SECTION 3: COMMUNITY DESCRIPTION

Located in the Lower Mainland of British Columbia, with the Fraser River to the south and the Coastal Mountains to the north, Coquitlam is the sixth largest city in the province. The City is bordered by the municipalities of Anmore, Burnaby, New Westminster, Port Moody, and Port Coquitlam. Coquitlam has a population of 139,284[6] and is experiencing significant economic and population growth. Growth is driving development across the municipality, including new neighbourhoods in the wildland-urban interface on Burke Mountain.

Significant parts of the municipality are dedicated to natural green space and forests. This includes the mountainous areas of the Coquitlam Watershed, Eagle Mountain, and Pinecone Burke Provincial Park, where urban neighbourhoods meet the Coastal Mountains. Forests here are characterized by a mix of hemlock, Douglas-fir, and western red cedar conifer trees, with deciduous and mixed-forest stands present at river valley bottoms. The city experiences warm and dry summers, while the winters are wet and cool.

The City of Coquitlam is located within the core territory of the kʷikʷəƛ̓əm (Kwikwetlem) First Nation and within the shared traditional territories of the Tsleil-Waututh, Katzie, xʷməθkʷəy̓əm (Musqueam), Squamish, and Quayquayt First Nations. kʷikʷəƛ̓əm First Nation has one reserve located within the City of Coquitlam.

Coquitlam provides planning and services to safeguard the health, safety and welfare of its citizens; to respond effectively to emergencies; and to recover as efficiently as possible. Fire protection, and emergency management, are provided by the City of Coquitlam. Land use planning, solid waste services, building and development permits, bylaw enforcement, and administration are also provided to Coquitlam residents by the City. Water and sewer are provided to all residents within Coquitlam's municipal boundary.

Table 7: Coquitlam Socio-Economic Statistics[6]

Metric	Value	Data Source
Total Population	139,284	Census Canada, 2016
Population Density (people/km^2)	1037.1	Census Canada, 2016
Median Age (years)	41.1	Census Canada, 2016
Housing Units	19785 Single Detached 1590 Semi Detached 7480 Duplex 4910 Row 17290 Apartment	Census Canada, 2016
Median Home Value	$866,539	Census Canada, 2016

[6] Accessed via https://townfolio.co/bc/coquitlam/demographics

Metric	Value	Data Source
Median Household Income	$74,383	Census Canada, 2016
Unemployment Rate	6.1%	Census Canada, 2016
Employment Rate	61.1%	Census Canada, 2016

3.1 AREA OF INTEREST AND WILDLAND-URBAN INTERFACE

The area of interest for this CWRP is the City of Coquitlam, as encompassed by its municipal boundary (total area of 12,230 hectares). Within the municipal boundary is the area where urban development borders forests and open green space: the *wildland-urban interface*.[7] For the purposes of this CWRP, the wildland-urban interface (WUI) will be defined as areas with a density of more than six structures per square kilometer.[8] Map 1 shows the area of interest (municipal boundary), WUI, and land ownership types within the City of Coquitlam.

Most of the land in the WUI is identified either as Crown Provincial (approximately 50% of the WUI) or private ownership (31.5% of the WUI). Municipal land encompasses 13.7% of the WUI. Large portions of area identified as Crown Provincial are part of either Pinecone Burke Provincial Park, or the Coquitlam Watershed. Large portions of private land will be developed in the future but presently are comprised of continuous tracts of forested land.

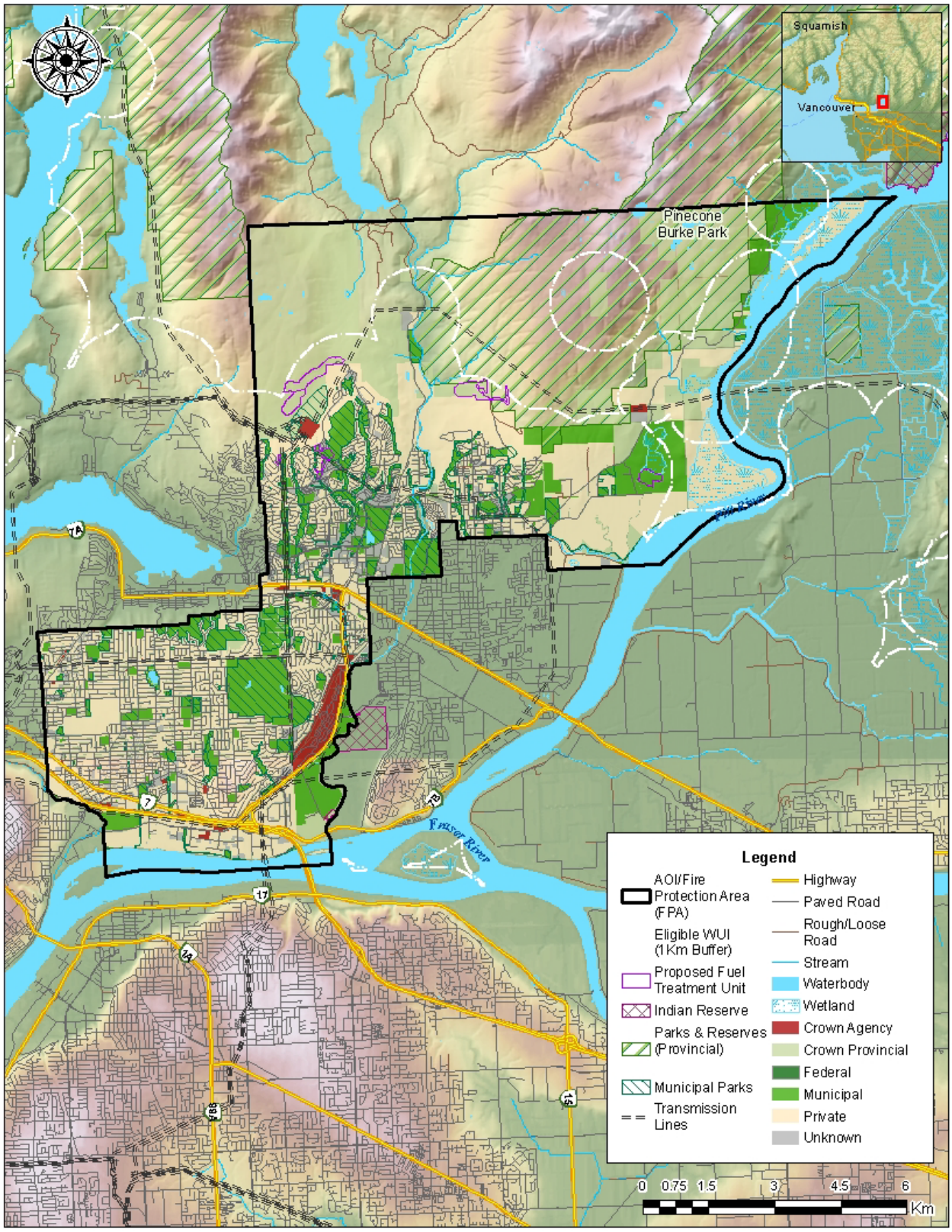
Table 8: Land Ownership within the WUI

Land Ownership[9]	Area (ha)
Crown Agency	166.3
Crown Provincial	6557.1
Federal	4.2
Municipal	1780.2
Private	4093.8
Unknown	386.8
Total	**12,988.3**

[7] British Columbia Wildfire Service. (2021). *Wildfire Glossary.* Retrieved from: https://www2.gov.bc.ca/gov/content/safety/wildfire-status/about-bcws/glossary

[8] Per 2021 Community Wildfire Resiliency Plan program and Instruction Guide.

[9] The land ownership source is ParcelMap BC, provided by the Land Title and Survey Authority (LTSA). This dataset does not differentiate Indian Reserves from Federal Crown parcels.



Map 1: Coquitlam CWRP AOI and WUI

3.2 VALUES AT RISK

Protection of critical infrastructure and values at risk during a wildfire event is an important consideration for emergency response effectiveness, ensuring that coordinated evacuation can occur if necessary and that essential services can be maintained or restored quickly in an emergency.

Critical infrastructure can be defined as assets that are essential for the functioning of government and society, namely, water, food, transportation, health, energy and utilities, safety, telecommunications and information technology, government, finance, and manufacturing.[10] Critical infrastructure is shown on Map 2, and Table 9 details the inventory of critical infrastructure identified in the WUI. Cultural, environmental, and other resource values are also addressed, and are displayed on Map 3.

This section identifies and describes key critical infrastructure and values-at-risk across several different categories. Review and analysis of these values-at-risk was used in the development of recommendations in SECTION 5: FireSmart Principles.

3.2.1 EMERGENCY RESPONSE, PUBLIC SERVICES, AND COMMUNICATIONS

Structures that support the delivery of emergency response services, emergency social services, and communications in the event of an emergency have the potential to be impacted by wildfire. At the same time, these services and functions may be required to respond effectively to a wildfire incident. In case of an emergency such as an interface wildfire, the *Emergency Program Bylaw No. 4092, 2010* authorizes the municipality to declare a State of Emergency and activate the Emergency Operations Centre. The primary, secondary, and tertiary Emergency Operations Center locations and Department Operations Centre locations are identified in the Disaster Response Plan[11] and in Table 9: Critical Infrastructure within the WUI.

Coquitlam is located within the Fraser Health Authority. Eagle Ridge Hospital, located in Port Moody, and Royal Columbian Hospital, in New Westminster are the two closest hospitals to the Coquitlam boundary. There is one assisted living facility, six long-term care homes, three mental health and substance abuse residences / service centers, and a renal care clinic administered by Fraser Health within Coquitlam, plus additional private services. Kwikwetlem Primary Care Clinic provides health and wellness services to Kwikwetlem community members. These facilities have not been identified as critical infrastructure, but consideration for the needs of residents or service users of them is important for important emergency planning, response, and recovery initiatives.

Many cellular communication towers are owned and operated by different telecommunication providers throughout the WUI. Of particular note, due to their location at the very edge of the WUI or

[10] Government of British Columbia. (2016). *British Columbia Emergency Management System*. Retrieved from: https://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/emergency-preparedness-response-recovery/embc/bcems/bcems_guide_2016_final_fillable.pdf

[11] City of Coquitlam. (2016). *Disaster Response Plan.* Retrieved from: https://www.coquitlam.ca/DocumentCenter/View/446/City-of-Coquitlam-Disaster-Response-Plan-PDF

within forested areas are a cell tower operated by Rogers on Eagle Mountain Drive, and a cluster of towers owned by Rogers, Freedom, and Telus, outside of Pinecone Burke Provincial Park. The City of Coquitlam's cellular phone provider is Rogers Communication. Additionally, a civic communications tower located at the Austin Works Yard (see Table 9) hosts several communication dishes, including the radio infrastructure for E-Comm 911 service. During the last critical infrastructure assessment, this communication tower was rated as the most critical piece of infrastructure.

3.2.2 ELECTRICAL POWER

A large fire has the potential to disrupt electrical service distribution through direct or indirect processes. For example, heat from flames or fallen trees associated with a fire event may cause power outages. Neighbourhoods with small, street-side wooden poles that connect to homes are particularly vulnerable to fire. As a result, secondary power sources are important to reduce critical infrastructure vulnerability in the event of an emergency which cuts power for days, or even weeks. Vulnerabilities for secondary power sources include mechanical failure, potentially insufficient power sources should a wide-scale outage occur, and fuel shortage in the event of long outages.

There is a significant network of electrical power infrastructure that extends throughout the Coquitlam WUI. This infrastructure is owned and operated by BC Hydro and is of local and regional importance. It is the primary source of power for the residents of Coquitlam, and connects to other electrical infrastructure which provides power to communities throughout the Lower Mainland. This system is well-mapped, and in the event of a wildfire BC Hydro will work with local and provincial emergency responders.

Electrical infrastructure in the Coquitlam WUI includes

- High-voltage transmission lines
- Overhead primary distribution lines
- Substation infrastructure (Meridian Substation)

Figure 1. Transmission lines near Eagle Mountain Park

Additionally, a diversion tunnel connects Coquitlam Lake and Buntzen Lake, and is used by BC Hydro to manage water levels, but this infrastructure is not located within the WUI. BC Hydro owns and operates the Coquitlam Dam on Coquitlam Lake reservoir.

The Interior to Lower Mainland Hydro Transmission Line project was completed in 2015, and expanded an existing transmission line right-of-way between Coquitlam to Merritt, by doubling up on the line. This has resulted in an expanded right-of-way, approximately 100 meters wide, that borders many WUI neighbourhoods. See Section 5.7 for details.

3.2.3 WATER AND SEWAGE

The functionality of critical water and sewage infrastructure can be impacted by an interface wildfire event as a result of emergency power cuts or physical damage. Infrastructure may be located in forested or interface areas near water sources, which increases their vulnerability.

Water and sewage services within the municipality are provided by the City of Coquitlam through a network of pump and lift stations and reservoirs. Water is sourced from the Coquitlam, Capilano, and Seymour reservoirs (the Coquitlam watershed area overlaps with the WUI – see Section 3.2.5 for details). Pump and lift stations that have been identified as critical infrastructure are listed in Table 9. Overall, systems are well maintained with effective pressures in most areas. In interface areas, water pressure is good, as neighbourhoods and service systems tend to be newer.[12] As new neighbourhoods are constructed, water and sewage service requirements are governed by the Subdivision and Development Servicing Bylaw.

There are a few isolated structures in the Coquitlam WUI to which drinking water and hydrant service networks do not extend (on Quarry Road north of Minnekhada Regional Park), and some areas (Quarry Road, Partington) where hydrant lays are long. In these areas property owners may source water from private wells. Coquitlam Fire and Rescue has response capacity for these areas with the use of a water tender, which can shuttle from hydrants if required, and which is stationed at the firehall closest to these properties for this reason.

Figure 2. Water reservoir infrastructure on Eagle Mountain, with overhanging vegetation close by. See Section 5.7 for further details.

In the Engineering and Public Works Disaster Response Plan, some of the operating requirements and vulnerabilities of reservoirs and pumping stations have been identified. All pumping stations identified as critical infrastructure for this plan have backup power sources. Some sewer pump stations (Ultra and Mayfair) were identified in this plan as old and difficult to access. These stations along with several others also require a portable genset required in case of a power outage.

Table 9 below contains an inventory of the critical infrastructure discussed in this section as well as Sections 3.2.1 and 3.2.2.

[12] J. Ogloff, personal communication, August 24, 2021.

Table 9: Critical Infrastructure within the WUI

Critical Infrastructure Name	Address	Location
Communications		
Communications Tower	500 Mariner Way	49.24989523, -122.81807982
SCADA	2467 Austin Avenue	49.24944523, -122.82516031
IT Systems	2601 Lougheed Highway	49.25958286, -122.79911259
Amateur Radio / Emergency Social Services Headquarters	3000 Guildford Way	49.28461934, -122.79317960
City Telephone System	3000 Guildford Way	49.28461934, -122.79317960
Water		
Aberdeen Sewer Pump Station	2700 Block Aberdeen Avenue	49.27677256, -122.81178411
Adair Sewer Pump Station	100 Block Nelson Street	49.27532137, -123.11621105
Begin Sewer Pump Station	40 Begin Street	49.23814330, -122.86116420
Briarcliffe Pump Station	1450 Landsdowne Street	49.29337869, -122.81400480
Canyon Sewer Pump Station	beside 941 Canyon Circle	49.26773369, -122.84769924
City Centre Sewer Pump Station	1000 Block Lougheed Highway	49.23480541, -122.86639385
Coleman Sewer Pump Station	beside 1851 Lougheed Highway	49.23133721, -122.84364878
Conifer Water Reservoir	3500 Block Harper Road	49.30690319, -122.74783269
David Avenue Pump Station	3311 David Avenue	49.29318736, -122.76228747
Eagle Mountain Reservoir and Pump Station	1900 Block Parkway Boulevard	49.31153794, -122.79933437
Eagle Summit Reservoir	3500 Block Plateau Boulevard	49.32175735, -122.79987933
Eagleridge Reservoir and Pump Station	1250 Landsdowne Street	49.28652424, -122.81437022
Eleanor Ward Bridge	3000 Block David Avenue	n/a
Foster Reservoir and Pump Station	1500 Block Foster Avenue	49.25607103, -122.85177111
Green Acres Sewer Pump	2945 Como Lake Avenue	49.26334650, -122.81869015
Harper Road Reservoir and Pump Station	3411 Harper Road	49.30495188, -122.75439176
Hideaway Sewer Pump Station	2600 Block Dewdney Trunk Road	49.27590147, -122.81648315
Hockaday Sewer Pump Station	1300 Block Hockaday Street	49.30043337, -122.77264101
Hoy Creek Reservoir and Pump Stations	1530 Whitebark Place	49.30287410, -122.79274345
Johnson Street Overpass	2800 Block Barnet Highway	49.27720402, -122.80174239
Landsdowne Sewer Pump/Force Main	1100 Block Landsdowne Drive	49.27755296, -122.80940375
Lincoln Sewer Pump Station	3700 Block Hastings Street	49.27796386, -122.78122762
Mara Pump Station	2705 Mara Drive	49.26015795, -122.81576200
Mayfair Sewer Pump Station	beside 974 Mayfair Court	49.26930018, -122.85037687
Mill Creek Sewer Pump Station	200 Block Lucille Starr Drive	49.23638549, -122.85352250
Myrnam Sewer Pump Station	200 Block Myrnam Street	49.23794426, -122.84917625
Noons Creek Reservoir and Pump Station	1350 Eagle Mountain Drive	49.30062761, -122.81970614

North Road Water Flow Station	1000 Block North Road	
Oxbow Sewer Pump Station	1900 Block Lodge Drive	49.28704005, -122.76871716
Pipeline Road Pump Station	3200 Robson Drive	49.29921488, -122.78024128
Port Mann Storm Pump and Dyke	5 Burbidge Street	49.22439201, -122.81543514
River Heights Pump Station	2600 Hickey Street	49.25025066, -122.82440326
Saltsping Sewer Pump Station	1200 Block Gabriola Drive	49.28658394, -122.77421291
San Juan Sewer Pump Station	186 San Juan Place	49.23589940, -122.82657324
Schoolhouse Sewer Pump Station	100 Block Schoolhouse Street	49.23398849, -122.85372290
Scott Creek Dyke	800 Block Lougheed Highway	49.24992043, -122.73413007
Scott Creek Reservoir and Pump Station	2775 Panorama Drive	49.29870111, -122.81578861
Selkirk Sewer Pump Station	beside 947 Poirier Street	49.26819919, -122.84617174
Tupper Sewer Pump Station	beside 925 Tupper Alley	49.23525671, -122.87085414
Ultra Sewer Pump Station	behind 834 Ultra Court	49.26539039, -122.83379074
United Sewer Pump Station	2300 Block United Boulevard	49.22755277, -122.82990583
Victoria Drive Sewer Pump Station	3489 Victoria Drive	49.25380403, -123.06602877
Government		
Animal Shelter	500 Mariner Way	49.24989523, -122.81807982
City Hall	3000 Guildford Way	49.28461934, -122.79317960
Coquitlam Works Yard	500 Mariner Way	49.24989523, -122.81807982
Pinetree Community Centre	1260 Pinetree Way	49.28941828, -122.79144416
Poirier Community Centre	630 Poirier Street	49.25478243, -122.84734170
Poirier Sports & Leisure Centre	633 Poirier Street	n/a
Glen Pine Seniors' Centre	1200 Glen Pine Court	n/a
Safety		
Austin Fire Hall	428 Nelson Street	49.24818525, -122.86568937
Burke Mountain Fire Hall	3501 David Avenue	49.29544480, -122.74248797
Burquitlam Community Police Station #4	560 Clarke Road	49.26204110, -122.88927208
Mariner Fire Hall	775 Mariner Way	49.26243112, -122.81711219
RCMP Detachment Building	2986 Guildford Way	49.28473294, -122.79433173
Ridgeway Community Police Station #1	1059 Ridgeway Avenue	49.25005135, -122.86318142
Town Centre Fire Hall & Administration	1300 Pinetree Way	49.29168011, -122.79078245
Transportation		
Braid Street Bridge	100 Block Braid Street	
Burke Village Promenade Bridge	3400 Block Burke Village Promenade	49.29209040, -122.74623162
Como Lake Avenue Bridge	2900 Block Como Lake Avenue	n/a
David Avenue at Scott Creek Bridge	2600 Block David Avenue	49.29419805, -122.80953359

David Avenue at Smiling Creek Bridge	3400 Block David Avenue	49.29299314, -122.76122119
David Avenue / Hyde Creek Bridge	3300 Block David Avenue	49.29305592, -122.76116358
Dewdney Trunk Bridge	2948 Dewdney Trunk Road	49.26819306, -122.79773244
Disaster Response Route - Barnet Highway	Johnson Street to Balmoral Drive	n/a
Disaster Response Route - Johnson Street	Lougheed Highway to Pinetree Way	n/a
Disaster Response Route - Lougheed Highway	Johnson Street to Westwood Street	n/a
Disaster Response Route - Mariner Way	United Boulevard to Lougheed Highway	n/a
Gislason Avenue at Smiling Creek Bridge	3471 Gislason Avenue	49.28933021, -122.74515399
Gislason Avenue at Watkins Creek Bridge	3300 Block Gislason Avenue	n/a
Johnson Street at Hoy Creek Bridge	1100 Block Johnson Street	49.28327056, -122.80178484
King Edward Overpass	100 Block King Edward Street	49.23236683, -122.86164973
Lougheed Highway at Scott Creek Bridge	2900 Block Lougheed Highway	49.26850102, -122.79865997
Lougheed Railway Overpass	2900 Block Lougheed Highway	49.27324029, -122.79869215
Lucille Starr at Booth Creek Bridge	1500 Block Lucille Starr Drive	49.23583231, -122.85104323
Maquabeek Boat Launch	5 Burbidge Street	49.22398092, -122.81627096
Marguerite Street at Hyde Creek Bridge	1400 Block Marguerite Street	49.30110453, -122.76177231
Mariner Overpass	3300 Block Mariner Way	49.27468108, -122.80185065
North Road at Brunette River Overpass	200 Block North Road	49.23800055, -122.89250467
North Road Railway Overpass	200 Block North Road	49.24090338, -122.89262090
Quarry Road at Deiner Creek Overpass	4200 Block Quarry Road	49.31684651, -122.69395906
Quarry Road at Munro Creek Bridge	4900 Block Quarry Road	49.32561289, -122.67279093
Rogers Avenue Bridge	2300 Block Rogers Avenue	49.22443496, -122.82858814
Schoolhouse Street at Booth Creek Bridge	100 Block Schoolhouse Street	49.23482215, -122.85255345
Signalized Traffic Intersections	n/a	
Victoria Drive at Partington Creek Bridge	3700 Block Victoria Drive	49.29720538, -122.71735075

3.2.4 HAZARDOUS VALUES

Hazardous values are defined as values that pose a safety hazard to emergency responders, and protecting hazardous values from fires is important to preventing interface fire disasters. Anywhere combustible materials, explosive chemicals, gas, or oil is stored can be considered a hazardous value.

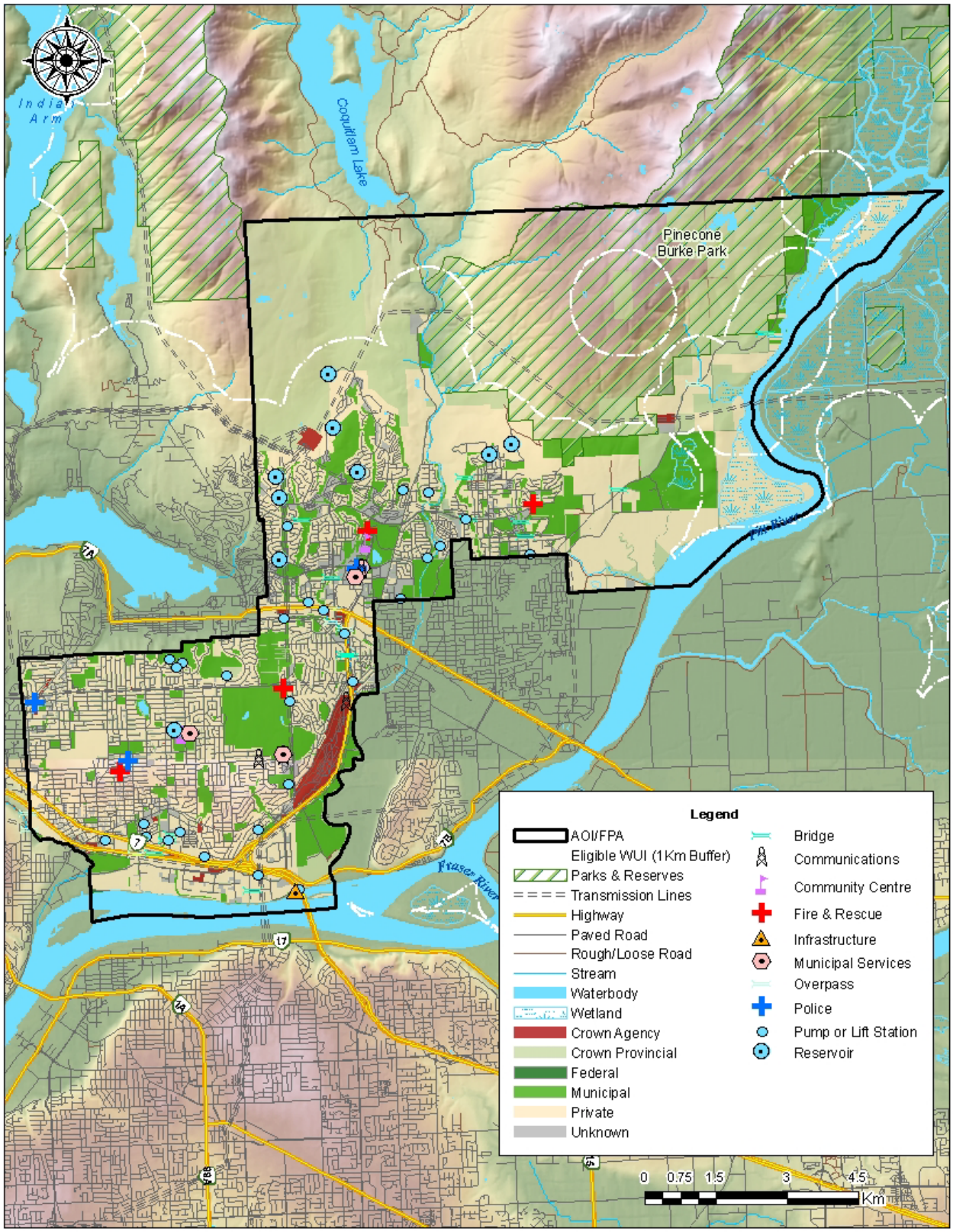
Fortis BC has underground natural gas pipelines that run throughout Coquitlam supplying natural gas throughout the municipality. In the interface, there are larger transmission pipelines along David Avenue, Pipeline Road, as well as along separate rights-of-way. There is also a FortisBC facility on Eagle Mountain, close to the BC Hydro Meridian Substation. In the event of a wildfire, FortisBC will work with local and provincial emergency responders and employ their own emergency response protocols, including shutting down compressor stations, if required.[13]

Refuse for the City of Coquitlam is collected at the Coquitlam Recycling and Waste Centre. Hazardous materials are accepted for controlled recycling at this centre, including propane tanks, gasoline, vehicle batteries, oil filters, solvents, tires, large appliances, and other items.

The water treatment plant at the Coquitlam Lake reservoir uses UV and ozonation processes, along with chlorine, to treat drinking water. The chlorine storage and ozonation treatment infrastructure are hazardous values.

Rail lines for both Canadian Pacific and Canadian National Railway run through Coquitlam. The closest rail yard is located in Port Coquitlam. Rail companies have emergency response plans and trained response staff.

[13] FortisBC. *Wildfires and evacuations.* Retrieved from: https://www.fortisbc.com/safety-outages/preparing-for-emergencies/wildfires-and-evacuations



Map 2: Critical Infrastructure within the WUI

3.2.5 HIGH ENVIRONMENTAL VALUES

The Coquitlam Lake watershed overlaps the northwestern edge of the WUI and is an area of high environmental value. Water quality is an ecosystem service this area provides that is of critical value to residents throughout the Lower Mainland. The watershed is also a protected natural area, and conserves habitat for plant and wildlife communities. Species at risk and their habitat also occur within the watershed. Disturbance to forest stands as a result of wildfire has the potential to impact these values.

In the *Five-Year Implementation Plan for Capilano, Seymour and Coquitlam Watersheds*,[14] wildfire was identified as a risk to drinking water quality, with potential impacts that may result from:

- Increased erosion delivering higher quantities of sediment.
- Increased delivery of organic material and dissolved nutrients.
- The potential for chemical fire retardant and surfactants to enter the stream network.

Where Pinecone Burke Provincial Park overlaps the Coquitlam WUI, it protects significant areas of freshwater marsh and wetland habitat. There are occurrences of six sensitive or vulnerable species within this park, and all five species of Pacific salmon, cutthroat trout, steelhead trout, and migratory Dolly Varden char can be found within it.[15]

Table 10 below lists the ecosystem or species at risk occurrences that have been identified through the B.C. Conservation Data Center (CDC) and have been specifically observed and recorded within the WUI boundary. Through consultation with the CDC and a biologist or qualified professional, all site level operational plans must identify and mitigate potential impacts to ecosystems or species at risk. Blue- and Red-listed occurrences are shown below on Map 3.

Table 10. Publicly available occurrences of Red and Blue-listed species recorded in the WUI.

Scientific Name	Common Name	Category	BC List
Chrysemys picta (pop. 1)	Painted turtle (Pacific Coast population)	Vertebrate Animal	Red
Bidens amplissima	Vancouver Island beggarticks	Vascular Plant	Blue
Acorus americanus	American Sweet-flag	Vascular Plant	Blue
Rana aurora	Northern red-legged frog	Vertebrate Animal	Blue
Sorex bendirii	Pacific water shrew	Vertebrate Animal	Red

[14] Metro Vancouver. (2002). *Five-Year Implementation Plan for Capilano, Seymour and Coquitlam Watersheds.* Retrieved from: http://www.metrovancouver.org/services/water/WaterPublications/WSMP-5YearImplementation.pdf

[15] BC Parks. (2021). *Pinecone Burke Provincial Park*. Retrieved from: https://bcparks.ca/explore/parkpgs/pinecone/

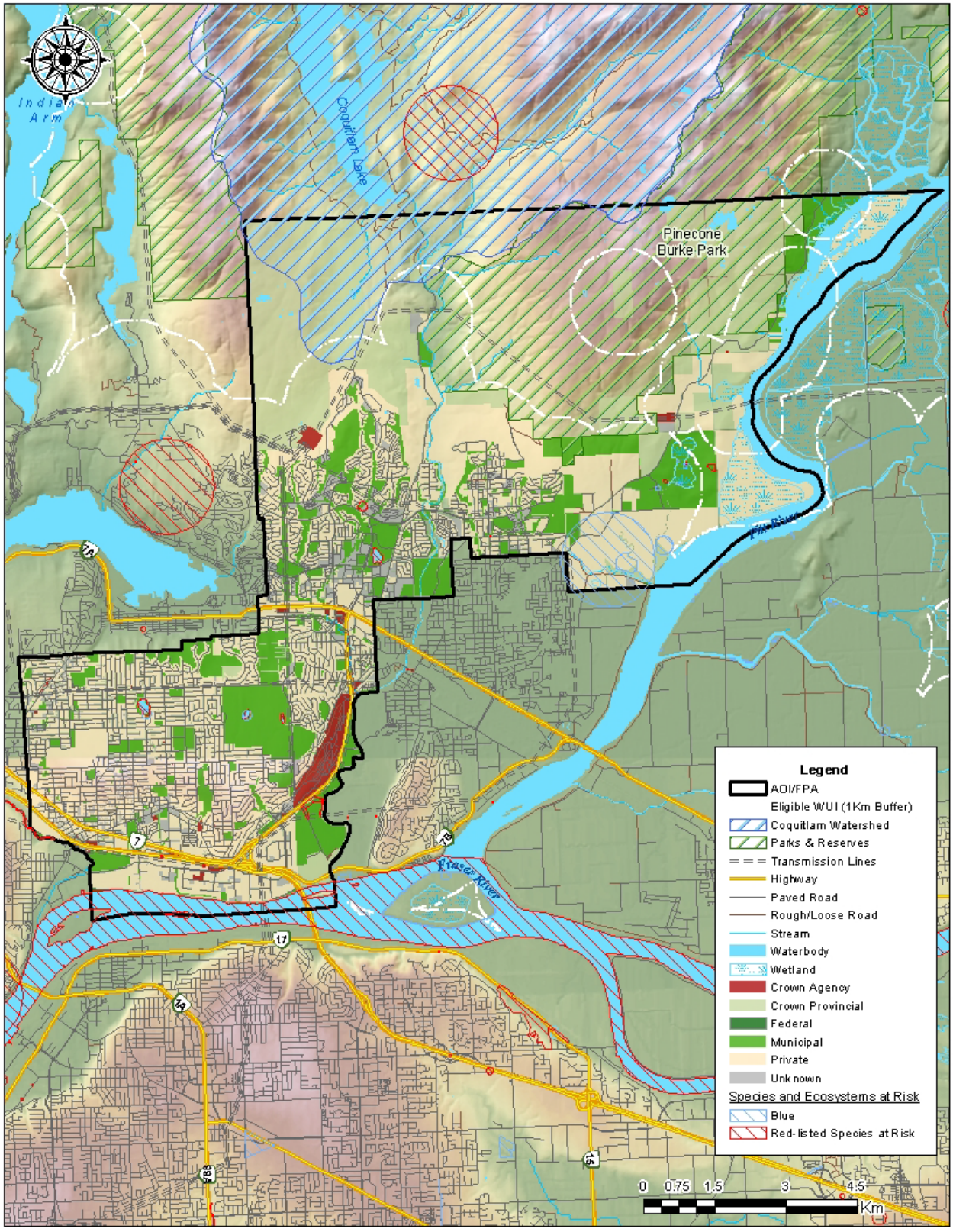
Acipenser transmontanus (pop. 4)	White sturgeon (Lower Fraser River population)	Vertebrate Animal	Red
Butorides virescens	Green heron	Vertebrate Animal	Blue
Rhinichthys cataractae (*Chehalis* lineage)	Nooksack dace	Vertebrate Animal	Red
Lupinus rivularis	Streambank lupine	Vascular Plant	Red
Claytonia washingtoniana	Washington springbeauty	Vascular Plant	Red

3.2.6 OTHER RESOURCE VALUES

Pinecone Burke Provincial Park and the surrounding Burke Mountain area, as well as Eagle Mountain, encompasses a network of trails that sees significant use by hikers, mountain bikers, dog-walkers, and other recreational traffic. The Parks, Recreation, and Culture Master Plan states that opportunities for residents to connect with nature and pursue outdoor recreation activities should be protected and improved. Coquitlam residents consistently attribute high importance to parks and green space in Citizen Satisfaction Surveys.[16]

Other values in Coquitlam WUI include commercial infrastructure on private land for agriculture and sand and gravel quarrying. Neither have been associated with ignitions or fire incidents in the municipality, although some hazardous materials may be stored on properties associated with these uses.

[16] City of Coquitlam. (2015). *Parks, Recreation and Culture Master Plan Implementation Strategy.* Retrieved from: https://www.coquitlam.ca/DocumentCenter/View/1543/Parks-Recreation-and-Culture-Master-Plan-Implementation-Strategy-PDF



Map 3: Environmental, and Other Resource Values.

3.2.7 CULTURAL VALUES

Cultural values have the potential to be impacted by wildfire through physical damage or alteration. Wildfire suppression techniques have the potential to disturb unidentified archaeological sites. If cultural values are inventoried and identified as sensitive sites, the possibility of protection and accommodation of these features in a wildfire incident is increased.

Archaeological sites and remains in BC that pre-date 1846 are protected from disturbance, intentional and inadvertent, by the *Heritage Conservation Act* (HCA), which applies on both private and public lands. Sites that are of an unknown age that have a likely probability of dating prior to 1846 (i.e., lithic scatters) as well as Aboriginal pictographs, petroglyphs, and burials (which are likely not as old but are still considered to have historical or archaeological value) are also protected. Under the HCA, protected sites may not be damaged, altered, or moved in any way without a permit. It is a best practice that cultural heritage resources, such as culturally modified tree (CMT) sites, be inventoried and considered in both operational and strategic planning.

The MFLNRORD Archaeology Branch confirms that there are known overlaps with archeological sites within the WUI. There is also potential for previously unidentified archeological sites to exist elsewhere in the WUI. Prior to stand modification for fire hazard reduction, and depending on treatment location, preliminary reconnaissance surveys and/or archeological impact assessments may be required to ensure that cultural heritage features are not inadvertently damaged or destroyed. Fuel treatment activities must include consultation with all identified First Nations at the site level and with sufficient time for review and input regarding their rights and interests prior to prescription finalization or implementation.

SECTION 4: WILDFIRE RISK ASSESSMENT

This section summarizes the factors that contribute to local wildfire risk in the Coquitlam WUI. The wildfire risk assessment provides a decision support tool to determine the most effective wildfire risk reduction actions and opportunities to increase community resilience.

The relationship between wildfire risk and wildfire threat is defined as follows:

Wildfire Risk = Consequence × Probability

Where:

Wildfire risk is the potential losses incurred to human life, property, and critical infrastructure within a community in the event of a wildfire.

Consequences are the repercussions associated with fire occurrence in an area (higher consequences are associated with densely populated areas, areas of high biodiversity, etc.).