

Community Infrastructure

Community infrastructure is critical to the well-being and quality of life in Port Moody. This includes the provision, maintenance and renewal of transportation, drainage, sanitary and drinking water infrastructure, provision of solid waste management and coordination with third party telecommunications, power and gas utilities.

Climate change will pose challenges to infrastructure in Port Moody. Extreme rainfall events, storm surges, and sea level rise are expected to increase the risk of flooding in the region by 2050. More frequent extreme events will challenge infrastructure durability which will require adapted maintenance schedules and general asset management. General infrastructure challenges include existing servicing gaps and increased capacity of the systems in areas with population growth, as well as the maintenance and renewal of existing aging systems in other neighbourhoods experiencing less change.

Complete communities can mitigate pressures on infrastructure with the benefit of less investment per capita. Combining green infrastructure or natural asset-based solutions with traditional infrastructure (e.g., open watercourses, rainfall infiltration) can increase Port Moody's resilience to risks posed by a changing climate. This approach also supports several of Port Moody's community infrastructure goals including:

- reduced water consumption;
- minimizing urban flooding due to heavy rainfall; and
- ensuring civic infrastructure and natural assets are well-maintained and improved/ restored/ replaced when necessary so they are more resilient to the anticipated effects of climate change.

Managing both traditional and natural assets with a climate lens ensures that investments will be functional throughout their lifespan to support the transition toward a more energy efficient, resilient, and sustainable future while reducing the burden on existing infrastructure.





Objective 1: Conserve water.

Port Moody's drinking water originates from the Coquitlam, Capilano and Seymour Watersheds which is supplied by three Metro Vancouver connections to the Greater Vancouver Water District (GVWD) system. The Port Moody water distribution system shown in Map 8 (p. 175) includes 9 pressure zones, two pump stations, three storage reservoirs and over 133km of distribution mains.

Metro Vancouver has an above average per capita water consumption pattern in comparison to other North American cities. The City of Port Moody and other municipalities in Metro Vancouver are working collaboratively to reduce the per capita water consumption in the region. Reducing water consumption has several co-benefits which includes avoiding or deferring costly infrastructure expansion and reducing long term environmental impacts, all which provide an economic benefit. The City's existing water conservation initiatives include water sprinkling regulations and water system upgrades through leak detection and repair.

► Water Conservation Policies

1. Incorporate climate change and resiliency considerations into the design and location of the City's water distribution system.
2. Work toward water usage metering on all properties through a phased program.
3. Continue to encourage water conservation measures including sprinkling regulations, educational material, drought resistant landscaping and promotion of low flow fixtures in buildings.
4. Demonstrate water conservation best practices in City facilities and pilot innovative systems where feasible.
5. Develop water conservation targets for parks, facilities and operations and monitor targets on an annual basis.



Objective 2: Support resilient storm and sanitary sewer systems.

Port Moody's storm and sanitary sewer systems are regulated by Metro Vancouver through the region's Integrated Liquid Waste and Resource Management Plan (2011). The City of Port Moody maintains separated storm and sanitary sewer systems. Rainfall runoff is captured in storm sewers and released into major watercourses or receiving water bodies. Sanitary sewage is collected in a separated sanitary sewer system and conveyed to the Metro Vancouver trunk sewer and treatment facilities. Map 9 (p. 176) shows the sanitary sewer plan for Port Moody.

In addition to the municipal system, the regional district, through the Greater Vancouver Sewerage and Drainage District (GVS&DD), also maintains waterways and drainage facilities within the Port Moody — Coquitlam Drainage Area. This drainage area encompasses a significant portion of southern Port Moody from South Schoolhouse Creek east to Dallas Creek, including the Chines escarpment. The GVS&DD's primary responsibility within this drainage area is to prevent flooding by ensuring that culverts, drains, and grills are kept clear and functioning properly. The Port Moody — Coquitlam Drainage Area has a highly developed land base and stormwater flows can be significantly affected by moderate to heavy rain storms.

► Storm and Sanitary Sewer System Policies

1. Incorporate climate change considerations into the design and location of storm and sanitary sewer systems.
2. Support the implementation of effective utility management principles for the management of the storm and sanitary sewer systems.
3. Research and investigate the potential of greywater re-use in residential developments (e.g., using laundry grey water for toilet flushing or landscaping, or using rainwater for laundry or toilet flushing).
4. Liaise regularly with Metro Vancouver Liquid Waste Services and Metro Vancouver Water Services to keep them apprised of the scale and timeframe of major development plans.



