

Burquitlam-Lougheed Servicing Assessment

City of Coquitlam

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Coquitlam

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The Burquitlam-Lougheed Servicing Assessment was developed by a multi-disciplinary team of Coquitlam staff, led by Community Planning and including Engineering and Public Works; Parks, Recreation, Culture and Facilities; Planning and Development; and Finance, Land and Police staff.

1.0 INTRODUCTION

1.1 Context

The Burquitlam-Lougheed Servicing Assessment is a high-level summary of estimated and proposed funding sources (both DCC and non-DCC related) for servicing requirements (infrastructure works including transportation and utility improvements, and parks) that are needed to support the build-out of the Burquitlam-Lougheed Neighbourhood Plan ('BLNP' or the 'Plan').

The Servicing Assessment was initially developed to accompany the adoption of the BLNP in 2017. However, bylaw updates and land use policy changes have necessitated an update to the Servicing Assessment. The land use planning changes captured in this update are a result of three neighbourhood pocket areas (Miller-Grant, Whiting-Appian, and Guilby-Grayson), which weren't included in the BLNP (see Appendix E: Neighbourhood pocket areas). The Servicing Assessment changes as a result of these pockets are referenced in the remainder of this document as the 2022 update.

The original BLNP Servicing Assessment in 2017 projected an increase of 9,000-10,000 dwelling units (15,000-20,000 people) of over a 20-25 year period. An update in 2020 resulted in an additional projected increase of approximately 3,300 dwelling units (7,100 people). Land use changes to the neighbourhood pockets in 2022 have resulted in a further projected increase of 2,900 dwelling units (6,600 people). The projected increase is anticipated to be 15,000-16,000 dwelling units (28,000-33,000 people)¹ in the BLNP (in addition to the 2016 area population of approximately 21,000 residents and 8,600 residents). Some of these servicing elements also support the wider Southwest Coquitlam community.

As a companion document to the BLNP, this Assessment is based on the key outcomes of detailed servicing, phasing and financial plans that aim to facilitate redevelopment in Burquitlam-Lougheed. While much of the servicing and infrastructure in Coquitlam is interlinked and improvements in one area help to support adjacent neighbourhoods, this Assessment only includes capital costs for improvements within the BLNP boundary and does not include the operating, maintenance or asset replacement costs associated with these projects.

More specifically, the Development Cost Charge (DCC) eligible capital costs noted in this Assessment are incorporated into the City-wide DCC program through periodic DCC bylaw updates. Non-DCC eligible capital improvements will be funded through a combination of sources, including private sector development, the City's capital budget, utility fees and contributions from other levels of governments. Project specific details are provided in Sections 2.0 – 4.0. The needs identified in this Servicing Assessment are used by the Finance, Land and Police Department to prepare future Five Year Financial Plans and assist in the determination of the City-wide DCC program, for approval by Council in the future to support the BLNP and the City as a whole.

¹ Projections updated as a result of Bylaw 5162, 2022.

This Servicing Assessment was jointly prepared by Engineering and Public Works; Parks, Recreation, Culture and Facilities; Planning and Development; and Finance, Land and Police staff. This Assessment should be used in conjunction with the City’s Five Year Financial Plan, *Official Community Plan, Burquitlam-Lougheed Neighbourhood Plan, Subdivision and Development Servicing Bylaw, Development Cost Charge (DCC) Bylaw, Community Amenity Contribution (CAC) Policy, and the Parks Prioritization Plan* in setting capital funding priorities.

1.2 Funding and Costs Summary

Transportation, utility, and park improvements in the BLNP area will be implemented through a combination of funding sources, including private sector development, the City’s capital and Development Cost Charge (DCC) reserves, density bonus funds, utility fees and potential contributions from other levels of governments. The City will determine the optimal funding source in balance with other City funding priorities in order to support future growth.

The majority of DCC-eligible infrastructure works required to support full build-out of the Plan are already included in the City’s DCC program. Works that are not currently included will be reviewed and are anticipated to be added to the DCC program during the next DCC bylaw review.

1.2.1 Estimated DCC Revenue

The City uses a Citywide DCC program, which applies the same DCC rates to developments across the City to fund the cost of all DCC-eligible capital projects in Coquitlam. Based on the development projections for the BLNP area, approximately \$113 million was estimated in the 2017 BLNP Servicing Assessment over a period of 20-25 years. The 2022 update estimates that up to approximately \$271 million of DCCs (Table 1), will be collected from development within the BLNP area over the next 20-25 years, depending on actual development activity and market cycles. Estimated DCC revenue projected in this area is based on the rates set out in the current Development Cost Charge Bylaw No. 4950, 2019. The rates would be amended during the next DCC Update to incorporate the current unfunded DCC eligible amounts.

Table 1 – Estimated DCC revenues and costs generated from BLNP by 2046^{2 3}

	Transportation DCCs	Water DCCs	Sanitary DCCs	Drainage DCCs	Parkland Acquisition DCCs	Parkland Improvement DCCs	Total
Estimated DCC Revenue ⁴	\$55.70 M	\$12.92 M	\$5.96 M	\$17.56 M	\$139.73 M	\$38.67 M	\$270.54 M

² The DCC Revenue includes an estimate of 82,500 m² (888,000 sq. ft.) of commercial floor space. Estimated dwelling unit projections are set out in Section 5.0.

³ The DCC program is reviewed every two years and are next anticipated to be updated in 2022/2023

⁴ All revenue estimates are based on the City’s 2019 DCC Bylaw and are in 2019 dollars.

1.2.2 Estimated Costs⁵

The 2017 Servicing Assessment estimated a total cost of DCC projects listed at approximately \$128 million and approximately \$34 million of Non-DCC eligible costs. The 2022 total estimated cost of DCC projects listed in the BLNP Servicing Assessment is approximately \$329 million. Non-DCC eligible costs are approximately \$92 million (Table 2). The updates to the neighbourhood pockets represents a cost increase of approximately \$80 million, of which approximately \$79 million is DCC eligible.

Coquitlam's DCC program is citywide and revenue and spending is not tracked on a neighbourhood level basis. DCC revenue generated from development within Burquitlam-Lougheed will go towards funding DCC-eligible infrastructure improvements across Coquitlam as prioritized by Council. Given the interconnected nature of infrastructure, some of the improvements in Burquitlam-Lougheed will directly or indirectly benefit other areas of Coquitlam and vice versa.

The proposed land uses in Burquitlam-Lougheed have a long-term infrastructure benefit in that less new infrastructure is required to support redevelopment (i.e., greater number of dwelling units in the same service area). Operating and maintenance will increase but the Assessment does not include estimates for these cost estimates.

In addition, there are a number of identified infrastructure upgrades and new facilities in the BLNP area that cannot be funded through DCCs and will require a separate funding source of approximately \$92 million, bringing the total DCC eligible and non-eligible servicing costs for the BLNP to approximately \$421 million (Table 2). Further details on these costs are contained in the following sections. Non DCC-eligible items will be funded through a variety of means, including private sector development, capital funding, capital borrowing, utility fees, Community Amenity Contributions (CACs), density bonus funding, and contributions from other levels of government.

The Estimated Cost Breakdown in Table 2 includes the total cost of infrastructure projects that are expected in the BLNP. It is anticipated that proposed density transfers in the Whiting-Appian district will reduce the estimated parkland acquisition costs.

⁵ Estimated costs updated in 2022 as a result of Bylaw 5162, 2022. This update also includes updated utility costs as a result of the DCC Bylaw 4950, 2019

1.2.2 Estimated Costs⁶ cont'd/

Table 2 –Estimated Cost Breakdown

DCC Eligible Project Categories	Estimated Cost	Currently Funded in DCC Program	Unfunded in DCC Program
Transportation DCC Eligible	\$2.61 M	\$1.65 M	\$0.96 M
Water DCC Eligible	\$21.54 M	\$21.54 M	-
Sanitary DCC Eligible	\$1.93 M	\$1.93 M	-
Drainage DCC Eligible	\$11.25 M	\$11.25 M	-
Park Acquisition DCC Eligible	\$266.33 M	\$257.80 M	\$8.53 M
Park Improvement DCC Eligible	\$25.00 M	\$23.294 M	\$1.06 M
Total Cost DCC Eligible Projects	\$328.66 M	\$318.11 M	\$10.55 M
Non-DCC Eligible Project Categories	Estimated Cost		
Transportation Non-DCC Eligible	\$5.98 M	-	-
Water Non-DCC Eligible	\$19.01 M	-	-
Sanitary Non-DCC Eligible	\$4.23 M	-	-
Drainage Non-DCC Eligible	\$0.70 M	-	-
Park Improvement Non-DCC Eligible	\$5.080 M	-	-
Community Recreation Facility	\$57 M	-	-
Total Cost Non-DCC Eligible Projects	\$92.00 M	-	-
TOTAL ESTIMATED COSTS	\$420.66 M	\$318.113 M	\$10.55 M

1.3 Infrastructure Development Timing and Coordination

This assessment summarizes infrastructure improvements to be completed to support the build-out of the neighbourhood over the next 20-25 years, but it is important to note the timing of specific capital infrastructure improvements is variable. It is recognized that this Assessment will need to be coordinated with citywide capital planning and funding.

