

Committee of the Whole Report For the Meeting of November 14, 2019.

To:

Committee of the Whole

Date:

November 8, 2019

From:

Fraser Work, Director of Engineering & Public Works

Subject:

Application and Integration of the Climate Lens

RECOMMENDATION

That Council direct staff to:

Commence work in 2020 and develop the necessary resource assessments to complete priority work phases as part of the 2021 financial planning process, as outlined in detail in Section 4 of the Issues and Analysis section of the report.

EXECUTIVE SUMMARY

The Climate Lens is an emerging planning perspective and tool to operationalize and normalize City planning and actions to reduce greenhouse gases and strengthen efforts to adapt to a changing climate. For the City of Victoria, the climate lens is the consideration of greenhouse gas mitigation and adaptation requirements in all decision making. The lens can be applied to existing and new City objectives to determine where synergies reside and how a combination of objectives may strengthen the case for action, investments and interventions.

In order to operationalize climate action into all the City does, several changes are required in everyday decision making, including Official Community Plan (OCP) amendments, policy, reporting requirements, new guidelines and planning tools, as well as departmental programs, projects and services. The climate issues/risks may help provide the required justification for important City actions that may have until now, not been supportable. The Climate Lens can also increase resource efficiency to reach multiple objectives in a single program, when done well. If bundled together well, the Climate Lens can help support important City objectives through the reductions of greenhouse gases and increased climate resilience. Things that are good for the climate can also be good for Victorians:

- Reduced household transportation costs through a combination of improvements to public transit, car share and other sustainable mobility systems.
- High performance, clean, modern public transit can be a game-changer for the region, reducing traffic congestion and commute times and allowing people to spend more time with families.
- More dense housing types and mixed-use planning and designs can bring people closer to their employment and daily amenities posing multiple benefits to affordability, congestion, utility costs and others,
- Higher home efficiency and heat pump systems lower monthly energy bills, add cooling in hotter summers and improve indoor air quality,

- Active transportation networks attract people to healthier mobility choices and increase community vitality,
- Safety risks are avoided from gas or oil systems, especially during damage or seismic event, and
- Noise and air-pollution from combustion machinery/equipment is reduced in our neighbourhoods.

Increasingly, sustainable development experts suggest that important "development goals such as improved public health, reduced congestion, full employment, and poverty alleviation may be hard to achieve without low-carbon action"¹.

A set of priority actions and planning initiatives have been highlighted in this report, to commence in 2020. Planning in 2020 will also identify what additional staff resources may be required to accelerate work in this area, with these new considerations and program synergies in mind, which represents important but additional priorities on top of the current workload. Council could choose to advance the actions in this report by replacing other projects or priorities.

PURPOSE

The purpose of this report is to present a series of information and recommendations related to the application of the "Climate Lens" across City planning and decision making.

BACKGROUND

Ongoing City planning and program delivery has identified the benefit of formalizing how climate action for both greenhouse gas mitigation and adaptation requirements need to be operationalized throughout City departments and decision making. The application of climate considerations in all City projects and planning is central to the directions in the City's approved Climate Leadership Plan (CLP), and also a helpful way to consider how to make reductions in our own climate action progress, since energy and emissions are interwoven in all business units and services that the City provides.

The federal government states the a "climate lens" is "intended to incent behavioral change and consideration of climate impacts into the planning of infrastructure projects with a view to implementing Canada's mid-century goals of a clean growth low-carbon economy". For the City of Victoria, the climate lens is the consideration of greenhouse gas mitigation and adaptation requirements in all decision making.

The application of a climate lens in City business and decision making will help underscore all project planning, just as we now consider, financial affordability, schedule, and other important requirements in every project we undertake. Climate is a new consideration-for us to balance across several important City objectives, and meaningful progress must be made in the near term, to ensure the long-term risks are mitigated appropriately. This means that climate considerations must be operationalized into City business as a priority, to better inform how we balance and approach the challenges in all areas of sustainable urban planning, development and service delivery.

