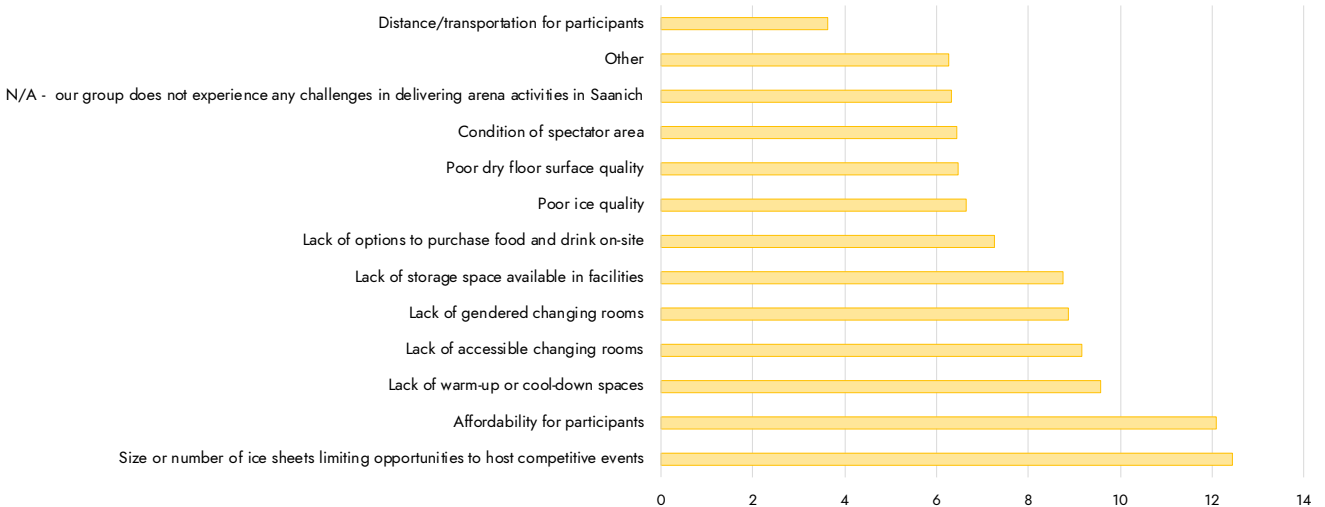


Anecdotally, several stakeholder interviews and comments received as part of the arena user group survey identified a lack of arena amenity spaces such as meeting rooms, equipment storage, coach and changing rooms as a barrier to accommodating their programs.

With respect to the G.R. Pearkes Recreation Centre, survey respondents were asked to rank the challenges or barriers they face that restrict their ability to deliver programs at this arena. The **'size or number of sheets limited opportunities to host competitive events'** was ranked first shortly followed by **'affordability for participants.'** In addition, several facility deficiencies were identified, including:

- lack of warm-up or cool down spaces
- lack of accessible changing rooms
- lack of gendered changing rooms

What challenges or barriers, if any, do you currently face in delivering programs from the G.R. Pearkes Recreation Centre rinks?



Future Directions

Arena Demand

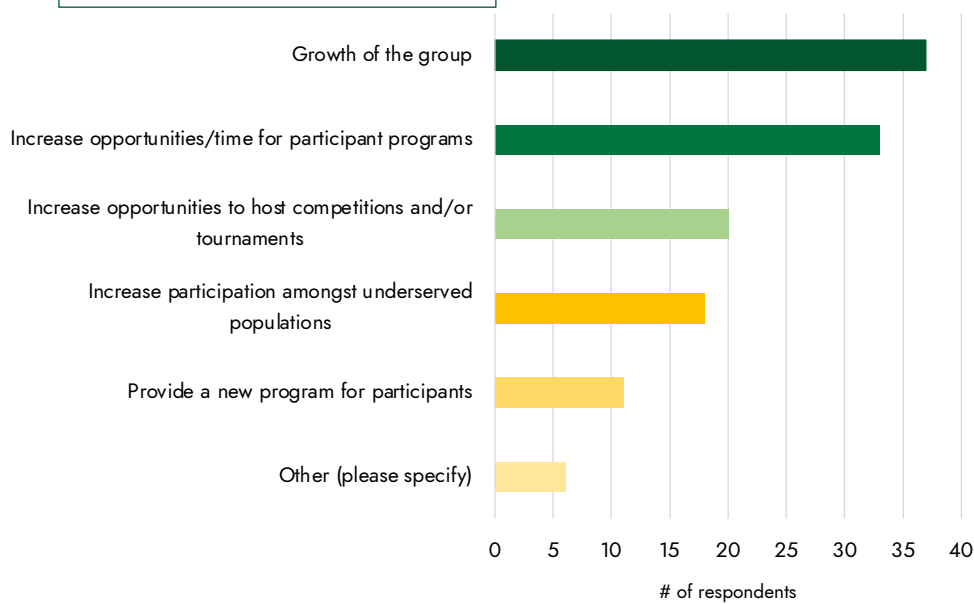
Having an understanding of future arena demand is critical to the Saanich Third Rink Analysis as future demand factors will provide direction for facility planning. When asked to describe the demand for activities provided by their group, survey respondents reported:

- **70%:** demand is growing
- **29%:** steady participation with no trends of growth or decline

The survey respondents were then asked to provide their groups goals and aspirations to gauge the future direction of organized arena sport activities. With **'growth of the group'** and **'increase opportunities/time for participant programs'** receiving the highest number of responses, it is clear there is an appetite to expand arena activity opportunities in Saanich.

