

**METRO VANCOUVER REGIONAL DISTRICT
WATER COMMITTEE**

MEETING

Wednesday, May 14, 2025

1:00 pm

28th Floor Committee Room, 4515 Central Boulevard, Burnaby, British Columbia

Webstream available at <https://www.metrovancover.org>

A G E N D A

A. ADOPTION OF THE AGENDA

1. May 14, 2025 Meeting Agenda

That the Water Committee adopt the agenda for its meeting scheduled for May 14, 2025 as circulated.

B. ADOPTION OF THE MINUTES

1. April 16, 2025 Meeting Minutes

That the Water Committee adopt the minutes of its meeting held April 16, 2025 as circulated.

pg. 5

C. DELEGATIONS

D. INVITED PRESENTATIONS

E. REPORTS FROM COMMITTEE OR CHIEF ADMINISTRATIVE OFFICER

1. Water Supply Update for Summer 2025

pg. 9

Executive Summary

It is anticipated that the existing snowpack and expected full source reservoirs, supported by widespread compliance with lawn watering restrictions, will ensure sufficient water to meet summer water demands. Metro Vancouver's source reservoirs are filled each winter and spring by precipitation and snowmelt, and the water needs to last through the summer and into the fall. Snowpack conditions are monitored through June 15 each year with that information being used to inform dam operations, such as reservoir refill timing, and Drinking Water Conservation Plan stage activation. During the summer, daily water use in Metro Vancouver can increase by over 50 per cent, mainly due to lawn watering. Reducing outdoor water use helps conserve water for essential purposes like cooking, cleaning, and drinking, and reduces the likelihood of more stringent restrictions.

The overall decline in the region's average daily water use has slowed in recent years, emphasizing the continued importance of water conservation. We must prepare for changes to rainfall and snowpack due to climate change. In Metro Vancouver, warmer annual temperatures and longer dry spells, combined with reductions in snowpack and earlier spring melt, will put a strain on the existing water supply in the summer and fall when water use is highest. Proactive public education, supported by strong local government enforcement, is essential to managing the increased summer demand on the drinking water system, which is primarily driven by outdoor water use.

Recommendation

That the Water Committee receive for information the report dated May 6, 2025, titled "Water Supply Update for Summer 2025".

2. Wildfire Preparedness Update

pg. 21

Executive Summary

Metro Vancouver provides a reliable supply of high-quality drinking water to three million residents through its member jurisdictions. Source water protection relies on safeguarding the forested lands of the Capilano, Seymour, and Coquitlam water supply areas from wildfires.

These areas have historically low wildfire incidence due to restricted public access and strict limitations in the type of work during fire season. With this approach, the primary wildfire risk remains lightning strikes during moderate to extreme fire risk levels. To ensure quick fire detection and response, staff utilize patrols, weather reports, near real-time lightning maps, local public and air traffic smoke reports, and rapid crew deployment of dedicated wildfire crews.

Water Services Wildfire Protection Program staff have expertise in wildfire management, specialized equipment for monitoring, and are ready for strategic deployment. The program maintains strong and proven partnerships with the BC Wildfire Service and local fire departments to ensure wildfire season readiness.

Recommendation

That the Water Committee receive for information the report dated April 22, 2025, titled “Wildfire Preparedness Update”.

3. 2025 Water Sustainability Innovation Fund Applications

pg. 25

Executive Summary

In alignment with the Board Strategic Plan and the Drinking Water Management Plan, these applications are submitted for Board consideration and approval.

This report presents three applications recommended for funding, totaling \$1,150,000 over three years, funded through the Water Sustainability Innovation Fund. The first application aims to integrate the Water Services departments’ natural assets into the existing Asset Management Program. The second application will support the regional water utility’s long-term planning by understanding the current and projected future demands of the agricultural sector. And the third application will evaluate climate change impacts to help address the vulnerability of Metro Vancouver’s dams and diversion structures through a case study.

The report provides background on the Water Sustainability Innovation Fund Policy, a brief overview of the three projects and financial implications.

Recommendation

That the GVWD Board approve the allocation from the Water Sustainability Innovation Fund of \$1,150,000 for the following three applications, starting in 2025:

- a) Integrating Natural Assets into Water Services’ Asset Management Program for \$300,000 over three years;
- b) Evaluating Agricultural Water Demands in the Metro Vancouver Region for \$350,000 over three years; and
- c) Quantifying Climate Change Impact on Dam Safety – A Case Study for \$500,000 over three years.

4. Manager’s Report

pg. 29

Recommendation

That the Water Committee receive for information the report dated May 6, 2025, titled “Manager’s Report”.

F. INFORMATION ITEMS

G. OTHER BUSINESS

H. RESOLUTION TO CLOSE MEETING

Note: The Committee must state by resolution the basis under section 90 of the Community Charter on which the meeting is being closed. If a member wishes to add an item, the basis must be included below.

I. ADJOURNMENT

That the Water Committee adjourn its meeting of May 14, 2025.

Membership:

West, Brad (C) – Port Coquitlam
Sager, Mark (VC) – West Vancouver
Albrecht, Paul – Langley City
Bell, Don – North Vancouver City

Cassidy, Laura – scəwáθən məsteyəxʷ
(Tsawwassen First Nation)
Guichon, Alicia – Delta
Hodge, Craig – Coquitlam
Keithley, Joe – Burnaby

Little, Mike – North Vancouver District
MacDonald, Nicole – Pitt Meadows
Meiszner, Peter – Vancouver
Rindt, Rob – Langley Township
Stutt, Rob – Surrey



**METRO VANCOUVER REGIONAL DISTRICT
WATER COMMITTEE**

Minutes of the Regular Meeting of the Metro Vancouver Regional District (MVRD) Water Committee held at 1:00 pm on Wednesday, April 16, 2025 in the 28th Floor Committee Room, 4515 Central Boulevard, Burnaby, British Columbia.

MEMBERS PRESENT:

Chair, Director Brad West, Port Coquitlam
Vice Chair, Director Mark Sager, West Vancouver
Director Paul Albrecht, Langley City
Councillor Don Bell, North Vancouver City (arrived at 1:01 pm)
Councillor Alicia Guichon, Delta
Director Craig Hodge, Coquitlam
Councillor Joe Keithley, Burnaby
Mayor Mike Little, North Vancouver District (arrived at 1:05 pm)
Director Nicole MacDonald, Pitt Meadows
Councillor Rob Rindt, Langley Township
Director Rob Stutt, Surrey

MEMBERS ABSENT:

Director Laura Cassidy, scəwáθən məsteyəxʷ (Tsawwassen First Nation)
Director Peter Meiszner, Vancouver

STAFF PRESENT:

Marilyn Towill, General Manager, Water Services
Nikki Tilley, Supervisor, Legislative Services, Board and Information Services
Inder Singh, Director, Interagency Projects and Quality Control, Water Services

A. ADOPTION OF THE AGENDA

1. April 16, 2025 Meeting Agenda

It was MOVED and SECONDED

That the Water Committee adopt the agenda for its meeting scheduled for April 16, 2025 as circulated.

CARRIED

B. ADOPTION OF THE MINUTES**1. March 12, 2025 Meeting Minutes****It was MOVED and SECONDED**

That the Water Committee adopt the minutes of its meeting held March 12, 2025 as circulated.

CARRIED

1:01 pm Councillor Bell arrived at the meeting.

C. DELEGATIONS

No items presented.

D. INVITED PRESENTATIONS

No items presented.

E. REPORTS FROM COMMITTEE OR CHIEF ADMINISTRATIVE OFFICER**1. Award of ITT 24-148 for Construction of Annacis Main No. 5 South – Contract 4A From River Road and Millar Road to 117B Street and 96th Avenue**

Report dated March 24, 2025 from Joel Melanson, Division Manager, Engineering & Construction, Water Services, and George Kavouras, Director, Procurement, Procurement and Real Estate Services, seeking GVWD Board approval of the award of ITT 24-148 for Construction of Annacis Main No. 5 South – Contract 4A From River Road and Millar Road to 117B Street and 96th Avenue, in the amount of up to \$30,656,600 (exclusive of taxes) to B&B Contracting (2012) Ltd.

