COMPARISON TABLE: "CLIMATE CHANGE MITIGATION AND ADAPTATION" SECTION

Current Electoral Area Official Community Plan (OCP) Bylaw No. 2450, 2008

Proposed Electoral Area Official Community Plan (OCP) Bylaw No. 2905, 2021

19.0 GREEN HOUSE GAS REDUCTION

19.1 Background

The scientific community has a general consensus that the increasing emissions of human-caused greenhouse gases (GHG) are rapidly changing the earth's climate. Greenhouse gases refer to any or all of carbon dioxide, methane, nitrous oxide, hydro fluorocarbons, perfluorocabrons, sulphur hexafluoride and any other substance prescribed by regulation. Globally, the impacts of climate change will be significant, and are already evident in some areas. Locally, the potential impacts and vulnerabilities are less well documented; however they are a growing concern. As one of 175 local governments that are signatory to the B.C. Climate Action Charter, the RDOS is committed to reducing GHGs and has agreed to take actions to achieve certain goals. In order to address growing concerns regarding climate change, B.C.'s Local Government Act was amended in 2008 to require all Official Community Plans to set targets for the reduction of greenhouse gases, as well as policies and actions to achieve the targets in accordance with Provincial Bills 44, 27, and the Climate Action Charter.

21.0 CLIMATE CHANGE MITIGATION AND ADAPTATION

21.1 Background

The scientific community has reached consensus that the increasing emissions of human-caused greenhouse gases (GHGs) are rapidly changing the earth's climate. Greenhouse gases refer to any or all of carbon dioxide, methane, nitrous oxide, hydro fluorocarbons, perfluorocarbons, sulphur hexafluoride and any other substance prescribed by regulation.

Globally, the impacts of climate change will be significant, and are already evident in some areas. Locally, the potential impacts and vulnerabilities are less well documented; however, they are a growing concern.

As one of 187 local governments that are signatory to the B.C. Climate Action Charter, the RDOS is committed to reducing GHGs and has agreed to take actions to achieve certain goals. Under the *Climate* Change Accountability Act, B.C.'s GHG emissions are to be reduced by at least 40% below 2007 levels by 2030, at least 60% below 2007 levels by 2040 and by at least 80% by 2050. The three areas where local government can play a role in reducing greenhouse gas emissions are in the transportation, waste management and building sectors.

The three Okanagan regional districts commissioned a climate change report to assist in medium- and longterm planning. The February 2020 report, termed Climate Change for the Okanagan Region, provided information on anticipated climate change for the medium-term future (2050s) and the long-term future (2080s).

In the past, the Okanagan region experienced just under a week per year, on average, of days above 30°C. By the 2050s, the region can expect an average of over three weeks above 30°C per year and over five weeks per year by the 2080s. The valley bottoms are projected to experience the greatest changes, with approximately 50 additional days above 30°C projected by the 2080s, compared to the past.

In the past, the coldest winter night for the Okanagan region was about -25°C. By the 2050s, the coldest night is expected to warm by 6°C to -19°C, and by the 2080s, temperatures are projected to warm by 10°C to -15°C. While the coldest night is projected to warm in all seasons, the coldest night in winter is projected to warm more rapidly than other seasons.

The largest precipitation increases are expected to occur during the spring and autumn months with between 10% and 20% more precipitation during these seasons by the 2080s. Summer will remain the driest season and become even drier. By the 2080s, the region can expect about one quarter less precipitation than in the past. Natural year-to-year variation could result in some years experiencing extended periods without (or with low) precipitation.

