

## SUSTAINABILITY AND ENVIRONMENTAL ADVISORY COMMITTEE

DATE: Tuesday, May 23, 2023

TIME: 7:00 p.m. to 9:00 p.m.

PLACE: Council Committee Room, Coquitlam City Hall

### CALL TO ORDER

### ADOPTION OF MINUTES

- 1. Minutes of the Sustainability and Environmental Advisory Committee Meeting held on Tuesday, March 28, 2023**

*Recommendation:*

That the Minutes of the Sustainability and Environmental Advisory Committee Meeting held on Tuesday, March 28, 2023 be approved.

### NEW BUSINESS

- 2. City Creeks Water Quality Monitoring, Development Impacts and City Projects (Presentation by Utility Planning Manager)**  
7:05 – 7:35 p.m. (30 minutes)
- 3. Climate Action Plan – Scope, Process and Timeline (Presentation by Environmental Sustainability Manager)**  
7:35 – 8:05 p.m. (30 minutes)
- 4. Environmental Volunteer Celebration Public Event (Discussion led by Environmental Education & Enforcement Manager)**  
8:05 – 8:20 p.m. (15 minutes)
- 5. Committee Members' Roundtable / Emerging Issues (Standing Agenda Item)**  
8:20 – 8:40 p.m. (20 minutes)

### OTHER BUSINESS

**NEXT MEETING DATE – Tuesday, July 25, 2023**

### ADJOURNMENT



**SUSTAINABILITY AND ENVIRONMENTAL ADVISORY COMMITTEE**

**Tuesday, March 28, 2023**

A Regular Meeting of the Sustainability and Environmental Advisory Committee convened on Tuesday, March 28, 2023 at 7:01 p.m. in the Council Committee Room, 3000 Guildford Way, Coquitlam, BC, with the following persons present:

COMMITTEE MEMBERS: Councillor Brent Asmundson, Chair  
Councillor Robert Mazzarolo, Vice Chair  
Mark Ashton, Citizen Representative  
Grayson Barke, Citizen Representative  
Reza Berry, Citizen Representative  
Silvia Cojocar, Citizen Representative  
Mohammad Darabi, Citizen Representative  
Daryoush Mohammad Hassani, Citizen Representative  
Kelly Koome, Citizen Representative  
Edward Lau, Citizen Representative (arrived at 7:11 p.m.)  
Bonnie Razzaghi, Citizen Representative

REGRETS: Linton Chokie, Citizen Representative  
Richard Kenny, Citizen Representative

STAFF: Jonathan Helmus, Director Utilities  
Caresse Selk, Manager Environment  
Jenny Tough, Environmental Education & Enforcement Manager  
Rachel Cormack, Legislative Services Coordinator  
Caley Amundsen, Committee Clerk

**CALL TO ORDER**

**1. Welcome and Roundtable of Introductions**

The Chair and Vice Chair welcomed those present to the first meeting of the year.

The Committee members and staff participated in a roundtable of introductions.

**ADOPTION OF MINUTES**

**2. Minutes of the Sustainability and Environmental Advisory Committee Meeting held on Tuesday, September 27, 2022**

The Minutes of the Sustainability and Environmental Advisory Committee meeting held on Tuesday, September 27, 2022 were approved.

## **NEW BUSINESS**

### **3. Committee Orientation**

The Legislative Services Coordinator provided the Committee with an orientation of its structure, mandate, and responsibilities by referencing an on-screen presentation and utilizing slides.

Edward Lau arrived to the meeting at this time (7:11 p.m.)

### **4. Review and Adoption of the 2023 Sustainability and Environmental Advisory Committee Work Plan**

The draft 2023 Work Plan was presented on-screen, and the Manager Environment provided an overview of the proposed work plan items.

The Committee discussed the potential to add the following topics to the Work Plan:

- Pollinator gardens
- Storm water design and storm drain legislation
- The optional Joint Flood Mitigation Program
- Light and noise pollution impacts
- Climate initiatives
- NAV Canada's proposed flight plan changes in Metro Vancouver
- Green asset valuation and urban forest mapping
- The potential gravel quarry expansion
- The current petition to save the cedars on Burke Mountain

The Manager Environment noted that many of the requested topics would be addressed as part of the current work plan items.

Discussion ensued relative to the following:

- The understanding that the Committee should focus on topics that are within the scope of municipal governments and the desire to ensure that the Work Plan reflects the Committee's mandate
- The understanding that Committee members, as individuals, can advocate for environmental concerns to different levels of government
- The proposed timeline for the Urban Forest Management Plan's public consultation
- A map contained in the City of New Westminster's Urban Forest Management Strategy
- Securing Federal Government funding for tree planting
- Topics that can be discussed as part of the Roundtable discussions

The Committee endorsed the 2023 Work Plan and a copy is attached hereto, and forms a part of, these minutes.

The Committee recommended:

## **COMMITTEE RECOMMENDATION**

That Council approve the 2023 Sustainability and Environmental Advisory Committee Work Plan.

### **5. Seasonal Water Pricing**

The Director Utilities provided the Committee with an on-screen presentation entitled “Seasonal Metered Water Rates” that covered the following topics:

- The City’s Seasonal Water Pricing Plan
- Data on historical water consumption
- The Coquitlam Lake Reservoir supply status
- Recent technological advancements in water meter technology that allows consumers to track consumption and minimize waste

Discussion ensued relative to the following:

- The projected costs and revenues for the project
- Support for the City’s measured plan for a two-year approach of education prior to implementing seasonal water pricing
- Water meter technology and how it will measure and manage water usage
- How the City measures against other Metro Vancouver municipalities on water consumption
- The management of the Coquitlam Lake Reservoir during peak rainfalls
- Concern about flooding impacting fish spawning along the Coquitlam River
- How the water monitoring data can assist residents and businesses to manage and reduce their water consumption
- Monitoring of water usage by residential and commercial properties

### **6. 2023 Environmental Volunteer Celebration / Proposed Establishment of an Event Planning Sub-committee**

The Environmental Education & Enforcement Manager provided the Committee with an on-screen presentation entitled “2023 Environmental Volunteer Celebration” that covered the following topics:

- The previous events held by the Committee
- The desire for the Committee to provide feedback on the upcoming Environmental Volunteer Celebration

Discussion ensued relative to the following:

- The potential for the Sub-committee to engage with local schools to raise awareness of and participate in the Environmental Volunteer Celebration
- The desire to publicize the celebration event early for increased engagement with the community
- The potential to split the event into two portions to celebrate the volunteers and provide an engagement event for the community
- Tentative agreement to host the event on Sunday, June 4 at Blue Mountain Park
- The preference to provide volunteers with packed lunches rather than a buffet
- Potential entertainment and music options for the event
- Praise for the previous events and entertainment and the potential to incorporate a tree walk and tree planting event

The Committee formed a 2023 Environmental Volunteer Celebration Sub-committee and the following members offered to serve:

- Mark Ashton
- Grayson Barke
- Reza Berry
- Daryoush Mohammad Hassani
- Bonnie Razzaghi

The Chair noted that staff would follow-up with the Sub-committee volunteers regarding next steps.