Objective 3: Reduce hydrological impacts through Integrated Stormwater Management.

Port Moody shares many of its watersheds with other municipalities which requires a coordinated approach to stormwater management. Integrated stormwater management coordinates land use planning and drainage design to manage watershed health and mitigate the hydrological impacts of urbanization. Increased impervious surfaces from growth prevent the absorption of rainfall into soil and increases the amount of water entering streams through the storm water system. This runoff and increase in frequency can result in erosion, sedimentation, flooding, reduced groundwater recharge and baseflows, water quality deterioration, and degradation of fish and wildlife habitat.

To reduce the effects on watershed health, the City has completed several Integrated Stormwater Management Plans including the Chines Integrated Stormwater Management Plan (2016), in collaboration with Coquitlam and Metro Vancouver, and the Stoney Creek ISMP (1999), in collaboration with Coquitlam, Burnaby and Metro Vancouver. A 2019 study in Moody Centre assessed the stormwater infrastructure for climate change capacity requirements and provided direction for future development plans. Two additional integrated storm water management plans were completed in 2024 for the North Shore and Inlet Centre areas incorporating climate change requirements for stormwater infrastructure and assessing watershed health of creeks including Mossom and Noons Creeks. Map 19 (p. 186\) shows the watersheds within Port Moody.

► Integrated Stormwater Management Policies

1. Apply storm water best management practices to City projects, where appropriate, to maintain and improve overall watershed health.
2. Incorporate Integrated Stormwater Management Plan recommendations into City capital projects, area plans, and subdivisions.
3. Monitor watershed health and update Integrated Storm Water Management Plans in compliance with the Metro Vancouver Adaptive Management Strategy.
4. Support educational programs for residents to reduce impacts to watershed health including fish habitat (e.g., painted fish program).
5. Develop a green infrastructure policy and program to require innovative approaches to improve the water quality and reduce volumes of stormwater runoff (e.g., vegetated buffers or swales, natural infiltration basins, and green roofs).



Objective 4: Efficiently and effectively manage road and bridge infrastructure.

Roads and bridges establish the spatial organization of a community, contributing to its character and identity while moving people and goods from place to place. The road network includes space for all modes of transportation including transit, cars, bicycles, and pedestrians. The City of Port Moody is responsible for the operation and maintenance of all roads within the City totalling over one hundred and twenty-five kilometres.

Roads act as service and utility corridors accommodating a wide range of municipal services and private utilities. Roads also provide surface drainage and serve as a conveyance route during significant storm events. This necessitates the provision of adequate horizontal, vertical, above-grade and below-grade space for the location and maintenance of this infrastructure and landscaping within the existing rights-of-way. The City's road pavement management program assesses pavement conditions on a regular basis and identifies an annual work program for pavement repairs and rehabilitation. Roads included as part of the region's Major Road Network are owned and maintained by the City, with operational and maintenance support provided by TransLink as legislatively required.

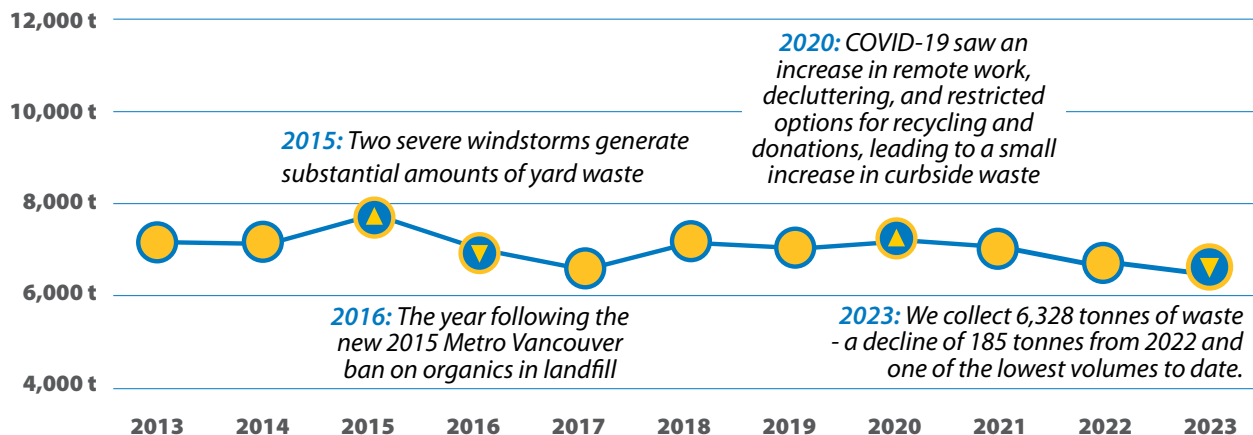
► Road and Bridge Infrastructure Policies

1. Incorporate environmentally friendly or low carbon materials to complete annual maintenance and rehabilitation of road infrastructure.
2. Ensure that roads and bridges are designed to industry best practices and are managed cost effectively.
3. Support the effective maintenance of roads and bridges over their life-cycle to optimize level of service for all users.



Objective 5: Achieve zero waste by 2050.

Achieving zero waste in Port Moody requires the diversion of more organic waste and recyclable materials (including the wide range of extended producer responsibility materials) from landfills. While the City's waste diversion trend has been reducing the amount of material sent to land fill over the past 10 years, waste sent to landfill currently accounts for over 1% of all community emissions (1,400 tonnes CO² equivalent emissions annually). These emissions can be reduced by continuing to divert organic waste from the landfill, including composting kitchen scraps, composting yard trimmings, recycling construction material and recycling printed paper and packaging materials under RecycleBC.



Waste diversion trends from 2013–2023.

► Zero Waste Policies

1. Strive to achieve zero waste in Port Moody by:
 - a. developing a zero waste strategy focused on community and commercial waste;
 - b. encouraging all property sectors to work towards the target of zero waste.
 - c. supporting Metro Vancouver's Zero Waste Initiative;
 - d. expand zero waste strategies for City facilities and City events.
2. Encourage resource conservation and waste reduction in the community through the 5-R's: Reduce, Reuse, Recycle, Rethink and Repurpose; and
3. Phase in recycling facilities and waste reduction initiatives in all major parks and sports facilities.



Objective 6: Manage the City's assets.

The City's Asset Management Strategy includes maintenance management, financial asset reporting, infrastructure lifecycle management, fleet maintenance and facility management. Asset-specific management plans are being developed for core infrastructure (e.g., water, sewer and stormwater drainage systems and transportation networks) to provide a 10-year outlook of anticipated lifecycle costs, recommend renewal and replacement projects to maintain current service levels, identify risks or potential changes to service, and project future demand. In 2023, climate audits for civic facilities were completed which identified retrofits necessary to achieve net zero emissions by 2040. Green Infrastructure is an important consideration for its ability to provide economic benefits by reducing the capital, maintenance, and replacement costs of conventional infrastructure. A Natural Asset Management Strategy is underway to inventory, value and identify the role of the City's natural assets in municipal service delivery and include these as part of decision-making.

► Asset Management Policies

1. Continue to incorporate climate risks into asset management planning.
2. Effectively manage community infrastructure through the City's Asset Management System in keeping with industry best practices and provincial requirements.
3. Identify necessary improvements to water, sewer, drainage, and transportation infrastructure, as well as parks and recreation facilities required as part of future development and regularly update the City's Development Cost Charges to fund these improvements.
4. Explore opportunities for incorporating green infrastructure alternatives where feasible.
5. Continue to improve the City's asset data collection programs to inform the accuracy of asset renewal forecasting.
6. Recognize the services provided by natural resources and ecosystems, and integrate natural assets into asset management processes, practices, and systems, as appropriate.
7. Consider carbon sequestration as a component of natural asset management.



Objective 7: Collaborate with Metro Vancouver, neighbouring municipalities and government agencies to manage shared watersheds, conserve water and reduce waste.

Watersheds in Port Moody cross jurisdictional boundaries requiring an integrated shared management approach with the cities of Burnaby and Coquitlam, the villages of Anmore, and Belcarra as well as Metro Vancouver. This shared approach is integral to the protection and effective function of these interconnected systems. Likewise water conservation and waste reduction are regional issues which necessitate collaboration among many partners to make effective progress.

► Collaboration Policies

1. Continue to collaborate with Metro Vancouver and other Tri-City municipalities to support regional water conservation efforts.
2. Collaborate with neighbouring municipalities, Metro Vancouver and senior government agencies to develop integrated watershed management approaches for shared watersheds.
3. Collaborate with Metro Vancouver to:
 - a. implement the Integrated Liquid Waste and Resource Management Plan;
 - b. implement the Integrated Solid Waste and Resource Management Plan; and
 - c. advocate for initiatives and policies to reduce waste, increase capture of methane at landfills, and increase reporting and awareness of waste generation.
4. Continue to provide and work with partner organizations on public education campaigns to emphasize the importance of waste reduction programs and information and waste reduction tools.