The estimated timing of capital projects over the short term are identified in the City’s Five Year Financial Plan. The exact timing of these projects will be based on Council’s capital project priorities (i.e., capital projects in the BLNP area relative to projects elsewhere in the City), DCC revenue collection, the housing market, the actual pace of development within the BLNP area and the utilization of developer-funding revenue tools.

Where appropriate, the City will coordinate infrastructure improvements in the BLNP area with other infrastructure upgrade requirements in adjacent neighbourhoods and throughout Southwest Coquitlam.

⁶ Estimated costs updated in 2022 as a result of Bylaw 5162, 2022. This update also includes updated utility costs as a result of the DCC Bylaw 4950, 2019

2.0 TRANSPORTATION

Completed in late 2016, the Evergreen SkyTrain Extension is a significant, long-term rapid transit investment for Coquitlam that will improve transportation choice for residents and help shape transit-oriented growth over the long term.

In 2020, the City completed a number of streetscape enhancements along the North and Clarke Road corridors, and operational improvements at the Como Lake Avenue and Clarke Road intersection in parallel with the construction of the SkyTrain Extension. Further improvements to this corridor will occur incrementally as redevelopment occurs in the area.

The BLNP proposes several City funded transportation improvements to support growth in Burquitlam-Lougheed. The locations of these improvements are shown on Appendix A. The remaining transportation improvements are the responsibility of private development or other levels of government.

2.1 Arterial Streets

North Road, Clarke Road, Como Lake Avenue, Austin Avenue, Blue Mountain Street and Lougheed Highway are designated Arterial Streets in the BLNP area. Improvements to arterial streets in the neighbourhood will be funded through the City's DCC program as well as through private development.

The City will continue to work with the Province and TransLink to improve multimodal access along the Evergreen Line corridor, along existing and future transit routes, and within station core and shoulder areas (generally within 400-800 metres of a station or a 5-10 minute walking distance). Through these improvements, the City also seeks to minimize vehicle congestion along arterial routes and minimize vehicle conflicts. Improvements to the North and Clarke Road corridors as well as the Como Lake Avenue and Clarke Road intersection were implemented as part of the Evergreen Line construction.

- **The North Road Corridor Enhancements** – the City of Coquitlam and City of Burnaby contributed to the following works along the corridor: median enhancements (e.g., rain water infiltration, enhanced landscaping with irrigation, trellis in select locations); planted curb bulges at Cochrane Avenue, Cameron Street and Foster Avenue to provide opportunity for tree planting, introduce parking/bus stop lanes, shorten pedestrian crossing distance of North Road and improve intersection safety efficiency; gateway features near Gatineau Place and at the intersection of North Road and Clarke Road; nodal plaza/enhanced gateway areas, as well as boulevard and sidewalk enhancements delivered through redevelopment.
- **Clarke Road Corridor Enhancements** – intersection improvements at Como Lake Avenue and Smith Avenue, as well as a new signalized intersection for improved mall access; station plaza area and frontage improvements consisting of wider sidewalks, plantings, furnishings, and improved lighting; guideway accent lighting; multi-use pathway along the west side of Clarke Road from Como Lake Avenue to Kemsley Avenue complete with pedestrian scale lighting and tree planting to improve connectivity of local neighbourhoods and enhance aesthetics.

2.1 Arterial Streets cont'd/

There are constraints along the corridor that preclude widening of sidewalks and boulevards along the entire North Road and Clarke Road frontages. Additional walking and cycling accommodation, tree planting, underground hydro, or other street furnishings will be considered in conjunction with the BLNP update and as redevelopment opportunities arise.

Through redevelopment, the City will be requesting road dedication by development applicants. Developers will be responsible for any required improvements for the frontages along North and Clarke Road. This dedication will be used to provide wider sidewalks/boulevards and street furniture areas.

In addition, as part of redevelopment the City will also request road dedication along the east side of North Road for a third northbound lane between Austin Avenue and Highway 1.

2.2 Citywide Greenways

Building on the Strategic Transportation Plan, the Burquitlam-Lougheed Neighbourhood Plan identifies five Citywide Greenways as shown on Appendix A:

1. Clarke Citywide Greenway (Burquitlam Station to Port Moody border)
2. Como Lake Citywide Greenway (Clarke Road to Burnaby border)
3. Regan Citywide Greenway (Burquitlam Station to Coquitlam Central Station)
4. Fairview – Dogwood Citywide Greenway (Austin Avenue to Morrison Avenue)
5. Off-Austin Citywide Greenway (North Road to King Albert Avenue)

The *Strategic Transportation Plan* has identified most of these Greenways as key corridors for multi-modal connectivity and this Assessment provides greater clarification with respect to the alignments and costs. These greenway routes will feature frontage improvements such as wider sidewalks and planted boulevards, mid-block pedestrian crossings (where appropriate), and corner parkettes. Specific features will be explored in conjunction with private development. The design requirements for frontage improvements are described in the *Burquitlam-Lougheed Streetscape Guidelines*.

Citywide Greenways are implemented and funded from a combination of funding sources, including City DCC reserves and sources from other levels of government, as available. Developers are responsible for standard frontage improvements as per the *Subdivision and Development Servicing Bylaw* for development sites along corridors designated as Citywide Greenways and the City will fund incremental upgrades to the standard frontage improvements. Phasing of the Citywide Greenways will depend on the pace of development, adjacent frontage improvements and the capital budgeting process.

As mentioned previously, the Clarke Road corridor enhancements include a multi-use path on the west side of Clarke Road (between Como Lake Avenue and Kemsley Avenue), which was implemented in 2018 as part of the Clarke Citywide Greenway. Portions of the Fairview-Dogwood Greenway, from Austin Avenue to north of Como Lake Avenue, were built in 2017-2018.

2.2 Citywide Greenways cont'd/

Construction of the Regan Citywide Greenway is anticipated to begin in 2024, while the Off-Austin Citywide Greenway is projected to be built beyond the current Five Year Capital Plan. The estimated costs for upcoming Citywide Greenways are summarized in Table 3.

Table 3 – BLNP Area Citywide Greenway Projects

	Project Description	DCC Eligible Estimated Cost (44%)		Non-DCC Eligible Estimated Cost (56%)	Other Funding Sources	Total Estimated Cost ⁷
		Funded	Unfunded			
1	Clarke Greenway (Kemsley Ave – Port Moody border)	-	\$315,000	\$400,000	\$715,000	\$1,430,000
2	Como Lake Greenway	-	\$200,000	\$255,000	\$455,000	\$910,000
3	Regan Greenway (Burquitlam Stn. - Blue Mountain St)	\$72,000	-	\$93,000	\$620,000	\$785,000
4	Fairview-Dogwood Greenway (Austin Ave - Morrison Ave)	\$174,000	-	\$226,000	\$760,000	\$1,160,000
5	Off-Austin Greenway (North Rd - Blue Mountain St) ⁸	\$1,400,000	-	\$1,900,000		\$3,300,000
	TOTAL ESTIMATED COST	\$1.65 M	\$0.52 M	\$2.87 M	\$2.55 M	\$7.59 M

⁷ These cost estimates are based on preliminary design and are subject to change. Any utility network upgrades or repairs, property requirements for road widening, ornamental furniture, street trees and structural soils are not included in the costs estimates. For development projects fronting Citywide Greenways, the developer will be responsible for standard frontage improvements and the City will cover the incremental cost to upgrade standard frontage improvements to Citywide Greenway standards.

⁸ The off-Austin Greenway connects North Road and Mariner Way – the cost provided in Table 4 is for the portion in the BLNP area between North Road and Blue Mountain Street.

2.3 Pedestrian/Bicycle Crossings ⁹

The BLNP identifies a new pedestrian/bicycle crossing to improve access and linkages in Burquitlam-Lougheed. The pedestrian/bicycle crossing is located at Perth Ave at Bosworth Street. The estimate costs of the crossing are shown in Table 4. External funding for these types of projects are often significant but will vary. Based on external funding obtained in recent years, Table 4 indicates the estimated level of external funding that could be expected.

Table 4 –Pedestrian/Bicycle Crossings

	Project Description	DCC Eligible Estimated Cost		Non-DCC Eligible Estimated Cost	Other Funding Sources	Total Estimated Cost ¹⁰
		Funded	Unfunded			
1	Perth Avenue Pedestrian/Bicycle Crossing	-	\$440,000	\$560,000	-	\$1,000,000
	TOTAL ESTIMATED COST	-	\$440,00	\$560,000	-	\$1,000,000

2.4 Other Supporting Projects

There are other transportation improvements, not funded by the City, that are planned to be completed in order to support full build-out of the Plan and will be the responsibility of private development.¹¹ The location of these improvements is shown on Appendix B.

2.4.1 Neighbourhood Greenways

Neighbourhood Greenways will be implemented and primarily funded through private development. However, the City recognizes there may be extenuating circumstances that place a disproportionate burden on property owners to achieve a complete Neighbourhood Greenway. Examples include cases where additional right-of-way or retaining walls are required. The City has allocated funds to target such cases where public investment to complete these Neighbourhood Greenways is justified. Implementation of Neighbourhood Greenways will be coordinated through development servicing requirements for each application. A summary of all Neighbourhood Greenway projects is presented in Table 5 and shown on Appendix B.

⁹ Section 2.3 added as a result of Bylaw 5162, 2022.

¹⁰ These cost estimates are based on preliminary design and are subject to change. Any utility network upgrades or repairs, property requirements for road widening, ornamental furniture, street trees and structural soils are not included in the costs estimates. For development projects fronting Citywide Greenways, the developer will be responsible for standard frontage improvements and the City will cover the incremental cost to upgrade standard frontage improvements to Citywide Greenway standards.

¹¹ The City may provide funding to enable or accelerate completion of select projects that deliver broader transportation network benefits through its Major Transportation Reserve.

2.4.1 Neighbourhood Greenways cont'd/

These Greenway routes will feature frontage improvements such as wider sidewalks and planted boulevards, mid-block pedestrian crossings, and corner parkettes where appropriate, as required by the *Subdivision and Development Servicing Bylaw*. Specific features will be explored in conjunction with private development. The design requirements for frontage improvements are described in the *Burquitlam-Lougheed Streetscape Guidelines*.

Table 5 – BLNP Area Neighbourhood Greenways (funded by development)

Project Number	Project Description
A1	Jefferson-Kemsley Greenway (Clarke Road to North Road)
A2	Elmwood Greenway (Como Lake Avenue to Nicola Avenue)
A3	Westley Greenway (Westley Avenue to Kemsley Avenue)
A4	Harrison Greenway (Harrison Avenue to Clarke Road)
B	Morrison-Miller Greenway (Dogwood Street to Miller Park)
C	Farrow-Clarke Greenway (Farrow Street to Clarke Road)
D	Langside Greenway (Burquitlam Park to Breslay Street)
E	Whiting Way Greenway (Smith Avenue to Foster Avenue)
F	Emerson-Bosworth Greenway (Burquitlam Park to Brookmere Avenue) ¹²
G	Cottonwood Park Greenway (Cottonwood Avenue to Foster Avenue)
H	Appian Greenway (Denton Street to North Road)
I	Dansey Greenway (Guilby Street to North Road)
J	Lougheed Neighbourhood Centre Greenway (Delestre Avenue to North Road)
K	Delestre Greenway (North Road to Arrow Lane)
L	Guilby Greenway (Austin Avenue to Lougheed Highway)
M	Lower Lougheed Greenway (Lougheed Highway to Guilby Street to Gauthier Avenue)

2.4.2 New Street Extensions

There are a number of street and laneway extensions proposed for the BLNP area to provide improved access to the newly redeveloped areas and to enhance the road network for all users. Construction of these street and laneway extensions will be funded through private development and will occur when the property (or adjacent property) redevelops¹³. The timing of these improvements will depend on the pace of redevelopment.

Refer to Appendix B for the location of planned new streets and lanes based on current land use development. This list may not be exhaustive, and is subject to change in accordance with the development review process.

¹² Emerson Greenway extended as a result of Bylaw 5162, 2022.

¹³ There will be no net development density loss with these street and laneway dedications in accordance with Section 517 (2) of the Zoning Bylaw.

2.4.3 Intersection Improvements

The below traffic signals will be installed when they are warranted and may be pedestrian signals, bike signals, or full traffic signals and will depend on technical reviews, crossing gap opportunities and safety factors. Construction is proposed at nine intersections within the BLNP area (refer to Appendix A and B):

1. Intersection of Como Lake Avenue and Dogwood Street – new traffic signal installed at existing intersection (City funded project ¹⁴– Appendix A);
2. Intersection of Como Lake Avenue and Claremont Street – new pedestrian crossing (City funded project¹⁵– Appendix A);
3. Intersection of Smith Avenue and New N-S Road – new signalized intersection (developer funded project – Appendix B);
4. Intersection of Cottonwood Avenue and New N-S Road – new signalized intersection (developer funded project – Appendix B);
5. Intersection of Foster Avenue and Whiting Way – new traffic signal installed at existing intersection (developer funded project – Appendix B);
6. Intersection of Ebert Street extension and North Road – new pedestrian crossing (developer funded project – Appendix B);
7. Intersection of New E-W Connector and Lougheed Highway – new traffic signal and intersection reconfiguration (developer funded project – Appendix B);
8. Intersection of New E-W Connector and North Road – new traffic signal, relocated from Delestre Avenue (developer funded project – Appendix B);
9. Intersection of Jefferson Avenue and North Road – new traffic signal installed at existing intersection (developer funded project – Appendix B);

2.4.4 Streetscape Guidelines

Streetscape and other public realm improvements will be implemented and completed through new development in Burquitlam-Lougheed and coordinated with other City projects in the neighbourhood.

These improvements will be guided by the *Burquitlam-Lougheed Streetscape Guidelines*, which identifies street lighting, street furniture, pavement finishes, street trees and other public realm finishes for the neighbourhood. Refer to the *Burquitlam-Lougheed Streetscape Guidelines* for details regarding the specific guidelines for each area.

¹⁴ The new traffic signal at Como Lake Avenue and Dogwood Street will be funded as part of the Fairview-Dogwood Citywide Greenway.

¹⁵ The new pedestrian signal at Como Lake Avenue and Claremont Street will be funded as part of the Como Lake Citywide Greenway

2.4.5 Access Control

Several properties along North Road, Clarke Road, Como Lake Avenue, Austin Avenue, Blue Mountain Street, and Lougheed Highway have direct vehicular access to these arterial streets, which is not consistent with the *Subdivision and Development Servicing Bylaw*. Accordingly, alternative access needs to be facilitated or provided when these properties are redeveloped.

Some properties may need to be consolidated (except where the neighbourhood plan calls for the preservation of the existing subdivision pattern), or a new rear lane may need to be developed to provide alternate access. Where consolidation or a new rear lane is not feasible, joint-access or shared-access agreements should be secured to provide appropriate access. The best access solutions will be determined at the time of redevelopment.

Refer to Appendix B for new local streets and lanes intended to improve pedestrian permeability throughout the BLNP area.

3.0 UTILITIES

Planned growth in Burquitlam-Lougheed will require upgrades to the City's water, sewer and drainage systems. Future servicing must satisfy the demand created by new development while considering potential environmental impacts and the storm water management requirements of the *Austin/Rochester Creek Integrated Watershed Management Plan (IWMP)*, the *Stoney Creek IWMP* and the *Chines IWMP*.

A hydraulic analysis of the water, sewer and drainage system was completed using population projections to determine required system upgrades. Specific improvements are presented in the following sections. Appendix C shows the locations of Burquitlam-Lougheed specific improvements relative to planned improvements in the rest of Southwest Coquitlam.

Funding for completion of utility improvements will come from a variety of sources including:

- Frontage improvements constructed as part of the site servicing requirements of individual developments;
- DCC funded capital works to support growth; and
- The City's Water Utility, and Sewer & Drainage Utility for capital replacement of infrastructure.

Other government agencies and organizations like the Pacific Salmon Foundation may also contribute grants to improve the storm water system and aquatic habitat.

As some of these infrastructure improvements provide benefits within adjacent neighbourhoods and upstream or downstream areas, not all improvements will be 100% funded from development within a particular neighbourhood. Non-DCC eligible costs will be recovered from the Sewer and Drainage Utility and will be determined through the annual capital budget process and reflected in future Five Year Financial Plans.

3.1 Water System Improvements

The water system in Southwest Coquitlam is supplied by the GVWD Burnaby Mountain tank and Cape Horn reservoir, and distributed through a robust grid of City feeder mains and pump stations. To support anticipated growth in Southwest Coquitlam, a water servicing strategy was developed with planned improvements as shown in Appendix C.

An analysis of the City water system identified additional improvements needed to accommodate future planned development. Appendix C shows the upgrades required in Southwest Coquitlam, while Table 6 lists the upgrades required to support growth within the Burquitlam-Lougheed area (all upgrades identified in the table are currently funded in the DCC program).

Phasing of the water system improvements will depend on the pace of development and will be determined through the annual capital project priority-setting and budgeting process.

3.1 Water System Improvements cont'd/

Table 6 – Water System Improvements in Burquitlam-Lougheed ¹⁶

	Project Description	DCC Eligible		Non-DCC Eligible Estimated Cost	Total Estimated Cost
		Estimated Cost	DCC Benefit Factor		
A	Foster Pump Station Expansion	\$3.22M	43%	\$4.28M	\$7.50M
B	Foster Reservoir Expansion	\$7.19M	100%	-	\$7.19M
C	Foster Ave Watermain Upgrade	\$0.51M	43%	\$0.67M	\$1.18M
D	North Road Watermain Upgrade - Chapman to Cottonwood - Phase 1	\$0.63M	43%	\$0.83M	\$1.46M
E	North Road Watermain Upgrade - Chapman to Cottonwood - Phase 2	\$1.02M	43%	\$1.35M	\$2.37M
F	Foster-Ebert Trunk Watermain	\$1.35M	43%	\$1.78M	\$3.13M
G	SW - Watermain Various Projects	\$7.62M	43%	\$10.10M	\$17.72M
	TOTAL ESTIMATED COST	\$21.54M	-	\$19.01M	\$40.55M

Watermains fronting individual development sites, mainly in commercial and high density areas, may also need to be upsized to ensure fire flows can be delivered to the site. Costs for these improvements will be the responsibility of developers as part of their site servicing requirements.

3.2 Sanitary Sewer System Improvements

Sewage from the Burquitlam-Lougheed area is conveyed to GVS&DD's North Road and Stoney Creek Trunk Sewers.

An analysis of the City sewerage collection system identified additional improvements needed to accommodate future planned development. Appendix C shows the upgrades required in Southwest Coquitlam, while Table 7 lists the upgrades identified for the Burquitlam-Lougheed Neighbourhood Plan area (all upgrades identified in the table are currently funded in the DCC program).

Phasing of the improvements will depend on the pace of development and will be determined through the annual capital project priority-setting and budgeting process.

¹⁶ Water System Improvements updated as a result of DCC Bylaw 4950, 2019.

3.2 Sanitary Sewer System Improvements cont'd/

Table 7 – Sanitary Sewer System Improvements in Burquitlam-Lougheed ¹⁷

	Project Description	DCC Eligible		Non-DCC Eligible Estimated Cost	Total Estimated Cost
		Estimated Cost	DCC Benefit Factor		
H	Burquitlam - Grant St.	\$0.40M	43%	\$0.54M	\$0.94M
I	Burquitlam - Miller Park Trails	\$0.25M	43%	\$0.34M	\$0.59M
J	Burquitlam - Ecole Banting Middle School	\$0.12M	43%	\$0.15M	\$0.27M
K	Burquitlam - Schoolhouse Creek	\$0.28M	43%	\$0.37M	\$0.65M
L	Stoney Creek Trunk Sewer	\$0.60M	43%	\$0.82M	\$1.42M
M	Stoney Creek at Jefferson	\$0.27M	43%	\$0.35M	\$0.62M
N	Stoney Creek - Clark	-	-	\$1.66M	\$1.66M
	TOTAL ESTIMATED COST	\$1.93M	-	\$4.23M	\$6.15M

3.3 Drainage System Improvements

The Burquitlam-Lougheed Neighbourhood is located within the Austin Creek, Rochester Creek, Stoney Creek and Chines watersheds. These creeks are the main drainage channels to safely convey rainwater runoff to the Brunette and Fraser Rivers and to the Burrard Inlet. Integrated Watershed Management Plans have been completed for all watersheds in the Plan area. The City’s Rainwater Management Requirements should be applied to developments in that watershed with the same capture criteria used in the neighbouring Austin/Rochester watersheds.

Historically, prevailing servicing requirements at the time of development were not stringent enough and may have resulted in degrading of stream water quality, reducing summer base flows and increasing intensity of runoff, which can result in eroding stream channels and impacting environmental health. The IWMPs set out policies and guidelines to manage rainwater in a way that protects aquatic habitat and provides flood protection. Specific strategies identified by these plans to mitigate these impacts and prevent further degradation, include:

- Protect Austin and Rochester Creeks and the lower reaches of the system (Lost Creek, Holmes Creek and Brunette River);
- Protect Stoney Creek, Schoolhouse Creek and Burrard Inlet;
- Preserve or improve water quality, food and nutrients;
- Divert high flows to protect stream channels;
- Infiltrate rainwater runoff into the ground to mimic the natural watershed hydrology and preserve stream base flows (using City’s Rainwater Management guidelines); and
- Protect and enhance natural habitat along streams.

¹⁷ Sanitary System Improvements updated as a result of DCC Bylaw 4950, 2019.

3.3 Drainage System Improvements cont'd/

In addition to the above listed measures, developers will be required to implement the City's Rainwater Management Guidelines on a site by site basis. Drainage pipes fronting individual developments may also need to be upsized as part of the site servicing requirements.

An analysis of the drainage system shows that sections of the storm sewers may need to be upsized to accommodate both the projected flows and diversion of high flows from local watercourses. Diverting high flows away from the creeks will prevent channel erosion and improve aquatic habitat.

Appendix C shows the proposed pipe upsizing requirements required in Southwest Coquitlam, while Table 8 lists the pipe upsizing identified for the Burquitlam-Lougheed Neighbourhood Plan area (upgrades identified in the table are currently funded in the DCC program, unless otherwise indicated).

Phasing of drainage system improvements will depend on the pace of development and will be determined through the capital budgeting process.

*Table 8 – Storm Sewer System Improvements in Burquitlam-Lougheed*¹⁸

	Project Description	DCC Eligible		Non-DCC Eligible Cost	Total Estimated Cost
		Estimated Cost	DCC Benefit Factor		
O	AR - Austin Creek Diversion - Phase 1	\$2.08M	100%	-	\$2.08M
P	AR - Austin Creek Diversion - Phase 2	\$5.49M	100%	-	\$5.49M
Q	AR - Austin Creek West	\$3.15M	100%	-	\$3.15M
R	AR - Appain Storm Sewer Upgrade	\$0.02M	43%	\$0.02M	\$0.04M
S	AR - Perth Road Storm Sewer Upgrade	\$0.01M	43%	\$0.01M	\$0.02M
T	AR - Cochrane Storm Sewer Upgrade	\$0.01M	43%	\$0.01M	\$0.02M
U	AR - Brookmere Storm Sewer Upgrade	\$0.01M	43%	\$0.01M	\$0.03M
V	AR - Alderson Storm Sewer Upgrade	\$0.03M	43%	\$0.03M	\$0.06M
W	AR - Girard Storm Sewer Upgrade	\$0.23M	43%	\$0.31M	\$0.54M
X	AR - Roderick Storm Sewer Upgrade	\$0.06M	43%	\$0.08M	\$0.14M
Y	AR - Storm upgrade @ Lougheed Hwy and Rochester Ave	\$0.16M	43%	\$0.22M	\$0.38M
	TOTAL ESTIMATED COST	\$11.25M	-	\$0.70M	\$11.95M

¹⁸ Drainage System Improvements updated as a result of DCC Bylaw 4950, 2019.

3.4 Other Contributing Capital Projects

Metro Vancouver plans to upgrade the Greater Vancouver Sewerage and Drainage District (GVS&DD) North Road Trunk Sanitary sewer. As of December 2019, Phase 1 (from the Coquitlam/New Westminster border to north of Lougheed Highway) is underway whereas Phase 2 (north of Lougheed Highway to Clarke Road) is beyond Metro Vancouver's current five year capital plan.

4.0 PARKS

The Burquitlam-Lougheed neighbourhood contains 12.5 hectares (30.93 acres) of park space (as of 2019). To support projected population growth, the BLNP proposes the acquisition of 10.02 hectares (24.76 acres) of additional park land. The neighbourhood is further served by the proposed Citywide and Neighbourhood Greenway network. This approach reflects the existing level of park provision within Burquitlam-Lougheed and adjacent neighbourhoods and is informed by the Parks, Recreation and Culture (PRC) Master Plan.