## **7. Committee Members' Roundtable / Emerging Issues**

The Chair invited the Committee members to share information and emerging issues from the community. The following issues and concerns were shared:

- The current proposed programs to address future heat domes and climate events, and the need to provide proactive communication to residents as to where they can shelter
- How a summer safety education program can encourage residents to check-in on vulnerable neighbours during extreme heat events

The Chair noted that members were welcome to ask questions (unrelated to agenda items) of staff and Council outside of regular Committee meetings, and thanked the Committee members for their volunteerism.

### **OTHER BUSINESS**

**NEXT MEETING DATE – Tuesday, May 30, 2023**

**ADJOURNMENT**

The meeting adjourned at 8:34 p.m.

MINUTES CERTIFIED CORRECT

\_\_\_\_\_ CHAIR

I hereby certify that I have recorded the Minutes of the Sustainability and Environmental Advisory Committee Meeting held on Tuesday, March 28, 2023 as instructed, subject to amendment and adoption.

\_\_\_\_\_  
Caley Amundsen  
Committee Clerk

## Sustainability & Environmental Advisory Committee

### Committee Mandate

The overall mandate of the Sustainability and Environmental Advisory Committee is to provide a local perspective and advice to Council with respect to achieving the City of Coquitlam’s strategic goals and accompanying strategic directions. Specific responsibilities of the Committee include, but are not limited to, the following:

- To provide advice to Council on a wide range of existing and emerging environmental issues and trends including strategic planning initiatives, bylaws, and policy development;
- To provide a local perspective on the environment while giving due consideration to the balance between social, environmental and economic aspects;
- To identify and review opportunities for environmental protection and enhancement within the City and advise Council of the same;
- To advise Council on issues of environmental importance to stakeholder groups and to the community at large;
- To identify and advise on ways to build local environmental awareness, and promote environmental stewardship within the City; and
- To celebrate environmental volunteer involvement and leadership including supporting the annual Environmental Volunteer Celebration (and its biannual Environmental Achievement Awards component).

WORK PLAN ITEMS	DEPARTMENT AND/OR PRESENTER	COMMENTS (i.e. Initiated by, Priority Assignment A, B, C)
1) Review and Endorse Draft 2023 Work Plan	Staff Lead/ Committee	Staff
2) Committee Orientation	LS/Clerk	Staff
3) SEAC Members’ Roundtable / Emerging Issues (Standing Agenda Item)	Committee	Committee
3) Educational Awareness Presentations: - Urban Wildlife Management - Waste Management and Recycling - City Nature Challenge 2023 - Environmental Bylaw Updates: Urban Wildlife and Solid Waste	E&PW (Utilities)	Committee







## Monitoring Results and Impacts of Development Creek Water Quality

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## Agenda

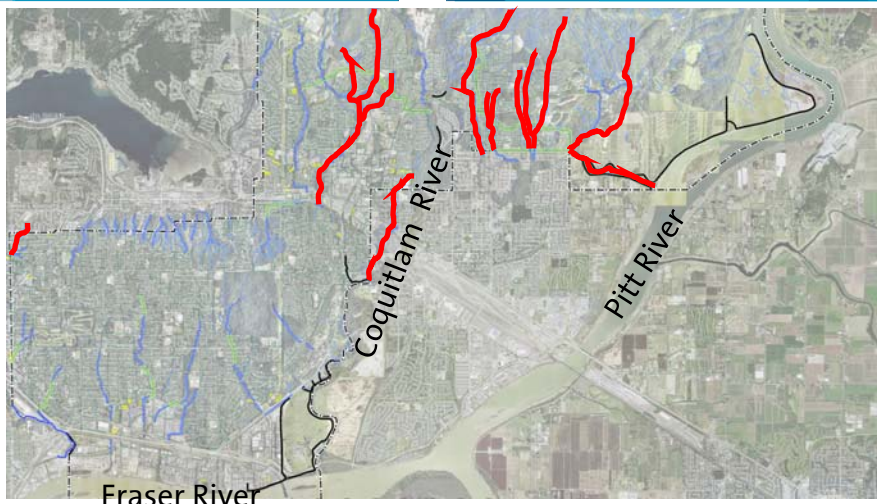
1. Creek Background
2. Monitoring and Spill Response
3. Supporting Policies and Programs
4. System Enhancements
5. Questions



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# Creek & Drainage Background



# Creek & Drainage Background

## Components

1. Assess
2. Plan
3. Monitor
4. Adapt

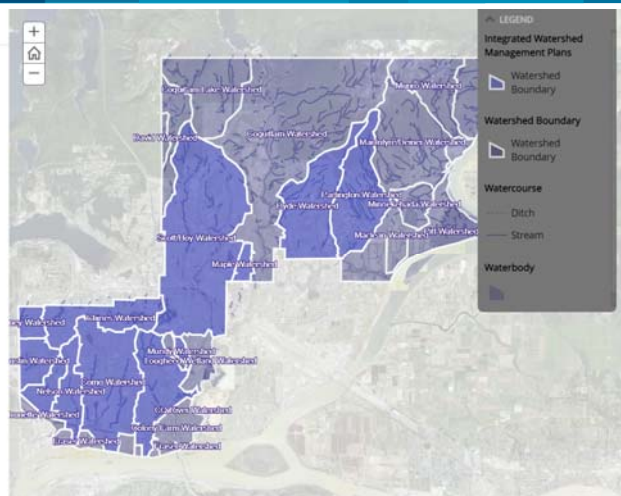
City of Coquitlam

## Coquitlam Integrated Watershed Management Plans



Coquitlam manages stormwater within watershed boundaries to ensure that properties are protected from flooding and impacts to the environment are minimized. A watershed is defined as an area of land where all of the water drains to the same place.

For all urban watersheds, Coquitlam is developing integrated watershed management plans (IWMP) to preserve watershed health, while also meeting community needs and facilitating growth and development. IWMPs use a Net Environmental Benefit approach that strives to improve fish and fish habitat.