Engagement Summary

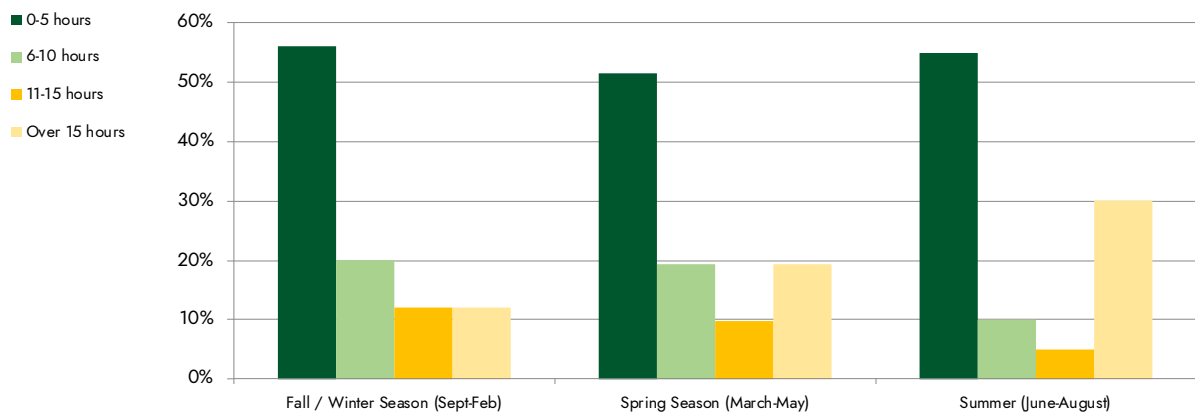
What are the future goals and aspirations of your organization/association/group?



All (**100%**) of arena user groups interviewed reported that demand for the activities they provide is increasing and if additional arena space was supplied, it would allow them to improve, enhance, or expand the programs they offer.

These sentiments suggest that there is current unmet demand for organized arena sports with the potential for growth in the future that may necessitate additional ice and dry floor space.

If arena time was available, how many additional hours would your group want to book (per week)?

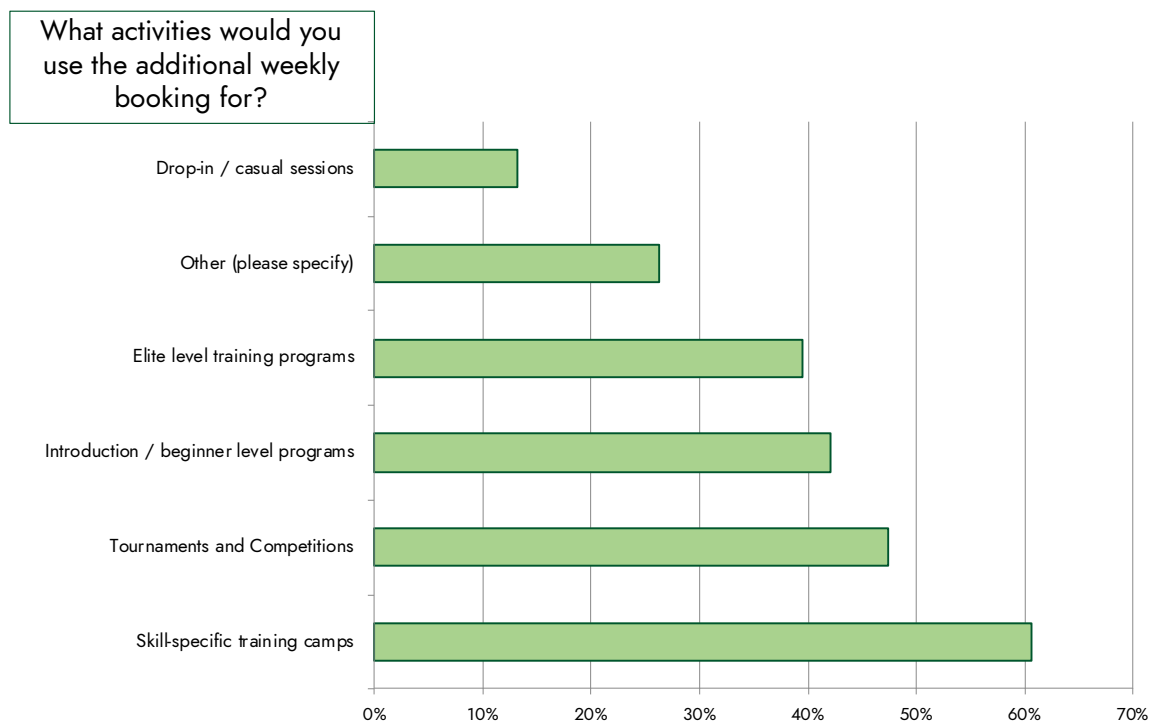


Engagement Summary

Feedback on how many additional hours arena user groups would like to book if given the opportunity is illustrated in the chart above. Over **50%** of the respondents selected < 5 hours for each season (spring, fall/winter, and summer), whereas **20%** selected 6 – 10 hours for the fall/winter and spring seasons.