¹ Gouldson, A. Sudmant, A. Khreis, H. Papargyropoulou, E (2018). Coalition for Urban Transitions. *The Economics and Social Benefits of Low-Carbon Sities: A Systematic Review of the Evidence.* Available online at: https://newclimateeconomy.report/workingpapers/wp-content/uploads/sites/5/2018/06/CUT2018 CCCEP final rev060718.pdf

² Infrastructure Canada. Available online at: https://www.infrastructure.gc.ca/pub/other-autre/cl-occ-eng.html#1.1

Applying a climate-lens across all City projects and programs represents a clear opportunity to address multiple, important City objectives. In many instances, combatting and preparing for climate change provides the social impetus for change and investment in areas and systems that have been underperforming in other ways. New systems, approaches and actions hold the potential to deliver across multiple development priority areas. The United Kingdom government sums it up as follows:

Presenting a more robust socio-economic case by assessing these so-called 'cobenefits' of low-carbon action could unlock policy support and accelerated action...enable the mainstreaming of climate policy and its integration into core policy areas such as economic development, finance, infrastructure or energy. It could facilitate the emergence of coordinated approaches and concerted action across the national, regional, and local scales. It could lead to changes in the relationships between the public, private, and civic sectors, bringing new forms of collaboration into play so that capacities for change are developed. And it could unlock new forms of investment, redirect existing financial flows, and unlock the potential for new ways of financing and delivering change³.

ISSUES & ANALYSIS

Aligning City Development Priorities with The Climate Lens

Human activity and the burning of fossil fuels is the primary cause of climate change, where other human activities like deforestation, agricultural processes, other industrial processes release potent greenhouse gases or reduce the planet's ability to sequester carbon in natural processes. Half of the world's population live in urban centres, most in small to medium sized cities. Cities are also the centres of human development and home to the economic engines that fuel innovation and technological change, that is needed to rethink and improve our industrial energy and economic models. The most impactful way for a city to reduce greenhouse gases are to quickly move away from transportation and building heating fossil fuels. Cities emit seventy percent of the world's greenhouse gases and are considered both the source and the solution for climate change.

Cities plan and deliver essential services and support community well-being and prosperity. Urban development and planning are currently being undermined by climate change which multiplies local financial, social and environmental risks. Climate change imposes new and significant requirements for costly investment across all types of infrastructure and services — including upgrades to underground infrastructure, facilities and buildings, coastal and waterfront assets, ecosystems, flood and storm mitigation, water scarcity, increased drought, health care pressures, and personal damages and costs.

Together we are required to aggressively reduce greenhouse gases to mitigate the severity of future risks while investing in assets to strengthen our resilience. Yet, our economic, industrial and societal systems are still powered by fossil fuels today, and it seems difficult or even impossible in some cases, to quickly transition to cleaner energy systems. The investment required for change is significant, but research shows it is still less than the costs of inaction.

Federal and provincial governments have aligned around the importance of cities in taking meaningful action on climate action, to reach multiple objectives. The Province of BC also honours

³ As above.

the importance and role of communities to take simultaneous action on climate and other prosperity initiatives:

Local Leadership: Challenge, Opportunity and Influence British Columbian communities demonstrate the breadth of climate change challenges and opportunities. Many are confronting increasingly intense natural disaster events. A lot are advancing integrated sustainability agendas that will reduce emissions as well as strengthen their prosperity.

Local governments are really <u>where the rubber meets the road</u> on climate change. Their role is pivotal for three reasons: The <u>challenge</u> of acutely vulnerable local infrastructure to climatic change; the <u>opportunity</u> to advance an integrated economic, social and environmental agenda that supports climate protection; and the <u>influence</u> of local government over emission reduction opportunities.

It is estimated that local governments have control or influence over approximately 45% or more of greenhouse gas emissions. Local priorities and local leadership will determine the path each community takes to shape our common future⁴.

Increased awareness of the climate emergency among Victorians, and Canadians generally, provides another opportunity to consider many outstanding municipal issues/challenges. These issues, such as measures to deal with street congestion or increased risks associated with residential fuel storage (oil tanks), have presented a multitude of problems that have previously been difficult for the City to tackle due to the perceived cost and inconvenience to the public.