# Creek & Drainage Background

## Challenges include:

- Construction discharge
- Fats, oil and grease (FOG)
- Cross connections
- Dog waste
- First flush
- Low summer flows
- Extreme winter flows



# Monitoring and Spill Response

- IWMP baseline
- Citywide MAMF program
- Coquitlam River monitoring
- Spot samples
- Real-time monitoring



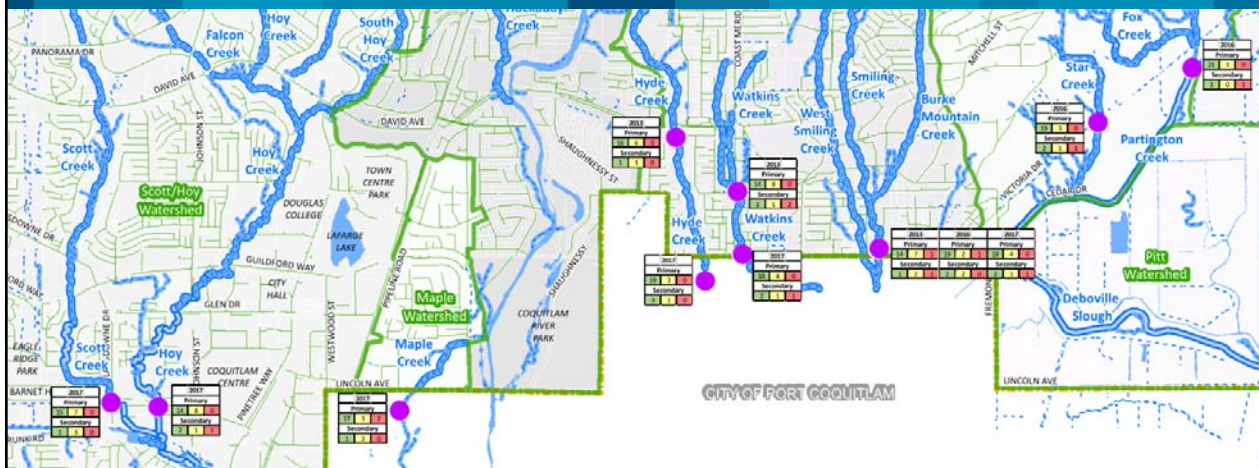
# IWMP Baseline & MAMF Program

Drainage Name: Hoy Creek		Municipality: Coquitlam, BC				
WATER QUALITY MONITORING RESULTS						
Site Location and Site Number:		Hoy Creek just downstream of Aberdeen Avenue.				
Water Quality Site UTM Zone:		10 U	Easting: 514220.3		Northing: 5456263.5	
Wet Season	Monitoring Date:	23-Nov-17	1-Dec-17	7-Dec-17	14-Dec-17	20-Dec-17
	AVERAGE	1	2	3	4	5
Priority Indicators	Temperature (Celsius)	10.75	7.55	7.85	7.70	6.30
	Dissolved Oxygen (mg/L)	12.270	12.99	11.94	11.62	12.80
	Turbidity (NTU)	3.745	3.88	6.08	3.93	1.84
	E. coli (CFU/100ml)	27.83449741	28.00	420.00	5.00	12.00
	Fecal Coliforms (CFU/100ml)	33.92371581	32.00	450.00	8.00	30.00
	Nitrate (as Nitrogen, mg/L)	0.5231	0.65	0.44	0.89	0.77
	Total Iron (ug/L)	284.1	205.00	646.00	204.00	203.00
	Total Cadmium (ug/L)*	0.0159	0.01	0.02	0.01	0.03
	Total Copper (ug/L)*	3.214	2.58	5.67	2.33	3.41
	Total Lead (ug/L)*	0.522	0.20	1.06	0.62	0.20
Secondary	Total Zinc (ug/L)*	12.14	8.00	24.00	13.90	5.20
	Conductivity (uS/cm)	186.25	90.25	44.20	182.70	140.60
None	pH (rel. units)	7.501	6.49	7.82	6.82	7.33
	Dry Season	Monitoring Date:	18-Jul-18	24-Jul-18	31-Jul-18	8-Aug-18
None	AVERAGE	1	2	3	4	5
	Temperature (Celsius)	16.34	16.10	16.10	17.10	16.40
	Dissolved Oxygen (mg/L)	8.56	8.73	8.63	8.63	8.36
	Turbidity (NTU)	0.36	0.69	0.39	0.23	0.43
E. coli (CFU/100ml)	148.64	190.00	220.00	310.00	70.00	



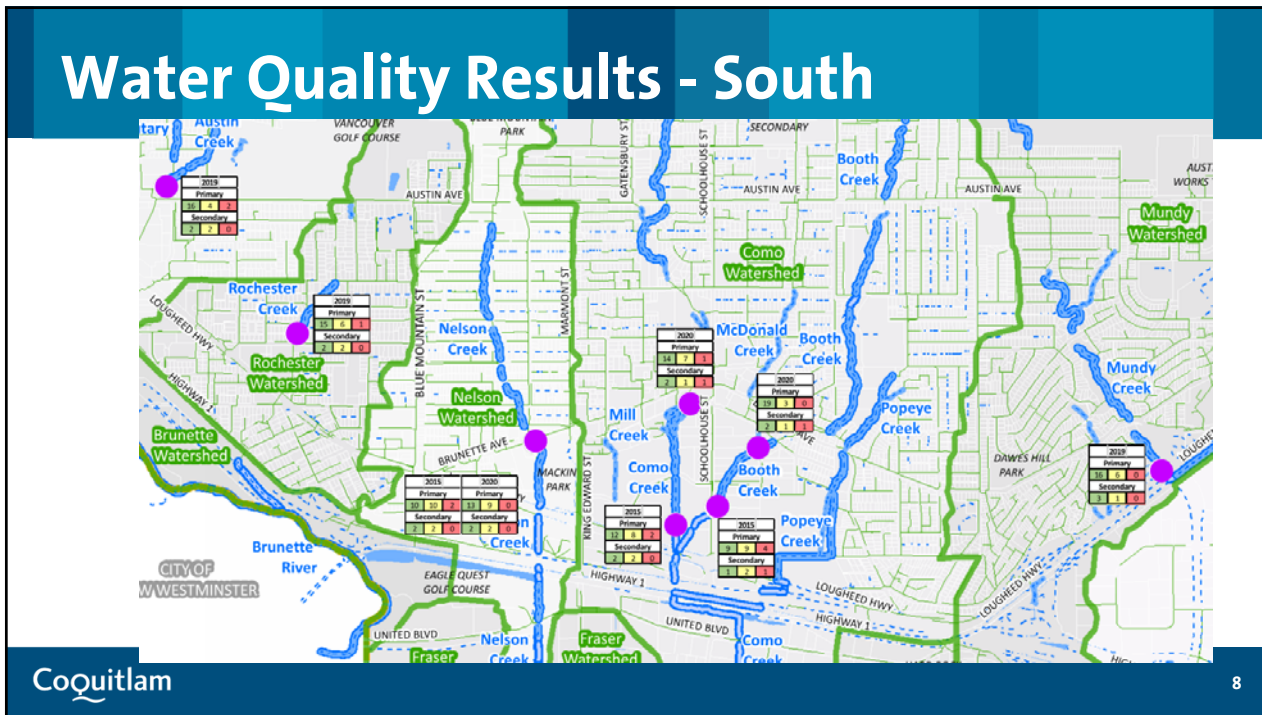
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# Water Quality Results - North