When interviewed, most of the arena user groups provided statements that could be summarized as: 'any increase in ice and dry floor activity space would be utilized.'

If given the additional arena space hours, the survey respondents would use the bookings for the following activities:



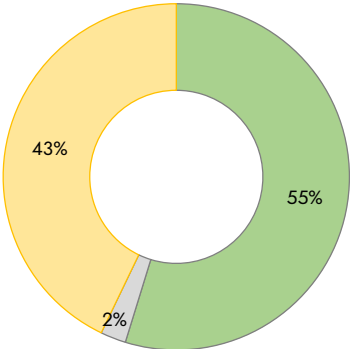
Funding

When survey respondents were asked about funding new developments/improvements to Saanich’s arena facilities, **43%** of respondents indicated that their membership would be unwilling to contribute financially. In contrast, **55%** of respondents reported that their membership would be willing to pay an increased fee for arena activities and/or sports registration and **2%** said their membership would be willing to offer donations.

Given that affordability was previously identified as a barrier to participation in arena activities, funding an additional arena space and/or upgrading the current inventory presents a potential challenge.

In order to fund new developments/improvements to the arena system, do you think your membership would be willing to:

- Our membership is unlikely to be willing to contribute financially to new developments / improvements
- Pay an increased fee for arena activities and/or sports registration
- Donate funds



APPENDIX D: COST ESTIMATE

SAANICH ICE ARENA

CLASS 'D' ESTIMATE REPORT (Revision 0) (OPINION OF PROBABLE COST)

October 5, 2022



SSA QUANTITY SURVEYORS LTD

COST PLANNING | VALUE MANAGEMENT | PROJECT CONTROLS

203 – 3320 Richter Street, Kelowna, BC V1W 4V5 TEL 250 763 6677 FAX 250 762 6684 WEB ssaqs.com

SAANICH ICE ARENA
CLASS 'D' ESTIMATE REPORT (Revision 0) - (OPINION OF PROBABLE COST)
October 4, 2022

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SAANICH ICE ARENA
CLASS 'D' ESTIMATE REPORT (Revision 0) - (OPINION OF PROBABLE COST)
October 4, 2022

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5. EXCLUSIONS.....	3
6. STATEMENT OF PROBABLE COSTS.....	3
7. CLASS 'D' ESTIMATE FOR BUILDING WITH ONE ICE SHEET	4
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SAANICH ICE ARENA
CLASS 'D' ESTIMATE REPORT (Revision 0) - (OPINION OF PROBABLE COST)
October 4, 2022

THIS SHEET INTENTIONALLY BLANK FOR PAGINATION FOR 2 SIDED PRINTING

SAANICH ICE ARENA
CLASS 'D' ESTIMATE REPORT (Revision 0) - (OPINION OF PROBABLE COST)
October 4, 2022

1. INTRODUCTION

The City of Saanich is developing a business case for the development of a new ice arena (one or two ice sheets) to be located in Saanich on sites yet to be identified.

The Cornerstone Planning Group has prepared an initial space list for the project, and SSA Quantity Surveyors Ltd. (SSAQS) has prepared this this Class 'D' Program Estimate (Opinion of Probable Cost) for the project together with a Life Cycle Projection.

For the detail on the space list please refer to the separate report prepared by the Cornerstone Planning Group.

Based upon the information from the Cornerstone Planning Group, we have developed this Program Estimate at a Class D level for the project.

This Class D Estimate Report presents estimates for 2 Options:

- 1.1. A new building with a single ice sheet on an unidentified site in Saanich.
- 1.2. A new building with two ice sheets on an unidentified site in Saanich.

Notes:

- The space list has been provided by Cornerstone.
- We have excluded any allowances for the cost of land.
- We have used unit rates for each functional space and each discipline based upon current information from similar projects and our benchmarked assumptions and allowances for a project of this size and type.
- We have had no discussions with any design consultants regarding the site and building architecture structure or systems.
- We have not included any allowances for providing the ability for systems in the facility to expand in the future.
- We have included allowances for Development Cost Charges and Building Permit as per the City of Saanich website.
- We have excluded forward escalation.
- We have excluded Furniture, Furnishings and Equipment.
- Assumptions and allowances are identified in this report.
- We have included a life cycle cost projection for both initial capital cost as well as operating and maintenance costs based upon current information. The values shown are current as well as escalated at 3.5% per annum over 30 years and discounted to Present Value using a 5% discount rate.

This Class 'D' Estimate (Opinion of Probable Cost) is based on the areas described above. Our knowledge of the project is limited to the program information provided to us.

Pricing is based upon current early **4th Quarter 2022** unit rates that we consider reasonable, but competitive, for the size, type and complexity of project, and its location in Saanich.