Competition for scarce financial resources and trade-offs with other important community development goals are realities for the future of urban planning. Emerging literature and our recent experiences both demonstrate that an integrated and holistic approach to climate action and change management is critical to stretch limited resources so that the City can deliver across multiple objectives. In many areas, the synergies and benefits represent strong business case for change. If done well, low-carbon initiatives can reduce economic pressures, while delivering social benefit, alongside greenhouse gas reductions - paid for only once. To accelerate climate action, low carbon programs can be combined with Victoria's other development priorities such as affordability and housing, elderly and youth health and well-being, equity, economic prosperity, mobility and more. This report outlines the co-benefits and considerations related to application of the Climate Lens to urban planning and priorities. These benefits are not related to climate change alone and have existed for a long time; however, increased community acceptance of climate action may provide greater public acceptance for addressing these risks than ever before, because of the obvious benefits of reducing our reliance on fossil fuels.

Application of the Climate Lens

This section of the report is broken into four main sections:

- (1) City Development Priorities, Climate Action and Co Benefits,
- (2) Key Principles.
- (3) Required Changes to the OCP, and
- (4) Accelerated Change Areas.

The first section describes relevant Strategic Plan objectives, and how climate will be one key element that will be considered and may shape the way we help improve community well-being.

⁴ BC Provincial Climate Action Toolkit. Available online at: https://www.toolkit.bc.ca/local-leadership-challenge-opportunity-and-influence

The second section will describe the types of changes that will be required in the OCP to reflect this new, important approach to City building. The third section outline the principles that will shape program and initiatives, and the fourth and final section will describe the types of new approaches that the City will make in the areas that we seek to deliver the most meaningful change in community, to achieve multiple gains.

Section 1 - City Development Priorities, Climate Action and Co-Benefits

Council's strategic plan aims to deliver several coincidental objectives to reach new levels of community well-being — by addressing housing shortage and affordability, new options and standards of sustainable mobility, inclusion, improved engagement, and others. Reaching these shared objectives requires new approaches, targets, policies, programs and tools. This report outlines the initial application of climate action as a new, central planning lens across the suite of City programs. These areas intersect with Climate action and share clear pathways to the desired outcomes in our community. The Climate Lens helps us align and integrate these shared objectives.

Building Occupant Health, Safety, Affordability and Equity

Low-performing buildings often suffer from a series of issues, like degraded and damp indoor air quality, prevalence of hazardous materials and reduced occupant affordability and comfort due to costly, inefficient heating systems. The high number of air exchanges in an average Victoria home means that occupants lose much of their heating energy to poorly sealed or insulated building leaks. Oil heat, still prevalent in many homes on the island, can cost occupants over \$2000 per year, which is several times the amount of natural gas or electric heat pump power costs for the same home. Additional costs for insurance and maintenance can also add up. Poorly insulated buildings can also force occupants to use small electric space heaters for increased room comfort or augment home heating with gas or wood stoves during the colder months. Augmented heat can quickly add disaggregated costs making any business-case for building energy or heating system improvements harder to recognize.

The excessive use of wood or gas heating appliances introduces combustion by-products into the local breathing air, and can degrade indoor and outdoor air quality, adversely affecting the well being of the community, especially when burning lower quality fuels. Reduced air quality can be most impactful for younger and elderly neighbours — both, which are growing populations in Victoria.

Oil and gas stowage and distribution networks pose additional neighbourhood safety and nuisance issues, where leaks pose fire and explosion risks and environmental soil and water contamination and financial liabilities. These risks increase during severe weather events, building damage or in active seismic zones.

Maintaining community properties often relies on fossil-fuel burning lawn and garden equipment, which adds to the noise, local air pollution and greenhouse gas emissions burden in our households. Two-cycle / stroke engines are common legacy equipment types and offer notoriously dirty combustion emissions and high noise profiles that can disrupt the tranquility of our neighbourhoods. Newer, high quality electric alternatives are now common in the marketplace and offer quieter, low maintenance, emissions-free alternatives.

