

3.0 Interventions and Required Actions

3.1 Observed Supply Gaps and Facility Life Limitations

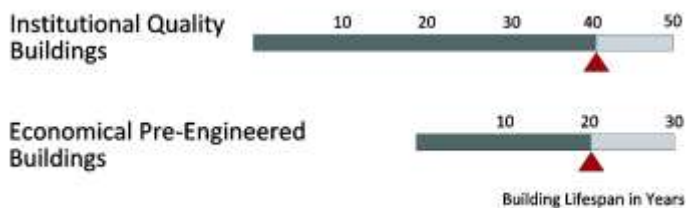
Observation and analysis has revealed a series of challenges as well as opportunities with recreation assets in the North Peace region. As time passes, assets once popular and fueled by community volunteer efforts are declining in use. With new competing recreation demands emerging and potentially moving ahead as priorities for action and re-investment, this calls into question the rationale for eventual replacement of some assets.

Urban facilities are generally well-used but many of the rural assets are under-utilized as time and revenues are in short supply, costs are rising and rural residents being more mobile will travel farther to use larger facilities offering a greater variety of programs and services. In addition to having a greater range of travel, residents are also more digitally connected lessening the need for social interaction in the way that small remote community halls once provided. Thirdly, rural residents are shifting from insular agricultural-based to hobby-farming acreages with residents commuting daily to the urban areas.

One of the biggest challenges faced by the Peace River Regional District, City of Fort St. John and District of Taylor is the convergence of projected building end-life for so many facilities. This applies to both urban and rural facilities.

Older institutional-quality ('bricks and mortar') buildings of one generation are reaching end life at the same time as the economical shorter-lifespan pre-engineered metal buildings chosen by the next generation. This is illustrated with the time bars graphic below. In addition, the capital savings at the outset for the economical buildings are offset by higher maintenance costs and higher energy consumption costs. Perhaps the most pointed example of this is the North Peace Leisure Centre, a pre-eng and concrete hybrid, whose accelerated deterioration means the building will lose ten to twenty years of expected building service life.

Figure 30. Building Quality Comparison



The Gaps – Key Points

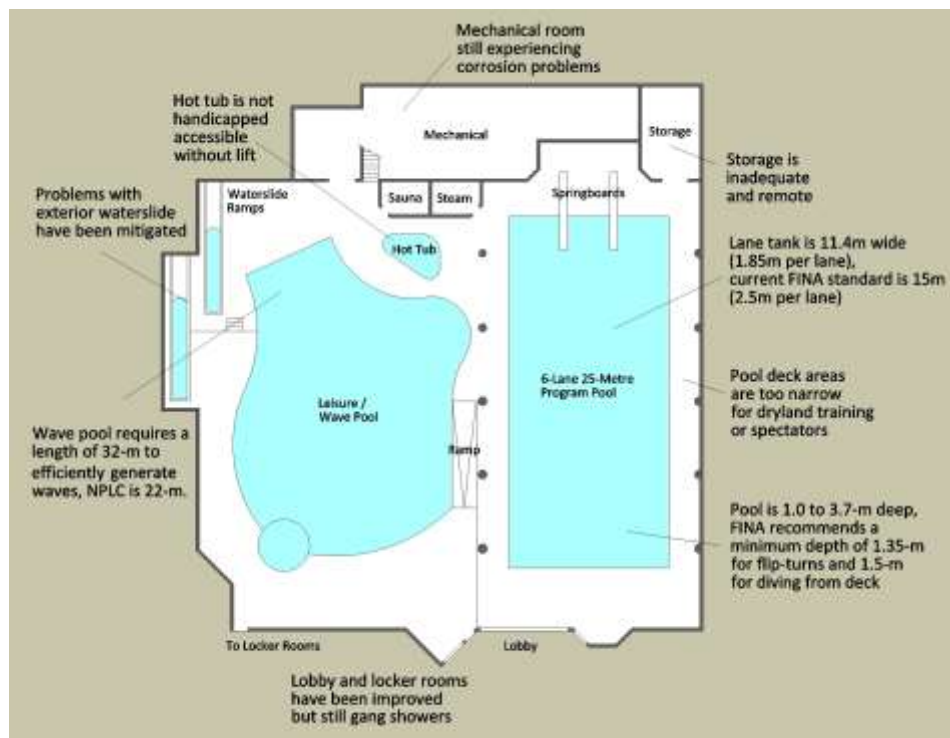
The following points highlight some of the key supply and demand issues noted in the asset inventory appendices and in the body of this report. These points cover utilization and operating cost recovery concerns as well as building physical issues.

- Hockey ice inventory is marginally over-supplied, resulting in poor economic performance. Ice demand (all arenas) for late-prime and shoulder prime time is weak and virtually non-existent for non-prime. Prime time is typically about 50 hours / week (4-9PM weekdays; 9-9 weekends). As

population increases so too will the demand for ice and adult users will become more accustomed to later ice times.

- Fort St. John Curling Club is relatively well-used and economically viable. Taylor Curling has too small a membership to sustain long-term viability of operations and may be forced to close at end of building life (or convert to indoor soccer even sooner). Taylor members could be absorbed by FSJ.
- North Peace Leisure Centre pool aside from technical problems, also has functional issues such as the lane-swimming tank being non-conforming (too narrow) and the wave pool too short. The lane pool should be about 50-feet wide but is only about 37-feet wide (lanes 6-feet wide instead of the recommended 8-feet). The wave pool portion of the leisure pool run or length is too short for the wave generator to create adequate motion on the water. At the (premature) end of its service life, the pool should be replaced and not remediated.

Figure 31. North Peace Leisure Centre Pools and Deck - Issues



- Soccer and indoor soccer are the fastest growing sports in the North Peace region as they have been everywhere across Canada. The Kids Fieldhouse is currently booked to capacity, including should-prime times. The extent of unmet or pent-up demand for indoor soccer is not fully understood as waiting lists are quickly filled and there is no count of players turned away. Indoor soccer facilities are also popular with a variety of other sports played on turf including box lacrosse and sportball, as well as training and evaluation camps for outdoor field sports. The need for a second indoor soccer pitch appears justifiable.
- Gymnasium space and time inventory is provided by SD60. Gym court sports are limited by predominantly small, low-ceiling gyms and inconsistent availability (abrupt schedule changes, made on a school-by-school basis). More gymnasium space is needed and with new gyms, better access agreements. SD60 has applied to the provincial government to add two new schools and replace to existing that could make more gymnasiums available for recreation use.

- The North Peace Region currently has twenty urban ball diamonds and only two soccer fields in sport parks, though organized soccer has access to up to an additional ten poor-quality public school fields. Participation in soccer is steeply increasing while gradually declining for baseball and softball. More quality engineered outdoor fields are needed, though not necessarily at the expense of the ball diamonds. However, each field on average annually costs about \$20-30,000 to maintain so an over-supply can be costly.
- All community halls in the North Peace are rural, except for Taylor. Many halls are significantly under-utilized due to declining interest coupled with increased mobility of residents. All rural halls also suffer from a decline in volunteerism impacting ability for governance, maintenance and operations. Revenues in most cases do not even meet modest annual operating and insurance costs. The halls remain an important symbolic landmark to the small rural clusters of population, however self-closure will be inevitable for many of the facilities.
- Other miscellaneous facilities including gymkhanas, rodeo grounds and ski hill. The FSJ Light Horse arena and Big Bam ski hill, like the community halls, appear to be suffering declining use and the volunteer labour required for operations. The decline in asset condition only complicates the issue.
- Passive parks, trail systems, playgrounds and skateparks are generally in good repair and well-maintained. Almost all playground equipment has been upgraded to contemporary CSA-approved climbing equipment. Urban trail systems such as the one in north Fort St. John will likely be extended over time as opportunities emerge.

3.2 Master Schedule and Costs of Interventions and Actions

The table on the following page outlines the timetable or master schedule for interventions and actions. 'Intervention' meaning either the Peace River Regional District, City of Fort St. John and/or District of Taylor will be at a decision-point in time and must commit to either essential comprehensive building renovations, construction of new buildings or in some cases, closure of existing buildings. For some line items end of building-life is noted, but no actions or financial amounts are committed suggesting the operational situation requires further monitoring and evaluation at that future point in time before funds are committed.

The red bars indicate the approximate five-year window in which end of facility service life will likely be reached. This end of service-life assumes systemic failures of more than one building system and reaching a tipping point where further investment repairs in the building yields no return in extending building life but only serves to temporarily stem the immediate problem.

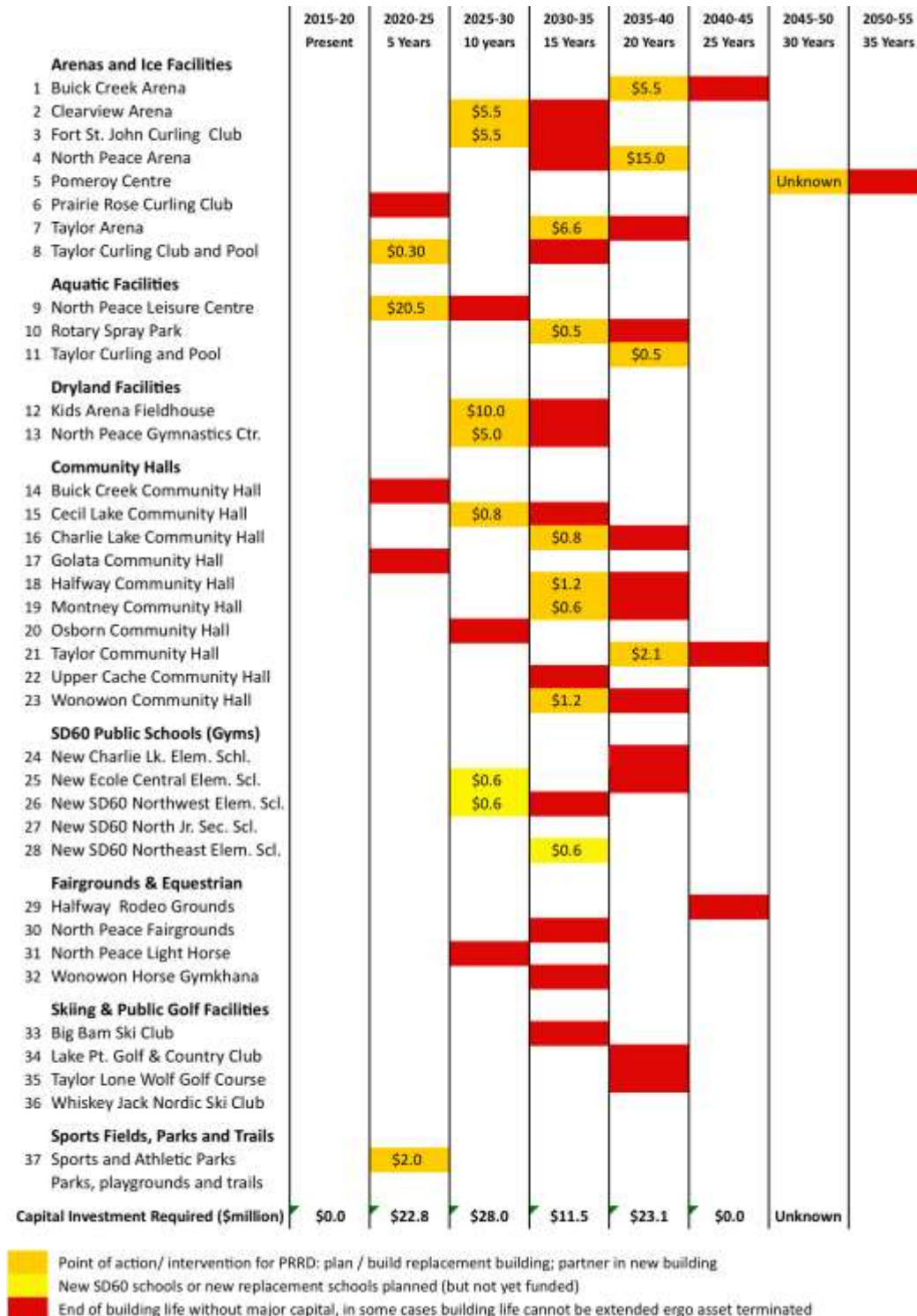
The orange bars are the five-year window preceding where action should be initiated including consultation, plebiscites, internal approvals process, commitment of funding, commitments from funding partners, design and if possible construction so that the new facility is operational before the defunct asset fails (in order to prevent interruption of services). The yellow time-window in many cases can be merged with the red time-window to extend the timeframe.

The yellow bars indicate the School District 60 planning and execution window similar to the orange above. This identifies the window of opportunity (if not sooner) for the PRRD and/or City of Fort St. John to begin discussions, negotiate a partnership and joint-use agreement with the schools.

Construction costs have been indexed for the Fort St. John construction market, meaning costs are based on similar projects in other jurisdictions and a premium added for the local construction market and materials transportation costs. The dollar amounts are present construction costs and will need to be escalated to their future-value amounts by adding a percentage amount for inflation.

This is typically in the range of 2-3% annually, though local economy conditions may adversely impact those amounts. Also not included are soft costs (design, construction management, fees and costs) or site costs (demolition, grading, parking, site servicing, lighting, landscaping).

Figure 32. Timetable of Required Interventions (Costs in \$ Millions)



For the period of 2015-2020, no major capital amounts were identified.

For the period of 2020-2025 (5-10 years out), \$22.8 million in current dollars is identified for the possible premature replacement aquatic centre for the North Peace Leisure Centre, for the creation of four (or six if Surerus) new soccer fields with new sport park washrooms and other park enhancements. A modest budget is also included for the retrofitting of the Taylor Curling Rink with artificial turf for indoor soccer as a short-term solution to the rink's utilization and deficit problems and, as a short-term solution for needed additional dryland turf space.

For the period of 2025-2030 (10-15 years out), \$28.0 million in current un-escalated dollars is identified, including a new twin indoor soccer centre. Other projects include a replacement Clearview Arena (single sheet, not twinned), new Fort St. John Curling Club, a new or backfill location for the Gymnastics Centre, a replacement for Cecil Lake Community Hall and, partnership commitments to new school gymnasiums with SD 60.

For the period of 2030-2035 (15-20 years out), \$11.5 million in current un-escalated dollars was identified for a new Taylor Arena (single sheet, no twinning), four replacement community halls, partnership with SD60 in one more gymnasium and replacement for the Rotary Spray Pool.

For the period of 2035-2040 (20-25 years out), \$23.1 million in current un-escalated dollars is identified for a replacement for North Peace Arena (1,000 seat capacity), potentially Buick Creek Arena (single, not twinned), a replacement community hall in Taylor and a replacement for the temporary pool in Taylor. In some cases projects have been staggered so to spread capital resources required over a broader period. Some projects may be deferred into the next time window due to circumstances.

For the period 2040-2045 (25-30 years out), no major capital interventions required, however some of the earlier ones may be deferred into this time period. For the period 2045-2050 (30-35 years out) the Pomeroy Centre is expected to reach the end of service-life or require major upgrading (cost indeterminate), and even some of the new yet-to-be-built indoor soccer building and community halls will also be nearing their end of service-life.

Again, for some line items the end of building-life is noted, but no actions or financial amounts were earmarked suggesting the operational situation requires further monitoring and evaluation at that future point in time before funds are committed. An additional caveat, many of these projects will be subject to the Fort St. John Recreation Master Plan update process planned for 2015. Interventions on this list are based first on building condition, and second on utilization patterns suggesting increased capacity being needed.

3.3 Options and Strategies for Addressing Facility Replacements or Additions

Ice

No additional ice in short or medium-terms. Eventually as prime time demand increases with minor hockey, adults will have to be pushed into the off-prime time slots. This is necessary for the intensive and efficient operation of the ice arenas, and while not popular, through attrition current adult hockey players will retire and new players will accept the later time slots.

Clearview Arena will need replacing in about 10 years (single-sheet only). North Peace Arena and FSJ Curling Club buildings will reach end-life at the same time in about 15 years and the premature end-life of the NPLC pool. Co-location of new facilities should be considered for operating efficiency and waste energy recovery. Rose Prairie Curling facility will likely close due to declining participation and volunteerism. Taylor Curling low membership will also lead to its decommissioning or re-purposing.

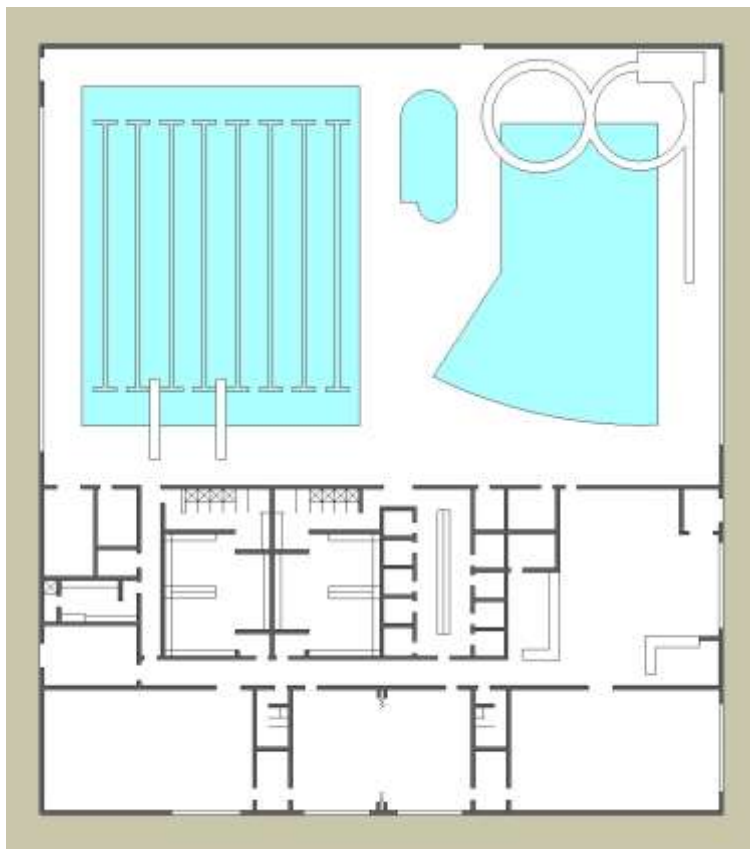
Aquatics

North Peace Leisure Centre has been fraught with technical deficiencies almost since inception including corrosion of structural components and mechanical systems, freezing of the exterior waterslides and most recently serious leakage of the leisure tank. A typical pool facility should be expected to operate for 40-50 years (extended with lifecycle upgrades as required). NPLC appears to already be past its half-life at the 17-year service mark. The pool also has functional issues such as the lane-swimming tank is too narrow and the wave pool run or length is too short for proper wave generation.

Most prudent use of valuable financial resources suggests the aquatic centre should be replaced rather than remediated. A new facility should include an eight-lane 25-metre program tank with wider deck areas, 15 to 20-person hot pool and a leisure component with a possible lazy river, zero-beach play water with movable fixtures and a waterslide. Amenities should include a greater number of family change rooms and three multi-purpose rooms that can be used for exercise classes, child, youth and seniors programs and available to meeting rentals. This new facility would be the most costly investment required, but as surveys consistently show most of the population at least occasionally use pool facilities.

District of Taylor has a very innovative solution for summer use of their complex, annually installing a four-lane above-grade tank with deck. While no visual evidence was found during the tour of the facility, the long-term implications of water, high humidity and condensation in the building can only be negative. Low utilization of the Taylor Complex facility brings into question its long-term viability. The portable pool could be relocated to the hockey arena.

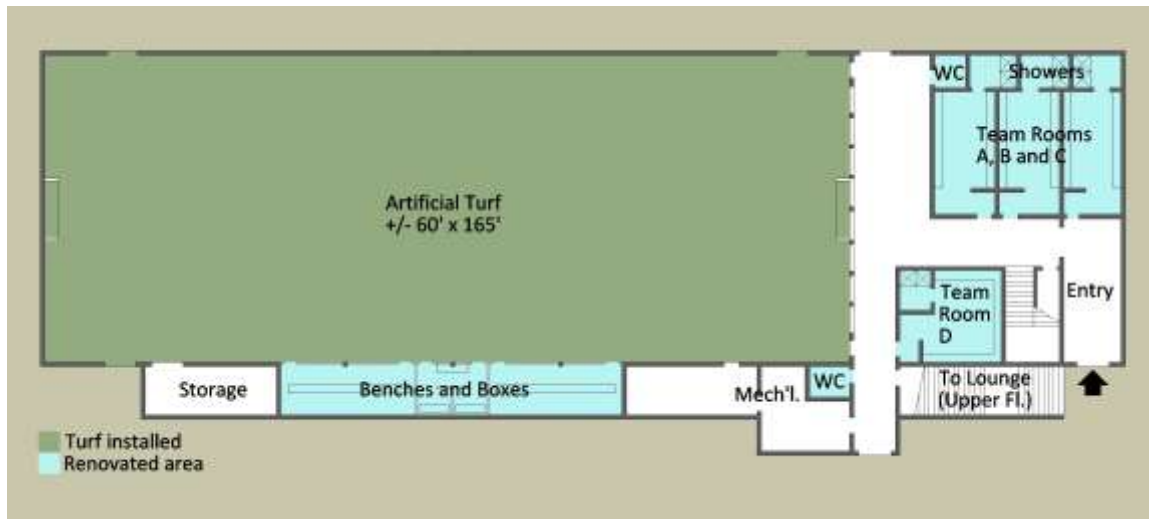
Figure 33. Typical Stand-Alone Aquatic Centre Layout with three Multi-Purpose Rooms (30-35,000 SF)



Dryland

Two options exist for addressing the imminent need for additional indoor artificial turf space, primarily driven by the demand of soccer. The first option would be to maintain Kids Arena Fieldhouse and extend its service life as long as possible (at least 15 years). To address growing demand, a second indoor turf facility should be added. One such candidate for re-purposing would be the Taylor Complex, retrofitted to decommission ice and, add artificial turf coupled with some modest functional interior renovations.

Figure 34. Concept diagram for Taylor Complex refitted from Curling to Indoor Soccer



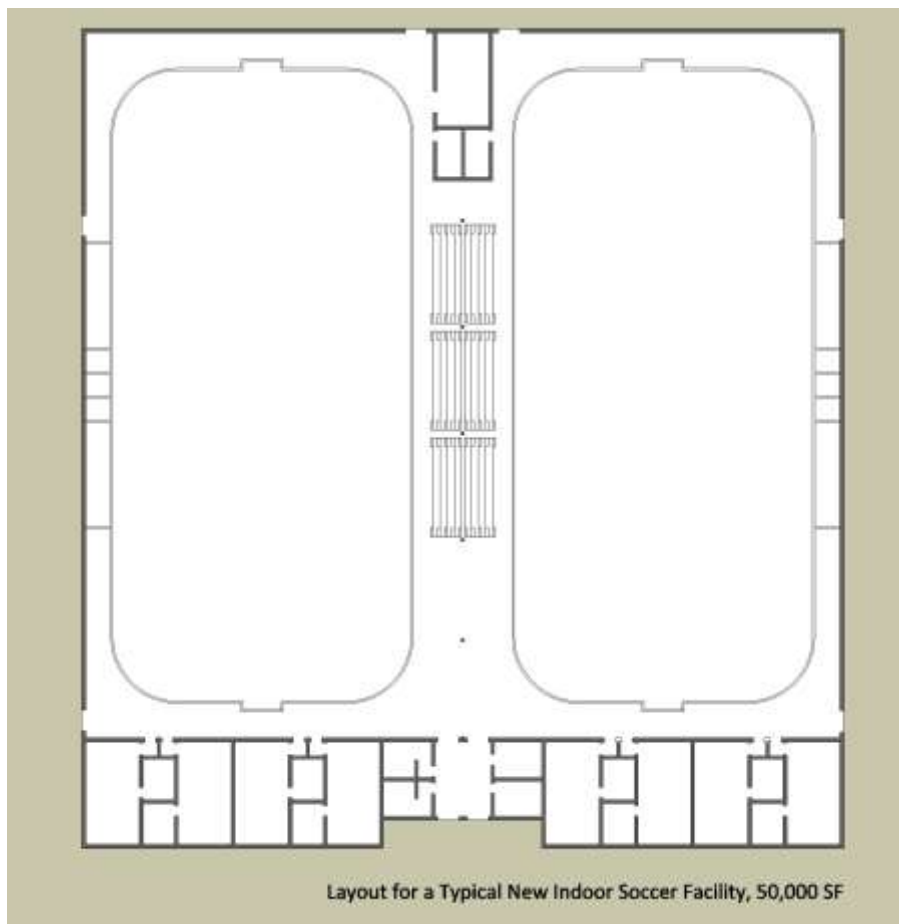
The layout concept above illustrates how the decommissioned 4-sheet curling rink in the column-free space could be adapted for a non-standard 60' x 165' or 18.5m x 51.0m pitch. This would be the equivalent to a non-standard (narrow) U-9 pitch or two U-8 pitches end-to-end or a narrower (25%) and shorter (10%) version of the 'boarded' indoor pitch. Given that indoor soccer does not have national regulations for field dimensions and so much current play occurs in small school gymnasiums, the indoor turf field would be ideal for younger age groups, freeing up more time for older players at Kids Arena Fieldhouse. The layout suggested assumes no dashboards and with a modest out-of-bounds apron. 'Wet' team rooms would also be available to pool users as change rooms during summer months if that function remained in this building.

Figure 35. Concept illustration for Taylor Curling Rink refitted for Twin Indoor Soccer



The other option is to develop a new twin pitch indoor soccer facility on an undetermined site either close to the new development on the north end of Fort St. John or to the southeast between Fort St. John and Taylor. The diagram below illustrates a typical layout for an indoor soccer facility, dimensions driven by the 'boarded' 85' x 180' pitches. This type and size of pitches would be attractive to other sports as well including box lacrosse, dryland training and conditioning for field sports such as rugby, and marginally suitable for hybrid versions of rugby, field hockey and cricket. It would also be used for cross-training, running, kindergym and non-sport functions such as assemblies and performances.

Figure 36. Typical Twin Indoor Soccer Facility Layout



The soccer community had proposed a new facility with an indoor full-size soccer field (227' x 293' or 70m x 90m) with no dasher-boards and sub-dividable into multiple smaller pitches for younger age groups. The only capital feasible solution for a venue this large would be an air-supported structure ('bubble') over the field with a series of pre-manufactured portables for team rooms and support spaces (at a cost starting at \$6 million construction in current dollars). The problem is in high operating cost due to low insulation properties. An air-supported structure would cost almost twice as much annually to operate as a conventional building (in the range of \$400,000/year for 88,000 SF). And, the outer fabric skin would have to be replaced in about 10 years at a cost of \$1.5 million. A pre-engineered building of the same size would cost approximately \$20 million construction.

There are two schools of thought in the world of indoor soccer: the dasher-boards advocates participating in competition and tournaments with Northern Alberta teams that play the boarded-game and, the no-boards advocates, suggesting there is no rebounding in the outdoor game and no boards is truer to the skills of the outdoor game. A full-size soccer field is a 'nice-to-have' but is seldom used due to cost (in the few examples in Canada and the U.S., full-sized fields rent for almost \$300/hour).

Gymnastics needs a larger facility, ideally +/- 15,000 floor plus support spaces. In short-term Gymnastics could move into vacated Kids Arena Fieldhouse until a new facility is built. Another option would be to expand Gymnastics into the existing natatorium when aquatics will abandon NPLC for a new aquatic facility. Lastly, Gymnastics could be an ideal compliment to indoor soccer in a new dryland indoor sport facility.

School Gymnasiums

Gymnasiums are by definition, 'dryland' recreation spaces. The North Peace region inventory of gymnasiums used for recreation are school assets operated by School District 60. Elementary school gyms are undersized for adult-use (about 4,000 SF or 60% the size of a full-sized gymnasium) and typically limited to children's activities, exercise classes, pickleball, ball-hockey and social functions in rural communities. Only the urban high school and two middle school gyms are large enough for basketball, volleyball and futsal.

In SD60's current development plan submitted to the Ministry of Education estimating enrollment to increase by 20% by 2030, the District is making the case to add three new schools in Fort St. John (one middle and two elementary), and to replace two aging and over-capacity schools, Ecole Central Elementary (FSJ) and Charlie Lake Elementary.

Opportunity exists for the Peace River Regional District to financially partner (top-up) with the SD60 to enlarge the three new FSJ elementary school gyms to full-size gymnasiums (6,500+ SF), ideally with small community kitchens. This would double the current inventory of full-size gyms in the north region. Ownership of the enlarged gyms would remain with the School District and they would be responsible for operating costs. The PRRD would need to negotiate clear access privileges to ensure uninterrupted recreation programming, a problem that exists in some schools now.

Sports Fields

The City of Fort St. John and the District of Taylor currently provide a combined twenty ball diamonds and only two soccer fields. At Cecil Lake Hall there are an additional two diamonds. The decline in popularity of baseball and softball coupled with the ascent of participation in soccer suggests an over-supply of the former and under-supply of the latter. Soccer does have access to three large fields and seven small fields at FSJ schools, but these fields are poorly engineered (to Ministry of Education standards, basically seeded grass on clay) and are too often unplayable.

At least four more full-sized soccer fields are required in the North Peace region, each field being subdividable into 2, 4 or 8 mini fields depending on age groups. City-owned land would be required to develop a new four field complex or to re-develop Surerus Sports Park into a mixed soccer and ball diamonds. The soccer fields could be developed in two phases of two fields each as a stepped-response to increasing demand, and the project could be co-located with a new twin indoor soccer facility.

Each soccer field can accommodate about 450 players (at 2 hours / week/ player) per high performance field based on 25-30 hours week for 2-3 months. Given the relatively short climate season, artificial turf fields would not be a good investment in the North Peace region though they can be more intensively used when they are used (70-80 hours per week vs. maximum 15-20 per

week for grass). Maintenance costs are also significantly lower, though the capital cost is six-fold of proper engineered grass fields. Field lighting is also unnecessary owing to the long summer days of the northern latitude during the playing season.

Figure 37. Sport Fields Redeveloped



Surerus Sport Park re-developed with hybrid fields to accommodate soccer and softball

Community Halls

The rural community halls issue is complicated by the significance of the asset as a landmark in the remote clusters of population, measured against the increasing operating costs and expensive building replacement costs. A number of the halls such as Cecil Lake, Montney, Wonowon and Charlie Lake are more intensively used and are more centrally located. These halls tend to also be in better current condition. Remote rural halls such as Upper Cache, Golata, Osborn and Buick Creek are under-utilized and poor condition. An anomaly is the Halfway Community Hall which is remote, aging but also serves as the gymnasium for the small four-classroom elementary school.

Fewer halls may mean supply is reduced to the point where the remaining halls are utilized more intensively and are more operationally self-sustaining. This is not to suggest that the smaller halls should be decommissioned, but rather that the facilities be 'put under watch' for the next five years, before committing any additional capital. One facility at more immediate risk is the Buick Creek hall,

where since the new ice arena came into existence has drawn all time, resources and effort of volunteers. Should the small remote at-risk halls be regenerated, pre-manufactured portable buildings should be considered both for economy, ease of installation and portability should the facility ever need to be relocated.

Remainder of Facilities and Assets

The remainder of assets including rodeo grounds, gymkhanas, public golf courses, ski facilities, skateparks, playgrounds and passive parks as well as trail systems appear to require less urgent major capital and more modest period investment or other forms of operational support. Two items of note are the failing FSJ Light Horse Association indoor arena and the operationally struggling Big Bam Ski Hill. Both risk failure due to declining utilization and support, jeopardizing the value of re-investing in those facilities.

3.4 Conclusions and Next Steps

The Peace River Regional District, City of Fort St. John and District of Taylor are facing some recreation facility challenges, but these kinds of challenges are not unique to this region and these communities. Recreation service providers in large and small urban centres everywhere are dealing with aging infrastructure and shifting recreation demands. The advantage that the North Peace region has is a significantly growing population – assuring increased participation in all activities (offsetting in some cases declining participation rates), and a growing tax base in which to fund investments in replacement and new infrastructure.

The next step in the process will be an updating of the Fort St. John Recreation Master Plan anticipated to occur in 2015. This will more clearly and deeply define the shifting and growing recreation needs. Since most of the large recreation facilities are in this concentration of population, this information will be critical to subsequent decisions.

The District of Taylor will have to assess the long-term viability of being able to sustain so much recreation infrastructure with such a relatively modest tax base, given the incredible escalation in the cost of construction over the past two decades and the likelihood of increasing energy costs. In some cases, partnering with Fort St. John on consolidated facilities may be a better alternative.

School District 60 has applied to the Ministry of Education to replace two schools and add two more. The PRRD and City of Fort St. John should begin dialogue with SD60 about capital partnering to enhance the gymnasium components of all new schools (as well as possibly upgrading sports fields quality to increase usability). This form of capital commitments is economically more efficient for PRRD and FSJ than building duplicate gyms, and in the process partnering in the eyes of the Ministry of Education improves the prospects of funding approvals for the new schools.

Lastly, on watch should be rural community halls, the gymkhanas and the ski hill. All rose from the efforts of community members generous with their time and in-kind contributions. But times have changed as rural populations decrease, costs have escalated exponentially and volunteerism has catastrophically declined.