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## MEMORANDUM

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**TO:** ADVISORY PLANNING COMMISSION  
**FROM:** JAMES VAN HEMERT, CONSULTING TOWN PLANNER  
**SUBJECT:** CLIMATE CHANGE  
**DATE:** 1/24/2022

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### Preamble

Climate change is making lumber more expensive. Much more expensive.

On January 19, 2022, Chicago lumber futures traded near \$1,230 per thousand board feet, the highest since the beginning of June 2021, the only other time in the past 4 decades when lumber futures were above the typical neighbourhood of \$300 to \$400 per thousand board feet.

This is a climate price argues Stinson Dean, a lumber trader from Colorado, reported in an article in Atlantic Monthly by Robinson Meyer.

Why?

Its about the fiber supply in BC, Canada's top lumber producing region, which supplies a large portion of the USA's lumber. Supply is limited due to the 2009/10 pine beetle kill, increased wildfires in 2017/18, which burned more hectares in BC than the past 20 years combined, and most recently the flooding and mudslides from the 'atmospheric river' which destroyed infrastructure (logging roads) to get timber to market.

This is a close to home and international illustration of direct climate impacts.

The climate is changing, and the impacts directly affect us all right here right now:

- wildfire,
- flooding,
- drought,
- heat,
- loss of fish and wildlife, and

- human suffering and death.

There is no going back to the way things were and the way things were done.

Over the past two decades the focus has been on **mitigation**, reducing CO2 and other warming gases.

Globally, nationally, and locally we have failed quite miserably in this task. It is too late to do much about it, the atmospheric CO2 is baked in, most people are not changing their behaviour, and government is mostly talk and no useful action. And we are experiencing the consequences.

The focus now must be on **adaptation**. The climate has changed and will change more regardless of the level of global warming emissions.

In this memo I provide you with an excerpt of our own OCP's Climate Change Goal, Objectives, and Targets (in the Appendix). Please review and consider:

1. The focus is exclusively on mitigation –reducing GHG emissions
2. The targets have been in place since 2011 and we have done little to implement actions and move the needle
3. Are these realistic targets? (We aren't actively monitoring, and the BC Government has removed the one incentive it had in place Climate Action Revenue Incentive Program (CARIP))
4. Should we continue ignoring these targets?
5. The OCP has a GHG reduction Development Permit Area –the entire Town-- but to date, we have not consistently implemented it. Should we get on with it?

## **Adaptation**

Surprisingly and perhaps embarrassingly, the term 'adaptation' does not appear in our newly minted OCP. (!!!)

What could this look like?

To begin, the Town is already doing a number of adaptation measures:

1. Water metering and block pricing (higher prices for greater usage)
2. Rainwater management –water balance model
3. Sediment control for construction of new development
4. Wildfire hazard mapping, policies, and Development Permit Area
5. FireSmart program
6. Building regulation within the 200-year floodplain
7. Riparian Area protection through Development Permit area regulations and policies
8. Water purity –sedimentation control requirements for construction
9. Liquid waste management: Town's sewage lagoons provide a treatment level 2 and are discharged into the Cowichan River

Last November we participated in a climate adaptation presentation from the CVRD's Environmental Services staff. This is an offshoot of the CVRD's Climate Change Adaptation and Risk Management Strategy Implementation Framework (CVRD), which, should you wish to dive in deeply, is available here:

[2021-01-18-CVRD-Climate-Change-Adaptation-and-Risk-Management-Strategy](#)

What more could the Town do to address climate change adaptation?

Below, I have selected several relevant objectives and actions from this strategy and ask you to consider the Town’s level of priority.