Poorly maintained buildings can impose higher energy costs and reduced comfort, requiring higher monthly investments by tenants to maintain comfort. Heating low-performance buildings is the City's primary greenhouse gas emitter – most of which comes from rental units, large or multi-family buildings, with 36% from single family homes. 70% of Victoria's buildings were built prior to the

1980s and are nearing the time for upgrades and extensive retrofits, and will need to meet seismic, aesthetic, and maintenance improvements. Upgrading the energy performance of these buildings at the same time is a significant cost-savings opportunity, but still does pose an additional cost premium on the owner, but cheaper than doing on its own.

Home retrofits can be expensive to implement and may take several years to realize net-gains if measured only by comparing monthly energy bills. If done well, retrofits can be used to reach multiple benefits, like hazardous materials remediation (ex. lead paint, asbestos), reduced annual maintenance costs, increased comfort, increased safety, improved air quality, lower emissions, and improved home value. Assessing all benefits and/or risks is important to truly understand the value of upgrades. Carbon tax costs and more stringent emissions regulations will continue to improve the business case for emissions-free home retrofits.

Sustainable Mobility – Well-Being, Affordability and Lower Emissions

Increasingly high numbers of single-occupant vehicle trips and increased urban sprawl is pressuring commute times and urban / suburban congestion in the city, which is leading to reduced quality of life for drivers (more time in traffic), increased vehicle pollution, noise and safety risks, and increased parking pressures. It is not uncommon for commuters into the city to spend more than 45 minutes in a single direction to and from work, which can represent significant annual losses in time and money. A 45 minute one-way commute translates to approximately 360 annual hours, or loss of 15 full calendar days per year⁵, plus associated financial costs.

Finding new mobility options is more and more an issue of household affordability — vehicle ownership being the second largest household expense for Canadians. Families moving outside the City to save on housing costs, replace those savings with high transportation and mobility costs — where new, median car costs may reach near \$900 per month⁶, including parking in the downtown, which, if avoided, could buy significant home mortgage value.

Car pooling and public transit may be viable alternatives for some, but for others, the additional planning and slower commute times for buses detract from switching modes. The region needs more sustainable options that out-perform the single automobile on cost, but perhaps more importantly – on convenience.

Investments in public transit and other ride-sharing options for longer distances (greater than 8km is a good rule of thumb) and increased active transportation infrastructure for the shorter distance traveler – can start to unlock the potential of sustainable mobility. Of course, this all starts with designing better neighbourhoods, so that people can affordably live near their most frequent destinations.

Investments in public transit and other mode options can reduce vehicle volumes, commute times, costs, safety risks and greenhouse gases. Improved public transit can compel households to get rid of one or all their vehicles. High number of car-share options can also help reduce the rate of car ownership. A mixture of high-performing public transit and and new and integrated mobility choices amplifies the benefits to the public.

Increased commercial, development and tourism are delivering many benefits to the city but are also adding pressures on the transportation system that will need to be managed carefully. Increased number of operators and service providers on the roads and at the curb and improperly

⁵ ie. 45 minutes x 2 times per day x 5 days per week x 48 weeks per year

⁶ Based on \$550 monthly car payment, \$127 per month parking, \$130 dollar insurance and \$100 gas costs.

parked large vehicles impose disproportionate impacts on the rest of the travelling public. This behaviour can also degrade safety and network efficiency. Improperly stopped commercial vehicles often result in risks to adjacent road users, including vulnerable cyclists and pedestrians. Fire and emergency services are also experiencing more impactful delays from improperly parked large commercial vehicles in the busy downtown that are competing for valuable space at the curb.

It has been estimated that up to 40% of city traffic congestion⁷ can be due to vehicles circulating to find parking. Increased street occupancy from development activity and infrastructure maintenance, and increased logistics service providers are all necessary for a growing city, but adds parking and inner-city congestion and traffic delays, safety risks, noise, air pollution and a less enjoyable downtown. The effects must be carefully managed to minimize negative impacts to the users and the community. Improvements are required to reduce demand for limited curb space and improve the utility and performance of high-value parking and loading zones.

