

**Item No. 9**  
**Halifax Regional Council**  
**January 11, 2011**

**TO:** Mayor Kelly and Members of Halifax Regional Council

Original Signed by Director

**SUBMITTED BY:** \_\_\_\_\_  
Paul Dunphy, Director Community Development

**DATE:** January 6, 2011

**SUBJECT:** Outdoor Refrigerated Ice Skating Rinks

**INFORMATION REPORT**

**ORIGIN**

- December 12, 2006: Council approved the 2011 Canada Winter Games budget and authorized staff to submit the Games bid. At that time, Council expressed interest in exploring the possibility of spending more money to purchase ice making equipment for the long track speed skating oval and redeploying it after the Games for an outdoor recreational skating venue;
- Regional Council report titled Refrigerated Ice Skating Rinks dated June 28, 2009;
- Regional Council report titled Long Term Arena Strategy, including Terms of Reference for the Long Term Arena Strategy Steering Committee, dated January 11, 2010; and
- Public response to the recently opened Canada Games Long Track Speed Skating Oval on the North Commons.

## **BACKGROUND**

Since the Canada Games Long Track Speed Skating Oval opened, there has been an overwhelmingly positive public response to it. It has caught people's imagination and dominated media coverage. Thousands of people skated on it during the holidays. Even after the holidays more than a thousand people a day continue to use it on weekdays and evenings.

Outdoor winter recreational opportunities are limited in the Region. The oval skating experience has attracted families, seniors, teens, children, novice and experienced skaters, recent immigrants, individuals, couples, groups, all income ranges, citizens from throughout the Municipality, visitors to the Region, as well as able bodied and disabled skaters. Skaters have not limited themselves to "fair-weather" conditions. They have continued to enjoy themselves in cold, wind or light rain conditions. In addition to skaters, many people, especially grandparents and newcomers, come to the oval simply to enjoy the atmosphere and watch the skaters.

The oval's refrigeration system was designed to maintain ice up to 10 degrees. Its performance was severely tested before Christmas in a series of storms with accompanying temperatures above 10 degrees and extremely heavy rainfall. In the midst of these conditions there were days when the ice was unsuitable to skate on. The refrigeration and ice resurfacing equipment however demonstrated that with adequate ice thickness, the oval ice can be maintained in these extreme weather conditions and that adequate ice for skating can be recovered within 12-48 hours.

In addition to providing the oval venue, free access to skates, helmets, skating supports and lessons has been provided. The initial expectation was that skating lessons would primarily be for young children, but a significant number of participants have been adults and teens. Last but not least, time has been set aside for local speed skaters to train, including those on the Provincial Canada Games team. The local speed skating club has also provided free speed skates and learn to speed skate instruction.

Amongst the many reasons for the oval's popularity, skaters primarily cite the following:

- It is outdoors;
- It provides an opportunity for unstructured and spontaneous recreation, especially for families;
- There are too few hours available at indoor rinks for public skating;
- People enjoy the festival-like atmosphere that comes with the large well-behaved crowds;
- Availability of free skates and helmets for those who don't own these pieces of equipment;
- Availability of free skating lessons;
- Reliable and safe outdoor ice when the region's lakes and rivers are not safe to skate on; and
- The oval's large size and shape (equivalent to 3 NHL rinks) provides a more enjoyable skating experience than a typical indoor rink.

## **DISCUSSION**

### **Introduction**

Due to the popularity of the oval, people are asking “What’s going to happen to it after the Games”? In this spirit, an on-line petition and Facebook site have arisen to “Save the Oval”. The purpose of this report is to provide some context to Council’s decision making process with respect to the oval specifically, and outdoor refrigerated ice rinks in general. This report will:

- Review the process to date which has lead to the construction of the Canada Games Long Track Speed Skating Oval; and
- Briefly describe the process for evaluating the opportunities and options to implement a regional network of outdoor refrigerated ice rinks, including the future of the oval.

Two previous staff reports are relevant to this issue. Since many people did not see these reports when they originally came to Council, they are attached to this report. Some of the information in the staff report dated June 28, 2009, entitled Outdoor Refrigerated Ice Rinks, changed during the design and construction of the oval. The most relevant change is that rather being constructed with 4 refrigeration units at a cost of \$400,000 each, it was constructed with 6 smaller units at a cost of \$100,000 each. In addition, the operational costs cited in the report are for a smaller ice surface since the original concept was to reduce the size of the oval after the Canada Games. In addition, given the extremely large number of people attending the oval, more staff are required to ensure public safety and provide assistance.

### **Canada Games Bid**

When Council approved the Halifax 2011 Canada Games bid, staff was asked to come back at a future date to:

- Discuss the possibility of purchasing refrigeration equipment to guarantee ice for the long track speed skating oval during the Games; and
- Redeploying this equipment post Games for outdoor recreational skating.

On July 7, 2009, staff reported back to Regional Council with in-depth research material on the use of outdoor refrigerated ice skating rinks in climates similar to HRM’s, along with some high level capital and operating estimates. This report is attached. As a result of this report, Council approved the following motion:

- Approve the development of a refrigerated long track speed skating oval for the 2011 Canada Winter Games, funded through HRM’s previously approved capital budget commitment to the Canada Games... and subject to the participation of other funding partners in the purchase of three refrigerated ice plants.

The Report also suggested that redeployment of the refrigerated ice plants could be used for a “Destination Rink” along with a network of “Community Rinks” and/or to replace any aging ice plants in existing indoor arenas. Thus, Council passed the following motions:

- Instruct staff to return to Council with options regarding the design and location of a regional outdoor refrigerated ice skating rink; and
- Instruct staff to return to Council with options regarding additional outdoor refrigerated ice skating rinks as part of the long term arena strategy.

#### Long Term Arena Strategy

On January 26, 2010 Regional Council approved the Terms of Reference for a Steering Committee to oversee the development of a Long Term Arena Strategy (Phase 1 was the development of the BMO Centre). Included in the Committee’s Terms of reference were the following:

- Take into consideration the 2011 Canada Games Legacy regional destination rink opportunity and recommend siting options/recommendations for this project; and
- Consider a regionally distributed network of neighbourhood outdoor refrigerated rinks for a possible role in the long term arena strategy, including siting options and recommendations.

It was recognized that the number of refrigeration units purchased for the Canada Games Oval would not be sufficient to construct both a regional destination ice surface as well as a regionally distributed network of neighbourhood rinks. Additional refrigeration units have to be purchased. In addition, now that it is known that refrigeration units can be purchased at significantly less cost than originally estimated, they are even less of a limiting factor in developing both a regional destination ice surface and a network of neighbourhood rinks.