The estimated construction costs reflect our opinion of the current construction industry market conditions for

SAANICH ICE ARENA
CLASS 'D' ESTIMATE REPORT (Revision 0) - (OPINION OF PROBABLE COST)
October 4, 2022

this size and type of project in Saanich. It has been assumed that the work will be tendered on a Design Bid Build (DBB) basis, competitively tendered to a minimum of 3 competent general contractors, where each trade contract is bid on a competitive stipulated price basis. The pricing in this estimate is predicated upon a minimum of three qualified trade contractors for each significant trade, bidding for the work on a competitive basis and there will be no sole source non-competitive trade contracts. It is also predicated upon the assumption that the project will be bid with normal and reasonable market conditions and that any unforeseen aberrant or abnormal market conditions are not contemplated in the estimate.

The Goods and Services Tax (GST) has been included with a 100% rebate applied.

This estimate is our opinion of fair market value for the construction of this project and is not a prediction of low bid.

2. SUMMARY

The Summarised Estimates are as follows:

OPTION		Capital Cost Estimate (Current \$)	O&M (Current \$) per Annum		NPV of O&M at Year 30	NPV of Capital (current \$) + O&M at year 30
Option 1 - Single Ice Sheet	4,472 m2	\$39,899,000	\$220.00	\$983,930	\$24,082,000	\$63,981,000
Option 2 - Twin Ice Sheets	7,741 m2	\$61,722,000	\$200.00	\$1,548,183	\$37,892,000	\$99,614,000

3. LEVEL OF RISK

It is our opinion that the risk associated with this Opinion of Probable Costs at a Class D level is ±25%, 18 times out of 20.

4. BASIS OF THE ESTIMATE

4.1. Cost Base

Pricing shown reflects our opinion of probable construction costs obtainable in the early 4th Quarter of 2022 on the effective date of this report.

This estimate is our opinion of fair market value for the construction of this project and is not a prediction of low bid.

4.2. Contingencies

4.2.1. Design Contingency – An allowance of 20% has been included. This allowance, when included, is a reserve of funds included in the estimate and which is allocated to cover pricing adjustments resulting from incomplete design information and design detailing that is not currently available.

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4.2.2. **Escalation Contingency** – Forward escalation has not been included. This allowance, when included, is a reserve of funds to cover possible price increases from the time that the estimate is prepared to the time that the project is tendered.

4.2.3. **Phasing Allowance** – No allowance has been included. This allowance, when included, is for any work required to maintain the operation of the facility while construction proceeds.

4.2.4. **Construction Contingency** – An allowance of 5% has been included. The construction contingency is a reserve of funds which is allocated to cover change orders that are required during the course of construction and is not intended to be a scope change contingency.

5. EXCLUSIONS

The following items are specifically excluded from this estimate:

- 5.1. Land Costs and land servicing.
- 5.2. Escalation.
- 5.3. Furniture, Furnishings and Equipment.
- 5.4. Hazardous Materials identification and removal.
- 5.5. Adverse environmental conditions.
- 5.6. Unknown adverse archaeological conditions.
- 5.7. Adverse soil and/or subsoil conditions.
- 5.8. Project Procurement costs.
- 5.9. Project Financing Costs.
- 5.10. Significant Utility Upgrades.

6. STATEMENT OF PROBABLE COSTS

Estimates of construction costs prepared by SSA Quantity Surveyors Ltd. represent our best judgement as Professional Cost Consultants/Quantity Surveyors familiar with the construction industry. It is recognised, however, that we do not have control over the cost of labour materials or equipment, over architect/engineering design, over a contractor's method of determining prices, or over market or negotiating conditions. Accordingly, we cannot and do not warrant or represent that bids or negotiated prices will not vary from this nor any subsequent estimate of design/construction cost or evaluation prepared by or agreed to by us.

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7. CLASS 'D' ESTIMATE FOR BUILDING WITH ONE ICE SHEET

SUGGESTED PROJECT BUDGET SHEET - DESIGN BID BUILD (DBB) ROUNDED TO THOUSANDS					
		ESTIMATED VALUE	REIMBURSABLE EXPENSES	GST EXCLUDED	TOTALS
1	Land	EXCLUDED		EXCLUDED	EXCLUDED
2	Construction	\$28,802,000		\$1,440,000	\$30,242,000
3	Contingency for Construction (5%)	\$1,440,000		\$72,000	\$1,512,000
4	Design Fees (10%)	\$2,880,000	\$288,000	\$144,000	\$3,312,000
5	Quantity Surveyor	\$115,000	\$12,000	\$6,000	\$133,000
6	Facility Programmer	\$150,000	\$15,000	\$8,000	\$173,000
7	Landscape Consultant	\$150,000	\$15,000	\$8,000	\$173,000
8	Environmental Consultant	\$150,000	\$15,000	\$8,000	\$173,000
9	Other Consultants	\$400,000	\$40,000	\$20,000	\$460,000
10	Surveys (Land)	\$25,000	\$3,000	\$1,000	\$29,000
11	Commissioning	\$150,000	\$15,000	\$8,000	\$173,000
12	Testing & Inspections	\$20,000	\$2,000	\$1,000	\$23,000
13	Legal	35000	\$4,000	\$2,000	\$41,000
14	Fire Safety Plans	\$25,000	\$3,000	\$1,000	\$29,000
15	Administrative Costs	\$1,440,000		\$72,000	\$1,512,000
16	Insurance	\$403,000		\$20,000	\$423,000
17	Development Cost Charges (Table 1.5)	\$362,000		\$18,000	\$380,000
18	Building Permit	\$290,000		\$15,000	\$305,000
19	Off-Site Services	\$750,000		\$38,000	\$788,000
20	Furniture, Furnishings and Equipment	EXCLUDED		EXCLUDED	\$0
21	Escalation Contingency	EXCLUDED		EXCLUDED	\$0
22	General Project Contingency (5%)	\$1,900,000		\$95,000	\$1,995,000
23					
24	Sub-Total	\$39,487,000	\$412,000	\$1,977,000	\$41,876,000
25	GST Rebate (assumed 100%)	100%			-\$1,977,000
26					
27	SUGGESTED PROJECT BUDGET				\$39,899,000