It was MOVED and SECONDED

That the GVWD Board:

- a) approve the award of ITT 24-148 for Construction of Annacis Main No. 5 South – Contract 4A From River Road and Millar Road to 117B Street and 96th Avenue, in the amount of up to \$30,656,600 (exclusive of taxes) to B&B Contracting (2012) Ltd. subject to final review by the Commissioner; and
- b) authorize the General Manager, Procurement and Real Estate to execute the required documentation once the General Manager, Procurement and Real Estate is satisfied that the award should proceed.

CARRIED

2. GVWD Water Supply System 2024 Annual Update

Report dated March 18, 2025 from Linda Parkinson, Director, Policy, Planning and Analysis, Water Services, providing the Water Committee with the GVWD Water Supply System 2024 Annual Update.

It was MOVED and SECONDED

That the Water Committee receive for information the report dated March 18, 2025, titled "GVWD Water Supply System 2024 Annual Update".

CARRIED

3. GVWD 2024 Water Quality Annual Report

Report dated March 24, 2025 from Inder Singh, Director, Interagency Projects and Quality Control, Water Services, providing the Water Committee and the GVWD Board with a summary of the GVWD 2024 Water Quality Annual Report.

1:05 pm Mayor Little arrived at the meeting.

It was MOVED and SECONDED

That the GVWD Board receive for information the report dated March 24, 2025, titled "GVWD 2024 Water Quality Annual Report".

CARRIED

4. Drinking Water Conservation Plan: 2025 Communications and Public Outreach

Report dated April 2, 2025 from Shellee Ritzman, Division Manager, Corporate Communications, and Dana Carlson, Project Coordinator, Corporate Communications, providing the Water Committee with an update on regional communications to support the 2025 water restrictions, water conservation campaign, and Water Wagon program.

It was MOVED and SECONDED

That the Water Committee receive for information the report dated April 2, 2025, titled "Drinking Water Conservation Plan: 2025 Communications and Public Outreach."

CARRIED

5. Manager's Report

Report dated April 1, 2025 from Marilyn Towill, General Manager, Water Services, providing the Water Committee with an update on the response and recovery from the water main break in New Westminster and an update on the 2025 Water Committee Work Plan.

It was MOVED and SECONDED

That the Water Committee receive for information the report dated April 1, 2025, titled "Manager's Report".

CARRIED**F. INFORMATION ITEMS**

No items presented.

G. OTHER BUSINESS

No items presented.

H. RESOLUTION TO CLOSE MEETING

No items presented.

I. ADJOURNMENT**It was MOVED and SECONDED**

That the Water Committee adjourn its meeting of April 16, 2025.

CARRIED

(Time: 1:12 pm)

Nikki Tilley,
Supervisor, Legislative Services

Brad West,
Chair

75728770



To: Water Committee

From: Daniel Roberge, Deputy General Manager - Operations, Water Services
Linda Parkinson, Director, Policy Planning and Analysis, Water Services

Date: May 6, 2025

Meeting Date: May 14, 2025

Subject: **Water Supply Update for Summer 2025**

RECOMMENDATION

That the Water Committee receive for information the report dated May 6, 2025, titled “Water Supply Update for Summer 2025”.

EXECUTIVE SUMMARY

It is anticipated that the existing snowpack and expected full source reservoirs, supported by widespread compliance with lawn watering restrictions, will ensure sufficient water to meet summer water demands. Metro Vancouver’s source reservoirs are filled each winter and spring by precipitation and snowmelt, and the water needs to last through the summer and into the fall. Snowpack conditions are monitored through June 15 each year with that information being used to inform dam operations, such as reservoir refill timing, and Drinking Water Conservation Plan stage activation. During the summer, daily water use in Metro Vancouver can increase by over 50 per cent, mainly due to lawn watering. Reducing outdoor water use helps conserve water for essential purposes like cooking, cleaning, and drinking, and reduces the likelihood of more stringent restrictions.

The overall decline in the region’s average daily water use has slowed in recent years, emphasizing the continued importance of water conservation. We must prepare for changes to rainfall and snowpack due to climate change. In Metro Vancouver, warmer annual temperatures and longer dry spells, combined with reductions in snowpack and earlier spring melt, will put a strain on the existing water supply in the summer and fall when water use is highest. Proactive public education, supported by strong local government enforcement, is essential to managing the increased summer demand on the drinking water system, which is primarily driven by outdoor water use.

PURPOSE

To provide an annual update on the status of water supply before the high-demand period based on available data as of May 1, 2025.

BACKGROUND

Following the Water Committee’s 2025 Work Plan, water supply status reports are presented each spring. These reports are based on the current condition of the source water supply, trends in water usage, and include plans for operating the source reservoirs and water system during the high-demand season.

Current State of Source Water Supply

Snowpack measurements are routinely conducted at sample sites across the Capilano, Seymour, and Coquitlam Water Supply Areas. The May 1, 2025 snow survey results indicate that the snowpack is at 67 per cent of the historical average for this survey period. The March 31 three-month temperature outlook calls for above-normal temperatures for all of Canada. Southern BC shows particularly high probabilities of above normal temperatures for the rest of spring (80 - 90 per cent chance). Although snowpack plays a crucial supply role in the high-demand season, the region is not entirely reliant on it. Precipitation during the high-demand season significantly affects the water demand and contributes to the storage level in the three main lakes and the Alpine lakes. Currently, the three-month precipitation outlook shows slightly higher odds of below normal precipitation in southern BC and the BC south coast.

Stored Water-Source Reservoirs

- a) Capilano Reservoir: As of May 4, the reservoir was at 88 per cent of full summer storage capacity. Cleveland Dam Drum Gate was raised on April 11 to fill the reservoir to full capacity by mid-June.
- b) Seymour Reservoir: As of May 4, the reservoir was 88 per cent of full summer storage capacity. The Stop Logs were installed on April 9 to fill the reservoir to full capacity by mid-June.
- c) Coquitlam Reservoir: The reservoir is controlled by BC Hydro within specific terms and conditions established by an agreement with the Greater Vancouver Water District. BC Hydro is expected to operate its facilities so the reservoir can provide sufficient water during the high-demand season.
- d) Alpine Lakes: GVWD's three Alpine Lake sources, Palisade, Burwell, and Loch Lomond, are used as reserves to supplement the Capilano and Seymour reservoirs during the summer period. Burwell and Palisade Lakes are at full capacity, and Loch Lomond is expected to be filled by late spring.

System Operations Outlook for Summer 2025

Water usage patterns will be closely monitored, and adjustments will be made to the transmission system and withdrawals from the three source reservoirs to meet regional water demand throughout the high-demand season. The three Alpine Lakes will also be used as needed.

Warm, dry summer weather increases demand and may challenge the transmission system's ability to meet service levels in certain areas, especially in the southern and eastern parts of the region. These areas are geographically farthest from the water sources and are experiencing the fastest population growth. To ensure Metro Vancouver can meet summer demand, several upgrades have been completed over the past five years, including improvements to the Jericho, Sunnyside, Pebble Hill and Kersland reservoirs, as well as the Port Mann Main No. 2 (North and South), South Delta Main No. 1, Whalley Main, Kennedy Newton Main, and Central Park Main No. 2. Additional upgrades are currently underway including constructing Coquitlam Main No. 4 and Fleetwood Reservoir.