Residential neighbourhoods are also growing and subjected to both internal and external transportation pressures, such as higher commuter parking volumes, increased population density and higher on-street vehicle parking volumes, traffic pattern changes as a result of congestion rerouting, and speed and safety concerns. Growing residential parking demand increases the use of on-street parking. Many residents choose to use the city's free rights-of-way for parking instead of paying monthly parking fees at their residence or places of employment. Many residents choose to use driveways for equipment storage or parking of recreational vehicles that otherwise would cost more to store offsite. Allocation of city rights of way for vehicle storage is a lower priority than other needs and should be carefully managed to reach multiple objectives.

Increased traffic and vehicle storage on city streets transfer debris into our storm water systems and out to sea. Dirtier streets need to be cleaned more often. Increased investment in underground infrastructure equates to more disruption and need for vehicle relocations during the day. Increased vehicles parked in residential streets can add safety issues and remove sight lines for other users, increase conflicts and potential risks for more vulnerable users. An increased community focus on active transportation improvements provides an opportunity for rethinking residential parking schemes, which should reflect the true value of the street, to manage storm water and provide safe and attractive thoroughfares for the community.

Highly efficient and affordable urban transportation networks and community mobility options are increasingly important to reduce travel times and ensure daily mobility needs can be met within reasonable expenses. High quality and affordable public transit that can out-compete the personal motor vehicle on commute times — is a key requirement for regional mobility and community well-being and would advance the City's equity objectives.

Automobiles account for 40% of the City's greenhouse gases, which does NOT include cross-boundary freight, marine or air emissions. 85% of our transportation emissions are from passenger vehicles, which include light trucks and SUVs. Commercial and heavy-duty vehicles account for the remainder of emissions. In the region, 72% of all vehicle trips are from single-occupant vehicles⁸.

Well-designed, sustainably powered mobility systems with more options are needed to attract people to low-carbon, healthy, affordable and less-impactful mobility choices that can simultaneously improve personal and community well-being. These travel options must be

⁷ IBM Global Parking Survey, available online at: https://www-03.ibm.com/press/us/en/pressrelease/35515.wss

⁸ CRD Origins and Destination (2017).

integrated across modes, networks, and municipalities and the region, to allow seamless, frictionless travel in and around the city and the region. Zero-emissions, convenient and high-performance public transportation and active transportation infrastructure will be key to give people cleaner mobility alternatives that reduce household costs, greenhouse gases, increase health, and reduce congestion times and time away from families, all contributing to improving community's social, economic and environmental well-being.

Well Designed Neighbourhoods - Affordable, Sustainable and Local

Workers need housing and with increased home prices and growing numbers of retired residents in the City, workers are moving out of town, and must commute to and from work each day –adding subsequent housing, development and transportation pressures outside the City. Alternatively, adding sustainably designed, compact, well-planned, low-carbon communities and housing options within the City will help keep workers close to jobs and amenities, and reduce pressures on other infrastructure systems (like congestion, parking, underground infrastructure, etc.) that are required to support the sprawl outside Victoria. Density and close-compact communities (new or existing) can reduce greenhouse gases across mobility and building sectors, and increase community vitality and affordability.

Resilience

Buildings constructed or upgraded to modern design standards are more seismically resilient and are more able to withstand increased storm severity and frequency, can manage their own storm water on site, and add comfort and cooled, filtrated air, during increased heat, drought or forest fire air pollution events. Our increasing younger and elderly populations are some of the most vulnerable, as well as low income residents. All are subject to the costly impacts from damage due to seismic or severe weather events, which will become more commonplace in the coming decades. Insurance and repair cost risks continue to grow, and monies have to be made available for costly repairs.

Public and private infrastructure is at risk from changing sea levels, increased storm severity / frequency, increased drought, heat, forest fires and other changing forces. Ecosystem decline and interventions will add new and real public costs. Public infrastructure is now being designed, upgraded and planned with these forces in mind. Additional investment pressure will require increased taxes, new revenues, and new business models to stretch public funds as far as possible. Increased funds are required for repairs and upgrades to facilities, public realm, and all civil assets, which will continue to grow in the coming decades. Investing in natural infrastructure to manage risks is also a key part of any strategy – where improved urban forest management and naturalized shorelines will withstand severe weather and strengthen the built environment, at the same time.