The Long Term Arena Strategy Committee expects to submit its report and recommendations to Council in the summer of 2011. However, the Committee also intends to submit an early recommendation on a Destination Rink. Retention of the oval on the Commons is one of several options being considered. Many of the experiences being reported at the Canada Games Oval are what was intended when the idea of a regional destination rink was originally proposed: family attraction, the “outdoor experience, located within a densely populated area, access to nearby commercial services, highly visible, located in a public gathering place, a sense of place and convenient pedestrian access and access to public transit.

#### Size and Configuration of Destination Ice Rink

The level of attendance at the oval has exceeded all expectations. Throughout its construction, there was public interest, but at no time did any one suggest or have reason to believe that there would be 6-800 people on it at a time on a regular basis. In fact it was felt that on an ongoing basis the oval would be too big. In fact, the opposite is true. It would not be possible for a

smaller ice surface to accommodate the current number of skaters without limiting the number of skaters on the ice at one time. Furthermore, if the number of skaters per sq ft increased on a smaller ice surface, the condition of the ice would deteriorate more quickly.

Regardless of whether the oval is kept in its current location and configuration or moved, it can be argued that the construction of additional outdoor refrigerated ice surfaces is essential. Without additional outdoor refrigerated ice surfaces, the capacity of the any regional destination ice rink may be exceeded and the quality of recreational experience diminished.

### Due Diligence

Retaining the oval in its current location and configuration would be a popular decision and is a reasonable option. Nevertheless, prior to reaching this or any other decision, Council should possess sufficient information to make an informed decision. Among the factors staff intends to submit for the Committee and Council's consideration are:

- Costs to relocate the oval equipment in a different configuration;
- Implications for users of a different configuration;
- Costs to convert the current oval from a temporary sand surface base to a permanent hard surface;
- Are any permanent buildings required onsite or can it continue to function with seasonal trailers or some combination thereof;
- How will the site be used for the remaining 8-9 months a year;
- Landscape design and costs;
- Phasing options;
- Implications for Capital Budget priorities;
- Service standards (e.g. with one ice resurfacer and operator, it takes too long to clean and flood the ice. More frequent and faster cleaning/flooding would maintain ice quality throughout a skating period without prolonged delays for skaters);
- Operating Budget implications;
- What is the impact of permanently removing the existing ball fields; and
- Can alternative sites be provided to replace the lost ball fields if required.

### Have Any refrigeration Units Been Promised to Other Communities?

The existing Oval operates using six refrigeration plants, of which the Municipality purchased three. Of HRM's three, the intention was to set aside two for the destination rink, and the third could be used for one of HRM's existing indoor arenas. Condition assessments of the indoor arenas have indicated at least one facility should have its refrigeration plant replaced in the immediate future.

The remaining three refrigeration units are owned by the 2011 Canada Winter Games Host Society. It should be noted that the Host Society and the Province worked to identify communities wishing to purchase any of the three remaining units. However, since there was no funding remaining in the Provincial Recreation Facility Grant program to assist with the

purchases, no communities have made offers. The Host Society has given the Municipality first right of refusal to purchase the remaining units as a legacy to host the Games. As mentioned earlier, since the refrigeration units are less expensive than originally estimated, purchasing the remaining three units is now a reasonable option and as mentioned earlier, a smaller skating area than that produced by the existing 6 refrigeration units will likely not be able to accommodate the existing crowds without diminishing the recreational experience.

### Summer 2011

The original plan called for the Oval to be dismantled and the Common restored over the summer of 2011. The displaced ball fields cannot be reinstated in time for use this summer so the issue of reinstatement should not be an immediate driver with respect to making a decision on the future of the oval/destination rink.

### BUDGET IMPLICATIONS

There are no financial implications at this time. Further information will be presented in a future report and as part of future proposed Capital and Operating Budget Plans. Consistent with HRM's approach to new services and programs additional operating costs will be added to the general tax rate when the service is introduced.

### FINANCIAL MANAGEMENT POLICIES/BUSINESS PLAN

This report complies with the Municipality's Multi-Year Financial Strategy, the approved Operating, Project and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Project and Operating reserves, as well as any relevant legislation.

### COMMUNITY ENGAGEMENT

There has been public consultation through the on-site staff at the Oval and there will be further consultation on both destination site and community rink recommendations regarding such aspects as possible four-season use opportunities, etc.

### ATTACHMENTS

- Council Report dated June 28, 2009, titled Outdoor Refrigerated Ice Skating Rinks
- Council Report dated January 11, 2010, titled Long Term Arena Strategy

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A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/agenda.html> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

Report Prepared by: Doug Rafuse, Manager Service Delivery, Community Development, Phone # 490-6205


Financial Approval by: \_\_\_\_\_  
Cathie O'Toole, CGA, Director of Finance, 490-6308

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Original Signed

**TO:** Mayor Kelly and Members of Halifax Regional Council

**SUBMITTED BY:**



Wayne Anstey, Acting Chief Administrative Officer

**DATE:** June 28, 2009

**SUBJECT:** Outdoor Refrigerated Ice Skating Rinks

**ORIGIN**

On December 12, 2006 Council approved the 2011 Canada Winter Games budget and authorized staff to submit the Games bid. At that time Council expressed interest in exploring the possibility of spending more money to purchase ice making equipment for the long track speed skating oval and redeploying it after the Games for an outdoor recreational skating venue.

**RECOMMENDATION**

It is recommended that Regional Council:

1. Approve the development of a refrigerated long track speed skating oval for the 2011 Canada Winter Games, funded through HRM's previously approved capital budget commitment to the Canada Games as per the Budget Implications section of this report, and subject to the participation of other funding partners in the purchase of three refrigerated ice plants;
2. Instruct staff to return to Council with options regarding the design and location of a regional outdoor refrigerated ice skating rink; and
3. Instruct staff to return to Council with options regarding potential locations for additional outdoor refrigerated ice skating rinks as part of the long term arena strategy.

## **EXECUTIVE SUMMARY**

There has been long-standing public interest in constructing an outdoor ice skating rink in the urban core using refrigerated ice making equipment. When Council approved the 2011 Canada Winter Games bid, staff was asked to come back at a future date to discuss the possibility of purchasing equipment to make ice for the long track speed skating oval during the Games and redeploying this equipment after the Games for outdoor recreational skating.

Refrigerated ice making equipment can provide ice in temperatures up to approximately 10 degrees Celsius. Experience in climates similar to HRM's in southern Ontario and the north eastern United States demonstrates that it is possible to reliably provide ice for approximately 12-18 weeks annually from November to March.

