

Comox Valley Aquatic Needs Strategy

Facility Option Assessment

Presentation By: RC Strategies and hcma



Presentation Overview

- Presentation of facility condition summary and design options from hcma
- Introduction of evaluation matrix
- Prioritization of facility design options
- Recommendations
- Next Steps

Study Purpose

- Define the vision for aquatic facilities and services for the Comox Valley.
- Support the equitable access to facilities and services for all residents.
- Encourage increasing capacity and participation in water sports and activities.
- Ensure the efficient and effective use of resources.
- Render the aquatic infrastructure as environmentally friendly as possible.

Study Scope

- Three public facilities considered under the scope of this project include:
 - The Courtenay and District Memorial Outdoor Pool
 - Comox Valley Sports Centre
 - Comox Valley Aquatic Centre
- Additionally, the 19 Wing Fitness and Community Centre pool was included in the supply analysis to understand the complete aquatic landscape in the Valley region.



Comox Valley Aquatic Needs Assessment

Options for Consideration

Key Parameters

The key parameters guiding the proposed options include:

- No overall increase in water area/capacity is required
- Desire for enhanced leisure and wellness experiences
- Alignment with universal accessibility requirements
- Alignment with broader environmental sustainability objectives and corporate climate action plans

Considered Facilities

The three facilities considered under the scope of this study include:

- The Courtenay Outdoor Pool (Outdoor pool)
- Comox Valley Sports Centre (Sports centre)
- Comox Valley Aquatic Centre (Aquatic centre)

The Courtenay Outdoor Pool

- *Courtenay Outdoor Pool* - this facility was built in 1949 and is the oldest of the three buildings. The most recent facility condition assessment (completed by Carscadden et. al in 2015) indicated no remaining life or value. It identified deficiencies that would need to be addressed over a 10-year horizon to maintain current operations. Deficiencies addressed include boiler upgrade and repair work change rooms. Investments needed to keep the facility running for the next year could approach \$1.0M (note that this doesn't speak to the main drain deterioration or envelope issues identified after this report).
- In 2017 a building enclosure review was commissioned that recommended the replacement of all interior walls (significantly deteriorated) and replacement of the external cladding and sheathing.
- During our walk through, it was noted that significant water loss was likely occurring from a suspected leak in the main drain. More details will follow pending further remediation works.
- A Rick Hansen Assessment completed in 2018 applied a score of 47%, which indicates that the facility does not qualify for certification and needs improvement.
- At face value, these assessments indicate that there is little remaining life or capital value in these assets. It should be noted however, that the facility is fully operational and continues to provide outdoor swim experiences for users. Outdoor pools are often well-loved by their communities, and this pool appears to be no exception.

Comox Valley Sports Centre

- This facility was constructed in 1973. It contains a 25m tank and a large, more recently added hot pool. It appears that the primary programming use here focuses on swimming for fitness, aquasize and competitive training.
- A FCA report by AECOM commissioned in 2017 provided a score of 7%, indicating that the building was in fair shape. The primary area of concern identified by the FCA was the roofing and air handling equipment, both of which are end of life. Total value of estimated required investment over a 20-year horizon is approximately \$7.5M.
- Recent upgrades have enhanced the accessibility, including lifts into each pool tank. An energy recovery project was completed in 2016/2017.
- General observation during our site visit supported this assessment, and the facility has been very well maintained for its age.

Comox Valley Aquatic Centre

- This building was completed in 1998. It contains a 25m pool, leisure/wave pool, waterslides, hot pool and sauna and steam room. It is the newest facility in the inventory, with a strong focus on leisure related amenities.
- The 2017 FCA by AECOM provided a score of 4%, indicating that the facility is in good condition. At that time, the report identified a required investment over 20 years of \$2.25M . A subsequent report by Faulkner Browns Architect in 2021 indicated that a total investment of \$8.0M would be required over the next 10 years to deal with items reaching end of life. Most of these costs were attributed to upgrading the filter plant and replacing the roof.

Option 1 - Maintain Status Quo (\$16.5M)

This option focuses on managing the ongoing, necessary maintenance items in each facility without any significant programming or design interventions.