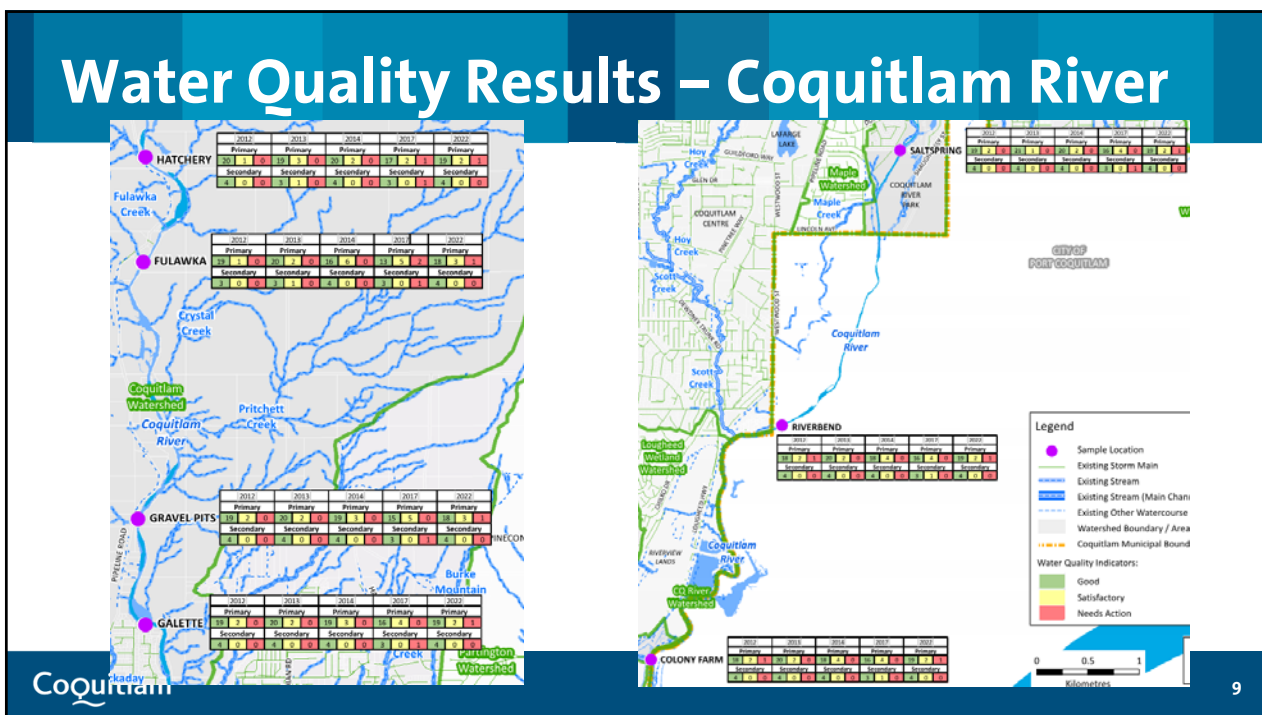
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# Water Quality Results - South



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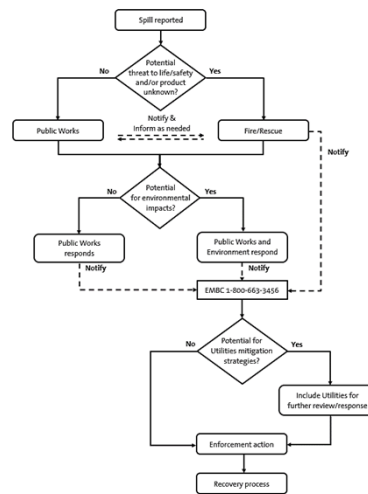
# Water Quality Results – Coquitlam River



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# Spill Response

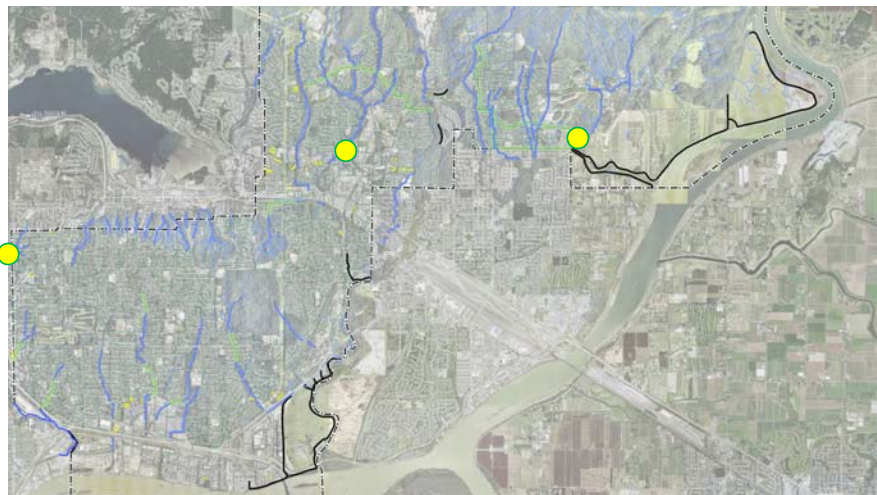
- Spill reporting, tracking, and response
- Spot samples



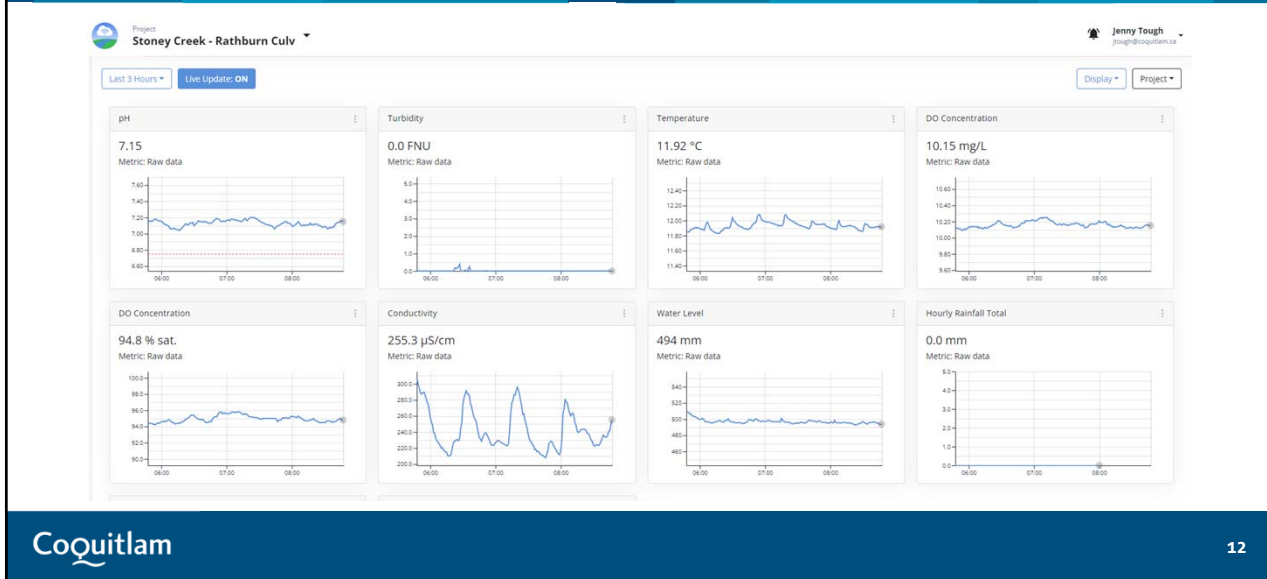
# Real-time Monitoring

## Real-time monitoring

- pH
- Turbidity
- Dissolve oxygen
- Conductivity
- Temperature
- Water level
- Rainfall