The capital construction costs of outdoor refrigerated ice rinks is approximately \$1-2M depending upon whether the rink is designed to be a regional destination with dedicated amenities or a neighbourhood rink relying upon existing amenities at nearby recreation facilities. Annual gross operating costs are in the range of \$40-110,000 depending upon hours of operation, maintenance standards and staffing levels. Some revenue opportunities exist to offset the higher operating costs of a regional rink.

The 2011 Canada Games Host Society has budgeted \$700,000 to construct a temporary long track speed skating oval with natural ice on the Halifax Common. While this is an affordable solution within the Games budget, it is highly unreliable and does not leave any legacy. At recent Games in Bathurst and Corner Brook which used natural ice, the long track speed skating events were cancelled due to warm weather. A temporary long track speed skating oval using refrigerated ice making costs approximately \$2.4M, with a legacy of 4 refrigeration units worth approximately \$1.6M which can be redeployed at either indoor or outdoor rinks. While this improves the probability of running a long track speed skating event, it does not guarantee that the event will not be disrupted or cancelled by temperature, rain or snow.

It is difficult to make a business case for HRM redeploying all 4 ice making refrigeration units. A case can be made for purchasing one unit for an outdoor skating rink. The 2011 Canada Games Host Society however is working with the Province and the Recreation Facility Association of Nova Scotia to identify municipalities and community groups to purchase the remaining 3 plants. The Province would provide financial assistance through its recreation facility grant program, contingent upon the units being used initially for the Games and redeployed elsewhere in the Province in the spring of 2011. This makes the provision of a temporary refrigerated long track speed skating oval for the Games and the construction of a permanent outdoor refrigerated recreational rink in HRM feasible. Discussion are also taking place with other potential funding partners.

To date all of the essential upgrades to HRM facilities required to host the 2011 Canada Winter Games have been budgeted. Approximately \$2.2M of the Municipality's capital budget for facility upgrades to support the Games remains uncommitted. Depending upon Council's and the Canada Games Host Society's priorities, these funds can be used toward the construction of a permanent



outdoor refrigerated ice rink costing approximately \$1.75M, of which \$400,000 is the cost of one refrigerated ice making unit. Alternatively, the remaining budget can be invested in additional upgrades to HRM facilities which while desirable are not essential for hosting the Games or the budget can be held in reserve for any potential cost overruns on Games related projects in HRM's facilities. It should be noted that the funding partnerships between the Municipality, Province, Host Society and other municipalities/community groups is a unique opportunity to leverage funds and project synergies which is unlikely to occur again in the near future.

## **BACKGROUND**

### **Winter Games Bid/Budget**

The Canada Winter Games will take place for two weeks in February 2011. Due to the size of the oval (400m), there is no mobile refrigerated ice making systems available to rent. The Games budget therefore includes \$700,000 to create a temporary long track speed skating oval using "natural" ice. This solution has been used at past Canada Winter Games in various parts of the country. It is affordable, albeit potentially unreliable. At recent Games in Bathurst New Brunswick and Corner Brook Newfoundland, warm weather forced the cancellation of long track speed skating events on natural ice ovals.

The idea of creating at least one permanent venue using refrigerated ice making equipment for outdoor recreational ice skating has been suggested informally by the public and politicians for many years. When Council approved the Games bid and budgets, the possibility of spending additional money to purchase ice making equipment was discussed. Since the bid schedule was very tight, it was agreed that this option would be explored after the bid process. Staff committed to do further research on the possibility of purchasing refrigerated ice making equipment which could be permanently installed in one or more outdoor locations. This research includes:

- technology options;
- viability in a maritime climate;
- capital costs of the equipment;
- capital costs of site preparation;
- annual operating costs to prepare, maintain and supervise refrigerated outdoor ice skating rinks.

### **2011 Canada Games Host Society Role**

As per the requirements of the Canada Games Council and Sport Canada, the Municipality established an arms length Host Society to plan and deliver the Games with funding from the Municipal, Provincial and Federal governments as well as the private sector. The Halifax 2011 Host Society is moving forward on implementing the Municipality's approved Canada Games bid. The Host Society is planning to construct a temporary long track speed skating oval using "natural" ice. However, if the Municipality wishes to assist in purchasing ice making equipment, the Host Society is agreeable to reallocating some of the Canada Games capital budget toward the purchase of refrigerated ice making equipment. This equipment would be used for the Games and subsequently be used for recreational ice purposes.

### Municipal Role

The Municipality must determine whether the purchase of refrigerated ice making equipment is desirable, feasible, affordable and a priority. The Canada Games Host Society is not requesting additional funds for the purpose of delivering the 2011 Canada Winter Games. The option of relying upon “natural” outdoor ice for the long track speed skating oval has been incorporated into the Canada Games budget.

HRM has committed to contributing \$6.85 M toward capital costs for the Games. \$2.0 M in the form of cash and \$4.85 M in capital upgrades to existing HRM facilities to make them Games ready. \$2,234,350 of the Municipality’s \$6.85 M commitment has not been allocated to date. This is a possible source of funding which can be put toward purchasing refrigerated ice making equipment for the Games and constructing a permanent outdoor recreational ice skating venue.

## **DISCUSSION**

### Outdoor Ice Season

Toronto has the largest inventory of outdoor refrigerated ice skating rinks in the world. Toronto provides 63 refrigerated outdoor ice skating rinks in 49 locations. There are several other southern Ontario communities with between one and four outdoor refrigerated ice skating rinks (e.g., Brampton, Oakville, Mississauga, London, Kitchener-Waterloo, Burlington and Hamilton). Boston, which has a similar climate to Halifax and southern Ontario has a popular outdoor refrigerated ice skating rink located at the Frog Pond on the Boston Common. New York City’s Rockefeller Centre rink is probably the most well known refrigerated ice skating rink in New York, but there are others in Central Park and along the Hudson River (see attachments).

- Current ice making equipment permits useable recreational ice to be maintained up to approximately 10 degrees Celsius.
- Good quality ice required for high performance competitions such as the Canada Winter Games can be maintained up to approximately 4 degrees Celsius.
- The average daily winter temperature as well as average highs and lows in Toronto and southern Ontario are similar to Halifax. Halifax’s winter temperatures are in fact slightly lower on average.
- Halifax receives more winter precipitation than Toronto and southern Ontario, particularly rainfall, which negatively impacts ice maintenance.

In Toronto, the length of a season for outdoor rinks depends primarily upon two factors. The first factor, annual variability in weather is beyond the Municipality’s control. The second factor is the priority which the Municipality places upon maintenance of each rink. This is a service level decision based upon the rink’s location, prominence and usage. In general, outdoor refrigerated ice skating rinks operate:

- For between 12 and 14 weeks from late November/early December to the beginning or middle of March,
- In a high profile regional destinations (e.g., Nathan Phillip Square, the Boston Common) for up to 18 weeks; and
- Seven days a week, with daily opening times ranging from 7:00 a.m. to noon and closing between 9:00 p.m. and midnight.

