



## AQUATIC SERVICES & INFRASTRUCTURE STRATEGY (2015–2040)



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# Aquatic Services and Infrastructure Strategy (2015-2040)

## INTRODUCTION

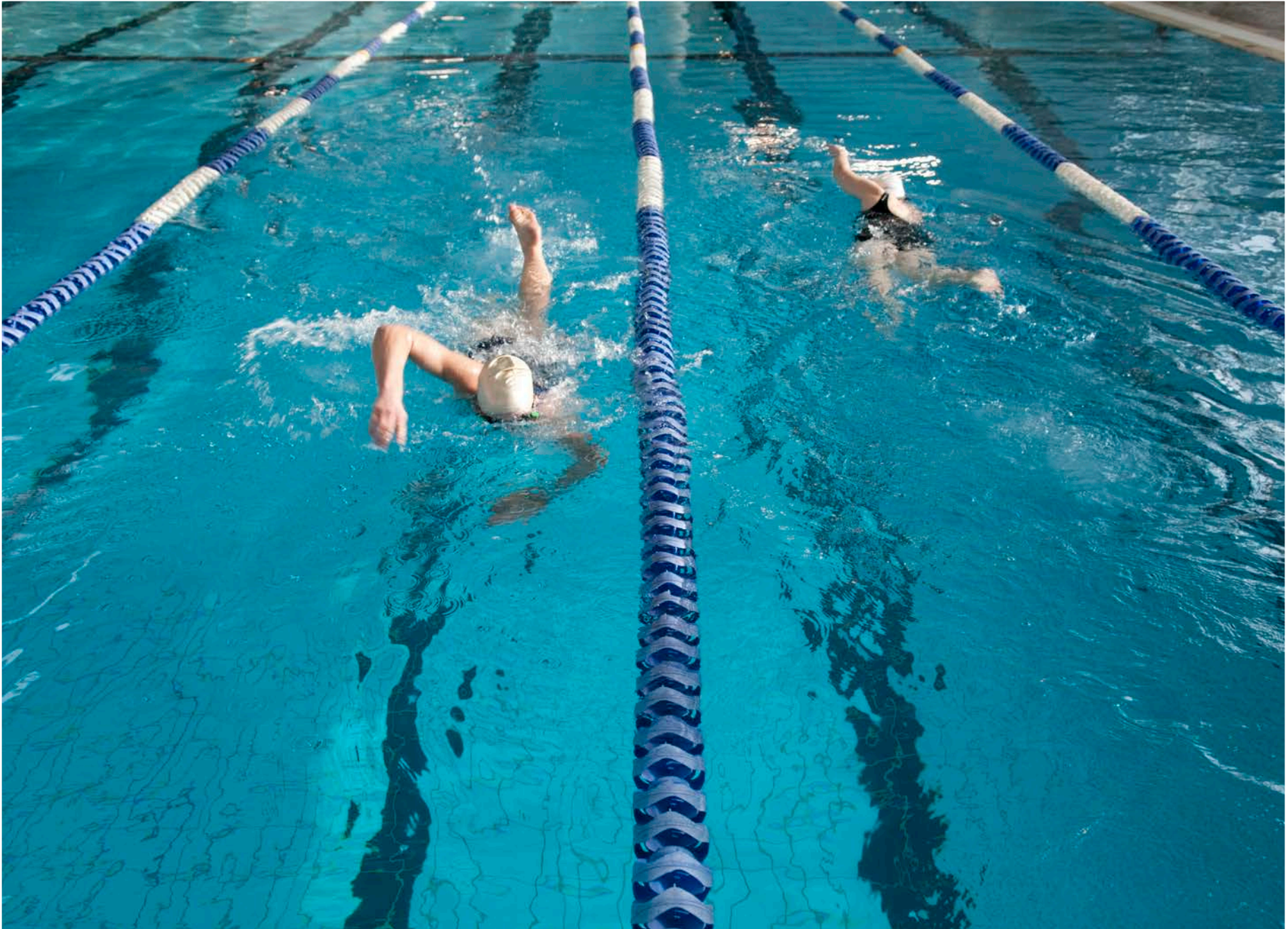
The City of Coquitlam Council endorsed an Aquatics Services and Infrastructure Strategy in 2012, which identified aquatic service levels and a set of recommendations for aquatic service provision over the short, medium and long-term future. However, a number of key considerations emerged after the endorsement of that Strategy, which necessitated an update. The City retained Professional Environmental Recreation Consultants Ltd. (PERC), authors of the 2012 strategy, to update and reflect those considerations in a revised set of service levels along with a new implementation strategy.