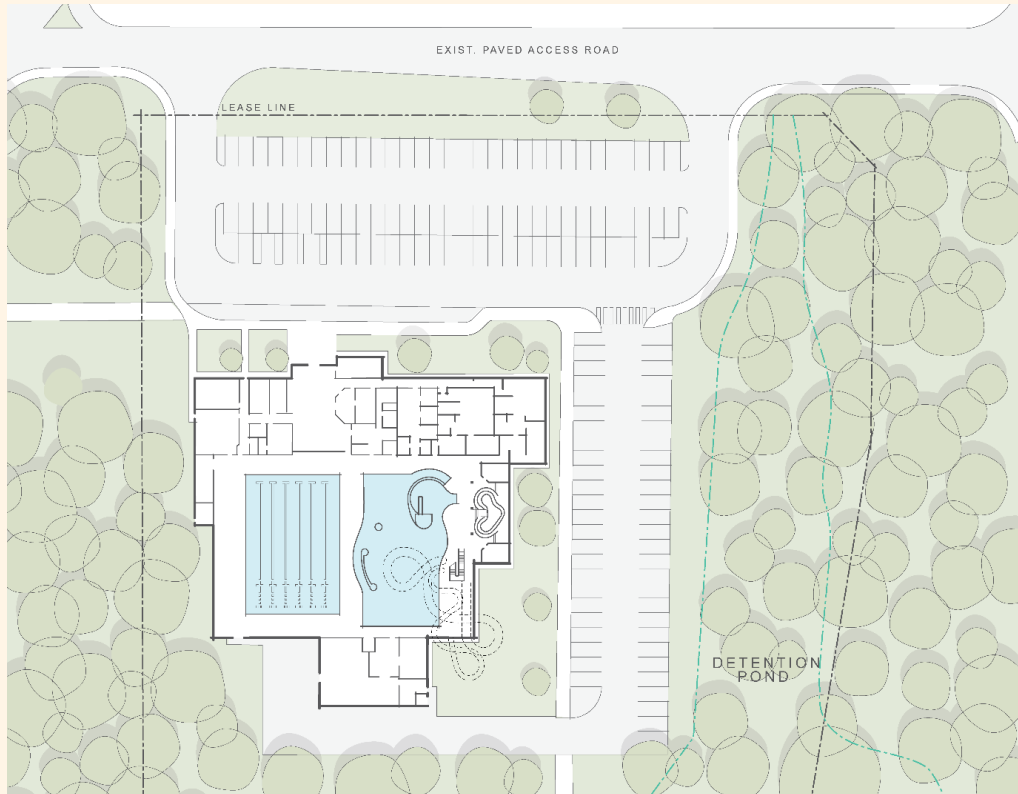
Outdoor Pool (\$1.0M)– some investment will be required to deal with the most pressing items identified in assessments completed to date. The replacement of the main drains and resolution of the leak issue should be a high priority.

There is little value in pursuing any remedial work to the change rooms (at the scale indicated by the RDH report) without substantially altering the layout to address significant issues with the layouts and address accessibility needs. If this facility is to be operated for the foreseeable future, this option should allow for a new change room facility to be constructed.

Sports Centre (\$7.5M) – based on reports completed to date, the primary focus would be on the replacement of any components nearing or at end of life (HVAC and roofing). Air handlers could be replaced with more efficient units, and insulation added to the roof during the re-roofing process which would help address the GHG reduction priority.

Aquatic Centre (\$8.0M)– the investment in this facility would be related to the items identified in the 2021 FCA report.

Option 2 - Consolidation at Aquatic Centre Site



Existing Aquatic Centre site conditions

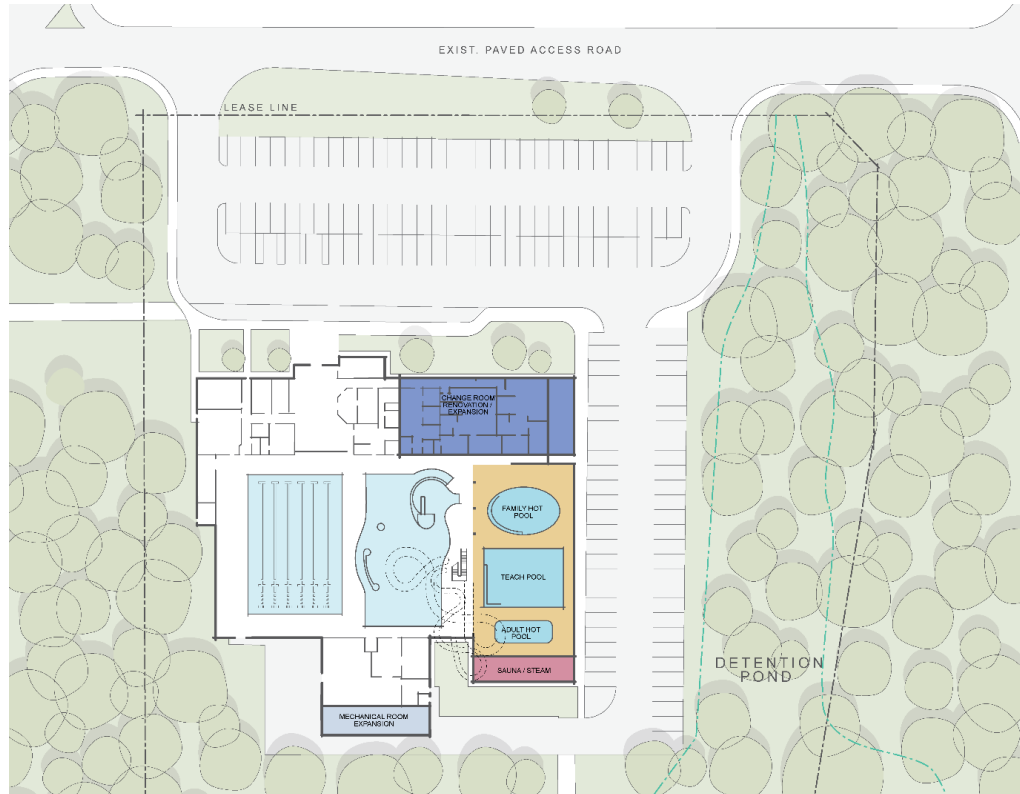
This option suggests that as the Outdoor Pool and Sports Centre reach end of life, they are replaced as an addition to the existing Aquatic Centre. At a high level, this option captures the following benefits:

- Operational efficiencies (staffing, energy systems)
- Capital cost efficiencies (shared change facilities and mechanical/support spaces)
- Opportunity to address emerging community priorities with a new facility design

This option is broken down into two potential phases:

- Option 2A - Wellness Expansion at Comox Valley Aquatic Centre
- Option 2B - Outdoor Pool Expansion at Comox Valley Aquatic Centre
- Option 2C - Wellness and Outdoor Pool Expansion at Comox Valley Aquatic Centre

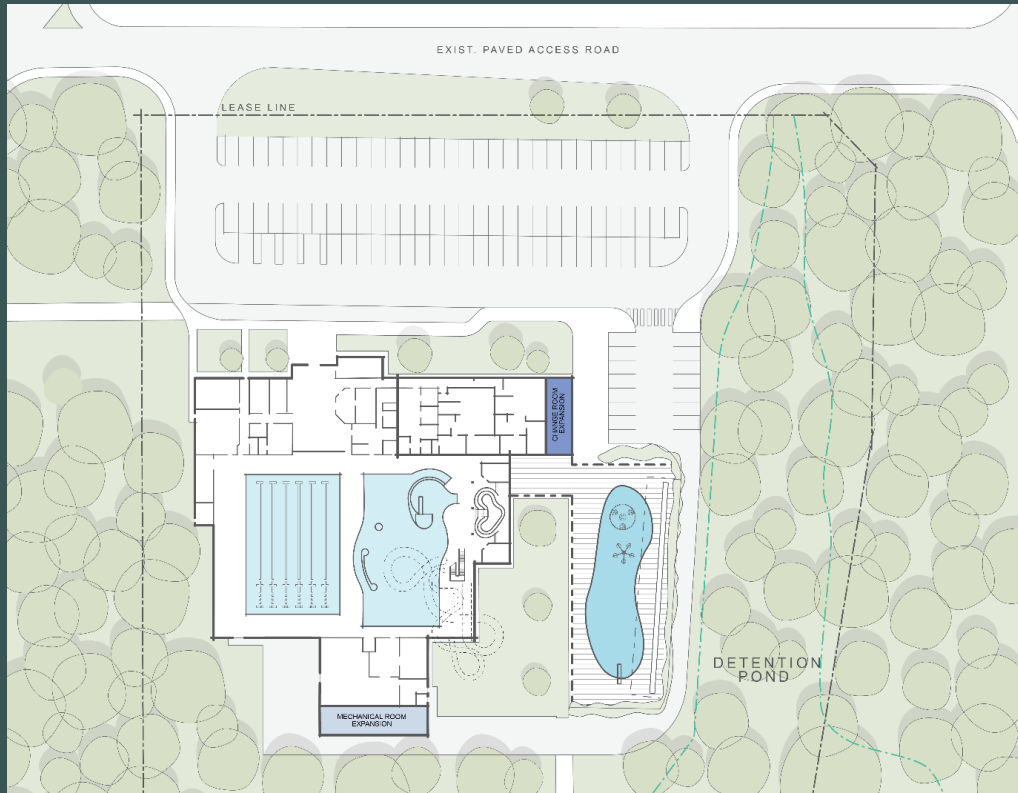
Option 2A – Wellness Expansion at Comox Valley Aquatic Centre (\$25.8M)