The competition for limited funds will pressure the other priority objectives of the city across many development areas. Greenhouse gas mitigation, adaptation to a changing environment, and fortification from increased risks are all a necessary part to strengthen our city and reduce the risks on future generations.

Employment

Victoria has the lowest unemployment rate in the country (3.1%) much of which is supporting the regional development and construction boom. The market opportunity for building retrofit improvements is large in the region, with most housing requiring many forms of upgrades to mechanical, insulation, windows and other improvements. Retrofits may represent a long term, stable business and economic opportunity in the South Island, if done well, and could be a clear

strategy to level employment demands across boom/bust cycles. Increased market demand for energy efficient retrofits, upgrades and construction, construction of new public transit infrastructure and systems, and jobs in recycling, reuse and recovery of materials – will all create long lasting jobs for workers of all skill levels, and support providers.

Inclusion and Equity

The damages from a changing climate can be imposed from severe storms, heat waves, drought, and other changes to natural systems. Protecting and recovering from these impacts may hit the most vulnerable populations the hardest. These impacts will affect different populations and demographics in different ways and must be considered. Reduced fossil fuel dependence requires changes to our daily mobility, heating and waste management choices that are often new costs beyond the reach of many in our community. The City's climate action programs and policies will have to carefully balance the need for change and avoid unintended consequences. Increased meaningful engagement and collaboration on climate change alongside other community priorities will help ensure that systems are managed in a manner to achieve the highest good.

<u>Section 2 – Climate Lens and Co Benefits Principles - Building on the Climate Leadership Plan</u>

The City's CLP includes 10 climate action principles that are intended to underpin all relevant City decisions related to climate change. In addition to these principles, the City has been drawing on several planning criteria that are felt to be most important when setting into action the next generation of integrated urban planning policies and programs, that aim to deliver on climate and other development priorities. This planning criteria set, reemphasises some of the most important climate principles applicable to this phase of climate action and city planning:

- Incentives and Disincentives (Carrots and Sticks): Ensure that regulatory or other disincentives are always accompanied by tangible benefits or sustainable alternatives, at or near program outset.
- 2. <u>'Get to Zero'</u>: Continue to aggressively move towards zero-emissions alternatives for all energy services/systems. Promote, incentivize, advocate, regulate or nudge to zero-emissions for buildings, mobility, energy and waste sectors.
- 3. <u>Polluter Pay</u>: Polluters have a responsibility to pay for their pollution and waste, which should not be socialized across community.
- 4. <u>City Leadership by Example</u>: In order to inspire change, the City should clearly be a leader in zero-emissions buildings, mobility and waste management. The City may need additional supports from higher levels of government to set impactful GHG programs and policies. The City should also been seen as an exemplary partner and leader in regional decision making, at the CRD or the BC Transit planning, via the regional transit commission, to name a few.

Section 3 - Recommended Changes to the Official Community Plan

The City's Official Community Plan was adopted in July 2012 and is a high-level visionary document intended to guide subsequent City decisions, especially in relation to land use and planning. The OCP includes broad objectives of sustainable living, and commits the City to be an "urban sustainability leader", while "confronting the changes facing society and the planet today and for generations to come". Section 12 of the plan outlines broad climate goals, with themes of resilience, reduced building and mobility emissions, reduced fossil fuel dependence, improved energy efficiency, reduced waste streams and impacts, and a switch to clean and renewable energy. However, our understanding of climate change, specifically the urgency of the need to address it, has changed significantly since 2012.

The 2018 Climate Leadership Plan was adopted by Council, which strengthens and quantifies many of the broad OCP objectives into time based, specific targets, which have yet to be included in the OCP. The OCP outlines a single greenhouse gas reduction target of 33% reduction from 2007 levels, and states the dependence on "compact and complete urban development that supports alternative modes of transportation, renewable energy and heating systems, and better performance in new and existing buildings" (page 91). The OCP Section 12 also highlights the need for new policies, targets and actions required to deliver climate mitigation and adaptation.