## BACKGROUND

The Aquatic Services and Facilities Strategy provides a long-term plan for the provision of aquatic facilities and services over the next twenty-five years as an integral part of the *Parks, Recreation and Culture Master Plan*, it focuses on how the City can best invest limited public resources to meet current and future demands for swimming and other aquatic facilities.

In 2012, the City of Coquitlam developed and adopted an Aquatic Services and Infrastructure Strategy however, since that time, a number of key considerations emerged that required an update to strategy, including :

- Changes to the city's projected demographics and patterns of aquatic use;
- Changes to what surrounding communities are planning with respect to provision of aquatic services and infrastructure;
- Proposals for new indoor pool partnerships within the city;
- The direction set in the City's draft *Parks, Recreation and Culture Master Plan*; and
- Additional input from City Council.



## EXECUTIVE SUMMARY

In 2012, Council endorsed a long-term strategy for the provision of aquatic services and infrastructure. Updated information suggests the following changes to that strategy:

- Adopt two levels of Spray Decks: *basic* and *enhanced*;
- Add Enhanced Spray Decks to both the City and the Community levels of service; and
- Adjust the timing and level of investment to better coordinate with the planned investments in aquatic services in neighbouring municipalities.

Incorporating this updated information, the following is a summary of the revised strategies.

- Confirm three tiers of service for aquatic service provision, with an indoor and outdoor pool facility serving City-wide level, Indoor Pools serving the

Community level, Enhanced Spray Decks serving the City-wide and Community levels, and Spray Decks serving neighbourhoods with higher proportion of young children.

- Plan for the provision of aquatic capacity of about 6.6 indoor swims per capita.
- Plan for the provision of one Community level Enhanced Spray Deck in the Southwest (Blue Mountain Park) and Northeast (Partington Village Centre) and two to serve City-wide needs (Town Centre Park and Spani Pool).
- Build spray decks in neighbourhood parks where they are needed (those neighbourhoods with a significant portion of young children) and phase out the one remaining wading pool at Blue Mountain Park after the Enhanced Spray Deck is completed.

- Add/retrofit City level indoor pools City Centre Aquatic Complex (CCAC) and Poirier Sport & Leisure Complex (PSLC) and outdoor pools (Spani Pool) to enhance destination facilities and ensure that they continue to draw users from across Coquitlam and beyond at close to full capacity (i.e. 90% capacity).
- Increase indoor aquatic capacity in Southwest Coquitlam within the next decade through a partnership with the YMCA and in the Northeast by providing a new indoor community level pool.
- After CCAC outdoor aquatic experience is built, consider decommissioning the Eagle Ridge outdoor pool when it is beyond its functional lifespan. In the meantime, invest only enough to keep it functional.