Objectives and Actions	Priority (High/Medium/ Low)
Objective #1: Consider climate change information in land use planning and the design, construction, and maintenance of infrastructure.	
Action: higher development standards	
Action: update rainfall Intensity Duration Frequency curves	
Action: update development permit hazard areas	
Action: Active Transportation Plan	
Objective #2: Improve the climate change risk management of critical regionally owned and community infrastructure	
Action: Assess infrastructure for climate change impacts	
Objective 3: Continue to upgrade stormwater management systems and pursue integrated flood management (IFM) approaches for reducing flood damage. (This may mean, for example, updating our 200-year floodplain map)	
Objective #6: Minimize wildfire risk and associated impacts to public health and safety, especially amongst vulnerable or exposed populations.	
Action: Continue to support the Cowichan Regional Airshed Roundtable and actions in the Cowichan Regional Airshed Protection Strategy.	
Objective 7: Minimize disaster risk caused by natural hazards and extreme weather events among residents, businesses, and the wider community. (Flood, drought, air quality)	
ACTION: Establish a regional hydrometric monitoring system (real time, water levels and flow) for \$90,000 a year	
Objective 11: Support regional business innovation and continuity in the face of a changing climate	
Action: Work with Private Managed Forest Land (PMFL) Program partners to maintain currency with the policy and practices to protect the working forest base and values of non-timber forest products.	
Objective #15: Steward, protect, and restore the region’s ecosystems and biodiversity in an era of climate change and continued population growth	
Action: Develop a robust regional Growth Management Strategy that is in line with community needs and which takes into account regional carrying capacity for water supply, waste management, food systems, and transportation.	
Objective # 20: Mainstream climate change adaptation into regional policies, programming, and actions	
Action: Conduct a review of OCPs and other key service-level plans and policies (Emergency Management Plan, Active Transportation Plan, etc.) to identify where climate adaptation objectives and actions can be integrated.	

## APPENDIX

### OCP EXCERPTS

#### Climate Change

BC's Climate Change Accountability Act replaces the 2007 Greenhouse Gas (GHG) Reduction Targets Act. It sets new legislated targets of a 40% reduction in carbon emissions from 2007 levels by 2030, and a 60% reduction from 2007 levels by 2040. The current target of an 80% reduction in emissions by 2050 remains in place. For comparison, the Paris Accord includes a 30% reduction on 2005 levels by 2030, which is a somewhat lower target.

The legislation is not prescriptive. Local governments may choose to set their own targets and are encouraged to establish secondary, community supported targets.

The Town of Lake Cowichan is a signatory of the BC Climate Action Charter, which commits the Town to monitor and report on corporate (local government operations) and community emissions.

#### Climate Change Goal

The Town is carbon neutral for corporate operations and community-wide greenhouse gas emissions are substantially reduced.

#### Objectives

- 1) Monitor and reduce corporate and community-wide energy consumption and emissions.
- 2) Consider the impacts on climate change as an important factor in decision-making related to land use, site planning, building design, transportation and infrastructure.
- 3) Promote the development of renewable energy sources that will reduce reliance on energy sources that create greenhouse gas emissions.
- 4) Collaborate or partner with other organizations, government agencies, communities, and other stakeholders, to achieve emissions reduction goals.

#### Community-Wide Targets

- 1) Reduce community-wide greenhouse gas emissions by 30% by 2030, and 80% by 2050, relative to 2007 levels.

#### Secondary Targets

- 1) By 2030 reduce greenhouse gas emissions by achieving the following:
  - a) Reduce average energy demand for buildings:
    - i) homes by 20%;
    - ii) commercial buildings by 30%; and
    - iii) institutional buildings by 30%.

- 2) Achieve a transportation mode share<sup>1</sup>as follows:
  - a) 65% for automobile (car, truck, van) trips as driver;
  - b) 12.5% for automobile trips as passenger;
  - c) 15% for walking trips;
  - d) 5% for cycling; and
  - e) 1.5% for transit.
- 3) By 2050 reduce greenhouse gas emissions by achieving the following:
  - a) Reduce average energy demand for buildings:
    - i) homes by 50%;
    - ii) commercial buildings by 70%; and
    - iii) institutional buildings by 70%.
- 4) Achieve a transportation mode share as follows:
  - a) 25% for automobile (car, truck, van) trips as driver;
  - b) 22% for automobile trips as passenger;
  - c) 30% for walking trips;
  - d) 15% for cycling; and
  - e) 7% for transit.
- 5) Reduce the fossil fuel component of resource recovery (solid waste) by 75%.

### *Corporate Targets*

- 1) Reduce corporate greenhouse gas emissions by, 30% by 2030 and 80% by 2050.