# Real-time Monitoring



## Supporting Policies and Programs

- Bylaws
- Public engagement
- Annual in-stream works program
- Design criteria



# Policies and Programs - Bylaws

## Stream and Drainage System Protection Bylaw

- **Purpose:** Protect Coquitlam’s stream and drainage systems from deleterious substances including pollution and sediment
- Two streams of erosion and sediment control (ESC) requirements: 1) single family/duplex 2) All other
- Water quality discharge requirements (pH and turbidity)



# Policies and Programs - Bylaws

- Water quality tested every ~30 seconds
- Real-time data sharing
- Automated chemical dosing
- Automated discharge vs. recirculation control
- Automated alerts
- Downstream creek monitoring





# Policies and Programs - Engagement

## Report a spill or pollution

Coquitlam Engineering Customer Service (monitored 24/7)  
604-927-3500  
[epw@coquitlam.ca](mailto:epw@coquitlam.ca)

## Adopt a catch basin

[www.coquitlam.ca/adoptacatchbasin](http://www.coquitlam.ca/adoptacatchbasin)

## Participate in storm drain marking

Email [waterconservation@coquitlam.ca](mailto:waterconservation@coquitlam.ca)



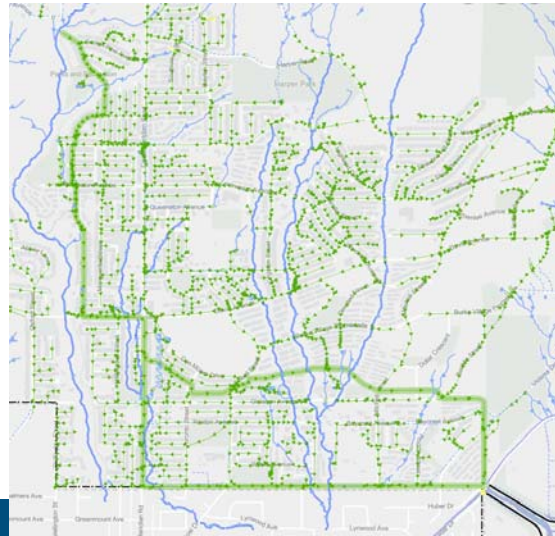
# Policies and Programs – In-Stream Works



## Policies and Programs – Design Criteria

### Key Criteria

- On-site detention and treatment requirements
- Drainage mains and culvert sizing
- Climate Adaptation
- Riparian Protection Regulations



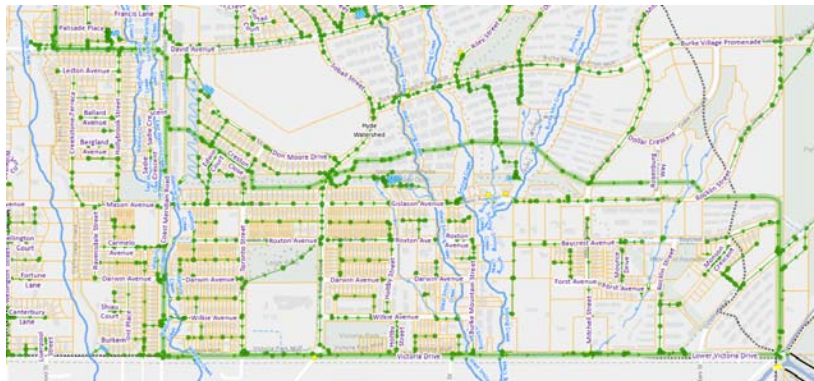
## System Enhancements

- Diversion Sewers
- Water Quality Ponds
- Roadside Infiltration Trench
- Rain Gardens
- Oil Grit Separation/Filtration
- 5 Year Capital Plan

## System Enhancements

### Diversion Sewers:

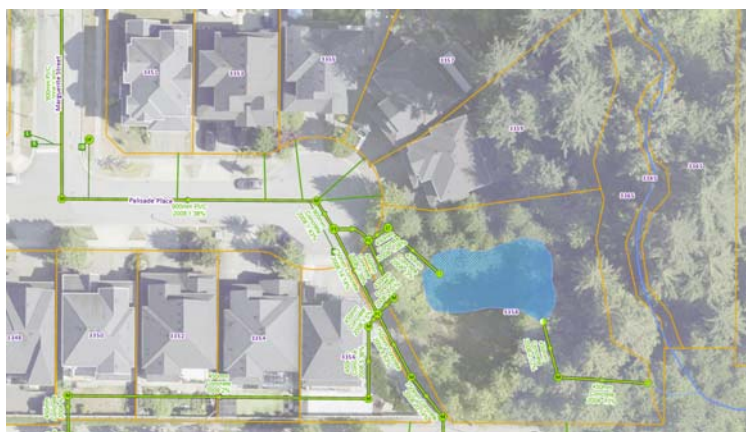
- Divert flows > 5yr pre-dev away from creeks
- Reduce erosion due to peak flow events



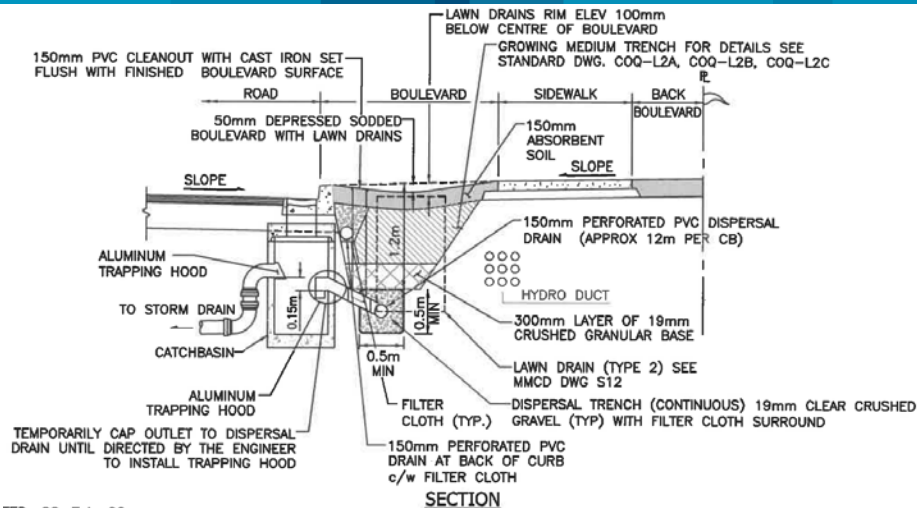
## System Enhancements

### Water Quality Ponds

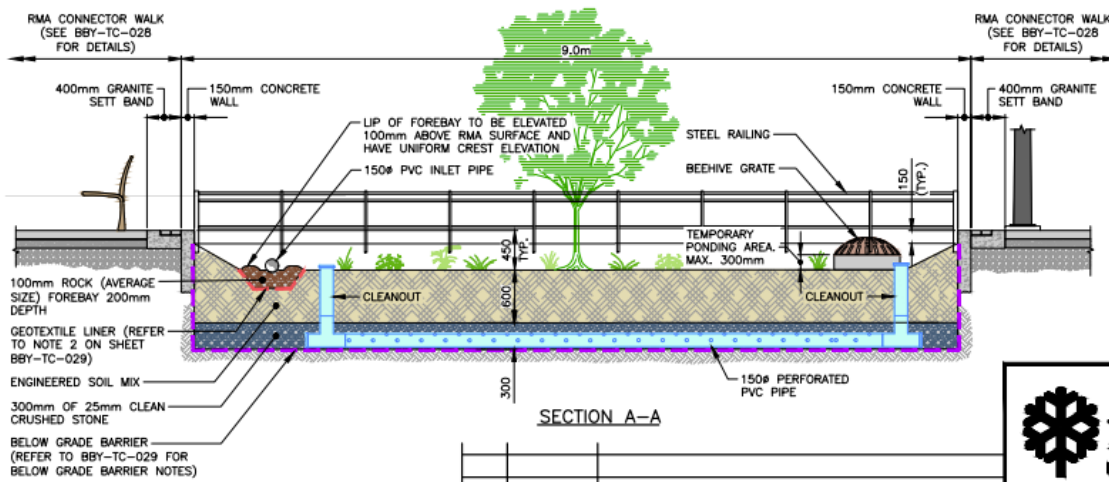
- Sized for 6 month pre-development flows
- Allow sediments and other contaminants to settle out
- Sediment levels are monitored and dredged
- Provides additional community benefits



# System Enhancements



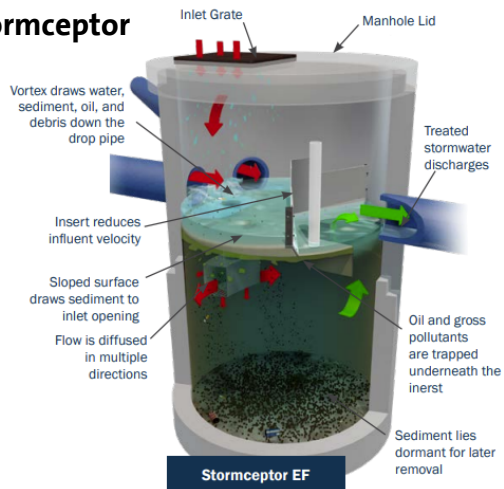
# System Enhancements



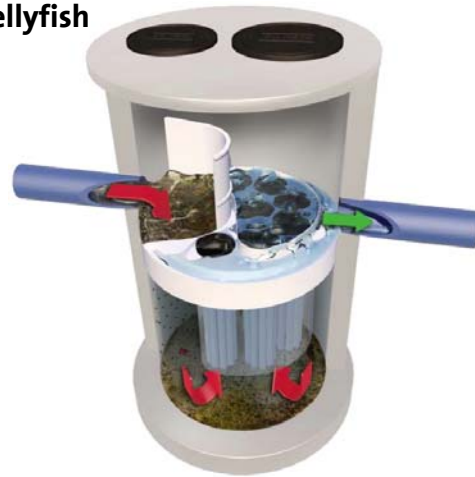


# System Enhancements

## Stormceptor



## Jellyfish



# System Enhancements

## Adaptive Projects in the next Capital Plan:

- Stoney Creek
  - Water Treatment Infrastructure
- Nelson Watershed
  - Real-time Monitoring & discrete sampling
  - Infiltration & Water Treatment
- Como Watershed
  - Relocate real-time Monitoring sensors & discrete sampling
  - Infiltration & Water Treatment



# Questions?

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Sustainability and Environmental Advisory Committee - May 2023

# Climate Action Plan Scope and Process Update

<https://www.coquitlam.ca/387/Climate-Action>

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## Agenda

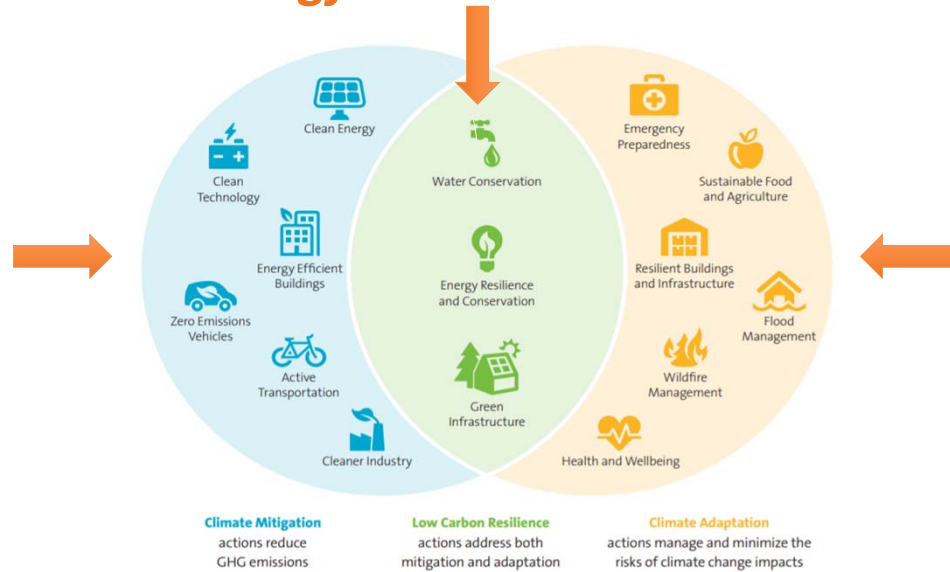
- Background
- Related Plans and Policies
- Coquitlam's emissions
- Approach
- Climate Action Plan Scope
- Project Timeline
- Next Steps



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# Climate Terminology



# Local Climate Impacts

## Coquitlam Glacier may be gone by 2050, geoscientist estimates

Climate change may cause 8 billion litres of ice to melt 50 years sooner than once expected

BY JEREMY SHEPHERD • COQUITLAM • APRIL 12, 2022



## PHOTOS + VIDEO: Here's how heavy rainfall led to localized flooding across the Tri-Cities

From Coquitlam River to the Port Moody Inlet, overflowing enforced some extra caution as tributaries rose to concerning levels Nov. 14-15, 2021.



## Coquitlam opens Glen Pine, Pinetree Community Centre as cooling hubs during the heat wave

Coquitlam residents in search of a cool place to work and rest indoors have two chic facilities to choose from during the heat wave.

Janis Cleugh



## Coroner's report on B.C. heat-dome deaths calls for greater support for populations at risk



619 deaths reported June 25-July 1, 2021, now deemed heat related; most were

CBC | MENU

NEWS Top Stories Local Climate World Canada Politics

British Columbia

## Crews battle out-of-control wildfire in Metro Vancouver regional park

Fire in Minnehada Regional Park is burning on 'steep and challenging terrain'

CBC News - Posted: Oct 02, 2022 5:27 PM PT | Last Updated: October 3



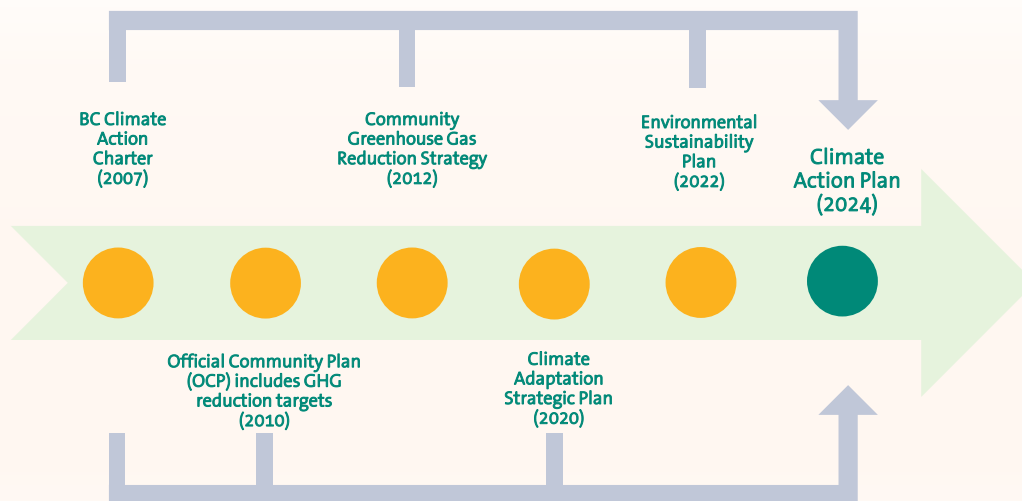


## Why Coquitlam needs a Climate Action Plan

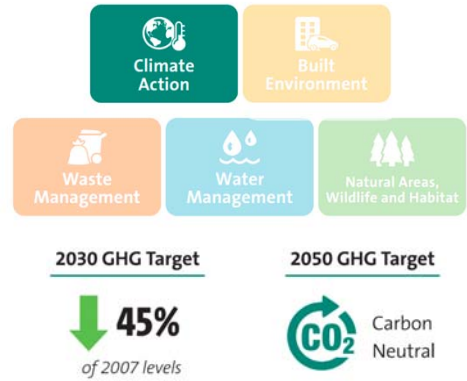
- Preparing for local climate impacts
- Rapid growth and development
- Evolving climate policy at regional, provincial, and federal levels
- Funding Opportunities
- Community Greenhouse Gas Reduction Strategy is over a decade old
- Updated GHG targets



## Coquitlam's Climate Action Journey

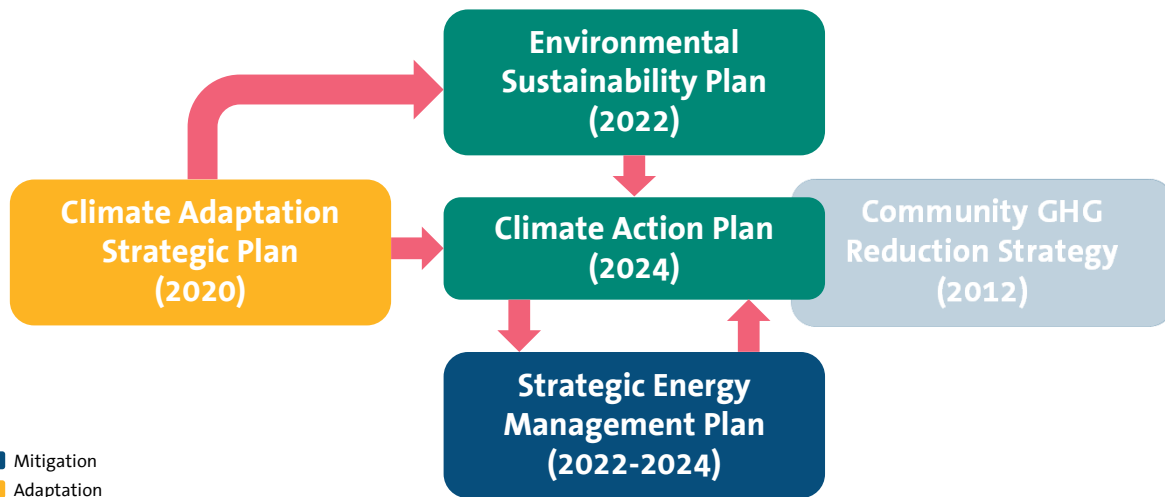


# Environmental Sustainability Plan



**Action 1:** Develop and implement a **new Climate Action Plan** that incorporates emerging best practice approaches and innovative technology, and prioritizes actions **to achieve the City’s community and corporate climate change targets**

# Connection to Existing Environmental Plans



- Mitigation
- Adaptation
- Adaptation + Mitigation

# Related Plans and Policies

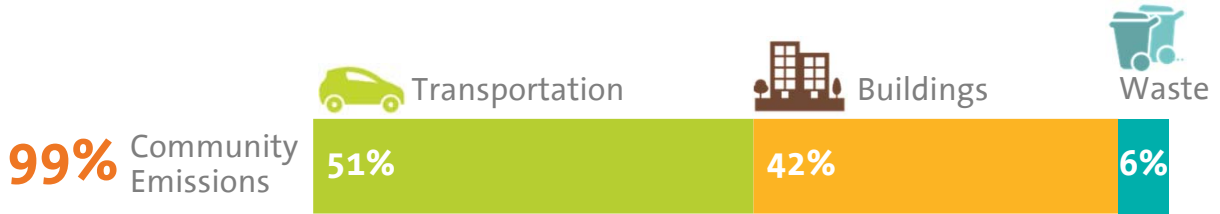


# Climate Action Plan Scope

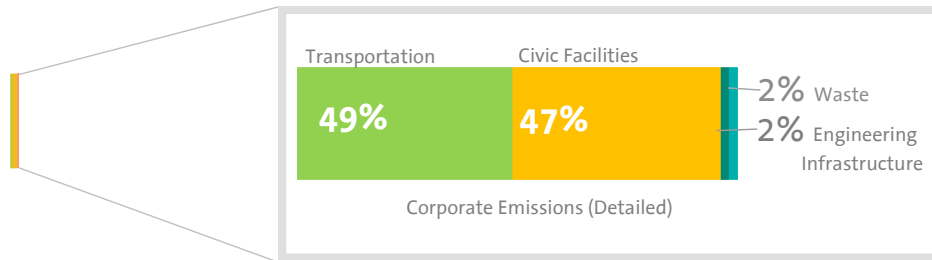
- **Replace** the 2012 Community Greenhouse Gas Reduction Strategy with **detailed pathways** for working towards our new GHG targets
- Use a **Low Carbon Resilience** lens to **advance** mitigation and adaptation objectives and identify co-benefits
- **Develop** clear and measurable actions with a focus on **affordability**
- **Outline** costs, benefits and trade-offs
- **Identify** funding sources to support plan implementation
- **Engage** broadly and incorporate **Reconciliation and Equity, Diversity, and Inclusion**