**Table 1** summarizes the service levels embodied in the revised strategy.



**TABLE 1 – SUMMARY OF STRATEGY**

TYPE OF AQUATIC AMENITY	GEOGRAPHIC LEVELS OF PROVISION			SERVICE LEVEL	AQUATIC SERVICES DELIVERED
	CITY-WIDE	COMMUNITY	NEIGHBOURHOOD		
<b>Indoor Pools</b>	✓	✓	X	6.6 swims per capita	See page 7
<b>Outdoor Pools</b>	✓	✓	X	0.6 swims per capita	All but rehab/therapy
<b>Wading Pools</b>	X	X	X	Replace with Enhanced Spray Deck	None
<b>Enhanced Spray Decks</b>	✓	✓	X	1 per community also serves neighbourhood	Respite from summer heat, water orientation for toddlers and fun
<b>Spray Decks</b>	X	X	✓	1 per neighbourhood with high proportion of young children	Respite from summer heat, water orientation for toddlers and fun



## FRAMEWORK FOR PLANNING AQUATIC SERVICES

**Table 2** illustrates the framework for aquatic service provision, which includes nine categories of aquatic service, three types of aquatic facilities, and three modes of operation of those facilities.

While there are exceptions to the categories noted in **Table 2** the shaded boxes represent the primary mode(s) of operation for each of the nine categories of aquatic service.

The nine categories of aquatic service are described as follows:

1. Fun (e.g. recreational swimming)
2. Skill development (e.g. primarily learn-to-swim lessons, but also other types of skill development programs)
3. Physical activity (e.g. lane swimming or organized water based fitness classes)
4. Sport training (e.g. Hyack Swim Club training sessions)
5. Special events (e.g. large events like swim meets, or smaller events like birthday parties)
6. Rehabilitation and therapy
7. Leadership training (e.g. Bronze Medallion, Bronze Cross, NLS courses)
8. Respite from summer heat (using water to cool off in the summer heat)
9. Water orientation play for toddlers (becoming somewhat comfortable in a safe water-based environment)

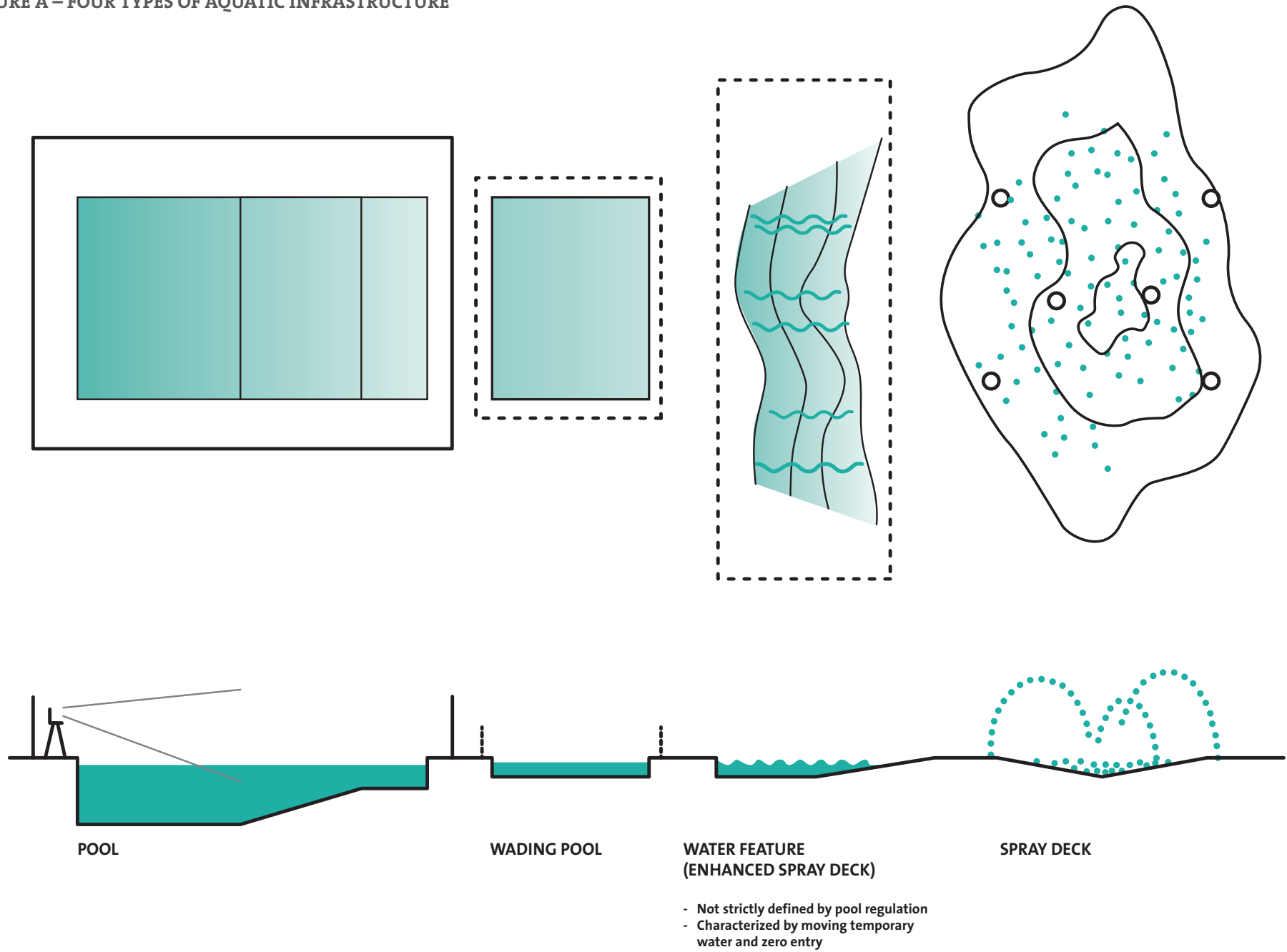
The three types of aquatic facility operation are described as follows:

1. Drop-in use, where users decide, on a case-by-case basis, to access a pool.
2. Program use, where users pre-commit to a series of uses through a registration process.
3. Rental use, where a group rents space and controls the users and uses.

**TABLE 2 – ACCOMMODATING CATEGORIES OF AQUATIC SERVICE WITHIN THREE MODES OF OPERATION**

NINE CATEGORIES OF AQUATIC SERVICE	THREE MODES OF OPERATION		
	DROP-IN	PROGRAM	RENTAL
Recreational Swimming			
Swim Lessons			
Swimming for Physical Activity			
Sport Training			
Special Events			
Therapy and Rehabilitation			
Leadership Training			
Respite from Summer Heat			
Water Orientation Play for Toddlers			

FIGURE A – FOUR TYPES OF AQUATIC INFRASTRUCTURE





The four types of aquatic infrastructure as shown in **Figure A**:

- **Indoor Pools** – significant structures with one or more tanks in an indoor environment that serve a broad range of aquatic services in a staffed and controlled environment in all three modes of operation;
- **Outdoor Pools** – like an indoor pool but in an outdoor environment;
- **Wading Pools** – usually a modest shallow water outdoor amenity with water depth 15 cm to 60 cm, requiring staff and operational oversight of the BC Pool Regulations;
- **Spray Decks** – which have little or no standing water, in an outdoor environment, and does not require a Pool Operating Certificate under the BC Pool Regulations, and therefore need not be staffed, and can be remotely controlled. Spray Decks can be quite modest (i.e. a basic one) or quite elaborate and include an additional water feature (what is heretofore referred to as an Enhanced Spray Deck).

The nine categories of aquatic service will be provided by the four types of aquatic facilities as summarized in **Table 3**.

**TABLE 3 – CATEGORIES OF AQUATIC SERVICES PER POOL TYPE**

CATEGORIES OF AQUATIC SERVICE	INDOOR AQUATIC CENTRES	OUTDOOR POOLS	WADING POOLS	SPRAY DECKS
Recreational Swimming				
Swim Lessons				
Swimming for Physical Activity				
Sport Training				
Special Events				
Therapy and Rehabilitation				
Leadership Training				
Respite from Summer Heat				
Water Orientation Play for Toddlers				

The three geographic levels of aquatic service provision as follows:

- City-wide/sub-regional level of provision, where a single, more specialized service centre in the city draws users from throughout the city and beyond;
- Community level of provision, where a service centre draws users primarily from its own community of 30,000 to 80,000 residents; and
- Neighbourhood level of provision, where each service centre draws users primarily from its immediate neighbourhood of 5,000 to 8,000 residents.