Discussions with City of Toronto staff and a manufacturer of refrigerated ice making systems indicate that sun angle and brightness have more impact upon the ability to maintain quality ice than air temperature. The lower sun angle in November, close to the winter solstice (December 21), makes the creation and maintenance of outdoor ice easier than similar air temperatures in March when the sun is higher in the sky. The higher sun angles and/or clear skies cause the ice surface to absorb more heat. Wind is another variable which is more significant than air temperature. High wind speeds when the air temperature is above freezing results in greater heat transfer from the air to the ice.

It should be noted that while there is an outdoor rink at Harbourfront in Toronto, the Halifax Harbour does not provide a viable climate for making and maintaining outdoor refrigerated ice. Salt spray from the harbour effectively lowers the melting/freezing point of water and therefore makes it even more difficult to maintain useable ice. A salt water waterfront location will significantly reduce the number of useable days as well as increasing maintenance costs due to shortening the life of maintenance equipment such as zambonies.

### Ice Making Equipment

The refrigerated ice making equipment which would be used for the long track speed skating oval and then redeployed elsewhere consists of four refrigeration units installed in a semi trailer. This mobile refrigeration system is similar to the system used for the recent "NHL Classic" in Chicago, except larger since a long track speed skating oval has an area equivalent to 4 NHL ice surfaces. Once the Games are over, the four units can be removed from the semi trailer and permanently installed elsewhere at either outdoor or indoor locations. While this report focuses on the option of outdoor installation, redeploying some of the equipment to existing indoor arenas which require upgraded equipment is also an option which staff have been examining. Each of the four refrigeration systems is capable of making and maintaining ice for the equivalent of an NHL size rink (85ft X 200ft, i.e. 17,000 sq. ft) in any configuration desired. As with a regular rink, pipes are used to distribute the coolant under the ice surface of the long track speed skating oval. It is not possible to reuse the pipes after the oval has been removed since they have been designed for an oval configuration and they will be inevitably damaged during tear down of the oval.

### Service Standards

The majority of municipalities in southern Ontario, with one to four refrigerated outdoor ice skating rinks, use their rinks solely for recreational skating. Pick up hockey or shinny games are not

permitted. These ice surfaces are intended to provide a unique recreational opportunity for physical and social activity as well as providing a winter tourism experience for regional visitors. In addition, they address the lack of recreational skating time available at indoor arenas which are inevitably highly scheduled and structured with hockey/ringette practices, league play/tournaments and figure skating practices/competitions.

In the case of Toronto, since they have so many outdoor rinks, shinny is permitted at many of their community/neighbourhood rinks and scheduled hours are specified for recreational skates and age group shinny (e.g., atom, tweens, teens or adult). At some locations where there is greater demand for ice, recreational ice skating rinks and shinny rinks are constructed adjacent to each other to satisfy both user groups. One ice making plant is used for both rinks and the rinks are sized according to the total ice making capacity of the plant. Ice time is generally not booked or rented so that all users have access to the rinks. No organized league play is permitted.

Depending upon weather, size of ice surface and dedicated support facilities the annual operating costs for these ice surfaces range between \$40,000 - \$110,000 per year. These costs include both physical maintenance costs by Public Works staff as well as Recreation staff providing site supervision. Food services and skate rentals are usually provided by the private sector through a competitive tender process. This revenue offsets some of the operating costs. Staff does not yet know how much this revenue can be expected to be. Consistent with HRM's approach to new services and programs this additional operating cost would be added to the general tax rate when the service is introduced.

In Toronto, since there are so many rinks, the City has three service classifications for their rinks. These correspond to regional destination versus community/neighbourhood roles, length of season, maintenance standards and whether or not they have dedicated staff etc. Two specific examples of variable maintenance standards are how quickly snow is removed after a snowfall and the frequency of ice cleaning.

- Regional destination rinks have dedicated maintenance and public safety/supervision staff along with specialized and dedicated equipment (bobcats with snow blowers and/or plows and zambonies). At these facilities snow is removed immediately after a storm and the rinks generally reopen later that day or the next day. Ice clearing occurs every two hours, 5-7 times per day. Regional destination rinks are located in the urban core and are used quite a bit during the week, especially at lunch. Operating costs for such a rink are at the high end of the range provided above.
- Neighbourhood rinks rely upon a mobile crew of maintenance staff and part time site safety/supervision staff. The maintenance staff is responsible for 4-5 rinks. Clearing snow after a storm may take 1-2 days and ice cleaning occurs twice a day. These rinks are used mostly in the late afternoon after school and in the evening. Since staff and equipment service multiple locations and at a lower service level, the operating cost per rink is at the low end of the range provided above.

### Community/Neighbourhood Rinks

Community/neighbourhood rinks are generally designed in a traditional hockey rink configuration with hockey boards and line markings, but not necessarily to full NHL dimensions. These are used for both recreational skating and shinny. An additional rectangular rink without boards is sometimes located next to it and is used exclusively for recreational skating. Accessory features such as benches, buildings and lighting etc. are functional and rudimentary. No programs or services are provided. These rinks tend to be located adjacent to indoor recreation facilities which provide the accessory features required by users and staff such as washrooms, lockers and equipment storage etc.

From April to November, these sites are used for a variety of purposes such as tennis and basketball courts. The distribution pipes for the coolant are installed permanently under the courts. In some locations the hockey boards are retained during the “off season” and the rinks are used for in-line skating, ball hockey and lacrosse.

### Regional Destination Rinks

Regional destination rinks are found in the urban core, seldom have hockey boards and are more organic in shape rather than being the proportions of a hockey rink. More significantly however, care and attention is given to the design of all aspects of the space for daytime, night time and four-season use. This includes configuration of the rink, quality of seating, walkway materials, layout, vegetation, lighting fixtures, lighting character, sound system and design of all accessory buildings (see attachments). Enhancing the “experience of place” is emphasized. As with any significant public space it is implicit in the design of these spaces that their enhanced character as well as their prominent locations constitute a public amenity even for those people who are not actively using them. For example, a person walking past the Public Gardens or Grand Parade experiences an enhanced urban environment even if they do not enter the space.

In addition to enhanced built character, enhanced services such as skate rentals, skate sharpening, lessons and special events such as “DJ Nights” and winter festival events are often provided. Licensed mobile canteen services are often permitted nearby. The centre piece of these parks during the remaining three seasons is usually a flat bottomed reflecting pool or pond. The pool is constructed with the coolant pipes permanently installed underneath the bottom of the pool. The water level is lowered for the skating season.

### Capital Costs for Rinks

The basic capital cost of refrigerated ice making equipment and a concrete pad are consistent regardless of which type of rink is constructed or where a rink is constructed, with one exception which will be discussed below.

- Cost variables are related to site preparation (e.g., bedrock, slopes and access to surrounding infrastructure). The second largest cost variable is the extent of landscaping and building construction required in conjunction with a rink.
- Community/neighbourhood rinks constructed adjacent to an existing facility can rely upon existing washrooms, equipment storage and parking etc. as well as a minimum of landscaping.

- An urban destination rink will require an accessory building on site for washrooms, attendants, and equipment. Landscaping standards will also be higher.

On the following page are some order of magnitude costs for several scenarios. Each scenario assumes an ice surface of 20,000 sq. ft (NHL size), but not necessarily in that configuration. (See columns 1 and 2 in the table below). For comparison purposes, the total cost of one new indoor rink is approximately \$12M.

In the case of a community/neighbourhood rink, there is one option in which the cost of refrigeration equipment can be reduced. This reduced cost arises if an outdoor rink is constructed adjacent to an existing indoor arena which has been designed to provide ice during the summer. (See column 3 in the table below). In this case, the peak demand upon the refrigeration equipment occurs during the summer. During the winter, the existing refrigeration equipment has excess capacity. In this case, expansion of the existing refrigeration equipment, at approximately half the cost to purchase a full system, adds sufficient capacity to add an outdoor rink.

#### Cost Comparison of Refrigerated Ice Rinks

	Regional Destination	Community/ Neighborhood	Community/ Neighborhood <i>Next to indoor arena</i>	Long Track (400m Oval)
Refrigeration	\$400,000	\$400,000	\$200,000	\$1,600,000
Concrete Slab & Pipes	\$600,000	\$600,000	\$600,000	
Sand & Pipes				\$600,000
Accessory Building	\$600,000			
Site Preparation & Infrastructure	\$100,000	\$175,000	\$175,000	\$200,000
Landscaping	\$50,000			
<b>Total</b>	<b>\$1,750,000</b>	<b>\$1,175,000</b>	<b>\$975,000</b>	<b>\$2,400,000</b>

#### Partnership Opportunities and Disposition of Refrigeration Equipment

As indicated above, 4 refrigerated ice making units are required for the Canada Games long track speed skating oval at an approximate total cost of \$1.6M. If Council approves moving ahead with a permanent outdoor ice surface, the Municipality can redeploy one of the refrigeration units for this project. The cost of this unit would be a \$400,000 investment toward the total project cost of approximately \$1.75M.

The 2011 Canada Games Host Society is working with the Province and the Recreation Facility Association of Nova Scotia to identify municipalities and community groups to purchase the remaining 3 refrigeration units. The Province would provide financial assistance through its recreation facility grant program, contingent upon the refrigeration units being available for the



Games. The units would then be redeployed elsewhere in the Province in the spring of 2011. This makes the provision of a temporary long track speed skating oval for the Games and the construction of a permanent outdoor refrigerated recreational rink after the Games feasible. Discussions are also taking place with other potential funding partners.

### **BUDGET IMPLICATIONS**

There are no budget implications in 2009/10. The implications in future years are noted below:

#### **Capital**

HRM has committed to contributing \$6.85 M toward capital costs for the games. This is broken down as follows:

Strategic Growth Reserve - \$2.0 M cash (already disbursed)  
Major Facilities Upgrades 2009/10 capital budget - \$3.69 M  
2009/10 and 2010/11 capital budget - \$1.16 M (\$1 M Capital Value in Kind)

\$2,234,350 of the Municipality's \$6.85 M commitment has not been allocated to date. This is a possible source of funding which can be put toward purchasing refrigerated ice making equipment for the Games and constructing a permanent outdoor recreational ice skating venue at a cost of approximately \$1.75M.

Council should be aware that the cost capital budget projects, particularly those involving steel and various trades are being pressured by market conditions.

	<b>08/09</b>	<b>09/10</b>
<b>Cash</b>	<b>\$1,000,000</b>	<b>\$1,000,000</b>
<b>Capital upgrades to HRM facilities</b>	<b>\$4,850,000 (approved through capital budget process)</b>	
<b>HRM's total capital contribution</b>	<b>\$6,850,000</b>	

#### **Operating**

The annual operating costs to provide full time seasonal maintenance and supervision of a regional outdoor refrigerated rink are approximately \$110,000. These costs include both physical maintenance costs by Transportation and Public Works staff as well as Recreation staff providing site supervision. Food services and skate rentals are usually provided through a competitive tender process. This revenue offsets some of the operating costs. Staff does not yet know how much this revenue is expected to be. Additional research will be done on revenues. Consistent with HRM's approach to new services and programs this additional operating cost will be added to the general tax rate when the service is introduced.

**FINANCIAL MANAGEMENT POLICIES / BUSINESS PLAN**

This report complies with the Municipality's Multi-Year Financial Strategy, the approved Operating, Capital and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Capital and Operating reserves, as well as any relevant legislation.

**ALTERNATIVES**

1. Council can choose to participate with other funding partners in the construction of a temporary the long track speed skating oval for the 2011 Canada Winter Games and the subsequent construction of a permanent outdoor refrigerated recreational rink. It is premature to decide upon a specific location for the rink and staff will return with alternatives for Council's consideration. Options for additional refrigerated outdoor rinks will be considered during the preparation of the long term arena strategy. Construction of additional rinks should in part be dependent upon the experience operating the first rink. This is the recommended course of action.
2. Council could choose not to fund the purchase of one refrigerated ice making unit for a temporary long track speed skating oval or a permanent outdoor recreational rink. The remaining \$2,234,350 of unallocated capital funds for HRM facility upgrades could be used for additional upgrades to these facilities ( Halifax Forum, Cole Harbour Place, Dartmouth Sportsplex and St Margarets Centre) upon approval of the Canada Games Host Society Board. This is not the recommended course of action because the remaining potential upgrades, while desirable, are not required to host the Games. In addition, the funding partnerships between the Municipality, Province, Host Society and other municipalities/community groups is a unique opportunity to leverage funds and project synergies which is unlikely to occur again in the foreseeable future.
3. Council, in conjunction with the Canada Games Host Society Board of Directors, could choose to hold the remaining \$2,234,350 of unallocated capital budget in reserve for any potential cost overruns on Games related projects in HRM's existing facilities. This is a reasonable course of action but is also not recommended because the funding partnerships between the Municipality, Province, Host Society and other municipalities/community groups is a unique opportunity to leverage funds and project synergies which is unlikely to occur again in the foreseeable future.


**ATTACHMENTS**

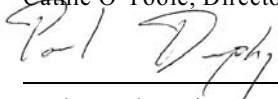
- Photographs of outdoor refrigerated ice rinks in Toronto, Boston and New York.





A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/agenda.html> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

Report Prepared by : Rosalyn Smith, Project Manager 2011 Canada Winter Games, 490-4422

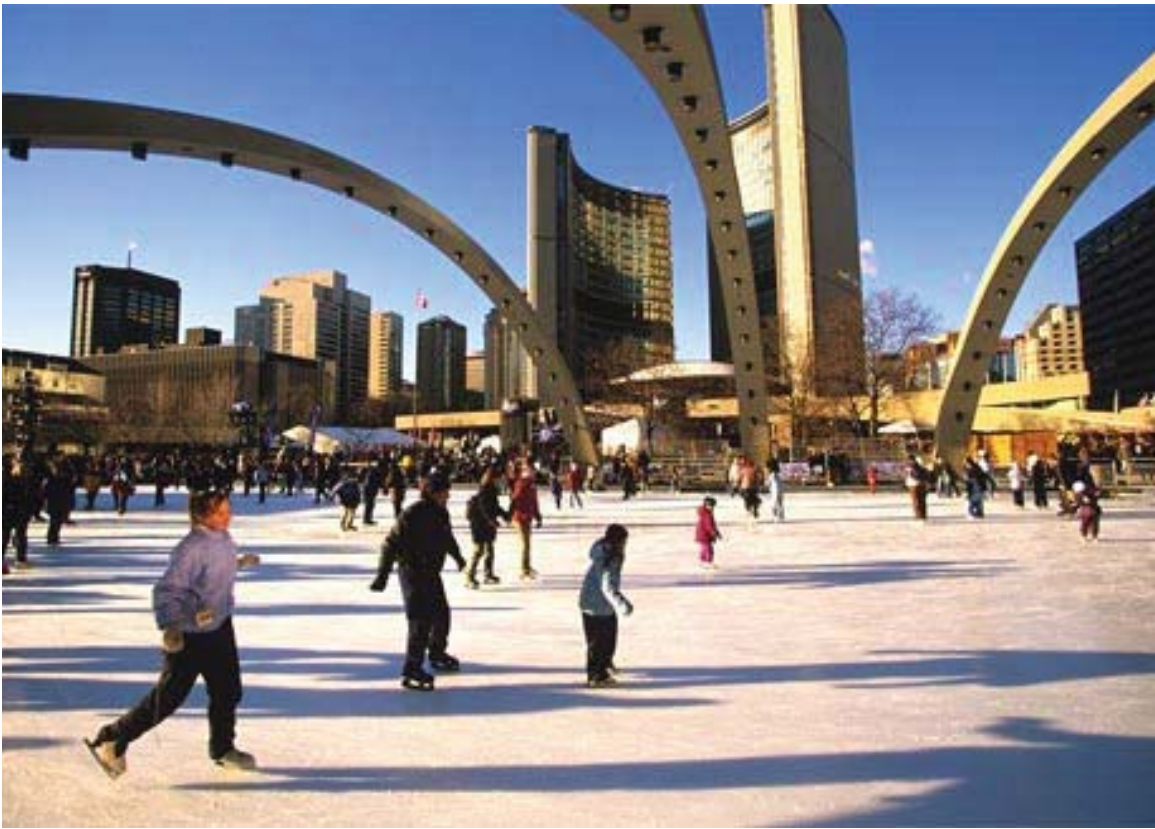
Financial Approval by:   
Cathie O'Toole, Director of Finance, 490-6308

Report Approved by:   
Paul Dunphy, Director, Community Development

Report Approved by:   
Mike Labrecque, Director, Transportation & Public Works

Report Approved by:   
Phil Townsend, A/Director, Infrastructure & Asset Management

## Nathan Phillips Square, Toronto





## Boston Common Frog Pond





## Lasker Rink, Central Park, NY





## Barbara Ann Scott, Toronto



## Harbourfront Centre, Toronto





## Wollman Rink, New York



## Rockefeller Centre, New York





PO Box 1749  
Halifax, Nova Scotia  
B3J 3A5, Canada

**Item No. 10.1.8**  
**Halifax Regional Council**  
**January 26, 2010**

**TO:** Mayor Kelly and Members of Halifax Regional Council

**SUBMITTED BY:**

A handwritten signature in dark ink, appearing to read "Dan English".

Dan English, Chief Administrative Officer

A handwritten signature in dark ink, appearing to read "Wayne Anstey".

Wayne Anstey, Deputy Chief Administrative Officer - Operations

**DATE:** January 11, 2010

**SUBJECT:** Long Term Arena Strategy

### **ORIGIN**

- Council initiated a two-phase strategy to address the Region's arena deficiencies (i.e. arena shortage and their ageing condition). Phase 1, the short term strategy, addressed an immediate critical shortage of ice surfaces and resulted in approval of the new 4-pad arena on Hammonds Plains Road in Bedford which will open in the Fall of 2010.
- This report initiates Phase 2, which is the long term arena strategy.

### **RECOMMENDATION**

It is recommended that Halifax Regional Council approve the Terms of Reference attached to this report to establish a Steering Committee to develop a Long Term Arena Strategy.



## **BACKGROUND**

During phase one of the arena strategy, there was a consensus that:

- rapid action was required to address the shortage of ice surfaces;
- new ice surfaces would benefit all users in the region regardless of where they were located; and
- options for refurbishing existing arenas or constructing new ones would not be affected by constructing the new arena.

Prior to phase 1 the region faced a critical shortage of ice surfaces and was at risk of this shortage becoming a crisis. This Fall, the region will move into a period of relative stability. There will be sufficient inventory to accommodate some growth in use while allowing Council time to develop a Long Term Arena Strategy and incorporate its decisions into future capital budget and funding strategies.

### **Current and Targeted Inventory**

Prior to the closure of the Akerley Arena there were 22 arenas in the region. Its closure caused the displacement of adult hockey and the rescheduling and redistribution of youth hockey throughout the region. It also left the community at significant risk of additional disruption. Under a worst case scenario there was a risk that three additional arenas (Devonshire, Saint Mary's and Shearwater) might close, reducing the region's inventory to 18 ice surfaces for a season.

The Devonshire Arena was, and still is, at risk of imminent failure of its ice pad and ice making system. Saint Mary's University has since determined that it does not have sufficient funds to replace its arena in the short term. Shearwater Arena's mechanical system has been upgraded which should ensure several years of uninterrupted service.

- The recent opening of the Rocky Lake Dome, brings the region's inventory back to 22 ice surfaces, the number which existed prior to the Akerley closure.
- Upon opening the Hammonds Plains Arena this Fall, there will be 26 ice surfaces in the region.
- During the short term arena strategy, 25 ice surfaces were recommended as a target for the region. This target will be reviewed as part of the long term strategy.
- The imminent risk of season long closures of the Saint Mary's and Shearwater arenas have been reduced.

### Outdoor Refrigerated Rinks

This Summer, in conjunction with planning for the 2011 Canada Winter Games, Council approved the concept of constructing outdoor refrigerated ice surfaces. During the Fall/Winter of 2010/11 the 2011 Canada Winter Games Long Track Speed Skating Oval on the Halifax Commons will be open to the public before and after the Games. A portion of the refrigeration equipment will then be redeployed in the fall of 2011 to create a permanent outdoor rink. The long term concept includes two types of rinks.

- One regional rink would be a destination rink encouraging winter tourism and functioning as a park or wading pool in the Spring/Summer and early Fall.
- This would be complemented by a regionally distributed network of neighbourhood rinks located adjacent to existing arenas or recreation centres. The rinks could be used as sport courts during the summer.

In contrast to indoor arenas, which focus on organized play and scheduling, the outdoor rinks will focus on informal and unscheduled recreational skating and shinny. The siting and prioritization of these outdoor refrigerated ice surfaces will be included within the scope of the long term arena strategy.

## **DISCUSSION**

### Issues

There are three primary issues with respect to the region's long term inventory of arenas. These are:

- Ensuring there are an adequate number of ice surfaces to meet peak hour demand for existing user groups and emerging user groups;
- The location and proximity of arenas to users; and
- The age and condition of arenas.

During development of the Short Term Arena Strategy, the Burke-Oliver Arena Capacity Study was updated with respect to population demographics and land use growth patterns under the Regional Plan. This work provided the basis for siting the 4-pad arena on Hammonds Plains Road. Additional updating of this document is still required, especially with respect to attributing accurate booking numbers to each organized user group (e.g. youth hockey associations) as well informal user groups (e.g. adult hockey).

No work has been done to date to address the third issue which is as critical as the first two. Sixty percent of the region's arenas are over 35 years old. As a result their condition has deteriorated and/or they do not meet contemporary field of play or amenity standards. The Long Term Strategy will therefore initiate a condition and recapitalization analysis of existing arenas. This information will assist Council in making informed decisions with respect to the cost of investing in existing arenas versus constructing new ones.

### Interdependencies

As mentioned earlier, the sole focus of the Short Term Arena Strategy was to achieve an immediate increase in the number of ice surfaces. No decisions were made which affected Council's options to construct new arenas elsewhere in the region or with respect to the status of existing arenas. During the Long Term Arena Strategy more interdependent decision making will be required. There will be decisions with respect to recapitalization, closure and conversion of existing arenas. These decisions will also affect or be influenced by decisions as to whether new arenas will be constructed, where and in what configuration.

### Steering Committee Mandate

Phase one was led by the Municipality without any specific public engagement process. The options and decisions involved in preparing the Long Term Strategy are not as simple, and as mentioned above, have more interdependencies. As a result, staff is proposing that Council strike a Steering Committee. The Committee, with staff support, will undertake community engagement, data gathering and analysis (e.g. building condition assessments, demographic and user trends, capital and operating costs etc.) and present options and a recommended strategy to Council. The recommendations will address issues such as the target number of ice surfaces in the region; recapitalization of existing arenas; expansions and construction of new arenas; closures; priorities; comparative capital/operating costs of various arena configurations/options; and phasing. In the case of any recommended closures the Committee will also provide recommendations with respect to whether these buildings and properties should be disposed of or redeployed for other recreational or public purposes. The review will also take into consideration plans being considered by the owners of the non-HRM owned arenas in the region and how these plans will impact the region's arena inventory. This Long Term Arena Strategy will take approximately nine months to complete.

### Committee Composition

The recommended Steering Team makeup is designed to have broad representation but small enough to be effective. The Steering Team will consist of citizens from governing sport organizations, citizens with relevant professional or technical expertise, government officials and councillors.

In the case of the sport user groups, it has been proposed that the relevant Provincial Sport organizations sit on the Steering Committee rather than individuals from community-based sport associations or leagues. The Provincial Sport organizations have relevant expertise and a broad-based mandate that allows them to represent all users within their sport category without geographic bias. Hockey Nova Scotia, Ringette Nova Scotia and the provincial division of Skate Canada will represent their respective users. Having the participation and leadership of these groups will also ensure that each user group understands each other's needs and that the Long Term Arena Strategy addresses the cumulative needs of all sport groups. Input from individual user groups and community sport associations will be sought through public engagement. Short Track speed skating has not been included on the Steering Committee. The expansion of one ice surface at the St. Margaret's Arena to short track speed skating dimensions for the 2011 Canada Winter Games meets the needs of this emerging sport organization for the foreseeable future.

The Provincial Department of Health Promotion and Protection, Sport Nova Scotia and Recreation Nova Scotia bring very broad-based perspectives and expertise which not only include sport competition but also active living and recreational play. These are important factors to consider in general, but most particularly with respect to recreational skating and shinny opportunities at outdoor refrigerated ice venues. These organizations can also represent off-season recreational and sport opportunities at both indoor and outdoor venues. Sport tourism is a growing economic opportunity as is the tourism potential of outdoor refrigerated rinks. For this reason it has been proposed that Destination Halifax be included on the Steering Committee. The Steering Committee will be rounded out with two citizens-at-large who bring specific technical expertise, such as architectural, engineering, financial or other relevant matters necessary to develop the long range strategic plan as well as two Councillors.

### **BUDGET IMPLICATIONS**

There are no budget implications at this stage of the process. Committee costs will be absorbed within existing budget envelopes.

### **FINANCIAL MANAGEMENT POLICIES/BUSINESS PLAN**

This report complies with the Municipality's Multi-Year Financial Strategy, the approved Operating, Capital and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Capital and Operating reserves, as well as any relevant legislation.

### **ALTERNATIVES**

1. Council can establish a Steering Committee consisting of citizens, government officials and councillors to lead public engagement on the Long Term Arena Strategy and provide recommendations and options with respect to the Long Term Arena Strategy. This is the recommended course of action. It is felt that this will produce the most accurate user information; ensure that all of the affected Sport Organizations understand each other's needs; and is the best process for addressing the sensitive interdependent decisions that will be required in the final strategy.
2. Council could decide not to establish a Steering Committee and direct staff to undertake public engagement on the Long Term Arena Strategy and provide recommendations and options directly to Council with respect to the Long Term Arena Strategy. This course of action is not recommended because it is felt that it is not suitable for the sensitive and interdependent recommendations that are required for the Long Term Arena Strategy.

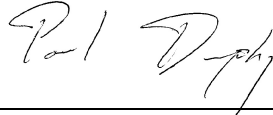
### **ATTACHMENTS**

Appendix 1 -Terms of Reference

Appendix 2 - List of Arenas and their Age in Halifax Regional Municipality

A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/cagenda.html> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

Report Prepared by: Doug Rafuse, P. Eng., Manager Facility Management, Community Development, 490-6205



Report Approved by: Paul Dunphy, Director, Community Development

## **APPENDIX 1**

### **Terms of Reference**

#### **Halifax Regional Municipality** ***Long Term Arena Strategy Steering Committee***

### **Background**

Regional Council approved the Community Facility Master Plan (CFMP) in May of 2008. The CFMP covered the provision of a wide range of community, recreation, sport, event and cultural facilities, both indoor and outdoor, in HRM. In particular, it focussed on the provision of municipally owned facilities as well as the role of HRM in partnership with other agencies such as the Halifax Regional School Board (HRSB), the military, universities and Capital Health. Included under the Sports Facilities Category were several recommendations for a short range strategy to deal with an immediate deficit of ice arenas as well as a long range strategy to guide future recapitalization, replacement, or conversion and reuse decisions of existing facilities. The delivery of the new 4-pad arena facility in Bedford West off the Hammonds Plains Road is the result of the short term strategy for the immediate arena shortage. The next step is to develop a longer range strategy to ensure an appropriate supply of skating surfaces well into the future.

Further reference can be made to the following recommendations in the Community Facility Master Plan:

- Recommendation #40 Arena Conversion Recommendations
- Recommendation #41 & 46 Expansion of Existing Arenas
- Recommendation #43 Recapitalization of Arenas
- Recommendation #47 Arena Replacement

Other more broad recommendations that deal with the whole HRM portfolio may also be reviewed for applicability.

### **Purpose of Steering Committee**

The Steering Committee shall:

- provide direction to a staff resource team;
- lead a public engagement; and
- develop and make recommendations to Regional Council on a Long Term Arena Strategy

### **Role of Steering Committee**

The Committee's primary role is to develop and recommend a long term strategy for the provision of municipally owned ice arenas in HRM. The Committee shall consider the role for the 2011 Canada Games Legacy regional destination outdoor refrigerated rink and a possible network of additional regionally distributed neighbourhood outdoor refrigerated skating rinks as part of the long term strategy. The Steering Committee will be supported by an HRM staff

resource team and will direct requests and direction to this support team as needed to develop recommendations.

More specifically, the Committee will:

- Review and refine a staff recommended project scope and time line;
- Develop with staff a public/stakeholder participation program in order to stimulate comment/consultation and gain further input;
- Hold public meetings as required;
- Review all available background information;
- Advise on the need and priorities for background and studies and research;
- Take into consideration usage and future plans of any non-municipally owned facilities and potential impacts;
- Determine which HRM owned facilities are best suited to be re-capitalized, which ones should be considered for conversions to other indoor recreation usage, and which ones would be better suited to be replaced, including siting options/recommendations;
- Take into consideration the 2011 Canada Games Legacy regional destination rink opportunity and recommend siting options/recommendations for this project;
- Consider a regionally distributed network of neighbourhood outdoor refrigerated rinks for a possible role in the long term arena strategy, including siting options/recommendations;
- Recommend a multi-year implementation plan for the long term strategy, indicating with priorities should be implemented in order;
- Develop with the aid of staff a high level multi-year capital budget plan using industry standard costs/sq ft estimates;
- Take into consideration as part of the financial implementation and operating model the role of user fee cost recovery, partnerships, fund-raising and other funding strategies; and
- Provide periodic progress reports and make the final presentation and recommendation of a long term strategy to Regional Council.

### **Membership**

Halifax Regional Council members	(2)
NS Department of Health Promotion and Protection	(1)
Hockey Nova Scotia	(1)
Ringette Nova Scotia	(1)
Skate Canada	(1)
Sport Nova Scotia	(1)
Recreation Nova Scotia	(1)
Tourism (Destination Halifax)	(1)
Citizens-at-large	(2)
 TOTAL	 (11)

### **Selection of Membership**

Selection criteria will include:

- Willingness and ability to commit to the necessary time up to a *one year* period;
- Commitment and interest in the recreation facility strategic planning, particularly ice arenas; and
- Skills and experience related to roles and responsibilities in facility management and service delivery.

### **Appointment**

The term of appointment shall be until the project is completed.

### **Resources**

- The Facility division of Community Development will provide staff resources to the Long Term Ice Arena Replacement Strategy Steering Committee including arranging meetings, agendas, note taking (summary and action items), distribution of materials and other administrative functions. Any budget requirements for this committee will be included within the budget of the project, subject to the normal review and approval process of the Business Unit.
- The Facility division of Community Development will work as an integrated group, represented on the Steering Committee by the Project Manager, to provide professional support, expertise, and deliverables as necessary to meet the time lines and scope of the project. This group will be expanded to include participation from TPW, IAM, Finance, Real Estate, and Legal Services as required.
- Documents available:
  - 2008 Community Facilities Master Plan;
  - HRM Regional Plan;
  - 2008 Update to HRM Arena Capacity Study;
  - Current HRM 5 Year Capital Plan;
  - Various Arena Strategy documents from other Canadian cities; and
  - Council reports and preliminary research on community outdoor refrigerated ice rinks and 2011 Canada Games Legacy rink.



**APPENDIX 2 - List of Arenas in HRM**

Owner / Operator	Arena	Age - Year Constructed
HRM / HRM	Bowles	1972
	Devonshire	1971
	Gray	1972
	Gerald J Lebrun	1972
HRM / Community Board	Halifax Forum	1927
	Halifax Forum Civic Arena	1995
	Centennial Arena	1967
	Spryfield Arena	1972
	Eastern Shore Community Centre	1973
	Cole Harbour Place Arena #1	1975
	Cole Harbour Place Arena #2	1988
	Halifax Metro Centre	1977
	Dartmouth Sportsplex	1982
	St Margaret's Centre Arena #1	1985
	St. Margaret's Centre Arena #2	2005
	Sackville Sports Stadium	1989
	HRM 4-Pad Arena Complex	Under Construction
Private	Shearwater Arena	1964
	St Mary's University Arena	1966
	Shannon Park Arena	1969
	Sackville Arena	1973
	Dalhousie Arena	1983
	Rocky Lake Dome	2009