This option adds the current uses being accommodated at the Sports Centre to the Aquatic Centre site, with a distinct focus on the provision of wellness related amenities. This option would be located to the north of the existing centre. The concept study will determine how feasible it is to consolidate the sports centre uses in this location. It would include the following:

- Therapy/Teach Pool (approx. 15mx15m) suitable for aquafit, therapy and rehab uses, lesson programming etc. Water temperature would be warmer than the 25m pool, and cooler than the leisure pool.
- Additional sauna and steam rooms to build out a more comprehensive wellness zone.
- Addition of a second, larger hot pool. This would allow the two hot pools to be run at different temperatures.
- Additional deck lounging space
- Modest expansion to existing pool mechanical space for additional filters and boilers
- Potential reconfiguration and expansion of existing change rooms to accommodate the increased bather load

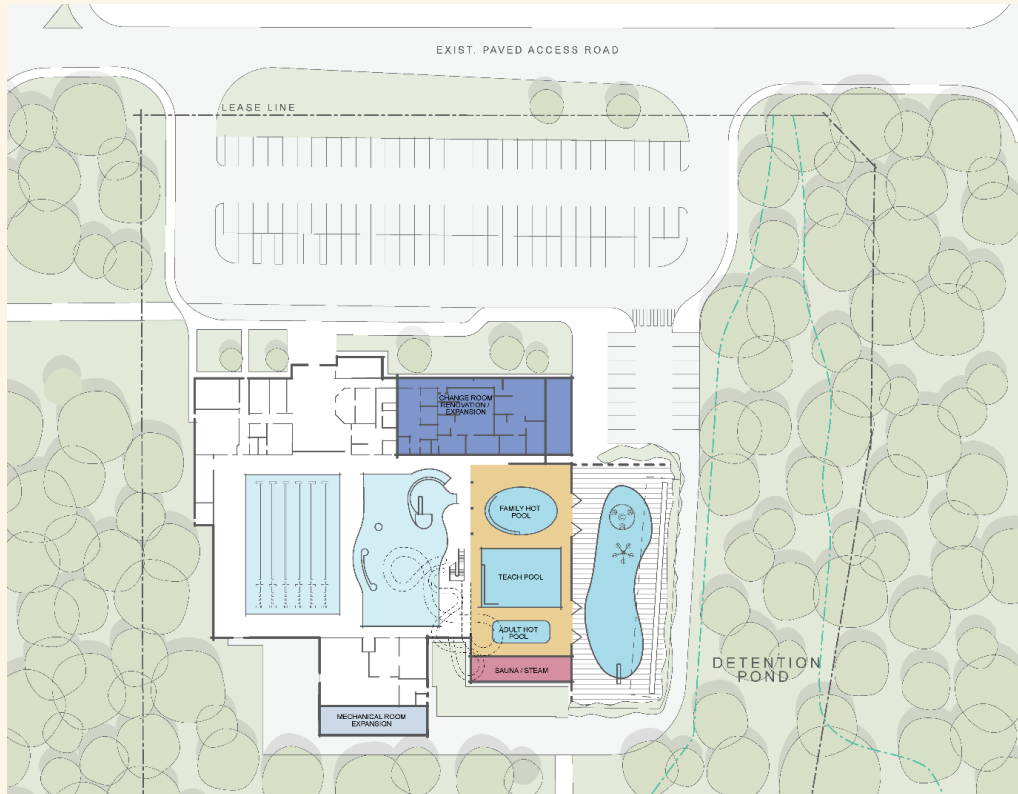
Option 2B – Outdoor Pool Expansion at Comox Valley Aquatic Centre (\$12M)



This option would place an outdoor pool on the parking area to the north of the existing building where it would be accessed through the buildings control zone. It would include the following:

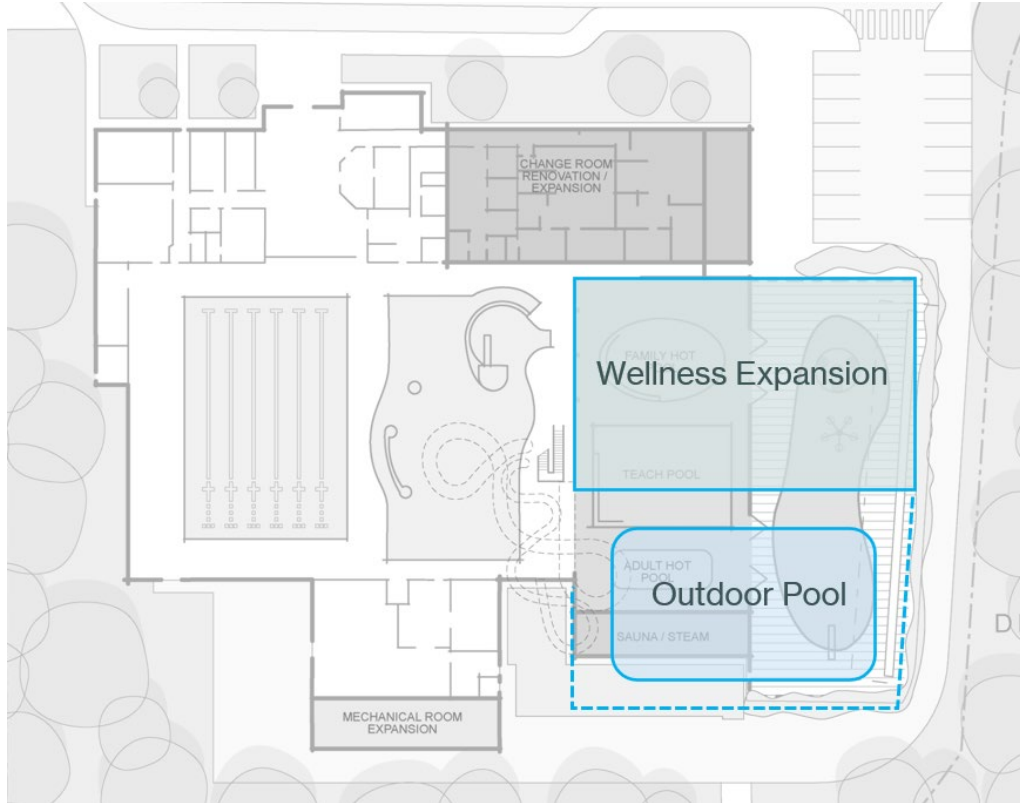
- Freeform outdoor leisure pool with water features, zero entry and enough consistent 900mm water depth to support some swim lesson programming. Equivalent water area to current outdoor pool.
- Potential reconfiguration and expansion of existing change rooms to accommodate the increased bather load.
- Modest expansion to existing pool mechanical space for additional filters and boilers
- Shade structure, picnic tables etc.
- Spray pad

Option 2C – Wellness and Outdoor Expansion at Comox Valley Aquatic Centre (\$35M)



The combined wellness provisions mentioned in option 2A, and the outdoor pool mentioned in option 2B would be added to the Aquatic Centre site in this option. The additional functions would be located to north of the existing facility and would require reconfiguration of the current parking and access road. The concept study will determine how feasible it is to consolidate both the sports centre and outdoor pool uses in this location.

Option 2C – Wellness and Outdoor Expansion at Comox Valley Aquatic Centre (Alternate Layout)



The sketch is an alternate layout for the wellness expansion and outdoor pool on the Aquatic center site. It has the benefit of not reducing the parking as much until the start of the wellness center construction. Although it helps with phasing, this option is slightly less efficient from a life-guarding standpoint. It also removes the possibility of having a second entrance to the outdoor pool if there is a desire to operate it separately.

Option 3 - Full Build Out at New Site (\$87.9M)

Recognizing that the current building inventory is all older than 20 years, the option of consolidating all the uses at a new site in a new single facility should be considered. This could potentially address the land ownership challenges of the existing sites. It would also allow for the building to meet current codes, allow for significant reduction in GHG footprint and optimized for programming desires. Assuming that no further capacity is required, this option could include the following:

- Main Tank (8 or 10L x 25M)
- Leisure Pool with lazy river, tot's zone, zero entry, spray features
- Waterslide
- Adult Hot pool
- Family Hot pool
- Universal change rooms
- Sauna and Steam rooms
- Pool Support Spaces
- Other potential dry floor uses (multi-purpose, fitness etc.)
- Outdoor Pool with slide and diving board

Option 4 – Outdoor Pool at New Site (\$16.1M)

This option proposes a new facility built on a different site to replace the existing Outdoor Pool, which has reached the end of its service life. A new build on a new site would comply with the City's Flood Management Strategy and provide an opportunity to reallocate amenities to meet the needs of the emergent communities. Additionally, it would enable the building to comply with current regulations and standards, significantly reduce its carbon footprint, and improve the universal accessibility to the facility. Without a capacity increase, the new facility will have a pool tank and deck space size that matches the existing outdoor pool.

Option 4B – New Outdoor Pool at Existing Site (\$18.2M)

This option proposes a new facility to replace the existing Courtenay Outdoor Pool on the same site. This option carries all of the same programming objectives as Option 4 (ie. matching the water area and amenities of the existing pool), but has some unique needs with respect to site considerations:

- Because the site is within the floodplain, current bylaws would require it to be built 1.7m higher than the existing pool. The ramps and stairs required to access this grade change would present significant disruption to the existing site connections (parking, spray pad, trails, community centre connection etc.)
- Demolition of the existing pool increases the cost of the site, and residents would lose access to the pool for at least one season unless additional site area could be made available for the new pool directly adjacent.
- As with Option 4, a new pool on this site would include all of the benefits of a modern facility built to current codes and best practices, including GHG reduction and accessibility objectives.
- The capital cost of Option 4B is higher than 4 to account for floodplain mitigation and demolition of the existing building. It has been assumed that a new parking lot is not required for Option 4B.

Evaluation of Facility Options

- Development of matrix to facilitate objective evaluation facility options for aquatic facilities in Comox Valley.

Aquatic Facility Options Summary

Option	Class D Capital Cost Est.	Alignment with Strategic Foundations	Increased Operating Efficiencies	Reduced Environmental Footprint	Increased Quality of Service	Enhanced Accessibility of Aquatics Service	New Site Purchase Required	Comments
Option 1 - Status Quo	\$16.5M	<p>Recreation Commission Goals:</p> <ul style="list-style-type: none"> Partnerships between jurisdictions <p>CVRD Strategic Priorities:</p> <ul style="list-style-type: none"> Community Partnerships <p>City of Courtenay Strategies Priorities:</p> <ul style="list-style-type: none"> Invest in key relationships 	None	No	None	None	No	Perpetuates current situation for 10 years or more
Option 2a Replace Sports Centre Pool at Aquatic Centre site	\$25.8M	<p>Recreation Commission Goals:</p> <ul style="list-style-type: none"> Asset Management Connectivity <p>CVRD Strategic Priorities</p> <ul style="list-style-type: none"> Fiscal Responsibility Climate Crisis and Environmental Stewardship Community Partnerships <p>City of Courtenay Strategies Priorities</p> <ul style="list-style-type: none"> Invest in key relationships Invest in natural and built environment Reasoned land use planning 	More	More	Some	Some	No	Enhanced focus on fitness, wellness, overall quality of indoor aquatics and efficiencies of operation
Option 2b Replace Outdoor Pool at Aquatic Centre Site	\$12M	<p>Recreation Commission Goals:</p> <ul style="list-style-type: none"> Asset Management Partnerships between Jurisdictions Connectivity <p>CVRD Strategic Priorities</p> <ul style="list-style-type: none"> Fiscal Responsibility Climate Crisis and Environmental Stewardship Community Partnerships <p>City of Courtenay Strategies Priorities</p> <ul style="list-style-type: none"> Invest in key relationships Invest in natural and built environment Reasoned land use planning 	Some	Some	More	Some	No	The City would relinquish control of the outdoor pool to the CVRD which would operate and fund it.

Aquatic Facility Options Summary (Cont.)

Option	Class D Capital Cost Est.	Alignment with Strategic Foundations	Increased Operating Efficiencies	Reduced Environmental Footprint	Increased Quality of Service	Enhanced Accessibility of Aquatics Service	New Site Purchase Required	Comments
Option 2c Centralize All Pools at Aquatic Centre site	\$35M	<p>Recreation Commission Goals:</p> <ul style="list-style-type: none"> Asset Management Partnerships between jurisdictions Connectivity Accessibility Improve efficiencies Climate Action <p>CVRD Strategic Priorities</p> <ul style="list-style-type: none"> Fiscal Responsibility Climate Crisis and Environmental Stewardship Community Partnerships <p>City of Courtenay Strategies Priorities</p> <ul style="list-style-type: none"> Organizational and governance excellence Invest in key relationships Invest in natural and built environment Reasoned land use planning 	Most	Most	More	More	No	Capital cost savings of \$2M if 2a and 2b are done as one project with the benefits of both
Option 3 A new indoor outdoor pool complex on a new site	\$87.9M	<p>Recreation Commission Goals:</p> <ul style="list-style-type: none"> Asset Management Connectivity Accessibility Improve efficiencies Climate Action <p>CVRD Strategic Priorities</p> <ul style="list-style-type: none"> Fiscal Responsibility Climate Crisis and Environmental Stewardship Community Partnerships <p>City of Courtenay Strategies Priorities</p> <ul style="list-style-type: none"> Organizational and governance excellence Invest in key relationships Invest in natural and built environment Reasoned land use planning 	Most	Most	Most	Most	Yes	Doesn't take advantage of Aquatics Centre value and requires complexity of a new site

Aquatic Facility Options Summary (Cont.)