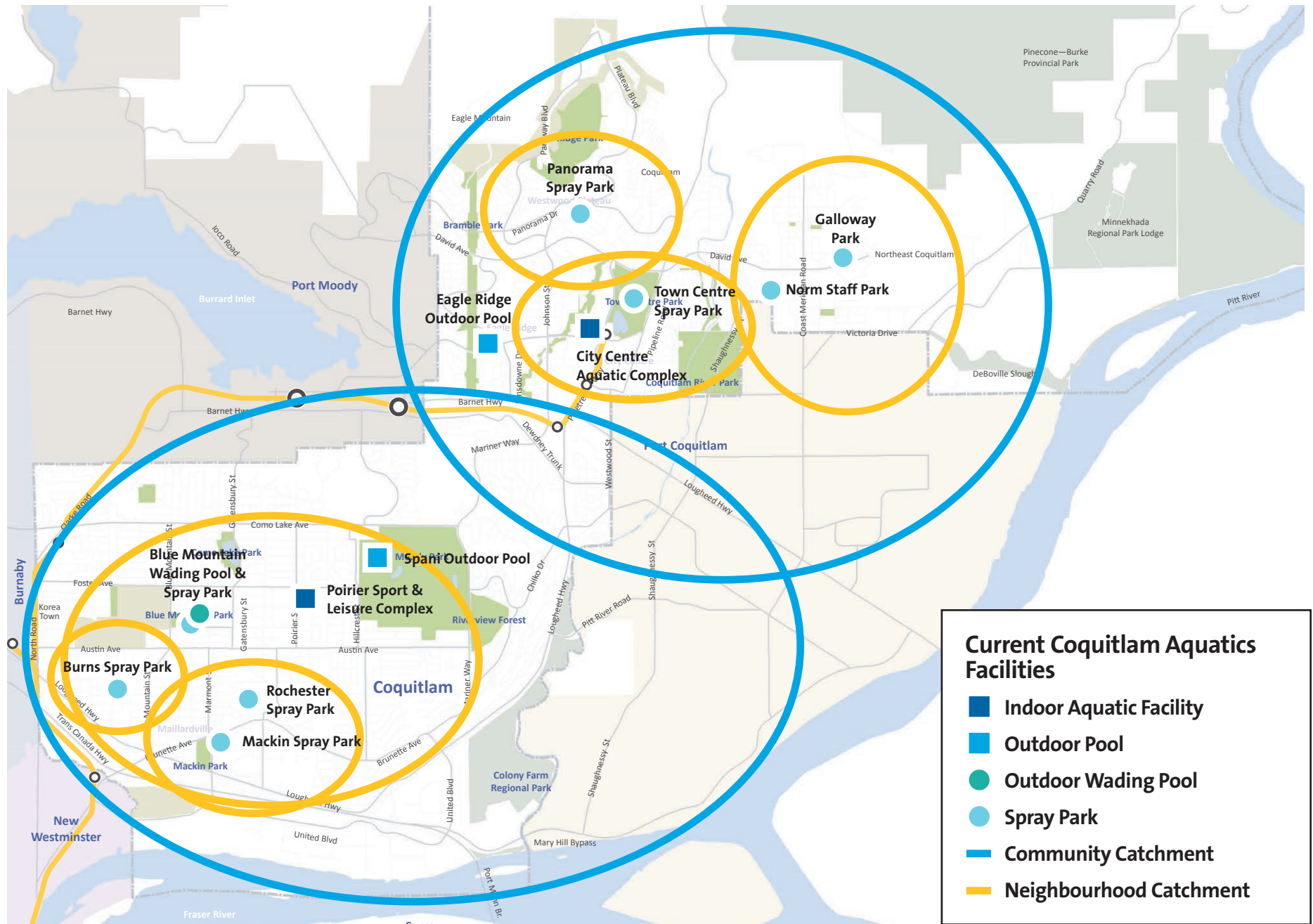
While there are exceptions to the categories noted in **Table 4**, the shaded boxes represent the primary geographic levels of service at which each of the nine categories are delivered.