Trends in Water Demand

The average per capita water demand has been steadily declining in the region since 2010. This decline can be attributed to densification, updated plumbing codes, increased efficiency of water fixtures and appliances, public education, and conservation initiatives including the seasonal

watering restrictions in the Drinking Water Conservation Plan. While the per capita water demand is gradually declining, the overall annual water consumption has been steady in the same timeframe. This is mainly due to the influence of increased population, which has been offset by reduced per capita water use. Metro Vancouver is closely monitoring this trend as it is projected that the per capita water use reduction will be exhausted towards mid-century, and the population is projected to grow more rapidly. The region has realized most of the benefits of passive conservation mentioned above, and total regional water demands are expected to increase. In order to address this, the region needs to adopt more progressive conservation measures that are most effective when supported by local water metering programs.

Recent Changes Impacting Consumption Trends

Based on population projections developed by Metro Vancouver's Regional Planning and Housing Department, the region is expected to grow significantly faster than previously projected. The Province of BC also passed new legislations in 2023 to allow for increased densification on single-family lots and near major transit hubs across BC. The impact of those legislations on population projections is currently under review by the Metro Vancouver Regional Planning Department. Water Services staff will revise demand forecasts once updated population projections are available.

Metro Vancouver Water Restrictions and Public Education Efforts

Currently, there are no strong indications that Stage 2 of the Drinking Water Conservation Plan (DWCP) will need to be activated for the upcoming summer. However, a decision to implement higher stages of watering restrictions may be required, depending on several factors such as snowpack levels, weather conditions, and regional drinking water usage trends during late spring and early summer. Stage 2 restrictions would include a complete ban on lawn watering and may be necessary if outdoor water use becomes excessive in the coming months. Local enforcement of Stage 2 restrictions will be key to lowering overall water usage in the region and ensure sufficient water for drinking, cooking and cleaning.

Metro Vancouver conducts annual public education campaigns to encourage the efficient use of drinking water resources across the region. Key initiatives for 2025 were outlined in the report titled "Drinking Water Conservation Plan: 2025 Communications and Public Outreach," presented to the Water Committee at the April 16, 2025, meeting.

ALTERNATIVES

This document is an information report; no alternatives are presented.

FINANCIAL IMPLICATIONS

During the hotter, drier months, water demand rises significantly compared to winter, putting extra strain on the water supply system. To address this, Metro Vancouver's seasonal pricing structure reflects the increased costs of building larger infrastructure and higher operational expenses, such as additional pumping, needed to meet peak summer demands. For 2025, the Greater Vancouver Water District (GVWD) water rates for members are \$0.7119 per cubic metre (1,000L) during the non-peak season and \$1.4214 per cubic metre during the peak season.

CONCLUSION

Reservoirs are on track to be full by mid-June, with the snowpack currently at 67 per cent of the historical average. Weather forecasts for this spring and summer indicate above-normal temperatures and slightly lower-than-normal precipitation. If there is widespread compliance with the lawn watering restrictions across the region, it is anticipated that the existing snowpack and expected full source reservoirs will be sufficient to meet summer water demands.

In addition to the annual public education initiatives, outdoor watering restrictions outlined in the Drinking Water Conservation Plan, along with strong local government enforcement, are expected to help reduce water demand during the upcoming high-demand season. System improvements have also increased the capacity of the transmission system to meet water supply demands. Metro Vancouver relies on member jurisdictions and the public to help manage demand effectively.

ATTACHMENT

1. Presentation re: Water Supply Update for Summer 2025.

71727066



Jericho Reservoir

Water Supply Update for Summer 2025

Daniel Roberge
Deputy General Manager - Operations, Water Services

Nermine Tawfik
Program Manager, Policy, Planning, and Analysis, Water Services

Water Committee, May 14, 2025
75787823

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MAINTENANCE

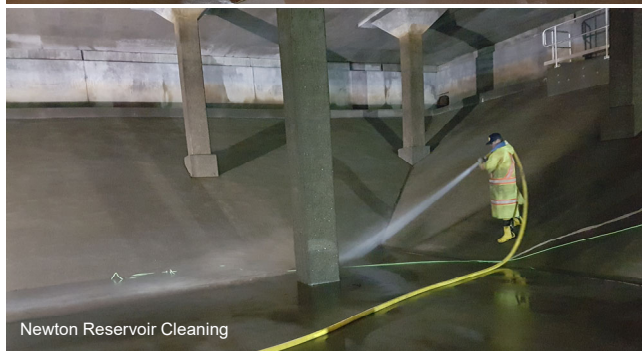


Capilano 69KV Substation Preventive Maintenance

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Newton Reservoir Cleaning



Newton Reservoir Cleaning

3

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MAINTENANCE - DRUM GATE SEAL REPLACEMENT



Cleveland Dam Spillway



Cleveland Dam Spillway Gate

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4

PREPARE TO REFILL - STOP LOGS INSTALLATION AT THE SEYMOUR FALLS DAM

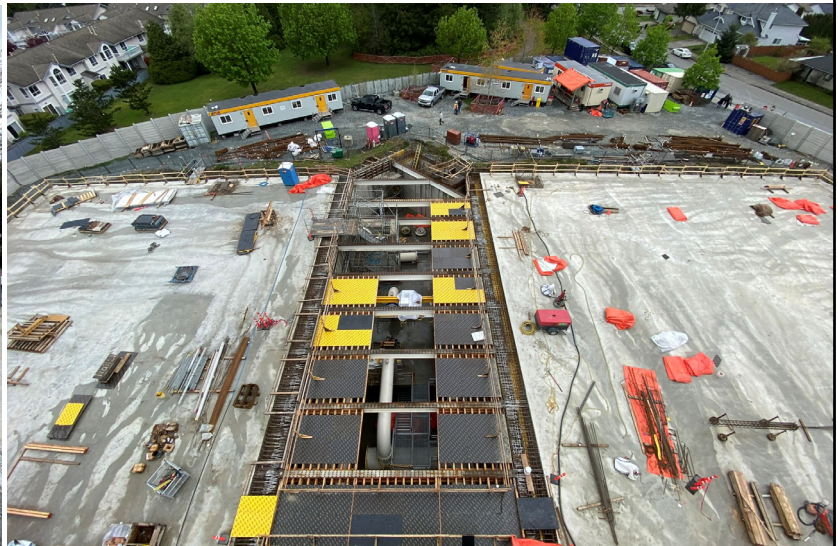


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FLEETWOOD RESERVOIR

Upgrades to meet growing demands



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MONITORING

Snowpack and High-Demand



Snowpack monitoring (~Jan-April)