For the Okanagan as a whole, climate change is anticipated to cause far-reaching impacts and generate new risks. This includes heat waves and droughts and reduced precipitation, combined with warmer summer temperatures, which will likely result in the depletion of water resources, loss of wetlands, stress on local fisheries, and depletion of aquatic species. Warmer winters will on average result in less snow accumulation on the valley uplands, reducing water availability and increasing the need for water storage. Groundwater and aquifer recharge will also be compromised as drought conditions increase. Warmer temperatures will

COMPARISON TABLE: "CLIMATE CHANGE MITIGATION AND ADAPTATION" SECTION

	also enhance the potential for invasive species, pests, an such as flooding, wildfires, and landslides will increase in
 19.2 Objectives 1 Understand the likely impacts and vulnerabilities of regional climate change within Electoral Area "A". 2 Reduce greenhouse gas emissions measurably within Electoral Area "A". .3 Achieve carbon neutral local government operations by 2012. .4 Promote and provide community outreach and education related to Climate Change and reduction of Greenhouse Gas Emissions. 19.3 Policies The Begional Board: 	 such as flooding, wildfires, and landslides will increase in 21.2 Objectives Understand the likely impacts and vulnerabilities of Reduce GHG emissions within the Plan Area as per Accountability Act. Achieve carbon neutral local government operation Promote and provide community outreach and edu GHG emissions. 21.3 Policies The Regional Board:
 1. Will work towards the target of reducing GHG emissions by 30% below 2007 levels by 2030. 2. Will work with other agencies, stakeholders and the community to achieve emission reduction targets and energy conservation goals by encouraging: a) the construction of energy efficient buildings; b) improvements to the energy efficiency of existing buildings; c) the increased use of alternative energies; d) energy efficient developments; e) improvements to alternative transportation amenities; f) the use of fuel-efficient vehicles; g) reduction and diversion of waste from landfills; h) maximizing value from agricultural wastes; i) the development of more compact and complete communities; j) the protection and restoration of natural areas and forest ecosystems; and k) the protection of riparian areas and sensitive habitats. 3. Will work towards a corporate GHG reduction strategy to achieve carbon neutral operations by 2012. 	 1 Will work towards the target of reducing GHG emise 2040 and 80% by 2050 as per the <i>Climate Change A</i> 2 Will work with other agencies, stakeholders and the and energy conservation goals by encouraging: a) the construction of energy efficient buildings b) improvements to the energy efficiency of exit c) the increased use of alternative energies; d) energy efficient developments; e) improvements to alternative transportation at f) the use of fuel-efficient vehicles; g) reduction and diversion of waste from landfil h) maximizing value from agricultural wastes; i) the development of more compact and comp j) the protection and restoration of natural are k) the protection of riparian areas and sensitive .3 Supports continuing public education as essential to mitigation. .4 Will work towards a corporate GHG reduction strates and sensitive construction that goes above and beyond the required and the required and the set of the s

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as an optional compliance path in the BC Building ive or requirement for energy efficiency in new irements of the BC Building Code.

COMPARISON TABLE: "CLIMATE CHANGE MITIGATION AND ADAPTATION" SECTION

- .6 Encourages builders to use the performance approach in the BC Energy Step Code as a compliance path to meet or exceed the energy-efficiency requirements of the BC Building Code.
- Support innovative building technology that improves energy conservation such as the installation of .7 energy efficient appliances and alternative energy systems, alternate siting of buildings, the use of solar panels to maximize passive solar gain, heat exchange pumps and insulation standards that exceed the BC Building Code.
- Encourages homeowners to retrofit existing homes to become more energy efficient and to reduce .8 their carbon footprint.
- .9 subdivision proposals and building designs that take passive solar power potential into consideration.
- .10 Encourage builders to exceed the current energy conservation standards of the BC Building Code as provided in the Energy Step Code using either "prescriptive" or "performance" approaches to comply with the code's efficiency requirements.
- .11 Supports current initiatives to enhance energy conservation such as the BC Energy Step Code, and Passive House standards for building and site design and construction.
- .12 Encourages the Province to update its Climate Action Plan Thompson / Okanagan Region 2016 2018 to better understand what actions the RDOS can take to improve community-wide resiliency to climate hazards.
- .13 Supports ongoing public education to help residents understand changing risks posed by climate change (e.g., drought, heat waves, flooding, wildfire) and take actions to address them and improve community resiliency.
- 14 Supports working with Interior Health to educate residents on climate change and to help reduce the health impact heat can have on residents through the development of a Heat Alert and Response System.

Encourages applicants for subdivision and new building construction consider the orientation of lots in