**TABLE 4 – CATEGORIES OF AQUATIC SERVICES BY GEOGRAPHIC LEVEL OF PROVISION**

CATEGORIES OF AQUATIC SERVICE	CITY-WIDE	COMMUNITY	NEIGHBOURHOOD
Recreational Swimming			
Swim Lessons			
Swimming for Physical Activity			
Sport Training			
Special Events			
Therapy and Rehabilitation			
Leadership Training			
Respite from Summer Heat			
Water Orientation Play for Toddlers			

The above described framework for planning aquatic services and infrastructure represent a slight refinement and update of the framework used in 2012.

**FIGURE B – MAP OF AQUATIC INFRASTRUCTURE WITH PRIMARY CATCHMENT AREAS**



## EXISTING AQUATIC INFRASTRUCTURE AND USE

Coquitlam has improved aquatic infrastructure since 2012 by implementing several projects identified in the 2012 Strategy. Specifically, two spray decks were built at Burns and Mackin parks. Also, a significant upgrade to City Centre Aquatic Complex was completed in 2014, connecting to the city energy system, and upgrading the indoor spray features and physical appearance.

In 2015, improvements to Blue Mountain Wading Pool and Spray Deck to bring them into compliance with the BC Swimming Pool Regulations were completed. These temporary improvements were intended to extend the life of these facilities pending the revised aquatic strategy. Through 2015 and 2016, improvements to both the outdoor pool facilities (Eagle Ridge and Spani) were implemented to extend their functional lives for another 15 to 20 years.

The existing aquatic infrastructure has been mapped to illustrate the primary catchment areas in *Figure B*.

The consultants updated the number of visits for each aquatic complex and outdoor pools for 2014. The use has increased from 2011 to 2014 by approximately 100,000 swims for indoor pools reflecting the population growth of 15,000 people and maintaining a per capita use of about 6.6 swims.

The use of the outdoor pools experienced a decline of 5,000 swims in 2014 over 2011 as opposed to a 9,000 swim increase if the new residents used the outdoor pools at the level of 0.6 swims per capita. The service level provides a basis of assessment for determining when additional capacity should occur and monitoring the use is important in this planning function. Records indicate that hotter summers bring higher numbers of swimmers to outdoor pools.

## UNDERSTANDING CAPACITY AND PUBLIC SUBSIDY

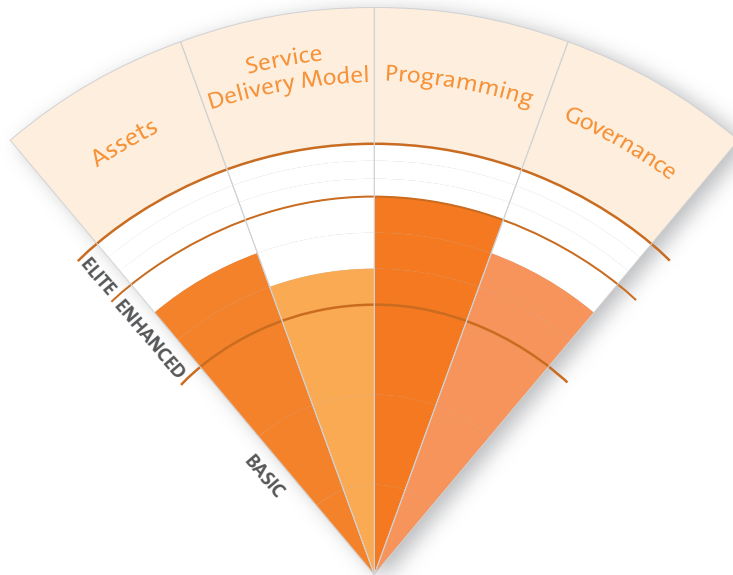
An aquatic facility is most effectively operated at about 90% of its capacity for use. It is at this level that the facility is most economically operated while the customer satisfaction remains high. When the use in relation to capacity exceeds this level satisfaction and attendance tend to drop and the service level is difficult to maintain. Conversely, adding capacity too quickly will reduce the use in relation to capacity of the existing facilities and their operations will not be as effective.