Low water levels at Capilano Reservoir in fall 2022

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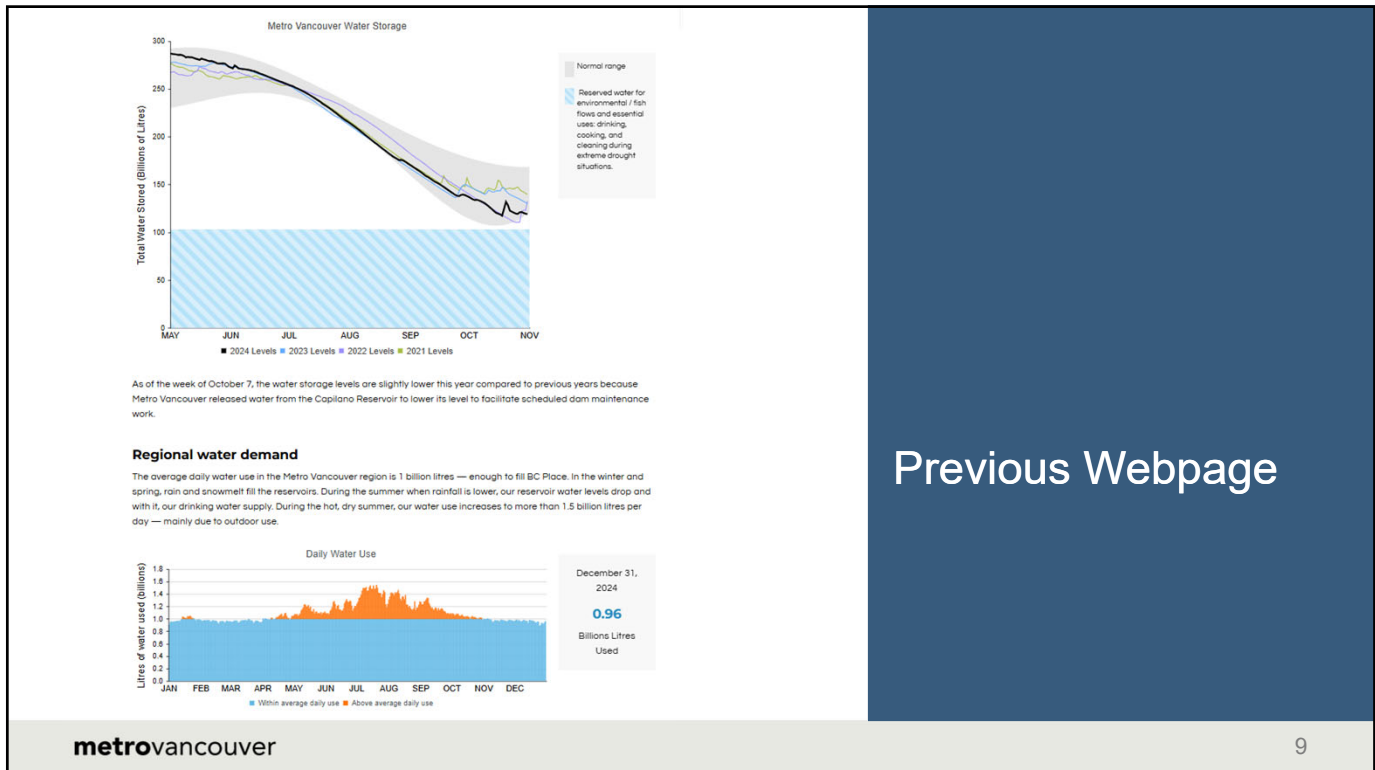


Communicating Summer Water Supply Conditions

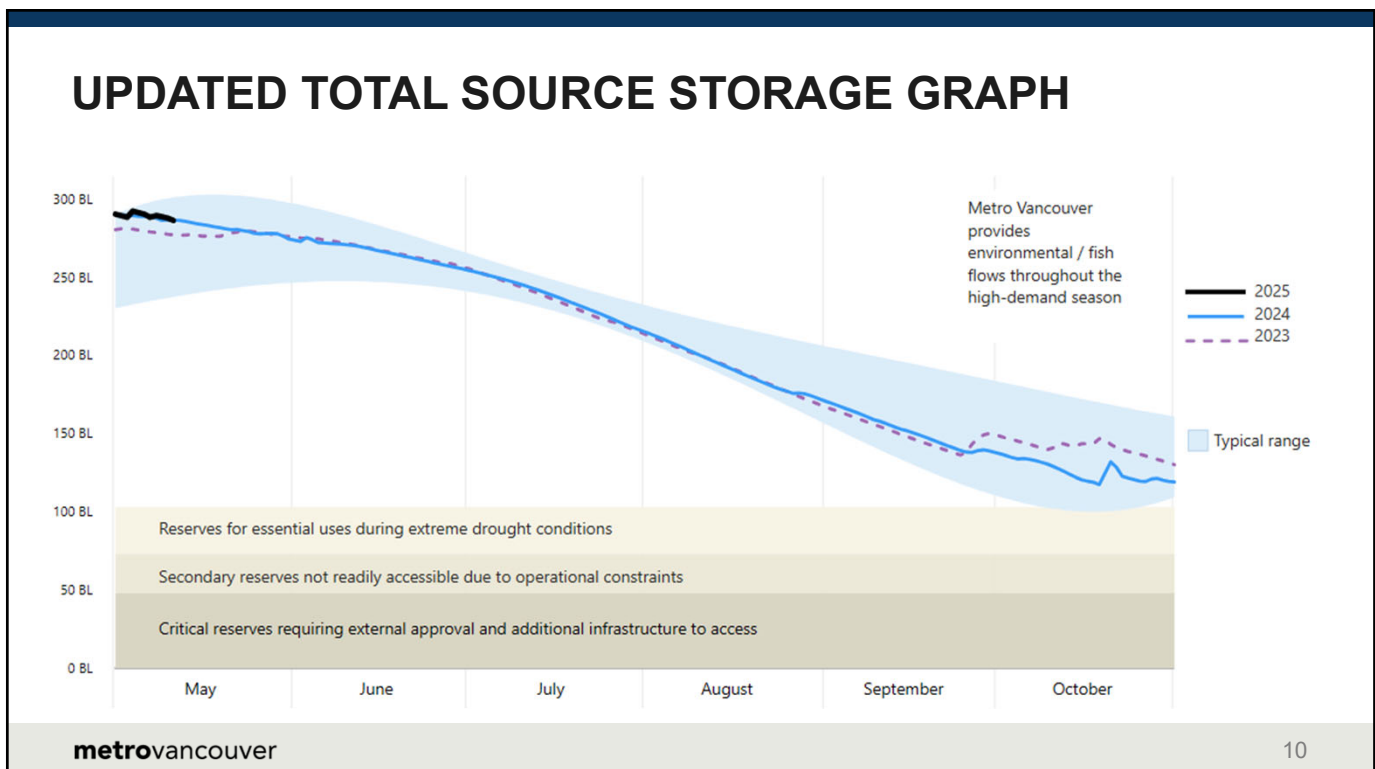
Low water levels at Coquitlam Reservoir during fall 2022

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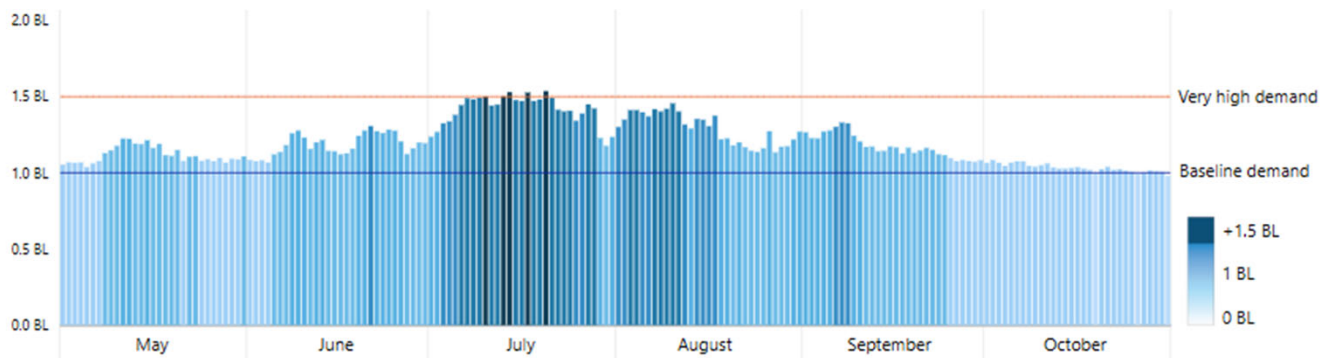


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UPDATED DAILY WATER DEMAND GRAPH



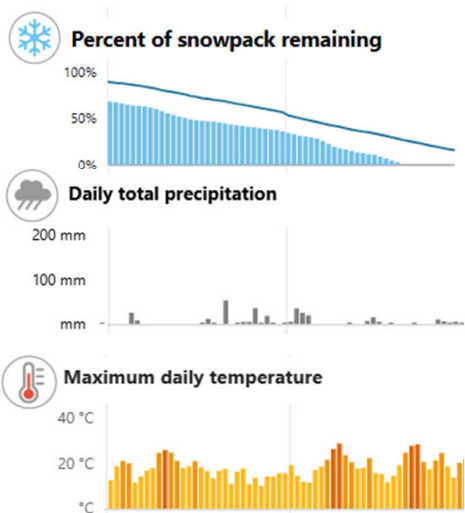
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NEW GRAPHS