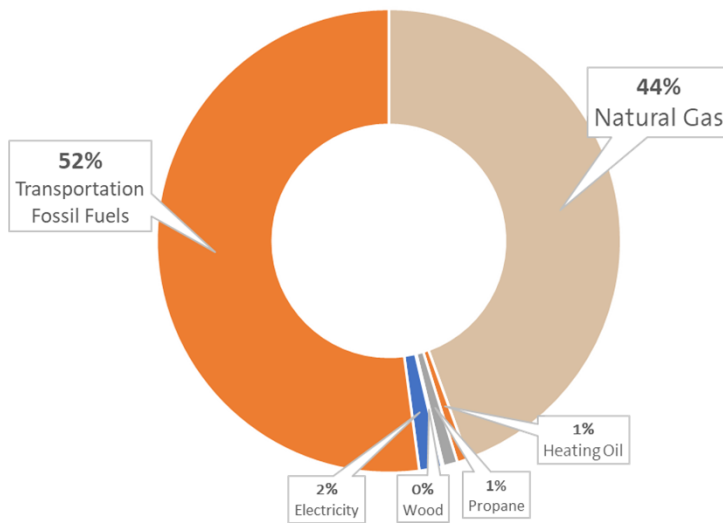
# Coquitlam's Emissions



**1% Corporate Emissions**

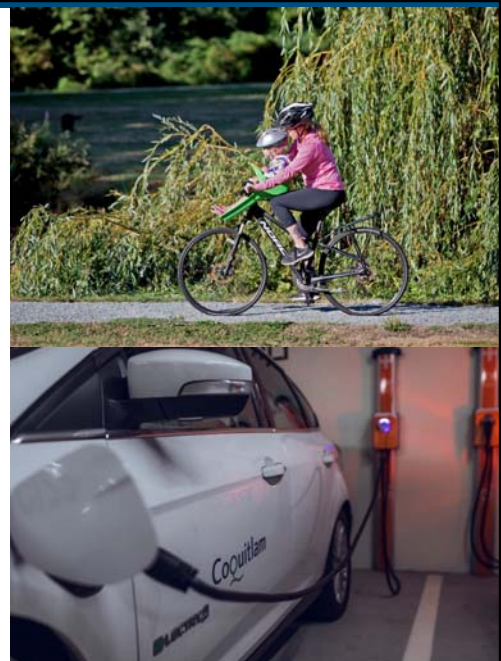


# Community GHG Emissions by Fuel Type



## Approach

- **Flexible, achievable,** and **balanced**
- **Share our story** and **build** on progress to date
- **Reflect** and **act** on lessons learned
- **Seek** ongoing collaboration and partnership
- **Align** with best practices from other communities, regional, provincial, and federal policies, and existing City plans and strategies



## Phase 1: Building the Foundation



### Key activities include:

- Engagement with kwikwəłəm First Nation
- Form Project Support Team
- Retain Consultant
- Gap analysis
- Audience Mapping
- GHG inventory update





## Phase 2: Shaping the Plan



### Key activities include:

- Scenario modelling
- Identify potential targets, policy and action bundles
- Economic and equity impact screening
- Staff engagement



## Phase 3: Drafting the Plan



### Key activities include:

- Community engagement
- Draft Climate Action Plan
- Ongoing engagement with kwikwəłəm (Kwikwetlem) First Nation
- Present Draft CAP to Council



## Phase 4: Finalizing the Plan

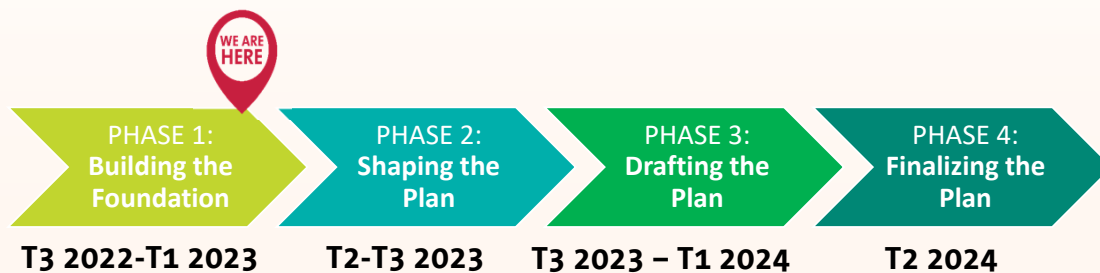


### Key activities include:

- Develop Monitoring and Evaluation Plan
- Incorporate feedback and finalize CAP
- Present CAP to Council



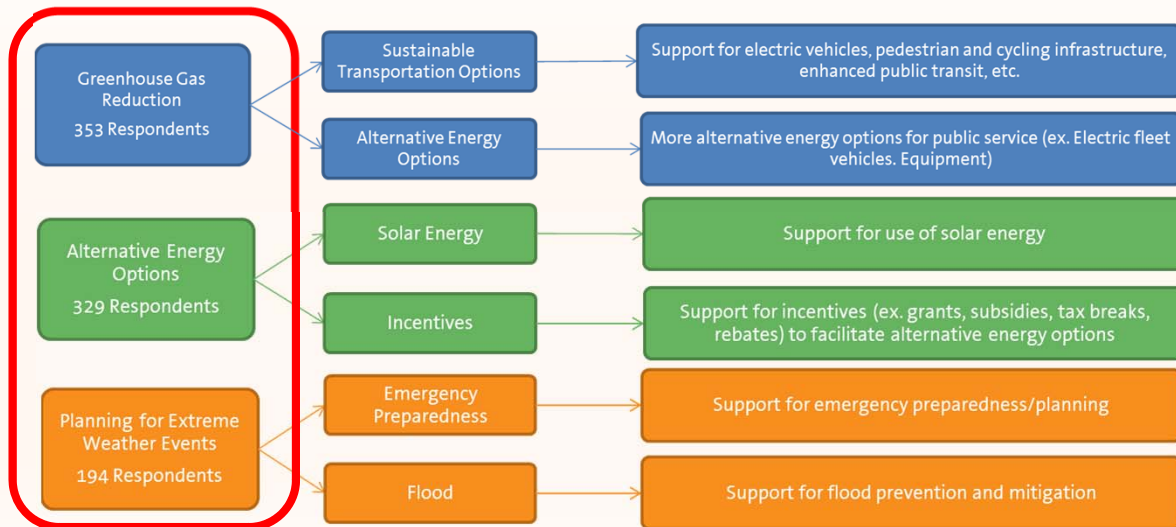
## Project Timeline



## Next Steps

- **GHG Inventory Update**
- **Staff Engagement**
- **Committee Engagement**
  - Upcoming SEAC meeting to solicit feedback

## ESP Engagement – CAP Theme







Thank you!

  
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