Aquatic users are mobile and will travel to the facility of their choice consequently projecting the use in relation to capacity using a service level of swims per capita is calculated on a municipal basis.

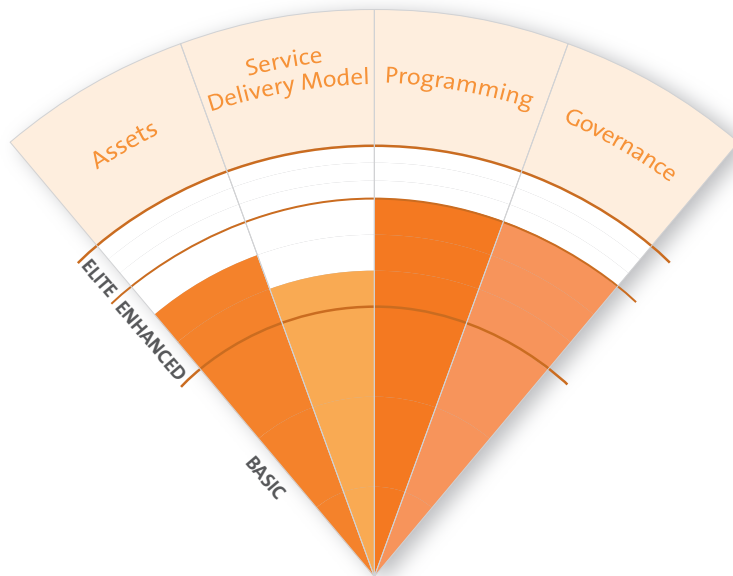
One of the key measures of an aquatic facility performance is the net public subsidy per swim. This is developed by subtracting the operating costs from the revenues and dividing by the net subsidy by the number of swims. In Coquitlam, like in most communities, the net public subsidy per swim in the outdoors is more than twice the subsidy realized in the indoor pools. Obviously, the efficiency of indoor pools to deliver swims is much better than outdoor pools. While it may seem counterintuitive, the cost per swim is typically higher for an outdoor pool than an indoor pool. This is due to the impact of weather on use and the costs of opening and closing the outdoor pools. While the City may still prioritize outdoor aquatic services, in particular outdoor pools, due to the unique services these provide to the community, an understanding of the increased costs of these services is important. That said, it is also acknowledged that outdoor aquatics offers a unique service and as such communities may accept the higher subsidy costs to retain and enhance their outdoor pools, should these be highly valued and desirable by the community.