Note:

This sheet is subject to limiting conditions contained in the accompanying report.

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8. CLASS 'D' ESTIMATE FOR BUILDING WITH 2 ICE SHEETS



SUGGESTED PROJECT BUDGET SHEET - DESIGN BID BUILD (DBB) ROUNDED TO THOUSANDS					
		ESTIMATED VALUE	REIMBURSABLE EXPENSES	GST EXCLUDED	TOTALS
1	Land	EXCLUDED		EXCLUDED	EXCLUDED
2	Construction	\$45,690,000		\$2,285,000	\$47,975,000
3	Contingency for Construction (5%)	\$2,285,000		\$114,000	\$2,399,000
4	Design Fees (10%)	\$4,569,000	\$457,000	\$228,000	\$5,254,000
5	Quantity Surveyor	\$183,000	\$18,000	\$9,000	\$210,000
6	Facility Programmer	\$150,000	\$15,000	\$8,000	\$173,000
7	Landscape Consultant	\$150,000	\$15,000	\$8,000	\$173,000
8	Environmental Consultant	\$150,000	\$15,000	\$8,000	\$173,000
9	Other Consultants	\$400,000	\$40,000	\$20,000	\$460,000
10	Surveys (Land)	\$25,000	\$3,000	\$1,000	\$29,000
11	Commissioning	\$200,000	\$20,000	\$10,000	\$230,000
12	Testing & Inspections	\$25,000	\$3,000	\$1,000	\$29,000
13	Legal	35000	\$4,000	\$2,000	\$41,000
14	Fire Safety Plans	\$25,000	\$3,000	\$1,000	\$29,000
15	Administrative Costs	\$1,828,000		\$91,000	\$1,919,000
16	Insurance	\$640,000		\$32,000	\$672,000
17	Development Cost Charges (Table 1.5)	\$627,000		\$31,000	\$658,000
18	Building Permit	\$458,000		\$23,000	\$481,000
19	Off-Site Services	\$750,000		\$38,000	\$788,000
20	Furniture, Furnishings and Equipment	EXCLUDED		EXCLUDED	\$0
21	Escalation Contingency	EXCLUDED		EXCLUDED	\$0
22	General Project Contingency (5%)	\$2,939,000		\$147,000	\$3,086,000
23					
24	Sub-Total	\$61,129,000	\$593,000	\$3,057,000	\$64,779,000
25	GST Rebate (assumed 100%)	100%			-\$3,057,000
26					
27	SUGGESTED PROJECT BUDGET				\$61,722,000

Note:

This sheet is subject to limiting conditions contained in the accompanying report.