Option	Class D Capital Cost Est.	Alignment with Strategic Foundations	Increased Operating Efficiencies	Reduced Environmental Footprint	Increased Quality of Service	Enhanced Accessibility of Aquatics Service	New Site Purchase Required	Comments
Option 4 A new outdoor pool on its own new site	\$16.1M	<p>Recreation Commission Goals:</p> <ul style="list-style-type: none"> Asset Management Connectivity Accessibility <p>CVRD Strategic Priorities</p> <ul style="list-style-type: none"> Fiscal Responsibility Climate Crisis and Environmental Stewardship Community Partnerships <p>City of Courtenay Strategies Priorities</p> <ul style="list-style-type: none"> Organizational and governance excellence Invest in key relationships Invest in natural and built environment Reasoned land use planning 	Some	Some	Some	Some	Yes	Increased capital cost over option 2b, complexity of finding an appropriate new site and no operating efficiencies or economies of scale
Option 4 B A new outdoor pool at the existing site	\$18.2 M	<p>Recreation Commission Goals:</p> <ul style="list-style-type: none"> Asset Management Accessibility <p>CVRD Strategic Priorities</p> <ul style="list-style-type: none"> Fiscal Responsibility Community Partnerships <p>City of Courtenay Strategies Priorities</p> <ul style="list-style-type: none"> Organizational and governance excellence 	More	No	More	Some	No	Increased capital cost over option 4, with complexity of complying with the floodplain bylaws, and no operating efficiencies or economies of scale

Evaluation Matrix Criteria

- Principle #1: Community Health and Wellbeing
 - 1) Proximity to public facilities and spaces
- Principle #2: Environmental Sustainability and Mitigation
 - 2) Climate Impact
 - 3) Flood Plain
- Principle #3: Accessible and Inclusive
 - 4) Equitable distribution and access
 - 5) Proximity to public transit
- Principle #4: Service Excellence
 - 6) Service quality
 - 7) Supports regional growth
- Principle #5: Financial Responsibility / Sustainability
 - 8) Project capital costs
 - 9) Operating costs
 - 10) Asset life expectancy
 - 11) Future expansion capability
 - 12) Land ownership

Evaluation Matrix

Criteria	Description	Scoring		
		3 Points	2 Point	1 Point
Principle #1: Community Health and Wellbeing				
Proximity to public facilities and spaces	The proximity of the project to public indoor facilities and outdoor spaces (e.g., schools, hospitals, parks), especially those that are complementary to the facility.	The project is within walking distance (<800m) to complementary public facilities and spaces.	The site is nearby (800m-1500m) complementary public facilities and spaces but not within walking distance.	The site is not nearby complementary public facilities and spaces (>1500m)
Principle #2: Environmental Sustainability and Mitigation				
Climate Impact	The degree to which the project will support reducing the environmental impact and emissions related to aquatic facilities.	The project is expected to reduce environmental impact and reduce emissions.	The project is moderately expected to reduce environmental impact and reduce emissions.	The project is not expected to reduce environmental impact and reduce emissions.
Flood Plain	The location of the project in relation to identified flood plain areas.	The project is not located in a flood plain area.	The project is located in proximity to a flood plain area.	The project is located in a flood plain area.
Principle #3: Accessible and Inclusive				
Equitable distribution and access	The degree to which the project is accessible to all regional residents and contributes to an equitable provision of services and facilities within the Region.	The project is universally accessible and contributes to the equitable provision of services in the Region.	The project is universally accessible or contributes to the equitable provision of services in the Region.	The project is not universally accessible, nor does it contribute to the equitable provision of services in the Region.
Proximity to public transit	The proximity of the project to public transit opportunities.	The project will be served by a public transit route.	The project is within walking distance (<800m) to a public transit route.	The project is not accessible via public transit
Principle #4: Service Excellence				
Service quality	The degree to which the project will enhance quality aquatic services in the Region.	The project has a high likelihood of enhancing aquatic services in the Region.	The project has a moderate likelihood of enhancing aquatic services in the Region.	The project has a limited likelihood of enhancing aquatic services in the Region.
Supports regional growth	The degree to which the project will accommodate future population growth in the region.	The project will accommodate future utilization demand levels.	The project has a moderate likelihood of accommodating future utilization demand levels.	The project has a limited likelihood of accommodating future utilization demand levels.
Principle #5: Financial Responsibility / Sustainability				
Project capital costs	The degree to which the project capital costs will impact the CVRD and City of Courtenay.	The project will have an overall low-cost impact to the CVRD and the City.	The project will have an overall moderate cost impact to the CVRD and the City.	The project will have an overall high-cost impact to the CVRD and the City.
Operating costs	The degree to which the project will increase the efficiency of operating investments in aquatic services	The project will appreciably increase operating efficiency in terms of net public subsidy per visit	The project will have a limited increase in operating efficiency	The project will have little or no increase in operating efficiency
Asset life expectancy	The anticipate life expectancy of the project.	The project will have a significant life span.	The project will have a moderate life span.	The project will have a limited life span.
Future expansion capability	The degree to which the project will accommodate future expansion and growth of recreation, parks, and culture facilities (as well as other public amenities).	The project will accommodate future indoor and outdoor RPC amenities as well as other public services.	The proposed site is large enough or the project design will accommodate future indoor and outdoor RPC amenities.	The project will not accommodate any future indoor and outdoor RPC amenities or other public services.
Land ownership	Securing a site or sites for the project could become a significant factor in making a decision about the project	The project will be on existing publicly owned land.	The project will be on land not publicly owned, but tenure is secure	The cost of securing a new site for the project will be difficult and expensive

Scoring of Indoor Options

Criteria	1 Indoor Pool Status Quo		2a Wellness Expansion CVAC		3 New Complex, New Site	
	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score
Proximity to public facilities and spaces	2	2	3	3	3	3
Climate Impact	1	2	3	6	3	6
Flood Plain	3	6	1	2	3	6
Equitable distribution and access	2	4	3	6	3	6
Proximity to public transit	1	3	3	9	3	9
Service quality	2	8	3	12	3	12
Supports regional growth	1	2	2	4	3	6
Project capital costs	3	15	2	10	1	5
Operating costs	2	6	3	9	3	9
Asset life expectancy	2	6	3	9	3	9
Future expansion capability	2	2	1	1	3	3
Land ownership	3	6	3	6	1	2
TOTAL		62		77		76

Scoring of Outdoor Options

Criteria	1 Outdoor Pool Status Quo		2b Outdoor Pool Expansion CVAC		4 New Outdoor Pool		4b New Outdoor Pool, Existing Site	
	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score
Proximity to public facilities and spaces	2	2	2	2	2	2	2	2
Climate Impact	1	2	3	6	2	4	2	4
Flood Plain	1	2	3	6	3	6	1	2
Equitable distribution and access	2	4	2	4	2	4	2	4
Proximity to public transit	2	6	3	9	3	9	2	6
Service quality	1	4	3	12	3	12	3	12
Supports regional growth	1	2	2	4	3	6	1	2
Project capital costs	3	15	2	10	1	5	1	5
Operating costs	1	3	3	9	1	3	1	3
Asset life expectancy	1	3	3	9	3	9	3	9
Future expansion capability	2	2	1	1	3	3	1	1
Land ownership	3	6	3	6	1	2	3	6
TOTAL		51		78		65		56

Scoring of Indoor / Outdoor Options

Criteria	2c Wellness / Outdoor Pool CVAC		3 New Complex, New Site	
	Score	Weighted Score	Score	Weighted Score
Proximity to public facilities and spaces	2	2	3	3
Climate Impact	3	6	3	6
Flood Plain	3	6	3	6
Equitable distribution and access	3	6	3	6
Proximity to public transit	3	9	3	9
Service quality	3	12	3	12
Supports regional growth	3	6	3	6
Project capital costs	2	10	1	5
Operating costs	3	9	3	9
Asset life expectancy	3	9	3	9
Future expansion capability	1	1	3	3
Land ownership	3	6	1	2
TOTAL		82		76

Recommended Action

- Recommended Indoor Pool Option: **Wellness Expansion at Comox Valley Aquatic Centre (2A – weighted score 77)**
- Recommended Outdoor Pool Option: **Outdoor Pool Expansion at Comox Valley Aquatic Centre (2B – weighted score 78)**
- Recommended Combined Indoor / Outdoor Pool Option: **Wellness and Outdoor Expansion at Comox Valley Aquatic Centre (2C – weighted score 82)**

Wellness and Outdoor Expansion at Comox Valley Aquatic Centre (Option 2C) is the recommended option as it confers the most benefits to the Regional District, the City, and the regions residents.

- It also supports all five priorities of the Comox Valley Recreation Commission.

Next Steps

- Review of draft report by Administration and Councils *(Jan / Feb 2023)*
- Second round of public engagement to present facility options *(Jan / Feb 2023)*
- Adjust on the basis of engagement *(Feb / March 2023)*
- Final report to Recreation Commission / Councils *(March 2023)*

Questions?
Thank you