The City recently completed a \$1.2 million update and renovation of Hartley Field at Mountain View Park, with improvements funded through a variety of sources including DCCs, general revenue, grants and the infrastructure reserve fund. Brookmere Park was also recently upgraded with \$900,000 in funding through development and previously approved DCC's. The revitalized Hartley Field at Mountain View Park and updated Brookmere Park both serve the existing community and provides new amenities for a growing neighbourhood.

4.1 Park Acquisition

As noted above, to support future growth and development in Burquitlam-Lougheed, the City seeks to acquire a minimum of 10.02 hectares (24.76 acres) of new park land over the next 20-25 years. Appendix D and Table 9 presents the new park space intended to be acquired over the life of the Plan, which will be funded by Park Acquisition DCC's. Portions of the park acquisition costs are currently funded in the DCC program.

4.1 Park Acquisition cont'd/

Table 9 – Park Acquisition Project in the BLNP Area ¹⁹

	Project Description	Estimated Cost DCC Eligible ²⁰		Estimated Cost Non-DCC Eligible	Total Estimated Cost
		Funded	Unfunded		
A	Miller Park (1.6 ha/4 ac)	\$0.436 M	-	-	\$0.436 M
A1	Miller Park Expansion (0.10 ha/0.24 ac)	\$2.70 M	-	-	\$2.70M
B	Oakdale Park (0.4 ha/1 ac)	\$8.62 M	\$5.68 M	-	\$14.3 M
C	Cottonwood Park (2.1 ha/5.2 ac) ²¹	\$56.6 M	-	-	\$56.6 M
D	Community Garden (0.2 ha/0.5 ac)	\$5.45 M	-	-	\$5.45 M
E	Guilby Park (1.25 ha/3.1 ac)	\$34.0 M	-	-	\$34.0 M
F	Lower Lougheed Park (0.4 ha/1 acre)	\$8.71 M	-	-	\$8.71 M
G	Gauthier - Hart Park (0.81 ha/2.0 ac)	\$17.4 M	-	-	\$17.4 M
H	Nicola – Bowron Park (0.49 ha/1.23 ac) ²²	\$13.0 M	-	-	\$13.0 M
I	Kemsley - Clarke Park (0.69 ha/1.7 ac)	\$26.14 M	\$2.85 M	-	\$28.99 M
J	Future Miller - Grant Park (0.49 ha/1.20 ac)	\$18.9 M	-	-	\$18.9 M
K	Future Austin Creek Green Link (1.36 ha/3.36ac)	\$52.7 M ²³	-	-	\$52.7 M
L	Future Burquitlam Parkland Acquisition (0.31 ha/0.77 ac) ²⁴	\$13.14 M	-	-	\$13.14 M
	TOTAL ESTIMATED COSTS	\$257.80 M	\$8.53 M	-	\$266.33 M

4.2 Park Improvements

As noted in the BLNP, improvements will need to be made to both existing and to future acquired park space. Table 10 identifies the estimated cost of improvements to both existing and new parkland and Appendix D shows the location of planned park improvements. The majority of the identified park improvement costs are currently funded in the DCC program.

¹⁹ Park acquisitions updated as a result of Bylaw 5162, 2022, to include Miller Park Expansion, Future Miller-Grant Park and Future Austin Creek Green Link.

²⁰ Estimated land costs are based on the City's 2019 DCC Bylaw and projections by the Real Estate Division in 2019. Current property values may vary from these estimates.

²¹ Estimated DCC costs for Cottonwood Park accounts for the portion of land the City has identified for acquisition with DCC Funds and does not include 1.03 hectares (2.55 acres) proposed to be transferred to the City as part of the YMCA project.

²² Estimated DCC costs for Nicola Park is partially funded with (0.49 ha/1.23 ac) of DCC funds from Future Burquitlam Parkland Acquisition (i.e., a “floating allowance” to fund emerging parkland acquisition needs in Burquitlam).

²³ Estimated cost to acquire the entirety of the Austin Creek Green Link. It is anticipated that the actual cost will be reduced due to a portion of the park being provided through density transfer.

²⁴ Future Burquitlam Parkland Acquisition is reduced from (0.8 ha/2 ac) to (0.31 ha/0.77 ac) to fund Nicola Park.

4.2 Park Improvements cont'd/

Table 10 – Park Improvement Projects in the BLNP Area ²⁵

	Project Description	Estimated Cost DCC Eligible		Estimated Cost Non-DCC Eligible	Total Estimated Cost
		Funded	Unfunded		
A	Miller Park	\$0.07 M	-	-	\$0.07 M
	Miller Park Expansion	\$0.304 M		\$0.054 M	\$0.358 M
B	Oakdale Park	\$0.883 M	-	\$0.156 M	\$1.04 M
C	Cottonwood Park (new development)	\$9.89 M	-	\$1.75 M	\$11.64 M
C1	Cottonwood Park phase (redevelopment)	\$0.482 M	-	\$0.868 M	\$1.35 M
D	Community Garden	\$0.413 M	-	-	\$0.413 M
E	Guilby Park	\$3.29 M	-	\$0.871 M	\$4.16 M
F	Lower Lougheed Park	\$0.826 M	-	-	\$0.826 M
G	Gauthier - Hart Park	\$1.77 M	-	\$0.312 M	\$2.08 M
H	Nicola - Bowron Park ²⁶	-	\$1.06 M	\$0.187 M	\$1.25 M
I	Kemsley - Clarke Park	\$1.77 M	-	\$0.312 M	\$2.08 M
J	Future Miller - Grant Park	\$2.54 M	-	\$0.449 M	\$2.99M
K	Future Austin Creek Green Link	\$1.02 M	-	-	\$1.02 M
L	Future Burquitlam Parkland Improvement ²⁷	\$0.680 M	-	\$0.12 M	\$0.80 M
	TOTAL ESTIMATED COST	\$23.94 M	\$1.06 M	\$5.08 M	\$30.08 M

There are a number of park improvement amenities that are not eligible to be funded through DCCs (tennis courts, water play parks, sport courts, lighting, etc.). Additional funding source(s) will need to be identified for these non-eligible park amenities and may include, but are not limited to: capital funding, grants from other levels of government, CAC's, density bonus funding, developer contributions, and public-private partnerships²⁸. Staff will work with Council to identify appropriate funding options as development of the neighbourhood proceeds. The phasing of the improvements will depend on the pace of development and the capital project priority setting and budgeting process.

²⁵ Park improvements updated as a result of Bylaw 5162, 2022, to include Miller Park Expansion, Future Miller-Grant Park and Future Austin Creek Green Link.

²⁶ Estimated DCC costs for Nicola Park is funded partially from Future Burquitlam Parkland.

²⁷ Future Burquitlam Parkland Improvement (i.e., a "floating allowance" to fund emerging parkland improvement needs in Burquitlam) is reduced to fund Nicola Park.

²⁸ Refer to the *Parks, Recreation and Culture Master Plan Implementation Strategy* for further information.

4.2 Park Improvements cont'd/

There are several other ongoing and planned improvements to existing parks which will help to support the vision of the BLNP. For example, at Cottonwood Park, the first phase of expansion and improvements was completed in summer 2019. The costs of improvements including new play area, sport court, spray park, seating and open lawn are funded with approved DCC funding and density bonus funds. The second phase is under construction and will be complete in Spring 2022 and will include a baseball diamond, super 8 soccer field, sport counts and tables, and seating.

4.3 Coquitlam Family YMCA

The Coquitlam Family YMCA facility and mixed-use residential development is planned in partnership with the City, YMCA of Metro Vancouver, and Concert Properties. The City's estimated budget for this project is \$57M (as approved by Council in December 2019).

The mixed-use community facility will be developed on a portion of the existing Burquitlam Park site. Subsequently the remaining portion of Burquitlam Park will be redeveloped as a neighbourhood park to provide amenities and programming to a revitalized Burquitlam Neighbourhood Centre. The balance of the Burquitlam Park that is to be occupied by the YMCA will be provided at the expanded Cottonwood Park site.

5.0 Dwelling Unit Projection

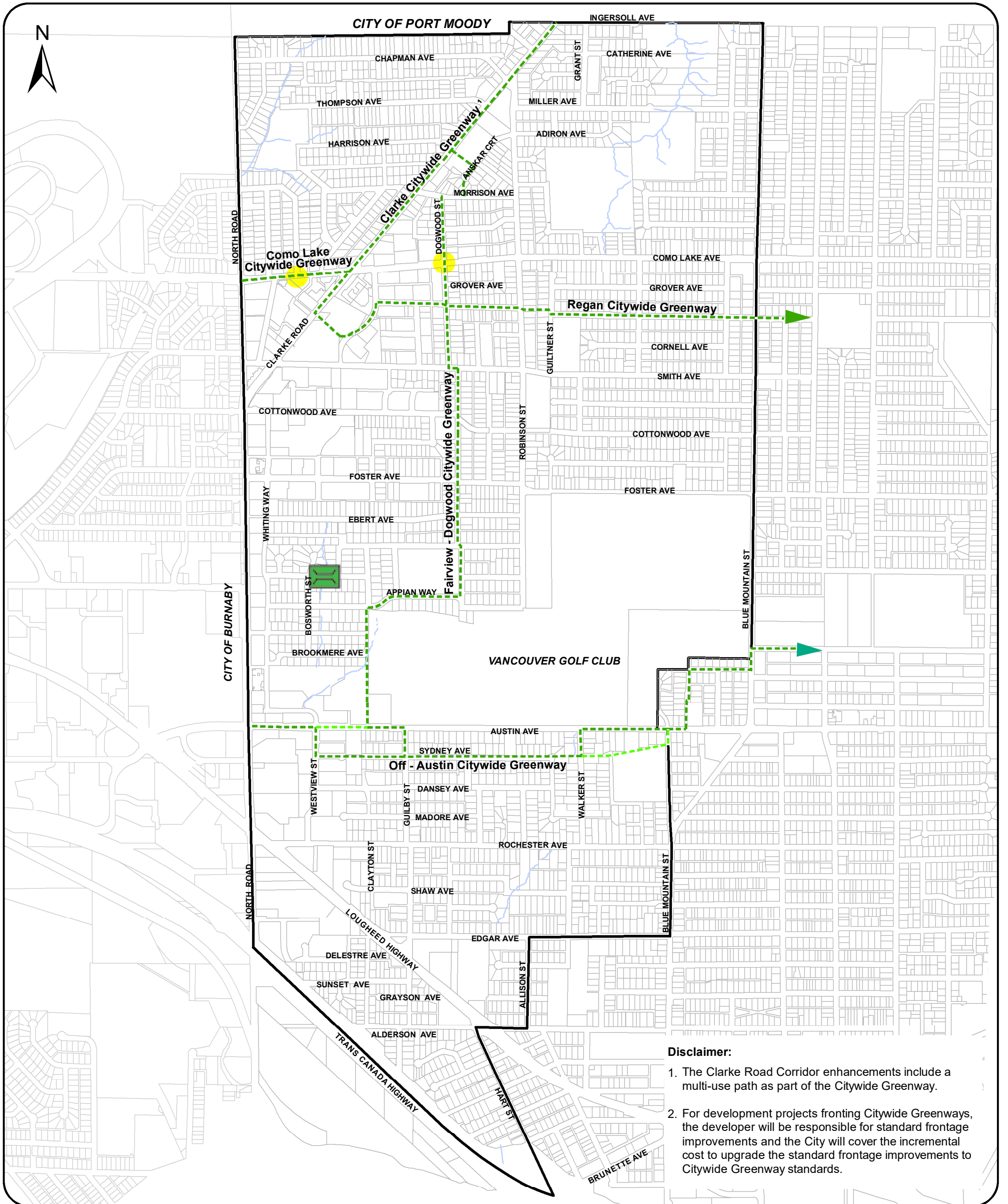
Table 12 – Projected Increase in new Dwelling Units in the BLNP Area to 2046 ²⁹

Land Uses	Area (ha)	% of Net Res. Area	25-Year Projection		Build-Out Capacity	
			2046 Units	2046 Population	Build-Out Units	Build-Out Population
One Family Residential	173.0	40.4%	-	-	1,500	6,600
Neighbourhood Attached Residential	26.7	6.2%	100	200	1,000	3,000
Townhousing	58.8	13.7%	900	2,800	4,400	13,200
Medium Density Apartment Residential	86.5	20.2%	2,900	5,900	17,100	34,200
High Density Apartment Residential	45.5	10.6%	5,700	11,300	25,300	50,700
Transit Village Commercial	33.4	7.8%	5,300	10,600	19,400	38,900
Neighbourhood Centre	4.3	1.0%	600	1,200	1,600	3,300
Total Residential	428.1	100.0%	15,500	31,900	70,400	149,700

Assumptions:

- Timeline for full buildout is beyond the 25 year planning horizon.
- Build-out capacity is based on anticipated units/hectare density for each land use.
- 25-year projections are the number of new units/persons anticipated in the BLNP by 2046.
- 25-year projection is based on projections identified in the BLNP. Where a low-high range is indicated the mid-point is used.
- 25-year growth has been evenly distributed between all residential land uses, anticipating development in 25 years will be approx. 36% of full build out capacity, except for One Family Residential where no growth is assumed.
- Average unit size:
 - Low Rise Apartment 93 m² (1,000 sq. ft.)
 - High Rise Apartment 79 m² (850 sq. ft.)
 - Townhouse 150 m² (1,615 sq. ft.)
- The DCC projections in Table 1 include an estimate of 82,500 m² (888,000 sq. ft.) of commercial floorspace.

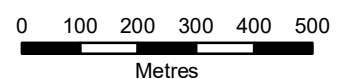
²⁹ Projections and assumptions updated as a result of Bylaw 5162, 2022.



APPENDIX A - BURQUITLAM - LOUGHEED SERVICING ASSESSMENT

TRANSPORTATION IMPROVEMENT PROJECTS – CITY FUNDED

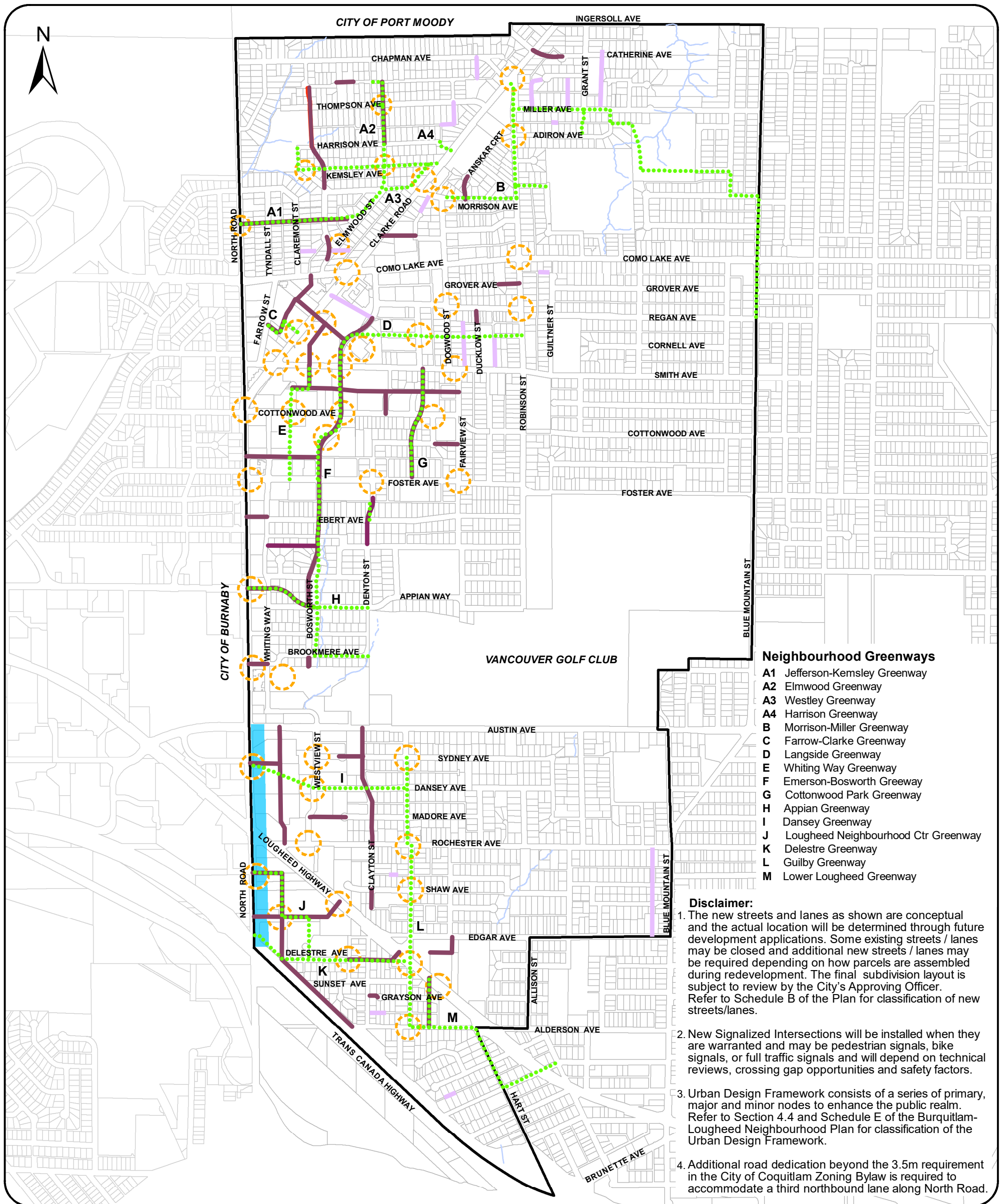
- - - - - Proposed Citywide Greenway ²
- Watercourse
- - - - - Proposed Citywide Greenway Alternate
- Burquitlam - Lougheed Neighbourhood Plan Boundary
- New Signalized Intersection
- Proposed Pedestrian & Bicycle Crossing



Adopted: June 27, 2017

Prepared By: Planning & Development
Source: City of Coquitlam - OCP GIS layer

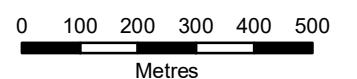




APPENDIX B - BURQUITLAM - LOUGHEED SERVICING ASSESSMENT

TRANSPORTATION IMPROVEMENT PROJECTS - DEVELOPER FUNDED

- Neighbourhood Greenway
- Urban Design Framework - Nodes ³
- New Street ¹
- Additional Road Dedication⁴
- New Lane ¹
- Watercourse
- New Signalized Intersection ²
- Burquitlam - Lougheed Neighbourhood Plan Boundary



Adopted: June 27, 2017

Prepared By: Planning & Development
Source: City of Coquitlam - OCP GIS layer



APPENDIX C BURQUITLAM - LOUGHEED SERVICING ASSESSMENT

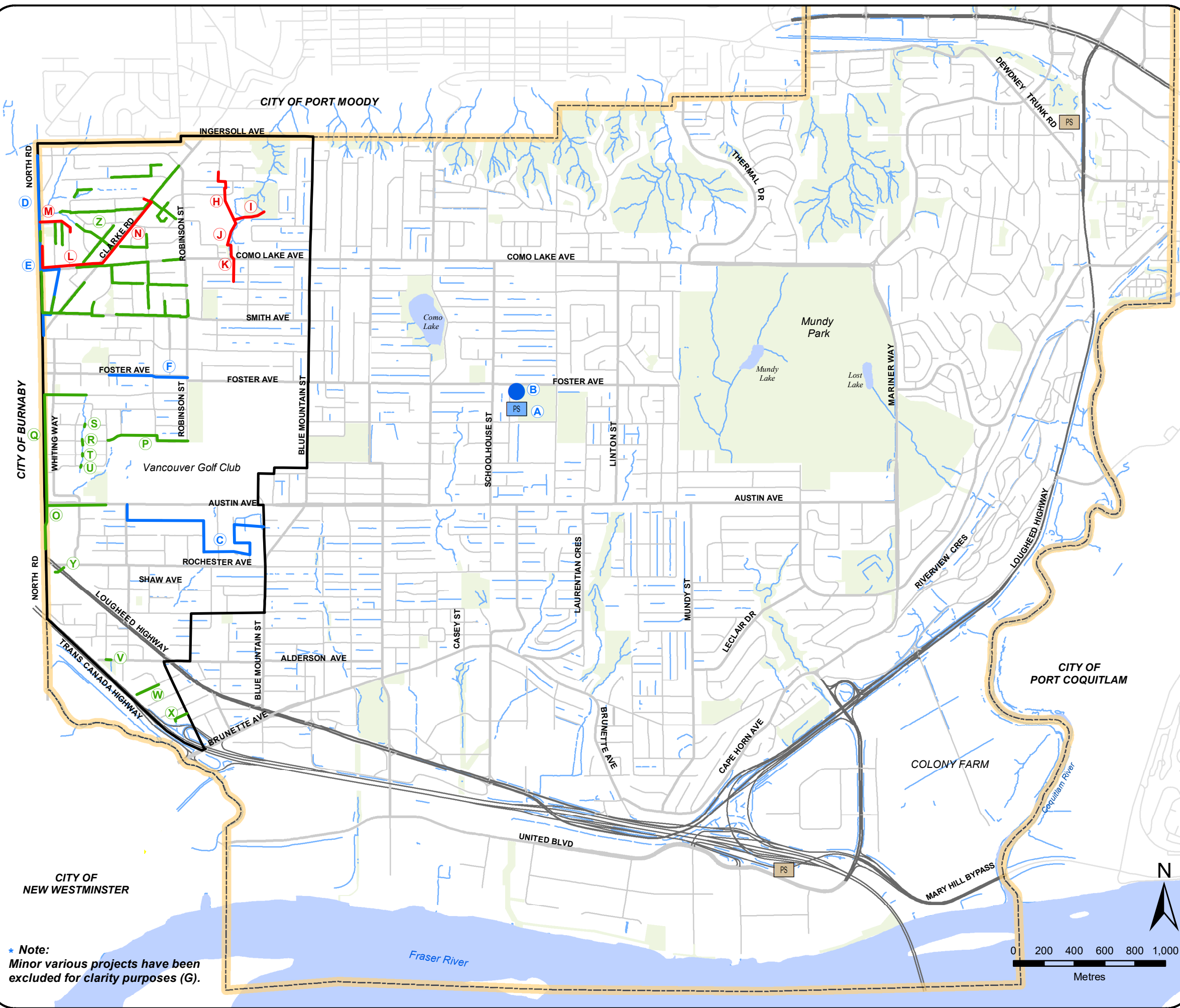
SOUTHWEST COQUITLAM WATER, SEWER & DRAINAGE PROJECTS

- Storm System Improvements
- Sanitary Sewer Improvements
- Water Main Improvements
- PS Water Pump Station Improvements
- PS Sanitary Pump Station
- Water Reservoir Improvements
- Water Bodies
- Streams
- Parks and Natural Areas
- Burquitlam - Lougheed NP Boundary
- Coquitlam City Boundary

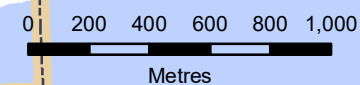
- A Foster Pump Station Expansion
- B Foster Reservoir Expansion
- C Foster Ave Watermain Upgrade
- D North Road Watermain Upgrade
Chapman to Cottonwood - Phase 1
- E North Road Watermain Upgrade
Chapman to Cottonwood - Phase 2
- F Foster-Ebert Trunk Watermain
- G* SW - Watermain Various Projects
- H Burquitlam - Grant St.
- I Burquitlam - Miller Park Trails
- J Burquitlam - Ecole Banting Middle School
- K Burquitlam - Schoolhouse Creek
- L Stoney Creek Trunk Sewer
- M Stoney Creek at Jefferson
- N Stoney Creek - Clarke Road
- O AR - Austin Creek Diversion - Phase 1
- P AR - Austin Creek Diversion - Phase 2
- Q AR - Austin Creek West
- R AR - Appian Storm Sewer Upgrade
- S AR - Perth Road Storm Sewer Upgrade
- T AR - Cochrane Storm Sewer Upgrade
- U AR - Brookmere Storm Sewer Upgrade
- V AR - Alderson Storm Sewer Upgrade
- W AR - Girard Storm Sewer Upgrade
- X AR - Roderick Storm Sewer Upgrade
- Y AR - Storm Upgrade @ Lougheed Hwy & Rochester Ave
- Z Stoney Creek Storm (Projects Z to AG)

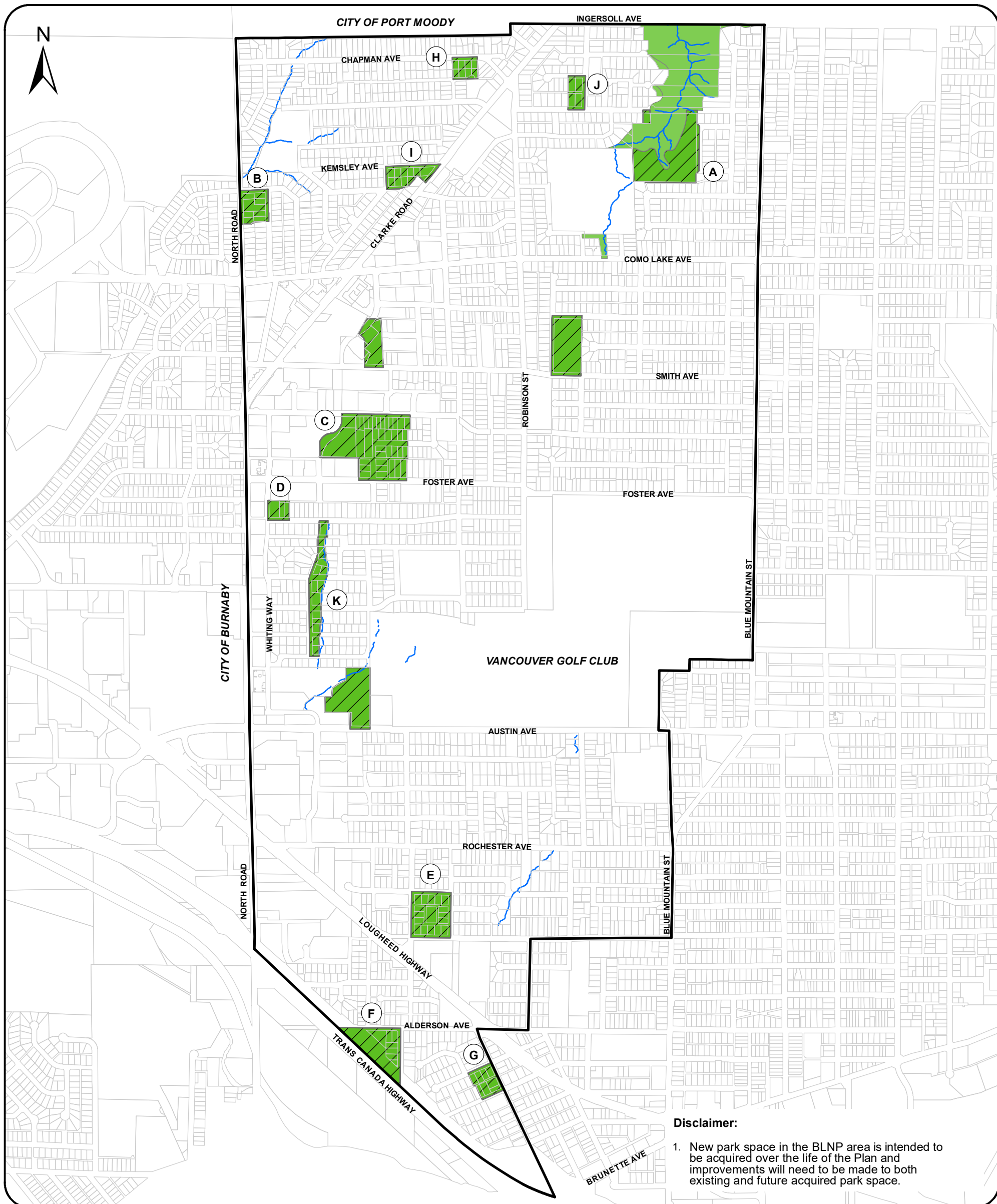
Adopted: June 27, 2017
Amended: XXXX

Prepared By: Planning & Development
Source: City of Coquitlam - OCP GIS layer



* Note:
Minor various projects have been excluded for clarity purposes (G).



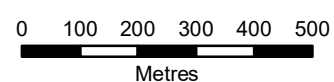


APPENDIX D - BURQUITLAM - LOUGHEED SERVICING ASSESSMENT

PARK ACQUISITIONS AND IMPROVEMENTS

- Watercourses
- Parks and Recreation
- Natural Areas
- Burquitlam - Lougheed Neighbourhood Plan Boundary

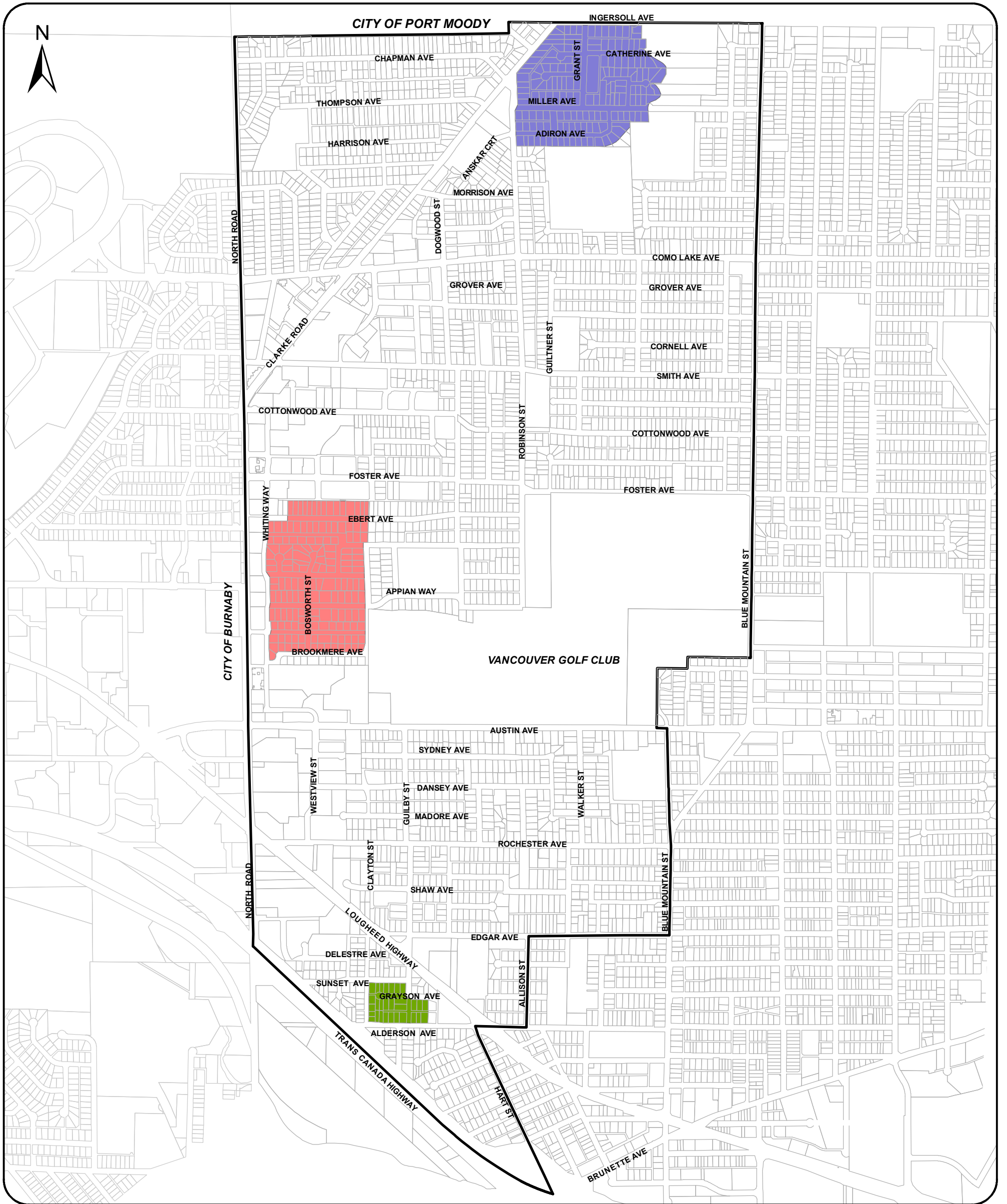
- (A) Miller Park
- (B) Oakdale Park
- (C) Cottonwood Park
- (D) Burquitlam Community Garden
- (E) Guilby Park
- (F) Lower Lougheed Park
- (G) Gauthier - Hart Park
- (H) Nicola - Bowron Park
- (I) Kemsley - Clarke Park
- (J) Miller-Grant Park
- (K) Austin Creek Green Link Park



Adopted: June 27, 2017

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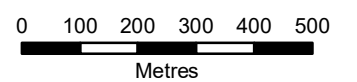
Coquitlam



APPENDIX E - BURQUITLAM - LOUGHEED SERVICING ASSESSMENT

NEIGHBOURHOOD POCKET AREAS

- Miller-Grant Pocket
- Whiting-Appian Pocket
- Guilby-Grayson Pocket
- Burquitlam - Lougheed Neighbourhood Plan Boundary



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Source: City of Coquitlam - OCP GIS layer