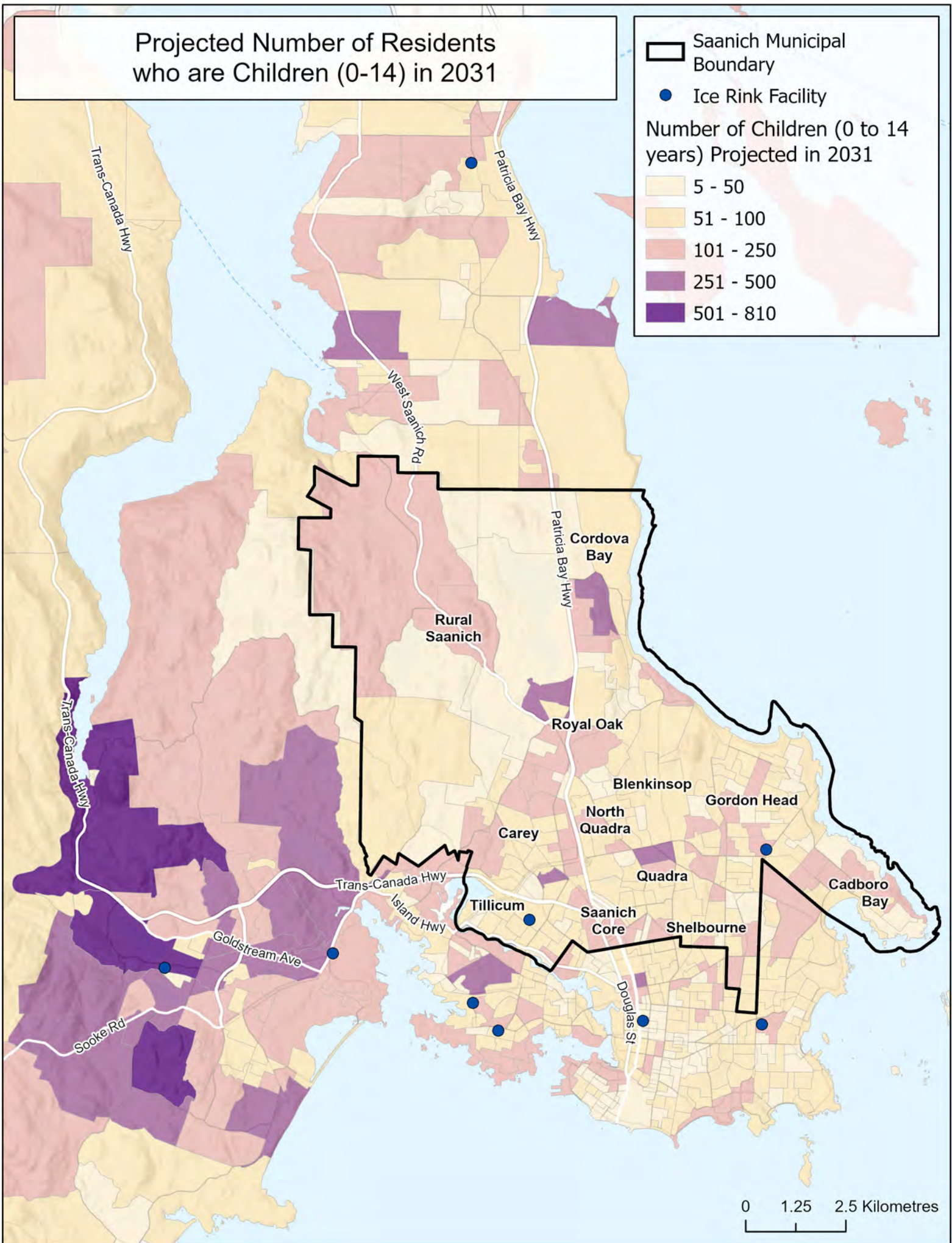
APPENDIX E: REGION INDICATOR MAPS

Projected Number of Residents who are Children (0-14) in 2031

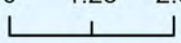
 Saanich Municipal Boundary
 Ice Rink Facility

Number of Children (0 to 14 years) Projected in 2031

-  5 - 50
-  51 - 100
-  101 - 250
-  251 - 500
-  501 - 810



0 1.25 2.5 Kilometres



Number of Indigenous Residents

□ Saanich Municipal Boundary

● Ice Rink Facility

Number of Residents Reporting Indigenous Identity in 2021

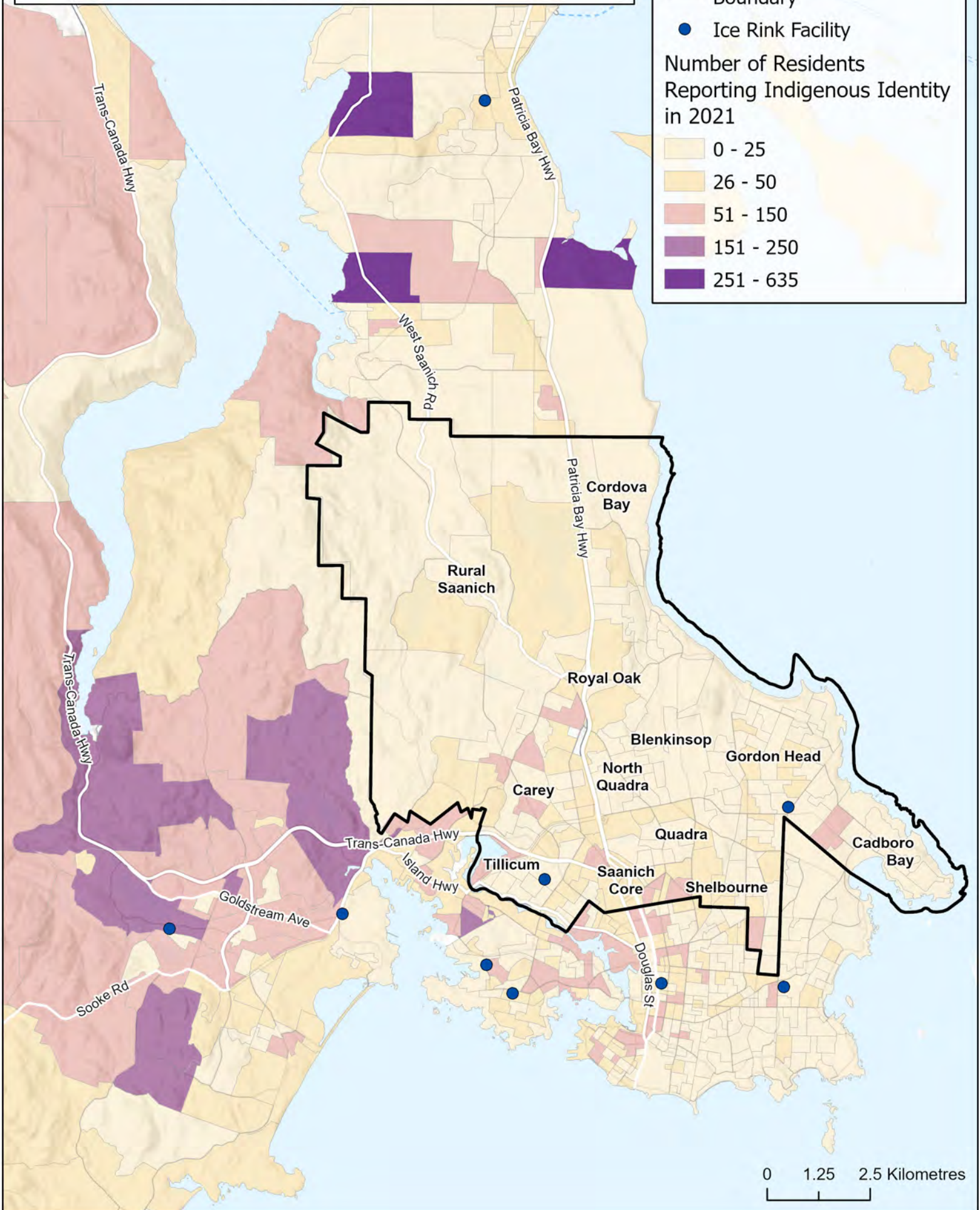
0 - 25

26 - 50



51 - 150

151 - 250

251 - 635

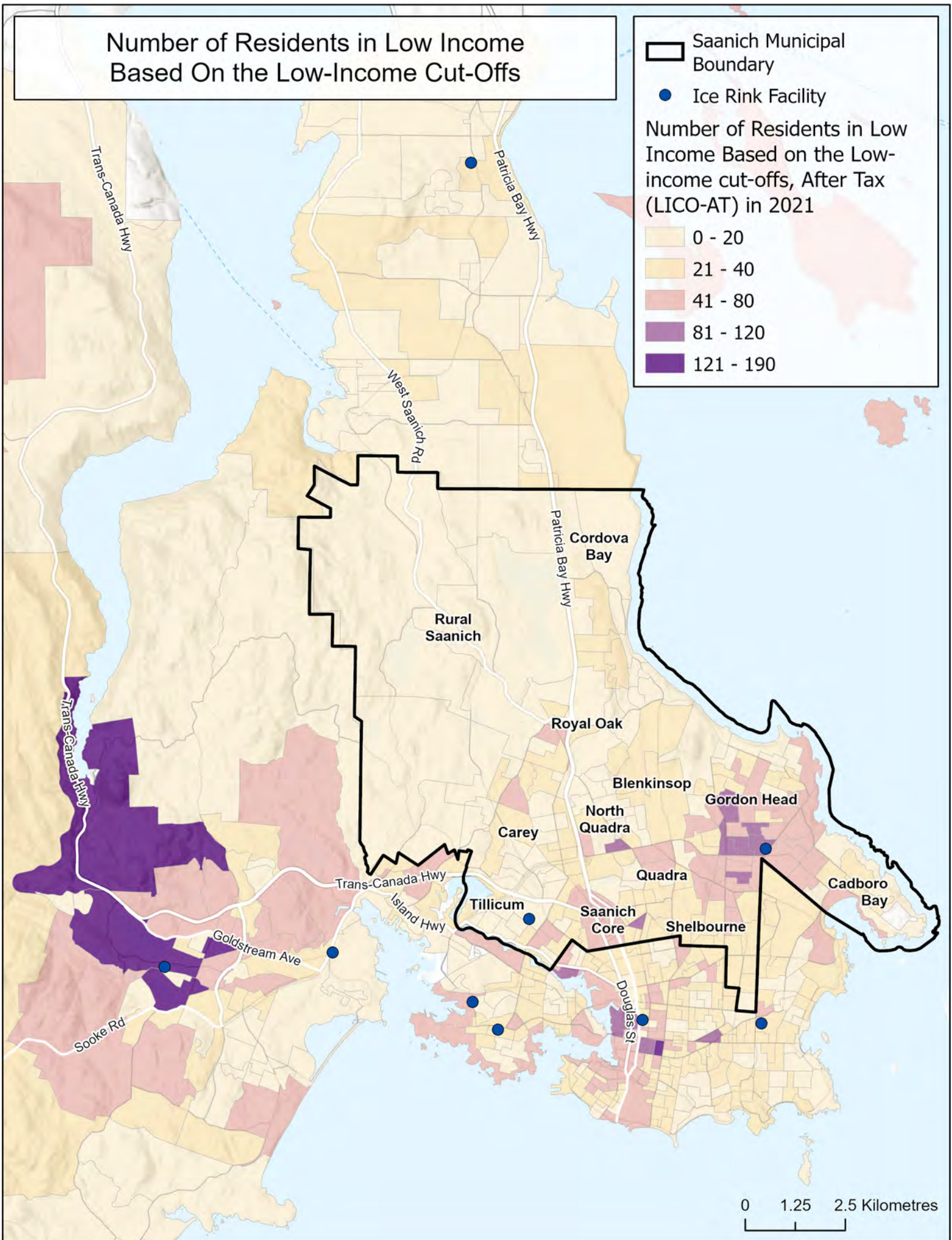


Number of Residents in Low Income Based On the Low-Income Cut-Offs

 Saanich Municipal Boundary
 Ice Rink Facility

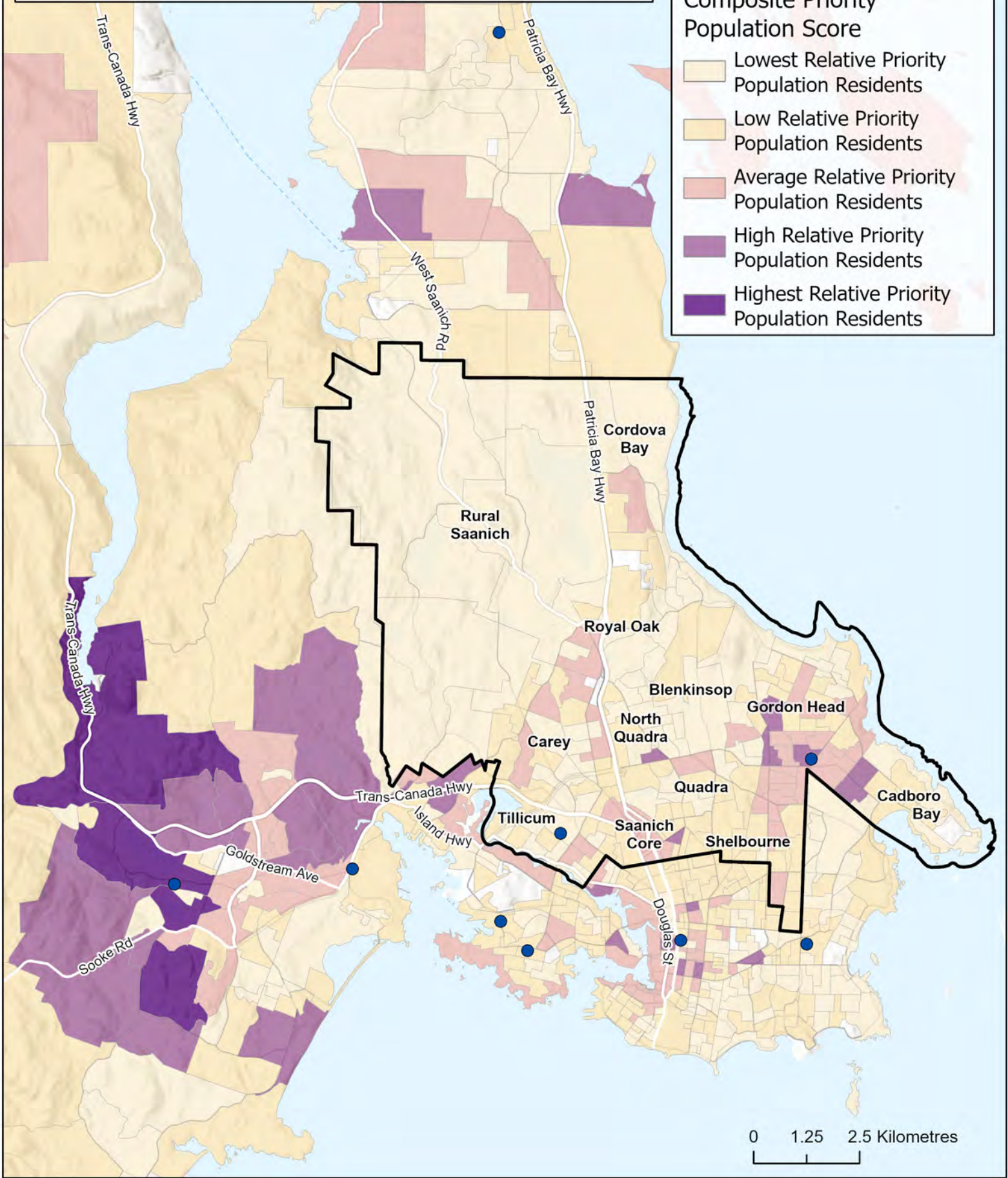
Number of Residents in Low Income Based on the Low-income cut-offs, After Tax (LICO-AT) in 2021

-  0 - 20
-  21 - 40
-  41 - 80
-  81 - 120
-  121 - 190








Equal Weighted Relative Population Composite Score - Children, Indigenous Identity and Low-Income

-  Saanich Municipal Boundary
-  Ice Rink Facility
- Composite Priority Population Score**
-  Lowest Relative Priority Population Residents
-  Low Relative Priority Population Residents
-  Average Relative Priority Population Residents
-  High Relative Priority Population Residents
-  Highest Relative Priority Population Residents



0 1.25 2.5 Kilometres

Total Priority Residents (Children, Indigenous Identity and Low-Income)

-  Saanich Municipal Boundary
-  Ice Rink Facility
- Total Priority Population Residents**
-  Lowest Number of Priority Population Residents
-  Low Number of Priority Population Residents
-  Average Number of Priority Population Residents
-  High Number of Priority Population Residents
-  Highest Number of Priority Population Residents