The City has taken action on climate change and is well underway in delivering improvements in infrastructure upgrades, active transportation network and mobility enhancements, waste management initiatives and other key programs. The City is still poised to fall short of the initial 2020 target in the OCP. By 2017, emissions were down by only 7%, and if we continue on this trajectory we would likely only reach slightly better than 32% GHG reductions by mid-century. In many areas, the OCP's general wording is from a time of reduced climate action understanding and awareness. Adding new language to clarify directions and approaches will be required to deliver the pace and scale of required change.

- 1. New Climate Greenhouse Gas Mitigation and Adaptation Targets: The CLP formally adopted several new targets and timelines in 2018, for buildings, transportation, waste and corporate emissions reduction. These targets and new climate directions from Council should be incorporated into a revised Chapter 12, to reflect the latest information and City policy direction.
- 2. <u>Climate Action Integration with Urban Planning and Service Delivery</u>: Each time we amend the OCP in the future, we should consider the Climate Lens and required wording or directions in the section under review.
- 3. Complete, Compact and Low Carbon Communities: Ongoing OCP implementation and commitments are required to strengthen action that will make our communities more walkable, dense and complete. A full suite of mixed use, geographic proximity to amenities and other directions are required to help urban planners and decision makers make careful trade-offs between competing priorities that maximize climate, affordability and other objectives.
- 4. <u>Development Permit Areas (DPA)</u>: Consider introduction of new DPAs to drive meaningful greenhouse gas reductions, energy efficiency and water conservation.

Section 4 - Accelerated Change Areas

Many actions can improve several development priorities at the same time, while discrete initiatives that aim to focus primarily on improving climate outcomes are covered mainly by the CLP. The actions that aim to deliver co-benefits across the city's range of objectives are highlighted in the tables below.

1. City Business and City Leadership

No.	ITEM	TASK / OBJECTIVE	PRIORITY ACTIONS	LEAD DEPT
1.1	Committee Report – Climate Impact Statement	Greenhouse gas reductions and adaptation considerations are part of major City development, budget and planning decisions.	Develop a set of guidelines for a climate mitigation / adaptation impact assessment for all Council reports (in conjunction with	EPW

			ongoing impact statement planning).	
1.2	Climate Policy	Introduce a formal policy to operationalize the Climate Lens and approaches.	City Policy for Council's consideration	EPW
1.3	Projects and Procurement	Assess and consider greenhouse gas and climate adaptation impacts for all City projects.	Commence developing tools and guidelines for City capital project planning, Project Management Framework and procurement tools.	EPW
1.4	Advocacy – Community Charter Article 9	Advocate to the Provincial Government for clarification of concurrent jurisdictional authority for climate change issues.	Submit formal request to the Provincial Government	Council / Staff*
1.5	Advocacy – Regional Rapid Transit	Formally commit and commence planning for rapid transit as a regional infrastructure priority	Regional Mayors' task force	Mayor / Council / Staff
1.6	Advocacy - Community Emissions Reductions	Create a formal community leaders group to influence a high level of climate action.	Partnerships / Coalition	Mayor / Council / Staff

^{*}Note: "Staff" in these tables refers to technical / subject matter staff support or direct staff liaison with counterparts in different organisations.