### *Secondary Targets*

- 1) By 2020reduce greenhouse gas emissions by achieving the following:
  - a) Reduce vehicle fleet fossil fuel consumption by 20%;
  - b) Reduce facility fossil fuel consumption by 20%;
  - c) Reduce water supply operations energy consumption by 20%;
  - d) Reduce sanitary sewer operations energy consumption by 20%; and
  - e) Reduce energy consumption of resource recovery operations by 20%.
- 2) By 2030 reduce greenhouse gas emissions by achieving the following:
  - a) Reduce vehicle fleet fossil fuel consumption by 50%;
  - b) Reduce facility fossil fuel consumption by 50%;

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<sup>1</sup>This target is for all trips. Current available data is for commuting trips only, based on the 2006 Canadian Census. In future years it will be beneficial to gather data on all trips.

- c) Reduce water supply operations energy consumption by 30%;
  - d) Reduce sanitary sewer operations energy consumption by 30%; and
  - e) Reduce energy consumption of resource recovery operations by 50 %.
- 3) By 2050 reduce greenhouse gas emissions by achieving the following:
- a) Reduce vehicle fleet fossil fuel consumption by 80%;
  - b) Reduce facility fossil fuel consumption by 80%;
  - c) Reduce water supply operations energy consumption by 50%;
  - d) Reduce sanitary sewer operations energy consumption by 50%; and
  - e) Reduce energy consumption of resource recovery operations by 80%.

### *Community Policies*

- 1) Encourage and promote active transportation by adding and improving walkways, trails, sidewalks and cycling facilities.
- 2) Specific actions that may be taken include the development of an Active Transportation Plan and a “Safe Routes to School” program.
- 3) Encourage and promote transit use, car-pooling, car-sharing and Transportation Demand Management<sup>2</sup> strategies to reduce automobile vehicle miles travelled.
- 4) Support commuter vans and internet-based ride sharing.
- 5) Participate in the province’s Energy Step Program by adopting Step 1 for residential buildings (Part 9 of the BC Building Code)—(all new buildings in BC must meet a net-zero energy ready level of efficiency by 2032).
- 6) Seek funding and opportunities for partnerships to achieve reductions, foster public awareness and gain support for climate change mitigation strategies.
- 7) Promote through Town media BC Hydro’s Home Renovation Rebate Program<sup>3</sup> to improve efficiency. Rebate based program covers insulation, ductless heat pumps, and draft proofing.
- 8) Consider energy consumption, efficiency and emissions when reviewing applications for development, rezoning and subdivision. This may be done through the development of a sustainability checklist to evaluate the impacts of new development.
- 9) Explore the feasibility of low CO2 emissions renewable energy or energy conservation projects, such as a resource recovery energy plant that uses organic material to create heat and energy, run of the river power generation, and water reservoir pipe power generation. Specific actions may include a partnership with other communities and the formation of a Town-owned energy utility.
- 10) Encourage landowners to retain and plant trees and other vegetation, including the planting of rain gardens, in order to improve air quality, manage storm water runoff and offset carbon emissions.

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<sup>2</sup>Transportation Demand Management (TDM) is a general term for strategies that result in more efficient use of transportation resources.

<sup>3</sup>Details of the Home Renovation Rebate Program are available online at <https://www.bchydro.com/powersmart/residential/savings-and-rebates/current-rebates-buy-backs/home-renovation-rebates.html> (accessed May 15, 2019)

## *Corporate Policies*

- 1) Reduce energy consumption and emissions for corporate operations, including facilities, vehicles, and infrastructure. Chosen actions will be developed into a long-term plan that will guide future actions for the Town.
- 2) New Town-owned buildings will be multi-use and meet high energy efficiency and green design standards such as LEED certification. Existing buildings will undergo energy assessments and retrofits as funding allows.
- 3) Formulate a strategy for its vehicle fleet, through joining a green fleet program such as Energy Environment Excellence (E3) Fleets Program, administered by the Fraser Basin Council, and aim to attain a green fleet rating.
- 4) Continue to monitor the performance of its lighting, water, and wastewater systems, and make improvements to reduce energy consumption and emissions.
- 5) Continue to plant trees and other vegetation, in order to improve air quality, manage storm water runoff and offset carbon emissions.
- 6) Implement a local organics recovery program.