Key factors impacting the water supply



Snowpack

Surrogate measure for stop spill date;
historical average shown for comparison

Precipitation

Tracks shifts in seasonal weather patterns

Temperature

Helps demonstrate correlation between
temperature and demands



Dryness - last 30 days +

Wet

Dryness

Indicator of current
dryness, based on past
30-day precipitation

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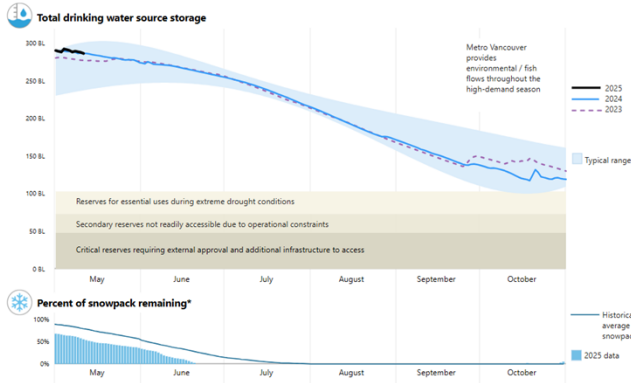
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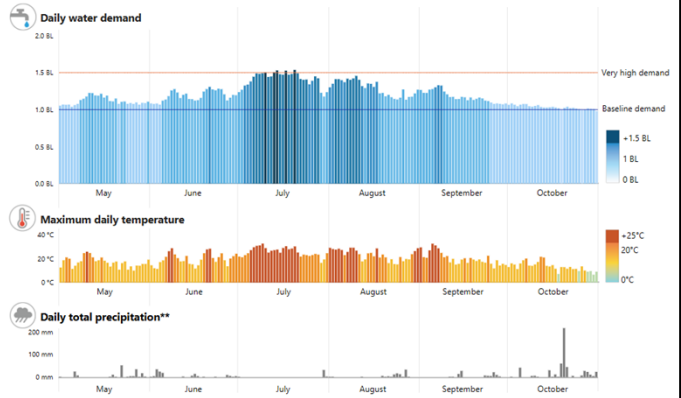
WEBPAGE FEATURES

Trend comparisons

Supply indicators



Demand indicators



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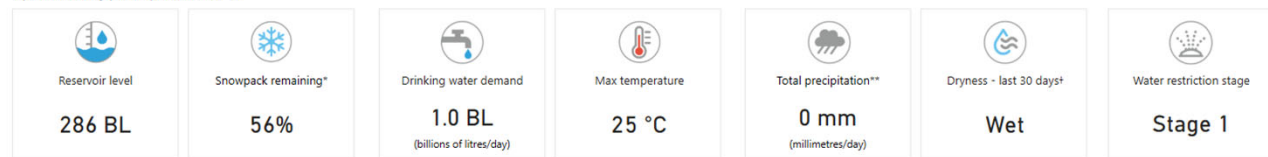
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WEBPAGE FEATURES

New at-a-glance panel

Current status

Updated weekly | Last updated: May 11



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14



Coquitlam Water Supply Area

Thank you

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Together we make our region strong

To: Water Committee

From: Kevin Brown, Division Manager, Watersheds and Environment, Water Services

Date: April 22, 2025

Meeting Date: May 14, 2025

Subject: **Wildfire Preparedness Update**

RECOMMENDATION

That the Water Committee receive for information the report dated April 22, 2025, titled “Wildfire Preparedness Update”.

EXECUTIVE SUMMARY

Metro Vancouver provides a reliable supply of high-quality drinking water to three million residents through its member jurisdictions. Source water protection relies on safeguarding the forested lands of the Capilano, Seymour, and Coquitlam water supply areas from wildfires.

These areas have historically low wildfire incidence due to restricted public access and strict limitations in the type of work during fire season. With this approach, the primary wildfire risk remains lightning strikes during moderate to extreme fire risk levels. To ensure quick fire detection and response, staff utilize patrols, weather reports, near real-time lightning maps, local public and air traffic smoke reports, and rapid crew deployment of dedicated wildfire crews.

Water Services Wildfire Protection Program staff have expertise in wildfire management, specialized equipment for monitoring, and are ready for strategic deployment. The program maintains strong and proven partnerships with the BC Wildfire Service and local fire departments to ensure wildfire season readiness.

PURPOSE

To provide the Water Committee with an annual update on wildfire preparedness for the water supply areas in advance of the 2025 summer season.

BACKGROUND

As per the Water Committee’s 2025 Work Plan, and those of previous years, wildfire preparedness reports are brought forward each spring. These reports provide an update on the current state of the Protection Program in preparation for the summer wildfire season.

CONTEXT

The water supply areas encompass the mid and upper portions of the Capilano, Seymour, and Coquitlam watersheds and include approximately 60,000 hectares of forested lands. Access into these areas is controlled and limited through the GVWD Board *Watershed Access Policy*. The principle of protecting the water supply areas by restricting access is a fundamental component of the multiple barrier approach to drinking water quality protection.

The requirements for fire protection in the water supply areas dates back to the 1927 and 1942 Provincial Crown land leases. These 999-year leases require Metro Vancouver to protect the lands from wildfire and retain qualified and trained staff for this purpose.

The current Protection Program, based on an Initial Attack model, utilizes three four-person fire crews, in conjunction with helicopters, for rapid deployment of resources to fires. In addition, Metro Vancouver maintains a long-standing resource sharing agreement with the BC Wildfire Service that ensures seamless communications with the province and allows for additional resource requests, should they be needed.

In addition to providing wildfire response within the three water supply areas and the Lower Seymour Conservation Reserve, the Protection Program also leads the response and coordination for medium to larger wildfires in the Metro Vancouver Regional Parks system and will respond to wildfires in Electoral Area A if requested.

WILDFIRE PREPAREDNESS

Preparedness

For the 2025 season, the Protection Program has three dedicated Initial Attack fire crews supported by 19 Watersheds and Environment staff trained to the same provincial standard as the dedicated Initial Attack crews, and approximately 40 additional staff trained to a basic fire response level. The Program also supports the training of Regional Parks staff for wildfire response readiness in Metro Vancouver Parks across the region.

In 2024, two drones equipped with infrared cameras were acquired to support crews in remote visual inspections after lightning storms or reports of smoke. Although, as of yet, there were no opportunities to test the drones, it is expected the drones will support quick confirmation of smoke locations, assist crews with the early assessment of a wildfire, and support the development of tactical strategies (e.g. potential water sources, values at risk, etc.).

To support rapid planning and recovery post wildfire, staff are working to update a 2018 wildfire recovery plan. This update will include reviews of relevant plans and policies, fire ecology, rehabilitation, and recovery best management practices. This update ensures the Protection Program maintains the latest options and best management practices to mitigate the potential impacts of wildfire on the water quality in the reservoirs.

Equipment

For mobile deployment, the Protection Program maintains three dedicated 4-wheel drive Initial Attack response trucks and two Response Officer vehicles. These vehicles are primarily staged in North Vancouver and are deployed across the region as the seasonal fire danger increases.

For inaccessible sites and rapid deployment, Metro Vancouver maintains a contract with a local helicopter company for dispatch throughout the fire season. Three 6,000 gallon “Heli-well” tanks (one per supply area) are strategically positioned to allow helicopters to bucket water reducing the risk of contamination, or aircraft incidents directly above the water supply area reservoirs.

Resource Sharing Agreement

Metro Vancouver maintains a strong and collaborative relationship with the BC Wildfire Service through a resource sharing agreement. Metro Vancouver crews routinely backfill BC Wildfire Service crews throughout the Coastal Fire Centre under a cost recovery model and, as required, provincial crews are available to provide additional support to the Metro Vancouver response efforts. This arrangement has been in place since 1997 and has been effective for regional fire response.

During the 2024 wildfire season, Watershed Protection staff were deployed for 44 days to support the province through the wildfire season. These deployments provide invaluable hands-on experience for Metro Vancouver crews ensuring skill levels remain high while supporting the provincial wildfire response.

For the 2025 season, staff have met with key personnel from the local BC Wildfire Service fire base in Hope and have confirmed operational readiness of crews for the upcoming season.

Interagency Preparedness

Watershed Protection staff continue to lead the Watershed Wildfire Strategic Partners Working Group, started in 2021, that includes the fire chiefs from the District of North Vancouver, District of West Vancouver, and City of Coquitlam along with senior officers from the province. This working group meets on a monthly basis to share local and regional wildfire initiatives; support planning, preparation, and cross training for wildfire responses; discuss specific tactical wildfire response objectives locally; and build strong relationships. This group also provides a venue to look for shared opportunities for wildfire fuel reduction initiatives, funding opportunities, or assessing new and emerging technologies. Annually, the working group hosts a tabletop exercise, led by the province, to discuss operational responses in different areas of the region. The tabletop exercise was completed in April 2025.

In May, staff will participate in two field exercises. One full-scale multi-agency exercise in the Coquitlam water supply area, led by Metro Vancouver staff from multiple departments and the City of Coquitlam Fire Department, and will involve the activation of the Water Services Department Operations Centre. This exercise will allow groups to confirm interagency operational capabilities and emergency response. The second functional exercise, led by the District of North Vancouver Fire Department, will be held on Grouse Mountain and involve Watershed Protection crews supporting a wildfire response.

To support and develop regional interagency relationships, staff also plan to present and participate in the fourth annual Metro Vancouver Regional Wildfire Workshop in May. This workshop is organized by Metro Vancouver's Protective Services and Emergency Management team with attendance expected by over 100 emergency managers and professionals from all member jurisdictions and local First Nations.

Watershed Protection staff continue to work with various municipal partners, including the North Shore Interface Wildfire Working Group and the Metro Vancouver Wildfire Conditions Task Group, to ensure preparedness and coordinated response across the region.

Monitoring

Staff carry out extensive fire weather monitoring and produce a bi-weekly Fire Weather Report that utilizes data from eight weather stations located throughout the water supply areas and the region. Municipal fire and parks staff, and the emergency planning community rely on this information to determine the fire danger rating for their jurisdiction and appropriate public activity restrictions.

Wildfire Fuels Management

Wildfire fuels management is defined as a planned approach to reduce the amount of living and dead vegetation that can act as fuel for wildfires. By decreasing fuel load, wildfire spread can be greatly reduced allowing time for crews to respond and contain fires. To support the protection of critical Water Services infrastructure, a wildfire fuels management prescription has been developed for the 69kV substation inside the Capilano water supply area. Danger tree removal was completed in March with full prescription treatments beginning in the fall of 2025.

Watershed Protection staff continue to work with partners for future fuel reduction opportunities in the interface areas and around critical infrastructure.

New and Emerging Technologies

Staff are also working with the District of West Vancouver, District of North Vancouver, the City of Coquitlam Fire Departments, and Regional Parks in assessing emerging wildfire detection technology (e.g., cameras) that could be strategically deployed and tested. A pilot project for 2025 is being considered to test three cameras employing AI technology to aid in the detection of potential fires and the dispatch of operational crews.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

The Protection Program initiatives are funded through the annual operating budget of the Watersheds and Environment Division. The fuels management project is funded through the Minor Capital Program for 2025. Costs associated with crew deployment to support the province are compensated under an existing Resource Sharing Agreement.

CONCLUSION

The 2025 Protection Program has trained staff ready to respond to regional wildfires, confirmed interagency readiness, new technology, and fuels management initiatives. With a focus on prevention, preparedness, and rapid response, the program leverages long-standing agency partnerships and continues to explore new technologies and strategies to ensure source water protection.

To: Water Committee

From: Linda Parkinson, Director, Policy, Planning and Analysis, Water Services

Date: May 6, 2025

Meeting Date: May 14, 2025

Subject: **2025 Water Sustainability Innovation Fund Applications**

RECOMMENDATION

That the GVWD Board approve the allocation from the Water Sustainability Innovation Fund of \$1,150,000 for the following three applications, starting in 2025:

- a) Integrating Natural Assets into Water Services' Asset Management Program for \$300,000 over three years;
 - b) Evaluating Agricultural Water Demands in the Metro Vancouver Region for \$350,000 over three years; and
 - c) Quantifying Climate Change Impact on Dam Safety – A Case Study for \$500,000 over three years.
-

EXECUTIVE SUMMARY

In alignment with the Board Strategic Plan and the Drinking Water Management Plan, these applications are submitted for Board consideration and approval.

This report presents three applications recommended for funding, totaling \$1,150,000 over three years, funded through the Water Sustainability Innovation Fund. The first application aims to integrate the Water Services departments' natural assets into the existing Asset Management Program. The second application will support the regional water utility's long-term planning by understanding the current and projected future demands of the agricultural sector. And the third application will evaluate climate change impacts to help address the vulnerability of Metro Vancouver's dams and diversion structures through a case study.

The report provides background on the Water Sustainability Innovation Fund Policy, a brief overview of the three projects and financial implications.

PURPOSE

To present three projects recommended for funding through the Water Sustainability Innovation Fund for consideration by the Water Committee and the GVWD Board.

BACKGROUND

The Water Sustainability Innovation Fund (the Fund) was created by the GVWD Board (the Board) in 2004 to provide financial support to Water projects that contribute to the region's sustainability. The GVWD Board adopted the *Water Sustainability Innovation Fund Policy* (the Policy) in 2014 with further amendments in 2016 and 2021, to guide the use and management of the Fund. The Policy describes the process of generating, submitting, evaluating, and recommending new applications for funding each year.

WATER SUSTAINABILITY INNOVATION FUND POLICY

On an annual basis, Water Sustainability Innovation Fund applications are submitted to an internal staff Steering Committee, representing a cross-section of the organization, to evaluate applications and initiatives based on the Fund's evaluation criteria. As defined in the Policy, applications to the Fund need to fulfill the following criteria:

- Be overseen by the GVWD
- Be consistent with the authority and responsibility of the GVWD
- Be consistent with the objectives of the *Drinking Water Management Plan* and/or the *Board Strategic Plan*
- Consider partnerships including, but not limited to, member jurisdictions, academic institutions, non-governmental organizations, and community groups
- Result in a positive contribution, in the form of tangible results and/or measurable benefits,
- Improve the sustainability of the region and
- Demonstrate innovation and facilitate action

In June 2025, the Water Committee will receive an annual update report on the approved projects from previous years supported by the Fund. The update report includes deliverables, outcomes, and highlights the benefits of these projects to the region. A summary of past projects can be found on the Sustainability Innovation Program website (Reference 1).

2025 APPLICATIONS

The proposed projects recommended for funding are listed in the table below, followed by a brief overview of their purpose, expected scope, and potential sustainable benefits.

Recommended Allocation from the Water Sustainability Innovation Fund		
Project Title	Years	Amount Requested
Integrating Natural Assets into Water Services' Asset Management Program	2025 - 2027	\$300,000
Evaluating Agricultural Water Demands in the Metro Vancouver Region	2025 - 2027	\$350,000
Quantifying Climate Change Impact on Dam Safety – A Case Study	2025 - 2027	\$500,000

The Watersheds & Environment division will lead the Integrating Natural Assets project, and it aims to integrate the Water Services departments' natural assets into the existing Asset Management Program. Natural assets provide a variety of ecosystem services such as drinking water quality, regional environmental health, climate resiliency, and general livability. This project seeks to make significant advances in natural asset management in the Metro Vancouver region, contributing to the growing body of knowledge on this topic, while focusing on the drinking water utility. The project will create an inventory of natural assets, conduct condition and risks assessments and complete valuation of the ecosystem services provided by these assets to the region with the goal of promoting their protection and sustainability. The proposed scope and objectives will build upon and model the outcomes of similar on-going work by Regional Parks, and will share data,

methodologies and lessons with member jurisdictions, local First Nations, academia, and non-profit community organizations.

The second project will be led by the Policy, Planning and Analysis division, and aims to improve understanding of the potential drinking water demand impacts from the agricultural sector, given its susceptibility to climate change. Evaluating Agricultural Water Demands will support the regional water utility long-term planning by understanding the current and projected future demands of this important sector. The project will quantify the potential changes in agricultural water use and identify research opportunities into alternative water sources suitable for the sector. Aligning with the intentions of the Non-Potable Water Use Project (a recently completed SIF project), this new project will identify various agricultural water quality requirements for future assessments of how non-potable water use could support the agricultural industry and reduce the reliance on treated drinking water for agricultural purposes. Partnering and collaborating stakeholders could include the province, representatives from the agricultural sector, and member jurisdictions with significant agricultural areas.

The third project will be led by the Dam Safety division and aims to help address the vulnerability of Metro Vancouver's dams and diversion structures to climate change impacts. The Quantifying Climate Change Impact on Dam Safety – A Case Study project will fill critical gaps in regulatory and engineering practices, by developing a framework and methodology to quantifiably assess these projected impacts on dam safety. The study will analyze the risks to the Burwell and Seymour Falls dams as a cascade system and consider extreme conditions, projections, and operational aspects, moving beyond conventional methods that rely on historical data and baseline regulatory compliance. The project will integrate climate projections into dam safety assessments, and support proactive adaptation strategies that protect public safety, secure reliable access to clean water, and safeguard environmental and cultural values. This forward-looking approach aligns with regional sustainability goals by reducing risks, optimizing resource management, and enhancing the region's capacity to respond to future climate uncertainties. Opportunities to partner with other dam owners in the region including BC Hydro will be explored.

ALTERNATIVES

1. That the GVWD Board approves the allocation from the Water Sustainability Innovation Fund of \$1,150,000 for the following projects, starting in 2025:
 - a) Integrating Natural Assets into Water Services' Asset Management Program for \$300,000 over three years;
 - b) Evaluating Agricultural Water Demands in the Metro Vancouver Region for \$350,000 over three years; and
 - c) Quantifying Climate Change Impact on Dam Safety – A Case Study for \$500,000 over three years.
2. That the Water Committee receive for information the report dated May 6, 2025, titled "2025 Water Sustainability Innovation Fund Applications".

FINANCIAL IMPLICATIONS

If the Board approves Alternative 1, \$1,150,000 will be disbursed from the Water Sustainability Innovation Fund over three years for the three applications. The Fund has a sufficient budget to support Alternative 1.

The approved applications will be incorporated into the applicable divisional and departmental work plans and budgets.

CONCLUSION

The GVWD Board is responsible for overseeing the Water Sustainability Innovation Fund and reviewing and approving funding for drinking water related projects. The Water Committee is the designated standing committee responsible for reviewing new Water Sustainability Innovation Fund applications and making recommendations to the GVWD Board for funding.

This report presents the following three projects for a total funding request of \$1,150,000. These projects support Metro Vancouver's long-term sustainability, resilience, and water resource management:

- a) Integrating Natural Assets into Water Services' Asset Management Program for \$300,000 over three years. This project will enhance the region's Asset Management Program by recognizing and valuing the ecosystem services provided by natural assets, helping to protect drinking water sources and promoting environmental stewardship;
- b) Evaluating Agricultural Water Demands in the Metro Vancouver Region for \$350,000 over three years. This project will strengthen long-term water supply planning by assessing the current and future needs of the agriculture sector, identifying alternative water sources, and supporting more sustainable use of drinking water; and
- c) Quantifying Climate Change Impact on Dam Safety – A Case Study for \$500,000 over three years. This project will advance regional dam safety practices by incorporating climate change projections into risk assessments and developing a proactive, adaptive management framework.

REFERENCE

1. Metro Vancouver. (2025). *Sustainability Innovation Fund*. Retrieved from <https://metrovancouver.org/about-us/sustainability-innovation-fund>. Last accessed 2025, April 22.

To: Water Committee

From: Marilyn Towill, General Manager, Water Services

Date: May 6, 2025

Meeting Date: May 14, 2025

Subject: **Manager's Report**

RECOMMENDATION

That the Water Committee receive for information the report dated May 6, 2025, titled "Manager's Report".

1. Correspondence from the Province: Preparing for Potential Drought Conditions

The Ministry of Housing and Municipal Affairs sent a letter to all Chief Administrative Officers in the province on April 2, 2025 with regards to Preparing for Potential Drought Conditions in 2025 (Attachment 1). The letter recommends all water suppliers prepare for an increased risk of experiencing drought in 2025.

Drought preparedness is a key component of the GVWD's ongoing water supply planning. Key considerations for 2025 are outlined in the May 2025 Water Committee report titled "Water Supply Update for Summer 2025".

Water Services incorporates the actions recommended by the province to improve resilience to drought into ongoing initiatives such as the comprehensive water supply monitoring program, the Drinking Water Conservation Plan (Reference 1) and public communication and outreach campaigns, as well as planning for the long term through the Water Supply Outlook 2120 (Reference 2) and subsequent studies and plans. This year, additional information on water supply and demand patterns during the high demand season (May 1 to October 15) will be shared with the public on the Metro Vancouver website with the launch of an updated Dashboard.

The Drinking Water Conservation Plan is a regional policy developed in partnership with local governments and other stakeholders to manage the use of drinking water during periods of high demand. Each GVWD member jurisdiction has adopted a local bylaw incorporating the water use restrictions and associated penalties for non-compliance. Enforcement of the water use restriction bylaws rests with the member jurisdictions.

Information about drought conditions across the province will be available online starting in June through the British Columbia BC Drought and Watershed Watch Map (Reference 3).

2. GVWD Audited 2024 Financial Statements

At its meeting on April 25, 2025, the Greater Vancouver Water District (GVWD) Board of Directors approved Metro Vancouver's "Audited 2024 Financial Statements for the Greater Vancouver Water District". Legislation requires that annual audited financial statements for the Metro Vancouver Districts and Metro Vancouver Housing Corporation are presented and approved by the Board and submitted to the Province by May 15 each year. The report provides an explanation for the operating surplus and capital project spend in 2024 (Reference 4).

3. Water Committee Tour

Staff are working to organize a fall tour for the Water Committee to visit the Seymour Capilano Filtration plant, located at 4400 Lillooet Road in North Vancouver. More information to come.

4. 2025 Water Committee Work Plan**ATTACHMENTS**

1. Letter re: Preparing for Potential Drought Conditions in 2025.
2. 2025 Water Committee Work Plan.

REFERENCES

1. Metro Vancouver. (2021). *Drinking Water Conservation Plan*. Retrieved from <https://metrovancover.org/services/water/drinking-water-conservation-plan>. Last accessed 2025, May 6.
2. Metro Vancouver. (2019). *Water Supply Outlook 2120*. Retrieved from <https://metrovancover.org/search/Pages/results.aspx?k=Water%20Supply%20Outlook%202120>. Last accessed 2025, May 6.
3. British Columbia BC Drought and Watershed Watch Map. Available June, 2025. <https://droughtportal.gov.bc.ca/pages/drought-map>. Last accessed 2025, May 6.
4. Metro Vancouver. (2025). GVWD Board Report titled "2024 Annual Financial Results and Audited Financial Statements" dated April 15, 2025. Retrieved from <https://metrovancover.org/boards/GVWD/WD-2025-04-25-AGE.pdf>. Last accessed 2025, May 2.



Ministry of Housing and
Municipal Affairs

Local Government Infrastructure
and Finance
PO Box 9838 Stn Prov Govt
(4th Floor - 800 Johnson Street)
Victoria, BC V8W 9T1

CIRCULAR

Circular No. 25:07

April 2, 2025

Metro Vancouver
CAO Executive Offices

APR 02 2025

RECEIVED

To: Chief Administrative Officers

Re: **Preparing for Potential Drought Conditions in 2025**

Please be advised that drought conditions experienced across the province in recent years may occur again. The [BC River Forecast Centre](#) has reported below normal [snowpack conditions](#) across much of the province, currently signaling an increased risk of drought for spring and summer. Based on these early indications, we recommend all water suppliers once again prepare for an increased risk of experiencing drought in 2025.

Stay informed about current drought conditions

The Province's [drought preparation and response website](#) has several online resources to support water suppliers through drought conditions. The BC Drought and Water Scarcity Response Plan provides an overview of drought response in the province, including management responsibilities, pre-drought preparedness, descriptions of the provincial drought levels and the potential regulatory actions that may be taken. This plan is updated annually, so please look for the updated 2025 plan on the [BC drought information website](#) later this Spring.

To understand trends in water availability, it is important to regularly monitor available information about drought and streamflow conditions. The Province produces datasets to better understand water availability regionally, including:

- The [BC Drought Information Portal](#) that displays regional Drought Levels.
- A [Map of 7-Day Average Streamflow](#) that displays Water Survey of Canada streamflow gauges relevant to your area.

Drought levels provide information about how dry conditions are and how often these dry conditions may recur. However, they cannot tell you if your systems will be impacted or at risk of being impacted, as this depends on the resilience of each water supply system in times of drought.

Agricultural water suppliers can find helpful resources on the Ministry of Agriculture and Food's [Drought in Agriculture](#) website. It includes fact sheets, videos, tools, financial support programs, and workshops to help with water management and drought preparedness.

Take part in the water supply status survey

The Province, in partnership with the Regional Health Authorities, will again reach out directly to drinking water suppliers across the province to invite you to submit water supply status information during the drought season.

The Ministry of Water, Land and Resource Stewardship's (WLRS) Drinking Water Team will send these survey invitations at regular intervals. We encourage you to take part and help us understand the state of drinking water supplies. By sharing information with the Province, we can better assess which communities are at risk of water supply issues and where support may be needed.

Improve resilience to drought and other hazards

Actions local governments can take to better prepare your community for drought and other hazards include:

- **Establish a water supply monitoring program:**

If your water sources (raw water storage and inflows, or groundwater levels) are not gauged, consider establishing a water supply monitoring program, which will enable you to quantify the water available to your community and adjust water use accordingly. Professional consultants can help design an appropriate monitoring program for your systems. To improve drought resilience, it is recommended that all local governments monitor water supplies to gauge their current conditions and anticipate future water scarcity.
- **Water conservation:**
 - Prepare/update a water conservation plan: The [Water Conservation Guide](#) provides guidance on creating these plans, which should be kept current and reviewed and updated at least every five years. An up-to-date water conservation plan endorsed by a local government's Council or Board, is required for water and wastewater application-based capital funding through the Ministry of Housing and Municipal Affairs.
 - Bylaws: A Water Conservation Plan can help you develop, or update, a Water Conservation Bylaw, which may limit water use seasonally or in stages based on projections of water availability. Bylaws can be used to implement water use restrictions and Bylaws can also be tied to permit approval processes, such as building or plumbing bylaws that offset additional water demands through conservation improvements or require water efficient or drought tolerant landscaping.
 - Communication: Public outreach and communication can be an effective tool to explain the importance of water conservation, its impacts and what individuals need to do to participate.

- Water metering: Universal water metering is also a very useful tool for demand management. If you have water metering, consider pricing structures that encourage water conservation.
- Other examples of opportunities for conservation: Rebates towards low flow appliances and rain barrels, or the elimination of once-through cooling systems in commercial buildings, could be considered.
- **Plan for the long term and future:**
It is helpful to consider drought resilience options for the future, even if these cannot be ready for 2025. Capital projects that can improve drought resilience include leakage reduction, universal water metering, water reuse or reclamation, increased raw water storage, and development of secondary or back-up water sources.
- **Share key drought and water management resources:**
Distribute the Ministry of Agriculture and Food's [2025 Quick Guide to Drought Resources](#), a two-page summary of agricultural water-related supports. Encourage agricultural communities to subscribe to [Regional AgriService BC E-bulletins](#) for timely, region-specific updates on programs, events, and resources.

Keep up-to-date on the resources available to you

Caretaking the natural cycle that results in recharge of local water sources can also ensure that fresh water is retained or returned to local waterbodies and aquifers to maintain availability of drinking water and environmental flows. Consider how to protect watersheds and retain and absorb stormwater run-off. Permeable infrastructure and natural assets can retain valuable water. The following sites have associated resources:

- B.C. Climate Action Toolkit's Green Bylaws Toolkit provides practical tools for protecting green infrastructure: <https://toolkit.bc.ca/tool/8018-2/>
- Integrated stormwater management: <https://www2.gov.bc.ca/gov/content/governments/local-governments/infrastructure/water-systems/stormwater-infrastructure>.
- Asset Management B.C.'s Framework for Sustainable Service Delivery: <https://www.assetmanagementbc.ca/framework/>
- The Partnership for Water Sustainability in B.C. also has some additional resources: <https://waterbucket.ca/guidance-resources/>.

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The Infrastructure Planning Grant Program (IPGP) is available to help local governments plan, design and manage infrastructure. The IPGP provides an opportunity to obtain grant funding up to \$10,000 to help develop or update a Water Conservation Plan or to plan capital projects that improve drought resilience. For more information on the Program including a link to the application, please visit the Ministry's [website](#).

Thank you for your cooperation and attention to preparing for drought this year.

Brian Bedford

A handwritten signature in blue ink, appearing to read 'B. Bedford', enclosed within a hand-drawn oval.

Executive Director
Local Government Infrastructure and Finance Branch
Ministry of Housing and Municipal Affairs

Water Committee 2025 Work Plan

Report Date: May 6, 2025

Priorities

1st Quarter	Status
Advancing Water Metering in the Region	Pending
Water Supply Area Fisheries Initiatives Annual Update	Completed
Contract Approvals as per the <i>Procurement and Asset Disposal Authority Policy</i>	Completed
Transaction Approvals as per the <i>Real Estate Authority Policy</i>	Completed
Water Policies (as applicable)	Completed
2nd Quarter	
2024 Year End Financial Performance Results Review	In Progress
Coquitlam Water Main Project Update	Pending
GVWD 2024 Dam Safety Program Annual Update	Pending
GVWD 2024 Water Supply System Annual Update	Completed
GVWD 2024 Water Quality Annual Report	Completed
Implications of Increased Population on Water Utility Planning	Pending
Water Supply Update for Summer 2025	In Progress
Wildfire Preparedness Update	In Progress
Contract Approvals as per the <i>Procurement and Asset Disposal Authority Policy</i>	In Progress
Transaction Approvals as per the <i>Real Estate Authority Policy</i>	In Progress
Water Policies (as applicable)	In Progress
3rd Quarter	
Drinking Water Customer Service Guide	Pending
GVWD Electrical Energy Use, Generation, and Management	Pending
Health Canada PFAS Guidelines	Pending
Palisade Lake: Outlet Works Rehabilitation	Pending
Water Supply Tunnels Projects Update	Pending
Contract Approvals as per the <i>Procurement and Asset Disposal Authority Policy</i>	Pending
Transaction Approvals as per the <i>Real Estate Authority Policy</i>	Pending
Water Policies (as applicable)	Pending
4th Quarter	
Coquitlam Lake Water Supply Project Update	Pending
Drinking Water Management Plan Update	Pending
GVWD Annual Budget and 5-Year Financial Plan	Pending
Water Communications and Public Outreach Results	Pending
Water Supply Performance for Summer 2025	Pending
Water Use by Sector Report	Pending
Contract Approvals as per the <i>Procurement and Asset Disposal Authority Policy</i>	Pending
Transaction Approvals as per the <i>Real Estate Authority Policy</i>	Pending
Water Policies (as applicable)	Pending

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