## AQUATICS 2015



## AQUATICS 2020



# Goals And Objectives

- Maintain the current supply standard of aquatic services and deliver a balanced program of aquatic facilities including two levels of spray decks: basic and enhanced.
- Provide three levels of service model for aquatic service provision, with an indoor and outdoor pool serving City-wide level, indoor pools serving the Community level, Enhanced Spray Decks serving the City-wide and Community levels and spray decks serving Neighbourhoods with significant proportions of young children.
- Maintain the current aquatic capacity of approximately 6.6 indoor swims per capita and 0.6 swims per capita outdoors.
- Build spray decks in neighbourhood parks where they are needed (those neighbourhoods with a significant portion of young children) and phase out the one remaining wading pool at Blue Mountain Park after the enhanced spray deck is completed.
- To provide indoor aquatic capacity in the Northeast by providing a new indoor community-level pool within the next 10 years.
- Plan for the provision of one community level enhanced spray deck in the Southwest (Blue Mountain Park) and Northeast (Partington Village Centre) and two to serve City-wide needs (Town Centre Park and Spani Pool).
- Add/retrofit City-wide level indoor pools (CCAC and PSLC) and outdoor pools (Spani Pool) to enhance destination facilities and ensure that they continue to draw users from across Coquitlam and beyond at close to full capacity (i.e. 90% capacity).
- Increase indoor aquatic capacity in the Southwest community within the next decade through a partnership with the YMCA and in the Northeast by providing a new indoor Community level pool at the end of the next decade (by 2030).
- Monitor Community-level outdoor pool infrastructure over the next decade and shift some uses of Eagle Ridge pool to City/Regional level outdoor pool at Spani, and to CCAC to provide a Community level outdoor pool experience.
- Only after CCAC outdoor aquatic experience is built, consider decommissioning the Eagle Ridge outdoor pool when it is beyond its functional lifespan. In the meantime, invest only enough to keep it functional.

# Implementation

## AQUATIC INFRASTRUCTURE CAPITAL PROJECTS

FACILITY	CITY CAPITAL CONTRIBUTIONS REQUIRED			COMMENTS
	2015-2020	2021-2025	2026-2031	
YMCA	\$15M <sup>1</sup>			Construction of the YMCA needs to proceed as soon as possible
Blue Mountain Park	\$2M			Add Enhanced Spray deck
Blue Mountain Park				Close Blue Mountain Wading Pool once the enhanced spray deck is in place
Spani Outdoor Pool		\$15M		Add leisure pool and enhanced spray deck
Town Centre		\$2M		Add enhanced spray deck at Town Centre Park or CCAC
CCAC Enhancement with Outdoor Pool			\$15M	Add outdoor pool experience to replace Eagle Ridge
Eagle Ridge Pool				Close once replacement at CCAC Outdoor Pool is open
Fraser Mills Development				Facilitate a self contained aquatic facility or additional contributions to a community level indoor pool for Southwest community
Northeast Park			\$2M	Build an Enhanced Spray deck prior to the construction of an indoor pool on the same site
Northeast Community Centre			\$30M	Build an indoor aquatic facility similar in size to PSLC as part of a Northeast recreation centre
Neighbourhood level spray decks	\$750k	\$750k	\$750k	Add neighbourhood spray decks as suitable neighbourhood parks are developed or redeveloped
<b>Total</b>	<b>\$17.8</b>	<b>\$17.8</b>	<b>\$47.8</b>	

*1 Although the City is expected to invest \$25 M into the YMCA Community Centre, approximately \$15M would pay for half of the indoor pool portion of the facility.*

*The figures included are order of magnitude cost estimates based in 2015 dollars. At such time that the specific projects are endorsed by Council to proceed into planning and design, more detailed budgets will be developed once the project scope is determined and these will be presented to Council for consideration and approval as part of future capital plans.*

### IMPLEMENTATION ASSUMPTIONS

- Planning for indoor aquatic capacity increases should be monitored with population growth so additional capacity can be added when indoor pools approach 90% of their capacity;
- Planning for aquatic infrastructure by adjacent municipalities needs to be monitored to ensure appropriate service levels are maintained;
- The cost to build spray decks is based on many variables, including topography, and design and the cost estimate is a placeholder. It is assumed that the total \$4.5 million would provide for 6 neighbourhood level spray decks; and
- All cost estimates are in 2015 dollars.



Coquitlam

**CITY OF COQUITLAM**

**Parks, Recreation and Culture Services**

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