2. Planning, Development and Land-Use

No.	ITEM	TASK / OBJECTIVE	DELIVERABLE	LEAD DEPARTMENT
2.1	OCP Amendments	As described above	Report, public consultation and draft bylaw	SPCD
2.2	Development Permit Areas (DPA)	Introduce DPA for the City to address energy and water conservation, tree protection, greenhouse gas reduction and climate resilience.	Initiate planning and process development.	SPCD
2.3	Development Approval Information	Introduce requirements for impact information on development activity	Initiate planning and process development.	SPCD
2.4	Preferential Approvals	Incentivise coincidental realization of multiple objectives, including climate, in a preferential approvals process.	Initiate planning of process changes and incentive package.	SPCD
2.5	Home Oil Fuel Storage	Implement an incentive program for existing tank removals	Program and Bylaw for Council's consideration.	EPW VFD

		Prohibit or restrict new oil tank installations from building heating systems.		
2.6	Natural Gas Safety Review	Partner with utility to understand safety and environmental hazards and controls related to local fossil natural gas systems.	Meet with Utility and/or Province	EPW, VFD

3. Mobility and Transportation Management

No.	ITEM	OBJECTIVE	PRIORITY ACTIONS	LEAD DEPARTMENT
3.1	Parking and Curb Management	Incent zero-emissions and more sustainable mobility choices as part of rights of way allocation, enhanced parking incentives and restrictions.	Develop plan and commence review of Bylaws	EPW, Parking Services
3.3	Transportation Demand Management	Require large developments to incorporate transportation demand management strategies to reduce public parking pressures.	Initiate development of guidelines, policy updates and plan.	SPCD and Bylaw
3.4	Noise Bylaw Amendment	Systematically reduce noise in community and along busy transportation / development / industry corridors.	Initiate a review of the Noise Bylaw considering combustion engine noise sources	EPW

OPTIONS AND IMPACTS

The adoption of the Climate Lens will change the way decisions are made by the City, and how we make important considerations and trade offs across multiple and often competing priorities. Additional tools, understanding and time will be required to operationalize climate action in new areas of City planning and program delivery.

If Council supports the new directions of the Climate Lens and the suite of priority actions listed above, decisions will be required to allocate resources to commence implementation at the pace deemed appropriate by Council.

The options presented to Council for consideration are as follows:

Option 1: Commence work in 2020 and develop the necessary resource assessments to complete priority work phases as part of the 2021 financial planning process, as outlined in detail in section 4 of the report (*recommended*):

In several cases, these projects can be accomplished using existing City resources. In other cases, staff will only be able to initiate work, which will include scoping exercises to define the required resources to complete the work in appropriate timelines. Under this option, staff will continue planning and assess the necessary resources to complete these actions, which will be considered as part of the 2021 financial planning process.

Option 2: Defer the above priority work and complete additional planning and resource assessments to consider the deferral of other work in place or combination with staffing and consultant support.

Option 3: Accelerate this work. Under this option, staff would have to assess any proposed timelines and their impact on other priority work, and options to mitigate. Further assessment of this option would require additional clarity and direction from Council.

Official Community Plan Consistency Statement

The application of the Climate Lens seeks to achieve synergies and efficiencies across multiple community priorities and objectives that aim to deliver improved community well-being. Climate action and the themes raised throughout this report are generally supported by section 12 of the OCP; however, as noted above, amendments to section 12 of the OCP are required to reflect the improved understanding of the climate emergency.

2018 - 2022 Strategic Plan

Application of the Climate Lens aims to address shared objectives across the entire Strategic Plan, through the lens of Objective 6.

Climate Leadership Plan Consistency Statement

The approach and actions recommended in this plan are consistent with the CLP to take "bold and precautionary action at the earliest opportunity is the only reasonable response to minimise [climate] risks" and to meet the primary principle of the CLP for the City to "lead and inspire" change.

Impacts to Financial Plan

The recommended approach can be accommodated within the current work plan using existing resources. Any advancement of these actions/project areas would have to be considered against financial and staff resource.

CONCLUSION

The Climate Lens is a new planning perspective and consideration to help operationalize greenhouse gas mitigation and build adaptation requirements across all City programs, projects and services. The application of this lens will likely help achieve other important City priorities, that until now, may not have justified priority action / intervention. The integration of the Climate Lens across all City decision making can increase resource efficiency if done well, with other complementary objectives in mind. Additional resources would be required to deliver on this new set of priorities, which represent important but additional priorities on top of the work already being progressed by staff.

Respectfully submitted

Fraser Work

Director Engineering and Public Works

Chief Sustainability Officer

Report accepted and recommended by the City Manager:

Date: