

October 31, 2023



Regional District of
Kootenay Boundary

Official Community Plan Bylaw No. 1855

Electoral Area C/
Christina Lake

Draft Version 5

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Adopted by
The Regional District of Kootenay Boundary Board of Directors
XXDATEXX

Acknowledgments

In the spirit of respect, truth and reconciliation, we honour and thank the Indigenous Peoples on whose traditional and unceded lands we operate.

Many individuals were involved in creating this revised Electoral Area C/Christina Lake Official Community Plan. Regional District of Kootenay Boundary Planning and Development Department staff worked with a dedicated Official Community Plan Steering Committee who spent countless hours reviewing staff reports related to various aspects of the Plan, reviewing drafts and attending public meetings. The Official Community Plan Steering Committee members were:

- Dave Bartlett
- Butch Bisaro
- Dave Durand
- Lewis George
- Randy Gniewotta
- Jennifer Horahan
- Grace McGregor, Director for Electoral Area C/Christina Lake
- Phil Mody
- Rupert Oldroyd
- Jeff Olsen
- Kathy O'Malley
- Suzanne Paquette
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- Annie Rioux
- Jeff Sim
- Ken Stewart
- Josh Strzelec
- Jason Patrick Taylor
- Dianne Wales
- Donna Wilchynski

Electoral Area C/Christina Lake residents and property owners provided valuable input through survey responses, individual meetings and telephone conversations, and by attending workshops and open houses.

Regional District of Kootenay Boundary

Electoral Area C/Christina Lake Official Community Plan Bylaw No. 1855, 2023

A Bylaw to provide land use regulations for Electoral Area C/Christina Lake of the Regional District of Kootenay Boundary:

WHEREAS under the provisions of Section 472 of the *Local Government Act* the **Board** may adopt one or more Official Community Plans for one or more areas;

AND WHEREAS, under the provisions of Section 477 of the *Local Government Act*, the **Board** must adopt a community plan by bylaw, and, following adoption of such a bylaw, the community plan is an Official Community Plan;

AND WHEREAS the **Board** has had prepared a community plan, such community plan being expressed in text and maps;

AND WHEREAS the **Board**, in compliance with Sections 475 and 476 of the *Local Government Act*, considered and provided several opportunities for consultation with persons, or organizations and authorities it considered would be affected;

NOW THEREFORE the **Board** of Directors of the Regional District of Kootenay Boundary, in open meeting assembled ENACTS AS FOLLOWS:

1. This Bylaw may be cited for all purposes as "Electoral Area C/Christina Lake Official Community Plan Bylaw No. 1855, 2023".
2. The attached Schedule "A" is hereby adopted as the Electoral Area C/Christina Lake Official Community Plan.
3. The Regional District of Kootenay Boundary Electoral Area C/Christina Lake Official Community Plan Bylaw No. 1250, 2004 and all amendments is hereby repealed.

READ A FIRST time this ____th day of ____, 2023.

Board consideration of Section 477 of the *Local Government Act* this ____ day of ____, 2023.

READ A SECOND time, as amended this ____th day of ____, 2023.

PUBLIC HEARING held this ____th day of ____, 2023

READ A THIRD TIME this ____th day of ____, 2023

ADOPTED this ____th day of ____, 2023

Manager of Corporate Administration

Chair

I, Anitra Wenje, Manager of Corporate Administration of the Regional District of Kootenay Boundary, hereby certify that this is a true and correct copy of Bylaw No. 1855, cited as the "Regional District of Kootenay Boundary Electoral Area C/Christina Lake Official Community Plan Bylaw No. 1855, 2023".

Manager of Corporate Administration

Date

Schedule 'A'

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1. Introduction

1.1 Definitions

In this Bylaw all words or phrases have their normal or common meaning with the exception of those that have been changed, modified or expanded by the definitions below. For convenience only, terms for which a definition has been provided are periodically highlighted in ***bold italic*** text throughout the document.

AGRICULTURE means farm use as defined in the *Agricultural Land Commission Act* and its regulations, as amended;

BLUE-LISTED means indigenous species, subspecies or ecological communities considered to be of special concern (formerly vulnerable) in British Columbia. Elements are of special concern because of characteristics that make them particularly sensitive to human activities or natural events. Blue-listed elements are at risk, but are not extirpated, endangered or threatened;

BOARD means the Board of Directors of the Regional District of Kootenay Boundary;

COMMUNITY WATER SYSTEM means a water supply system within the meaning of the *Drinking Water Protection Act*, as amended, that is owned, operated and maintained by local government, Improvement District, Irrigation District, utility, an incorporated entity, or a water users' community, as defined in the *Water Users' Communities Act*, as amended, where the owner is responsible to manage and monitor to current best water management practices and has the ability to set rates, invoice or has taxation ability to collect fees or revenue to ensure the viability of the water supply system to provide potable water;

COMMUNITY WATERSHED means the drainage area that is upslope of the lowest point from which water is diverted for human consumption by a licensed waterworks. This designation is issued by the Minister responsible for the *Land Act* in accordance with regulation and include those such designations existing at the time of *Forest Practice Code of British Columbia Act* repeal that have not otherwise been rescinded.

COMMUNITY WIDE GREENHOUSE GAS EMISSIONS mean greenhouse gas emissions that occur as a result of the activities of residents and businesses in the community which the local government cannot directly control, but may be able to influence through planning and program activities;

CORPORATE GREENHOUSE GAS EMISSIONS means those greenhouse gas emissions that the local government creates through its activities (and which it has control over) such as local government building operations, recreation centres, vehicle fleets, and utility services;

ECOSYSTEM SERVICES mean the conditions and processes through which natural ecosystems (and the species that make them up) sustain a flow of direct and/or indirect benefits to people. They include the benefits resulting from ecosystem processes (e.g., flood management, nutrient cycling, water filtration and climate regulation) as well as sociocultural benefits (e.g., recreation, aesthetics, cultural heritage, and practices).

PLAN means this Official Community Plan for Electoral Area C/Christina Lake;

PLAN AREA means all lands, including the surface of water within Electoral Area C/Christina Lake, whose boundaries are described in the letters patent of the Regional District of Kootenay Boundary;

RED-LISTED means any indigenous species, subspecies, or ecological community that is extirpated, endangered, or threatened in British Columbia. Extirpated elements no longer exist in the wild in British Columbia but do occur elsewhere. Endangered elements are facing imminent extirpation or extinction. Threatened elements are likely to become endangered if limiting factors are not reversed;

REGIONAL DISTRICT means the Regional District of Kootenay Boundary.

1.2 **Purpose and Required Content**

The Electoral Area C/Christina Lake Official Community Plan (**Plan**) has been established under the authority of the Province of British Columbia's *Local Government Act* for the **Plan Area**. Land use planning, including the preparation of this OCP, is one of the tasks assumed by the **Regional District**. Electoral Area C/Christina Lake is an unincorporated portion of the **Regional District** surrounding Christina Lake, including a portion of Gladstone Provincial Park to the north and south to the border with the United States of America. This OCP replaces a prior one that was adopted in September 2004.

The purpose of an OCP is to address an array of long-term land use planning issues. The OCP includes objectives and policies to guide local government's decisions on planning and land use management within the area covered by the OCP. The *Local Government Act* s. 473 requires that an OCP contains the following:

- The approximate location, amount, type and density of residential development required to meet anticipated housing needs over a period of at least 5 years;
- The approximate location, amount and type of present and proposed commercial, industrial, institutional, agricultural, recreational and public utility land uses;
- The approximate location and area of sand and gravel deposits that are suitable for future sand and gravel extraction;
- Restrictions on the use of land that is subject to hazardous conditions or that is environmentally sensitive to development;
- The approximate location and phasing of any major road, sewer, and water systems;
- The approximate location and type of present and proposed public facilities, including schools, parks, and waste treatment and disposal sites;
- Policies respecting affordable housing, rental housing and special needs housing; and
- Targets for the reduction of greenhouse gas emissions in the area covered by the Plan, and policies and actions of the local government proposed with respect to achieving those targets.

1.3 **Plan Preparation**

The **Plan** is based on material and information derived from a variety of sources. A Steering Committee made up of the members of the Electoral Area C/Christina Lake Advisory Planning Commission and others was formed during the initial stage of the review process. In addition, an introductory open house was held in October 2017 and a survey was mailed to all property owners in the spring of 2018. Survey results were presented to the public at an open house in August 2018. Two Open Houses were held in 2022 on June 16 and August 11 asking for input from the public on proposed policies. A fourth Open House was held on July 5, 2023, for public input on Development Permit Areas.

It is recognized that this **Plan** could not be prepared independently of the interests of the Province, adjacent local governments, First Nations, and other agencies. A draft **Plan** was referred to these other levels of government prior to being introduced to the **Board** including: Interior Health; Ministry of Transportation and Infrastructure; Ministry of Environment; Ministry of Energy and Mines; Ministry of Agriculture; Ministry of Forests, Lands and Natural Resource Operations; School District #51; Sutherland Creek Waterworks District; Regional District of Central Kootenay; North Okanagan Regional District; the Agricultural Land Commission; and the Okanagan Nation Alliance including the Lower Similkameen Band, the Osoyoos Band, and the Penticton Band.

The *Local Government Act* requires that all bylaws enacted by the **Board** and any Improvement District after this **Plan** is adopted must be consistent with the **Plan**. With this objective in mind, Sutherland Creek Waterworks District was included in the review process and communication will continue to ensure that the **Plan** and their servicing goals are compatible.

The survey results, consultations with the Steering Committee, the **Board** and public have all generated sufficient information to indicate that the objectives and policies contained in this **Plan** largely represent the community's aspirations and indicate how they can be realistically achieved.

1.4 **Interpretation**

This **Plan** defines the position of the **Board** on various local issues, which in some cases involve the actions or policies of other agencies or governments. As such the **Plan** will inform discussion with the Province. It is the **Board's** role to ensure that the values in the **Plan** are expressed through the referral system.

The **Plan** consists of text, a land use map (Map 1) and ten additional maps. The text contains a community overview, the overriding principles that guided the creation of the **Plan**, objectives, and policies with respect to land uses, and a description of the implementation process. Also, sections 21-24 contain development permit requirements.

Several Provincial and Federal Acts and regulations pertaining to resource extraction or land use activities supersede local government's authority on both public and private lands. These include but are not limited to the *Mines Act*, the *Coal Act*, the *Mineral Tenure Act*, the *Agricultural Land Commission Act*, *Farm Practices Protection Act*, the *Forest Act*, the *Ministry of Forests Act*, the *Forest and Range Practices Act*, and the *Private Managed Forest Land Act*.

While most agencies responsible for managing publicly owned lands and resources have review processes which are used to address the public interest in these matters, the final decisions rest exclusively with senior governments. The *Local Government Act* only permits a Regional District to express broad objectives with respect to areas of Provincial jurisdiction in an OCP.

1.5 **Review and Amendment of the Plan**

This **Plan** is intended to act as a guide for development within the **Plan Area** until approximately the year 2033, and beyond, until repealed and replaced. The **Plan** is not intended to be a final or rigid document. Although efforts have been made to

anticipate most situations that could arise over the next ten-year period, new information and changing circumstances should be continually monitored to ensure that the application of the **Plan** continues to be current at any given time.

Revisions to the **Plan** must be made by bylaw in accordance with the provisions of the *Local Government Act*. Individuals requesting revisions to the **Plan** with respect to their land must apply to the **Regional District**.

DRAFT

2. Community Overview

2.1 Geography and Ecology

The **Plan Area** is 530 square kilometers in size, which comprises a little under 7% of the **Regional District** lands. The population of Electoral Area C/Christina Lake is 1,627 (2021 Census), however the population increases in the summer months, as many property owners are seasonal residents, along with an increase in visitors.

This land is within the territory of the Syilx (Okanagan) Peoples, including the Lower Similkameen, Osoyoos, and Penticton bands. These First Nations are members of the Okanagan Nation Alliance. The Sinixt Peoples' traditional territory also includes Christina Lake.

The **Plan Area** is bordered by the Regional District of the Central Kootenay to the northeast, the Canada-US border to the south, the Rossland Range and Electoral Area B/Lower Columbia-Old Glory to the east, and the Christina Range and Electoral Area D/Rural Grand Forks to the west. The **Plan Area** is approximately 36km from north to south and approximately 20km at its widest point.

Christina Lake has an average depth of 37 metres and a median width of 600 metres. The lake is oriented in a north-south direction and is characterized as long and narrow with a steep U-shaped, glacially carved bottom¹. There are 42 streams which inflow to Christina Lake; McRae, Sutherland, Sandner and Texas Creek are the largest contributors. The only outflow is Christina Creek which is located in the southeast corner of the lake. Christina Creek feeds into the Kettle River which flows south, over the US Border. Elevations within the **Plan Area** range from 440m above sea level at the mouth of Christina Creek to 2,240m at the northeast corner in Gladstone Park.

There are three Provincial Parks within the boundaries of Electoral Area C/Christina Lake: Gladstone, Gilpin Grasslands and Christina Lake Provincial Park, which cover 206 km², 4.5 km² and 0.06 km², respectively, approximately 40% of the **Plan Area**.

Christina Lake tends to experience hot dry summers and mild, damp and snowy winters. Based on modelled climate information for Christina Lake Park, summers have a mean daily temperature ranging between 11.1°C and 28.2°C, with temperatures regularly peaking higher than 30°C. The precipitation for the summer months is 116mm. The mild winters have temperatures ranging from -1.6°C to -4.3°C with temperatures occasionally dropping lower than -10°C. Winter months normally receive 144mm of precipitation.²

The area is predominantly in the Englemann Spruce-Subalpine Fir (ESSF), Interior Cedar-Hemlock (ICH), and Interior Douglas-fir (IDF) biogeoclimatic zones. The

¹ Christina Lake Water Quality Assessment and Objectives. Water Quality Branch, Environmental Protection Department. Ministry of Environment, Lands and Parks, Province of British Columbia. Cavanaugh, Nordin, and Bryan. 1994. Pages 18, 106.

² <https://www.climatewna.com/> for Christina Lake, elevation 463m, using normal 1991-2020 modelling.

Englemann Spruce Subalpine Fir zone occurs in the highest forested elevations in British Columbia, where the climate is colder and snowy for five to seven months of the year. Interior Cedar-Hemlock zones tend to be defined as having cooler and wet winters, with warm and dry summers, experiencing higher amounts of precipitation compared to the other Biogeoclimatic Ecosystem Classification (BEC) zones in the region. These are highly productive forests and provide good habitat for grizzly and black bears. Forest fire plays an important role in the drier portions of this zone, with infrequent occurrences in the wetter regions. The Interior Douglas Fir (IDF) zone occurs at lower elevations, where it tends to be hotter and drier. This zone provides habitat to several rare species, some that are threatened by extirpation. Following the update of the Provincial Field Guide to Ecosystem Classification and Identification (MacKillop, et al., 2021) the Ponderosa Pine (PPxh3) BEC zone within the Boundary Region has been incorporated into the IDF, specifically IDFx1.

A number of rare flora and fauna have been observed in the **Plan Area** including **blue-listed** and **red-listed species**. Areas where these observations have occurred are shown on Map 5. Table 2-1 below, lists sensitive species found in the **Plan Area**, some of which do not have corresponding points on Map 5:

Table 2-1: Red and Blue-Listed Species in Plan Area

Type	Common Name	Scientific Name	BC Classification	Federal Species at Risk	BEC Zone
Plant	Hind's Willow	<i>Salix exigua</i> var. <i>hindsiana</i>	Red	-	-
Insect	Olive Clubtail	<i>Stylurus olivaceus</i>	Red	Endangered	-
Insect	Emma's Dancer	<i>Argia emma</i>	Blue	-	IDFdh
Insect	River Jewelwing	<i>Calopteryx aequabilis</i>	Blue	-	IDFdh
Insect	Western River Cruiser	<i>Macromia magnifica</i>	Blue	-	IDFdh
Insect	Western bumblebee	<i>Bombus occidentalis</i>	Blue	-	IDFx1 IDFdh
Amphibian	Great Basin Spadefoot	<i>Spea intermontana</i>	Blue	Threatened	IDFx1
Ray-finned Fish	Umatilla Dace	<i>Rhinichthys umatilla</i>	Red	-	-
Ray-finned Fish	Columbia Sculpin	<i>Cottus hubbsi</i>	Blue	Special Concern	IDFdh
Ray-finned	Shorthead	<i>Cottus</i>	Blue	Special	-

Type	Common Name	Scientific Name	BC Classification	Federal Species at Risk	BEC Zone
Fish	Sculpin	<i>confusus</i>		Concern	
Ray-finned Fish	Speckled Dace	<i>Rhinichthys osculus</i>	Blue	Endangered	IDFdh
Reptile	Gopher Snake, Deserticola	<i>Pituophis catenifer deserticola</i>	Blue	Threatened; and Critical Habitat identified within Plan Area	IDFxx1 IDFdh
Reptile	North American Racer	<i>Coluber constrictor</i>	Blue	Threatened	IDFxx1 IDFdh
Reptile	Northern Rubber Boa	<i>Charina bottae</i>		Special Concern	IDFdh ICH
Reptile	Painted Turtle	<i>Chrysemys picta</i>	Blue	Special Concern	IDF, ICH
Reptile	Western rattlesnake	<i>Crotalus oreganus</i>	Blue	Threatened; and has critical habitat identified in the Plan Area	IDFxx1 IDFdh
Reptile	Western Skink	<i>Plestiodon skiltonianus</i>	Blue	Special Concern	IDFdh ICH
Bird	White-headed Woodpecker	<i>Dryobates albolarvatus</i>	Red	Endangered	IDFdh
Bird	Lark Sparrow	<i>Chondestes grammacus</i>	Blue	-	IDFxx1
Bird	Lewis's Woodpecker	<i>Melanerpes lewis</i>	Blue	Threatened	IDFxx1 IDFdh
Mammal	American Badger	<i>Taxidea taxus</i>	Red	Endangered	IDFxx1
Mammal	Bighorn Sheep	<i>Ovis canadensis</i>	Blue	-	-
Mammal	Grizzly Bear	<i>Ursus arctos</i>	Blue	Special Concern	ESSF ICH IDF

Red and blue-listed species and ecosystems are frequently being re-assessed for vulnerability and therefore their status can change from time to time. The most up to date list for this area can be found at the BC Species and Ecosystems Explorer.

Other species of interest in this area that have habitat in the area, but do not have a specific recorded siting within the **Plan Area** are listed below in Table 2-2.

Table 2-2: Species of Interest in the Plan Area

Type	Common Name	Scientific Name	BC Classification	Federal Species at Risk
Amphibian	Western Tiger Salamander	<i>Ambystoma mavortium</i>	Red	Special Concern
Amphibian	Coeur d'Alene Salamander	<i>Plethodon idahoensis</i>	Blue	Special Concern
Bird	Western Screech-Owl, <i>macfarlanei</i> subspecies	<i>Megascops kennicottii macfarlanei</i>	Red	Threatened
Bird	Flammulated Owl	<i>Psilosops flammeolus</i>	Blue	Special Concern
Bird	Great Blue Heron, <i>herodias</i> subspecies	<i>Ardea herodias herodias</i>	Blue	-

2.2 History

Many First Nation peoples had a presence throughout the **Plan Area** for thousands of years prior to contact with European settlers. Oral histories detail the relationship held with the land within the **Plan Area** and there are several archaeological sites – the physical evidence of how and where people lived in the past. These sites include stone artifacts, pictographs, culturally modified trees, trails and a canoe.

Archeological evidence of Indigenous peoples' use of the land, including hunting, fishing, gathering and ceremonial practices, date back 9,550 years³.

³ Arcas, Consulting Archaeologists Ltd. Cascade Border Crossing Project: Assessment of Cultural Heritage Resources. 2004.

Many sites within the Christina Lake and Christina Creek drainage have been documented, though, Cascade Canyon is shown as one of the most significant in relation to extensive occupation and Indigenous use, antiquity, and yield of archaeological data⁴. Stone artifacts, pictographs, culturally modified trees, and trails have been documented in the **Plan Area**⁵. These sites are indicative of Indigenous settlement patterns of seasonal shoreline camps and resource use locations interconnected by trails which contribute to a widespread trail network linking the Columbia and Okanagan drainages.



Figure 1: Pictographs, eastern side of Christina Lake

The **Plan Area** also has a few sites important to post-contact history. The construction of the Dewdney Trail between the Pacific Coast and Wildhorse Creek in eastern Kootenays brought European fur traders to Christina Lake in 1865. Europeans settled at Christina Lake in the early 1890's as people were drawn to gold prospecting around Rossland to the east and Colville in the south. Around the same time, logging started in the area.

In 1896, the Canadian Pacific Railway constructed a line from the Columbia River at Castlegar to the Kettle River Valley to access new mineral discoveries in the Boundary Mining District located between Grand Forks and Greenwood⁶. The Columbia and Western Railway came from Castlegar to Farron, through Christina Lake and reached Grand Forks in September of 1899. The arrival of the railroad further encouraged settlement in Christina Lake area, including the construction of several hotels.

Agricultural settlement began in the Christina Lake region at the turn of the 20th century and provided locally grown supplies to the mining operations, in particular the Cascade townsite⁷. At this time, it was known as Cascade City and had approximately 1,000 residents. Cascade was booming in 1889 and was home to 14 motels. For many years, Cascade survived as a customs port.

⁴ Report of the Boundary Archaeological Survey: September 25, 1978-June 1, 1979. Michael A. Freisinger

⁵ Report of the Boundary Archaeological Survey: September 25, 1978-June 1, 1979. Michael A. Freisinger

⁶ Arcas, Consulting Archaeologists Ltd. Cascade Border Crossing Project: Assessment of Cultural Heritage Resources. 2004

⁷ Arcas, Consulting Archaeologists Ltd. Cascade Border Crossing Project: Assessment of Cultural Heritage Resources. 2004

The other important railroad to the area was the Great Northern. The line was built in 1901 and ran from Marcus, Washington, near Kettle Falls, crossing at Cascade customs and carried onto Grand Forks. A portion of this railway, from Kettle Falls to Grand Forks, is still running under the ownership of Kettle Falls Railway (Omnitrax).

The history of Christina Lake as a tourist destination dates to the 1920s when prohibition in the U.S. brought American visitors for the weekend to indulge in the saloons and beer parlors. The completion of the Rossland Cascade Highway at this time provided a direct route for vacationers from the Lower Columbia region. Also, the 1920's prohibition in the United States brought an influx of visitors from northeast Washington to the saloons and dancehalls in Christina Lake.

During the depression Christina Lake still attracted tourists, mostly vacationers from the surrounding areas including Rossland, Trail and Grand Forks.

In the early 1960's, Highway 3 connecting Castlegar to Christina Lake was completed, saving vacationers hours of travel time.

The **Regional District** was incorporated in 1966 and the first zoning bylaw for Christina Lake was introduced in 1978.

2.3 Land Use Patterns

Settlement in the **Plan Area** is clustered at the south end of Christina Lake, west of Highway 3. The Christina Lake Water Utility, owned and operated by the **Regional District**, provides community water to these residents. Other pockets of higher density residential use are Lavalley Point which is serviced by the Sutherland Creek Waterworks District and English Point which is partially serviced by the Christina Lake Water Suppliers Society. The other cluster of residential settlement is at the old Cascade Townsite. Cascade does not have a community water system and developed parcels are serviced by wells. Other more rural residential areas with water systems include the McRae Rd area, where the Deer Ridge Water Association is located, and the Fife Road area, where a number of properties are connected to the Fife Water Users Community system.

Most developed parcels not included in areas listed above are serviced by individual water systems connected to surface water or wells. This requires a more dispersed settlement pattern, so that water and septic systems can safely co-exist on the same parcel.

Commercial activities include retail stores, eating and drinking establishments, service stations, motels, and resort campgrounds. Commercial uses tend to be seasonal in nature, focusing on the summer tourism season. There are several seasonal resort commercial campgrounds which border Christina Lake; Christina Sands Estates, Kingsley's Resort/Christina Campers, Silver Birch, Skand's, and Willow Beach, located mostly on Lavalley Point and at the south end of the lake.

'Industrial' parcels are generally located off highway 395, near the Cascade Border crossing. Industrial activities include data mining, works yard, log sort yard and forestry. Two of the parcels designated for industrial use are currently being used for cannabis production.

'Institutional' uses include the Christina Lake Fire Hall, the Christina Lake School, and the Cascade Border crossing. These uses are located between the south end of the lake and the border with the United States of America.

A large portion of the **Plan Area**, around 92%, is publicly owned. Publicly owned land in the **Plan Area** is managed by the Provincial agencies and includes Provincial parkland, land next to rivers and lakes, and roads. Uses of publicly owned land administered by the Province include, for example, forestry and recreation including both commercial and non-commercial activities.

Tenures for timber harvesting cover approximately 180km² of the **Plan Area**. These tenures are held by BC Timber Sales and International Forest Products Ltd. (Interfor). There are also several woodlot licenses on publicly owned land.

A large portion of the **Plan Area** is within provincial parks. Gladstone Provincial Park covers approximately 39,000 hectares, the majority of which is in Electoral Area C, and extends around the north end of Christina Lake. Christina Lake Provincial Park, located at the south end, is a 6-hectare park. Gilpin Grasslands is another provincial park which is partially located in the **Plan Area**.

2.4 Population and Housing Demand

There was an overall increase in the populations of Electoral Area C/Christina Lake between the 1970s and the mid-1990s, with a more recent leveling out of the population. The population of the **Plan Area** was 1,337 in the 2016 census. The population of Electoral Area C/Christina Lake dropped 3% between 2006 and 2011 (2011 Census), a decrease of 44 people; the population also dropped 3.9% between 2011 and 2016 (2016 Census), a decrease of 54 people. The 2021 Census recorded a 21.7% increase in the population at Christina Lake, to 1627 people.

The 2016 Census marked the first year in Canadian history where more seniors were counted than children. In the Columbia Basin-Boundary region, these trends are compounded by the in-migration of retirees seeking the types of amenities that accompany rural living⁸. This trend continued into the 2021 census, with most of the population growth occurring in the 65 years of age and older portion of the population. There was some growth in the population between the ages of 15 and 64, which could indicate a small reversal of the previous trend of out-migration of younger adults.

Consideration for an aging population is relevant to this region where the senior population is projected to grow by 42% over the 20-year period between 2016-2035⁹. An aging population requires different considerations for regional housing solutions, recreation opportunities and healthcare provision than for a population characterized by younger demographics.

The median age of the Electoral Area C/Christina Lake population is 60 years, more

⁸ Overview of Demographics for the Columbia Basin-Boundary Region. Rural Development Institute Research Brief. Fall 2017.

⁹ Columbia Basin-Boundary Population Update. Rural Development Institute Research Brief. Spring 2017.

than 17 years higher than the Provincial median of 42.8 years (Census 2021). The majority of the Electoral Area C/Christina Lake population is Canadian born (92%). The median income in 2020 was \$67,500 compared to the Provincial median of \$85,000 (Census 2021).

The 2021 Census recorded 1400 private dwellings in the **Plan Area**, of which 797 are occupied by usual residents, as defined Statistics Canada¹⁰. On average, 12 new single family dwellings are constructed each year in the **Plan Area**, based on building permit stats from 2011 to 2021. Assuming the average of 12 single family dwellings constructed per year continues, 120 dwelling units could be constructed over the next 10 years, some of which will be replacing existing housing.

It is uncertain whether the current population and building trends will continue into the next 10 years, as trends that emerged in response to the global pandemic may have caused an out-migration from cities that may reverse post-pandemic.

At the time of the adoption of this **Plan**, there were approximately 215 vacant lots in Residential, Waterfront Residential, and Rural Residential land use designations. Approximately 120 of the vacant lots are designated Residential, 40 are Waterfront Residential and 55 are Rural Residential. Following the building trends discussed above, the vacant lots currently available would meet the anticipated construction trends and housing needs over at least 5 years.

The number of vacant lots may increase with a proposed subdivision of lands north of River Road that are planned to create over 30 new rural residential lots.

Based upon the projections for Electoral Area C/Christina Lake in RDKB's 2020 Housing Needs Report, there will be a decrease in demand for housing over the next ten years. This will be marked by smaller household sizes and a shift in demand towards smaller dwellings with 1-2 bedrooms. However, across Electoral Area C it is projected for there to be a drop in demand of 89 housing units across all housing types by 2031.

Activity in the real estate market in later 2020 and 2021 increased pressure on the housing market in the Boundary region. This period is not reflected in the 2020 Housing Needs Report. However, the census trends that indicated this drop in housing demand in 10 years' time, have continued, including an aging population. The Housing Needs Report indicated that this decrease in demand may be softened by the demand created through the growth of the cannabis industry in the area.

Some of the gaps in housing highlighted in the report are:

- Year-round market rental housing;
- Youth safe house;
- Workforce housing;

¹⁰ Private dwelling occupies by usual residents – refers to a private dwelling in which a person or a group of persons is permanently residing. From Statistics Canada; retrieved on September 19, 2023, at:

<https://www23.statcan.gc.ca/imdb/p3Var.pl?Function=Unit&Id=108091>

- Accessible seniors-oriented rental or ownership housing including independent and senior's supportive housing (may not be feasible in rural areas but a consideration for neighbouring communities that might absorb anticipated migration trends).

These gaps are further discussed in section 18 Affordable, Rental and Special Needs Housing.

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3. Guiding Principles

The principles that guided the creation of this **Plan** include:

- Encourage retention of natural beauty, viewsapes, protection of environmentally sensitive areas, and stewardship of natural resources, thereby ensuring long-term community stability and prosperity;
- Encourage compatible land uses by preventing further intrusion of incompatible land uses into rural resource and agricultural areas;
- Support the protection and enhancement of land that has value for agriculture and strive to minimize the opportunity for conflict between agricultural and other land uses;
- Promote the proper care and maintenance of private property and encourage the safe and quiet enjoyment of residential properties.
- Proposed development density should be appropriate to the available level of services;
- Support commercial development which is well designed and which provides safe and efficient access for vehicles and connectivity throughout the community for pedestrians.
- Promote responsible development and management of areas that have identified natural hazards e.g., floodplains, debris flow areas, rock fall hazard areas, and wildfire interface areas;
- Strive for a transportation system that safely and efficiently moves vehicles and people and includes alternatives to automobile traffic where feasible including trails, bicycle routes, and railway.
- Promote and protect the rural character of the **Plan Area**, while balancing the social, environmental and economic needs and encouraging development to blend with the natural landscape;
- Support affordable housing, rental housing and special needs housing to be met in a manner that is consistent with the rural nature of the **Plan Area**;
- Promote the protection of ground and surface water.
- Strive to provide a variety of recreation opportunities to encourage a healthy, active lifestyle;
- Foster an inclusive and engaged community;
- Develop a community that is accessible and inclusive to all age groups.

4. Greenhouse Gas Reduction and Climate Resilience

There is consensus that emissions of greenhouse gases from human activity are causing the climate to warm. The **Regional District** region is already experiencing hotter, drier summers; warmer, wetter winters and more extreme weather. In the future, precipitation is projected to increase across all seasons except summers which are anticipated to be drier. In addition to increased average precipitation, more intense and frequent precipitation is projected, making wet and very wet days even more extreme.

Climate change is causing changes to stream flows, reduced biodiversity, and more frequent, extreme, natural disaster events such as wildfires, floods, heat waves, and droughts. Effects include property damage, health impacts, reduction in tourism, less water available for irrigation, increase in general stress and anxiety, and impact on the natural environment.

Local governments play an important role in managing development, helping reduce greenhouse gas emissions and increasing climate resilience. Emissions are divided into two categories for local governments: **corporate greenhouse gas emissions** and **community wide greenhouse gas emissions**. The **Regional District** is a signatory to British Columbia's Climate Action Charter, committing to carbon neutrality¹¹ for its **corporate greenhouse gas emissions**.

The **Regional District** can influence **community wide greenhouse gas emissions** and support climate resiliency programs. Actions taken by the **Regional District** help increase communities' resilience to climate change. These actions include: watershed management; protection of and encouraging restoration of ecosystems and agricultural lands; protecting environmentally sensitive areas and connectivity between these areas; implementing water conservation measures; increasing knowledge of and avoidance of natural hazards; planning for active transportation corridors and compact communities; emergency management response; enforcing building code standards, and programs to support home resiliency and energy efficiency, among other actions. These actions support social and economic sustainability, food security and public safety.

On October 30, 2019, the **Board** declared a climate action imperative. The declaration recognizes that the **Regional District** and its communities are already facing significant impacts of climate change, including a greater intensity and frequency of floods, forest fires, droughts, and storms. The declaration also recognizes the immediate need for bold climate action at all levels of Government including global efforts to mitigate and adapt to climate change.

¹¹ Carbon neutrality means that the operation of the local government will result in no net greenhouse gas emissions to the atmosphere.

In response to this Climate Action Imperative, the **Regional District** has prepared a five-year Climate Action Plan (CAP) that was approved by the **Board** on October 12, 2022. The CAP sets a vision and targets for 2030 and 2050 and identifies goals and actions to reach them for climate and energy action.

The **Regional District's** CAP provides the vision and targets for climate and energy action for the whole of the RDKB. The following vision is from the CAP:

- To create a region that provides opportunities and access for everyone to live, work and play in a low carbon manner.
- To work together to create a resilient and sustainable community that enables residents and businesses to adapt to our changing climate, while protecting and enhancing our natural environment.

One key aspect of meeting our vision is to rapidly reduce GHG emissions, both in **Regional Districts** operations, and across the electoral areas. The **Regional District** has adopted the following targets:

- Reduce GHG emissions 40-50% by 2030, from 2007 emission levels.
- Net-zero GHG emissions by 2050.
- 100% renewable energy¹² by 2050.

Objectives

The objectives of the **Board** with respect to Greenhouse Gas Reduction and Climate Resiliency include the six climate action areas as identified in the Climate Action Plan (CAP) and are as follows:

- **Organizational Leadership:** To integrate climate action into all **Regional District** organizational decisions to build a resilient and sustainable community.
- **Buildings and Property:** To live and work in resilient, efficient and low carbon buildings that are comfortable and healthy. To work together to prepare buildings and property for the impacts of climate change.
- **Water and Waste:** To use water responsibly and efficiently and provide clean accessible water to residents and businesses while supporting the needs of our natural systems. To continue to work towards our goal of zero waste.
- **Transportation, Land Use and Infrastructure:** To provide our residents and businesses access to clean transportation options suited for rural living. To prepare our critical infrastructure for the impacts of climate change including enhancing our ecosystems.
- **Industry and Livelihoods:** To continue to develop a resilient and low carbon economy that offers access to supportive livelihoods for all residents, and where small businesses can thrive.

¹² Refer to the RDKB Climate Action Plan for the definition of Renewable Energy.

- Ecosystems: To protect the integrity and biodiversity of our local ecosystems for generations to come recognizing that local ecosystems and natural environments assist in adapting to changing climate.

Policies

The policies and actions of the **Board** with respect to Greenhouse Gas Reduction and Climate Resiliency are as follows:

- 4.1 Promote the 4 Rs of sustainable community energy planning; Reduce demand, Re-use waste heat, Renewable heat and Renewable electricity.
- 4.2 Implement the actions identified in the **Regional District's** CAP.
- 4.3 Promote low carbon, energy efficient and resilient building and retrofit standards, such as seeking opportunities to minimize the energy and resource requirements and increase resiliency of buildings and structures.
- 4.4 Promote and support the implementation of BC Energy Step Code and the Province's carbon pollution standard with the aim that all new buildings will be zero-carbon by 2030.
- 4.5 Promote zero emission and low carbon transport and vehicle infrastructure.
- 4.6 In implementing bylaw(s), advance electric vehicle readiness of new buildings, through such provisions as parking considerations.
- 4.7 Promote development that is done according to principles of complete community and climate resilience, including supporting densification in more urban areas where servicing is available.
- 4.8 Encourage and advocate for infrastructure improvements to ensure utilities are prepared for increased demands due to energy consumption shift to electricity, and emphasizing renewable energy supply, so to safeguard development potential for local businesses.
- 4.9 Further to the above policies, policies relevant to objectives of this section and actions identified in the 2022 CAP are included in other sections of the **Plan** listed as follows:

Section #	Policy
5.5	Explore creating a development permit area for floods, landslides and wildfire interface hazards. Consider areas where development should not be permitted due to hazard risk or in the case of wildfire interface, where development could be protected from potential impacts by landscaping, siting, form, exterior design and finish of buildings and other structures.
5.9	Provide residents with educational materials from the FireSmart program so that they may implement practices to reduce the risk of interface fire in the community.
11.7	Support the development of an active transportation plan that can plan for connectivity amongst the residential

	neighbourhoods of Christina Lake, and where feasible, connectivity to communities outside of Electoral Area C.
14.8	Support initiatives regarding water conservation measures including, but not limited to, the development of and distribution of educational materials concerning xeriscaping, water conservation irrigation practices and the use of permeable material for hard surfaces, such as driveways.
15.8	Work with utility providers to prioritize and increase the resilience of critical infrastructure at high risk from climate change.
16.4	Support organics diversion programs, including education, home composting and large-scale composting, aimed at reducing greenhouse gases and extending the life expectancy of the Grand Forks Landfill.
16.6	Strive to minimize the number of trips required by vehicles for garbage and recycling pick up services.
17.10	Encourage property owners to adhere to Fire Smart landscaping practices.
22	Inclusion of a riparian development permit area to promote shoreline vegetation retention and regeneration, which provides resilience in the ecosystem and water quality.

5. Natural Hazards

Natural hazards are described as any hazard found in nature, typically biological, atmospheric, and geological. The natural hazards, in the **Plan Area**, can be divided into the following categories:

- Land Slides, which include rock falls and debris flows;
- Flooding;
- Extreme Heat;
- Channel Bank Erosion; and
- Wildfire Interface.

The hazard areas for the **Plan Area** are represented on Map 2: Geotechnical and Flood Hazards and Map 3: Wildfire Hazard.

It is important to avoid settlement in areas with identified natural hazards or mitigate against potential damage that may result from development in those areas. The Boundary Region Flood and Geohazard Risk Assessment, completed in 2021, was designed to identify areas that require more mapping to support policies and regulations. Updated floodplain and fluvial geohazard maps were completed in 2023 for the **Plan Area** and has been incorporated into a new floodplain bylaw.

Land Slides

Landslides of various types are possible in the **Plan Area**, due to the topography. Debris flow events can be sudden, irregular, and unpredictable and, in many cases, can be life threatening to residents in the receiving area or alluvial fan. This hazard can occur in areas not usually perceived as located within the floodplain. In a watershed with debris torrent hazards, timber harvesting and road building can increase the risk of flooding on the alluvial fan. Significant timber harvesting and road building has been shown to generally result in increased peak flows. Therefore, when an alluvial or debris torrent fan is present at the downstream end of a watershed, it is essential during forestry planning to assess the potential for changes in the watershed that could increase risks.

Listed below are watercourses located in the **Plan Area** that are known and suspected hazard areas with very high and high hazard alluvial fans shown on *Map 2: Geotechnical and Flood Hazards*:

Name of Watercourse	Hazard Description
McRae Creek	Flood hazards and alluvial fans
Sutherland Creek	Flood hazards and alluvial fans
Moody Creek	Flood hazards and alluvial fans

Flooding

The **Regional District** adopted a Floodplain Management Bylaw, No. 677, in 1995. The bylaw was developed using information produced through the *Canada-British Columbia Floodplain Mapping Agreement*. Bylaw No. 677 establishes minimum elevations and setbacks from watercourses for new construction. Detailed floodplain

mapping is available for Christina Lake, Christina Creek and the Kettle River. Updated mapping for Electoral Area C was completed in 2023.

Channel Bank Erosion

The BC Ministry of Environment identified unstable or potentially unstable terrain adjacent to Moody Creek, Maida Creek, Sutherland Creek and Italy Creek. There is also the potential for erosion along other watercourses in the **Plan Area**.

Wildfire Interface

A Community Wildfire Protection Plan (CWPP) for Christina Lake was completed in 2009, which is titled *Community of Christina Lake: Community Wildfire Protection Plan*. The CWPP identifies three Fire Danger zones, Fire Danger Zone 1 being the highest level of fire danger and Zone 3 being the lowest. These zones are shown on Map 3: Wildfire Hazard. A Community Wildfire Resiliency Planning process is happening in 2023 to update the 2009 CWPP.

Radon gas

Radon gas is a colourless, odourless gas, naturally occurring, radio-active gas that comes from uranium in soils. It is known to enter buildings through cracks and holes in foundations and accumulates. Radon is the second leading cause of lung cancer after smoking. Soils in the Kootenay-Boundary area are known to have higher levels of uranium.

Objectives

The objectives of the **Board** with respect to Natural Hazards are as follows:

- Avoid further settlement and development in areas with identified natural hazards, or minimize the risks associated with development in those areas.
- Improve public awareness of hazardous conditions.

Policies

The policies of the **Board** with respect to Natural Hazards are as follows:

- 5.1 Consider updating Map 2 and Map 3 should additional natural hazards within the **Plan Area** be identified, or if more detailed data becomes available.
- 5.2 Make approval of site-specific exemptions to the floodplain bylaw subject to registration of a covenant on title that absolves the **Regional District** of responsibility if there is damage to buildings that are approved by the exemption.
- 5.3 Floodplain exemption applications will be considered alongside of landscaping planning, including the presence, retention, and planting of native vegetation adjacent to the watercourse. Landscaping will be considered for how it will reduce the risk of flood damage to the parcel. Maintenance of intact riparian vegetation is encouraged.
- 5.4 Make approval of development variance permits that vary the setback from waterbodies or other natural hazards and site-specific exemptions to the floodplain bylaw for properties bordering on a watercourse contingent on

showing that a hardship exists. A valid hardship is recognized as being where physical characteristics of the lot are such that building consistent with the zoning bylaw, could not occur anywhere on the parcel unless requirements are reduced. Reporting from a qualified professional may be required to support the hardship claim and should include details of how no other location on the lot could be used for building based on physical constraints and the rationale for why these sites could not be used. In line with the Provincial guidelines, economic circumstances, or design and siting preferences of the owner will not be considered as grounds for hardship.

- 5.5 Explore creating a development permit area for floods, landslides and wildfire interface hazards. Consider areas where development should not be permitted due to hazard risk or in the case of wildfire interface, where development could be protected from potential impacts by landscaping, siting, form, exterior design and finish of buildings and other structures.
- 5.6 Collaborate with the ministry responsible for forestry, BC Timber Sales, Interfor, woodlot operators and private property owners to reduce the risks of wildfire through prescribed thinning and burning of forested lands.
- 5.7 Discourage increased development potential in areas with identified natural hazards without further assessment, to minimize risks associated with natural hazard areas.
- 5.8 Request the development of secondary emergency access/egress routes in new developments and for already developed areas.
- 5.9 Provide residents with educational materials from the FireSmart program so that they may implement practices to reduce the risk of interface fire in the community.
- 5.10 Work with the community to raise awareness of emergency preparedness through the **Regional District** Emergency Management Programs.
- 5.11 Encourage the planting and retention of suitable native trees and shrubs near slopes and erosion hazard areas such as steep slopes and shorelines.
- 5.12 Encourage residents to test buildings for radon exposure and to take appropriate mitigation measures where radon levels are found to be higher than recommended levels.

6. Environmentally Sensitive Areas

The BC Ministry of Environment describes environmentally sensitive areas (ESAs) as any parcel of land that already has, or with remedial action could achieve, desirable environmental attributes. These attributes contribute to the retention and/or creation of wildlife habitat, soil stability, water retention or recharge, vegetative cover, and similar vital ecological functions. ESAs range in size from small patches to extensive landscape features. They can include rare or common habitats, plants, animals, and corridors between habitat features.

The benefits of ESAs include, but are not limited to, the following:

- Enhanced quality of places where people live, work and play.
- Improved value (properties worth 5-15% more near greenspaces).
- Providing ecosystem services such as flood management, absorption of atmospheric pollutants, improved water quality, protection against erosion, shading and heat absorption, among many others.
- Maintaining Biodiversity.
- Supporting the shift to a more resilient landscapes and watersheds in response to climate change.

Map 4 shows environmentally sensitive areas that have been identified in the **Plan Area**, and Map 5 shows the general locations of selected **red-** and **blue-listed species** based on the relevant Biogeoclimatic (BEC) Zone. Environmentally sensitive areas are susceptible to damage and are in danger of disappearing. Table 2-1 and Table 2-2 in the Geography and Ecology section of the Community Overview detail several of the sensitive, threatened and endangered species and ecological communities in the **Plan Area**.

Some other habitat features of high value and that are considered sensitive habitat include:

1. Large diameter trees (live or dead) with pileated woodpecker cavities since secondary cavity nesting species like owls and other birds often rely on these cavities for nesting;
2. All known trees with Lewis's woodpecker nests;
3. Rocky outcrops and talus slopes that provide winter and/or summer denning habitat for reptiles (such as snakes and lizards);
4. Natural salt licks used by ungulates;
5. All natural grassland plant communities;
6. Riparian cottonwood communities; and
7. Kokanee shoreline spawning sites.

The following protections of environmentally sensitive areas are already in place in the **Plan Area**:

- Provincial Parks: Gladstone, Gilpin Grasslands and Christina Lake Provincial Park;
- Provincial Wildlife Habitat Areas (WHAs), including Grizzly Bear WHA;

- Provincial UREPs (Use Recreation and Enjoyment of the Public) – North Bank of Kettle River at the end of Swanson Road (Dog Park), perimeter surrounding Christina Lake Golf Course to the natural boundary of the Kettle River;
- **Regional District** owned, governed, or leased lands (e.g., Christina Lake Community and Nature Park);
- Parcels owned by stewardship organizations and/or protected by conservation covenants;
- Lands in the Agricultural Land Reserve and Rural Resource land use designation to some degree, due to the restrictions on subdivision in those land use designations;
- Private land where owners have implemented 'Beneficial Management Practices', such as Develop with Care: Environmental Guidelines for Urban and Rural Development in BC on their land.

This **Plan** includes several measures to manage the use of land in environmentally sensitive areas through policy direction such as:

- Maintaining high minimum parcel sizes for agricultural and other resource lands.
- Restricting permitted uses.
- Encouraging the use of 'Beneficial Management Practices' through the Environmental Farm Plan Program and 'Best Management Practices' (Develop with Care).
- Using re-zoning requests as a trigger to require landowners to identify and map environmentally sensitive areas, and present management plans that address how potential impacts will be addressed.
- Considering cluster development proposals that maintain environmentally sensitive areas as described in detail in Section 12 of this **Plan**.

Invasive species, both terrestrial and aquatic are increasingly a concern within the **Plan Area**. Some species have already been brought into the **Plan Area**, either accidentally or intentionally, including Eurasian milfoil and yellow-flag iris. These plants are highly competitive and can take over native plant species relatively quickly, which can have negative consequences on the ecology of environmentally sensitive areas, as well as agricultural production systems. Other species, such as quagga (or zebra) mussels, have not been introduced to Christina Lake, but efforts will continue to be made to prevent this from happening.

Objectives

The objectives of the **Board** with respect to environmentally sensitive areas are as follows:

- To restrict development activities in the **Plan Area** that could have negative impacts on environmentally sensitive areas to maintain their long-term benefits to the environment and the public.

- To identify environmentally sensitive areas, including corridors that provide linkages between those locations for **red-** and **blue-listed species** and focal species of plants and animals (Section 2.1).
- To encourage wise use of natural resources, ensuring long-term community stability and prosperity, and support ecosystem services.
- To protect the integrity and biodiversity of our local ecosystems for generations to come recognizing that local ecosystems and natural environment assist in adapting to changing climate.

Policies

The policies of the **Board** with respect to environmentally sensitive areas are as follows:

- 6.1 Support the creation of a sensitive ecosystem inventory for the **Plan Area** including developing a connectivity strategy between those sensitive ecosystems.
- 6.2 Support the Province's use of existing legislative tools to protect environmentally sensitive areas on publicly owned land.
- 6.3 Share local knowledge of environmentally sensitive areas through the Provincial referral process.
- 6.4 Integrate environmental considerations into land use decision making.
- 6.5 Support the implementation of the Christina Lake Watershed Management Plan and the Kettle River Watershed Management Plan and other relevant plans that may be developed. Consult these plans when reviewing development proposals within environmentally sensitive areas.
- 6.6 Encourage and support a spirit of cooperation and stewardship between government agencies, private companies and individuals that use publicly owned land.
- 6.7 Discourage the placement of new utility corridors, road rights of way, and other corridor uses that could negatively impact environmentally sensitive areas and connectivity between those areas.
- 6.8 Consider, as part of re-zoning applications, inventories and management plans for riparian areas including wetlands; sensitive ecosystems; species at risk; grasslands; migration routes; old growth management areas; and cliffs and bluffs.
- 6.9 For parcels located in BEC zones IDfxx1 and IDfDh, when a zoning amendment is applied for, the **Regional District** may request a survey of species and habitat features be included as part of the application. These habitat features may include grassland, wetlands, rocky outcrops, or talus.
- 6.10 For parcels located in BEC zone ICH that contain rocky outcrops, a habitat and species survey may also be requested to be included as part of a zoning amendment application.

- 6.11 Consider clustering and density bonusing for development proposals that protect and enhance environmentally sensitive areas and connectivity corridors.
- 6.12 Encourage protection of environmentally sensitive areas through the establishment of new parks where possible, and the management of existing parks, and consider the use of conservation covenants for the same.
- 6.13 Consider adding regulations within the implementing zoning bylaw to discourage the use of retaining walls at the natural boundary and require more natural treatment including rock, vegetation and other natural material to create stable slopes.
- 6.14 When a variance is being considered to a setback from a watercourse, the applicant should demonstrate how the riparian vegetation will be retained and how native plants communities adjacent to the watercourse will be preserved, restored, and maintained into the future. This may include requesting a report from a qualified environmental professional detailing how the development could occur in line with the *Riparian Areas Protection Act and Regulation (RAPR)*, as amended.
- 6.15 Consider the use of legislative tools including additional development permit areas for protection of the natural environment, its ecosystems and biological diversity to protect environmentally sensitive areas.
- 6.16 Raise awareness of and encourage private landowners to use Provincial best management practices, including guidance from *Develop with Care*, for development on their properties, such as requesting that a bio-inventory of parcel be completed by a qualified environmental professional, when an application for re-zoning is made and requesting flagging or fencing of environmentally sensitive areas during development.
- 6.17 Raise awareness of terrestrial and aquatic invasive plants and animals and methods to control their spread and support the work of the Boundary Invasive Species Society.
- 6.18 Support the continuation of the Milfoil Control Program which is focused on the removal of invasive milfoil within Christina Lake.
- 6.19 Advocate to the Province to expand aquatic invasive species removal programs to include more species such as the fragrant water lily.
- 6.20 Support the efforts of the Christina Lake Stewardship Society and other stewardship groups with similar mandates, in their stewardship of the diverse ecosystems and habitats of the **Plan Area**. Forms of assistance may include in-kind support of **Regional District** staff, funding, and letters of support for grant funding.
- 6.21 Support the reduction of light pollution in Electoral Area C, by encouraging property owners to install outdoor lighting that is directed at the ground, so they cast little or no light upward, using non-glare, full cut-off fixtures, with the intention of minimizing outdoor lighting as much as possible and to include similar policies in development permit areas, where allowable.

- 6.22 Develop a guide that outlines what a riparian area is and how best to preserve it on private property.

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7. Agricultural Resources

The **Plan Area** has a total of 1,226 hectares of land in the Agricultural Land Reserve (ALR), which makes up 2.3% of the total land area (Map 6). Most lands in the ALR are along the Kettle River. There is also a portion of ALR on either side of Fife Road near Sutherland Creek. According to the 2016 census, there were ten active farms.

The ALR is a provincial zone in which agriculture is recognized as the priority use due to its potential production. The Province established the ALR boundaries based on the Canada Land Inventory and in collaboration with local governments. This inventory divides lands in BC into seven classes with Class 1 having very few limitations to agriculture and Class 7 having limited capability for agriculture.

Improvements to agricultural capability include, but are not limited to irrigation, stone removal (where possible), and drainage. Most lands in the ALR in the **Plan Area** are in class 3, 4, or 5 of land capability.

Objectives

The objectives of the **Board** with respect to Agricultural Resources are as follows:

- To encourage and promote farms and farming in the **Plan Area**.
- To encourage the preservation of lands with potential for agricultural production in the **Plan Area** and protect these areas from incompatible land uses.
- To encourage farming practices which minimize impacts on the environment.
- To support the farming community by promoting the economic viability of the agricultural sector and encouraging a supportive farm network.
- To support and encourage local food production.
- To recognize that agricultural uses occur across several land use designations while respecting the protections for lands within the ALR for agricultural uses including restrictions on uses that might otherwise be recognized in the broader land use designations.

Policies

The policies of the **Board** with respect to Agricultural Resources are as follows:

- 7.1 Recognize the legislated right to farm.
- 7.2 Encourage farming activities that minimize the impact on water quality, conserve soil and protect wildlife habitat.
- 7.3 Consider measures to promote farming and local food production, including community events, programs and initiatives.
- 7.4 Support bringing unused farmland into production.
- 7.5 Maintain agricultural lands for agricultural uses.

- 7.6 All uses and subdivision of ALR lands shall be consistent with the *Agricultural Land Commission Act* and regulations, as amended, and orders of the Agricultural Land Commission.
- 7.7 ALR exclusion applications will generally not be considered for the **Plan Area**. The **Regional District** may, however, consider requests to initiate an application to the Agricultural Land Commission to have lands excluded from the Agricultural Land Reserve within the context of a comprehensive review of ALR lands in the **Plan Area**. Submission of an exclusion application may also be considered in response to an OCP amendment application that requires exclusion from the Agricultural Land Reserve to build affordable housing, if it can be shown that there are no opportunities for densification on non-ALR land in the **Plan Area**.
- 7.8 As an alternative to the exclusion of lands from the Agricultural Land Reserve, encourage property owners to pursue farm and non-farm use projects that are consistent with the *Agricultural Land Commission Act* and the *Agricultural Land Reserve Regulation*.
- 7.9 Support the maintenance of a viable agricultural sector in the local economy, including considerations for housing for farm workers and advocating for appropriate infrastructure.
- 7.10 Strive to minimize the opportunity for conflict between agricultural and other land uses in the **Plan Area**, including by using the Ministry of Agriculture and Food's *Guide to Edge Planning*.
- 7.11 Consider including limited forms of agriculture as permitted uses in residential areas, excluding waterfront properties, such as chickens or bees with consideration for Bear Smart practices, limiting numbers, and encouraging proper care so as not to impact surrounding agricultural producers.
- 7.12 Investigate locations for a community garden in the **Plan Area**.
- 7.13 Encourage farm operators to participate in the Environmental Farm Plan process for their operations.
- 7.14 Encourage agri-tourism as a form of economic development in the Plan Area, as an accessory and complimentary use to agriculture.

8. Heritage and Cultural Resources

There are various ways a community can highlight and protect its heritage and cultural resources. Within the **Plan Area** the historic and enduring presence of Indigenous Peoples shapes the community. The **Regional District** seeks opportunities to build relationships with Indigenous communities and work towards reconciliation within the **Plan Area**.

Age friendly activities are important for the **Plan Area** to support older adults to age actively, enjoy good health and remain independent and involved in the community. The Age Friendly Christina Lake Action Plan, 2015, establishes actions to expand the community culture of aging well in the **Plan Area**.

Heritage resources may be divided into three categories: those that are automatically protected under the *Heritage Conservation Act*; those that are identified by formal agreement entered into between the Province and a first nation pursuant to section 4 of the *Heritage Conservation Act*; and those that are designated for protection including under a variety of measures further to Part 15 of the *Local Government Act* or pursuant to Part 2 of the *Heritage Conservation Act*. Sites and objects that are automatically protected under the *Heritage Conservation Act*, whether designated or not, include:

- Localities containing physical evidence of human use or activity predating 1846 and associated heritage objects. Examples of automatically protected sites include temporary camping spots, permanent villages, culturally modified trees (if the modification predates 1846), and resource extraction areas such as quarry sites (to make stone tools);
- Burial places and associated human remains and heritage objects with historical or archaeological value;
- Heritage wrecks and associated human remains and heritage objects;
- Aboriginal rock carvings or paintings with historical or archaeological value; and
- Heritage objects from archaeological sites for which identification standards have been established by regulation.

Protection applies to both private and publicly owned land and sites must not be altered without a permit issued by the Archaeology Branch of the Ministry of Forests, Lands, Natural Resource Operations and Rural Development. Areas with significant archaeological potential are noted on Map 7.

Many historic sites were identified as important by community members in the 2010 **Regional District** Regional Heritage Conservation Service Feasibility Study. These sites are on publicly owned lands or private property. Historic sites and features identified within the **Plan Area** are as follows:

- Sites of Japanese Internment – Alpine Inn and Christina Lake Provincial Park
- Billings – Forest Mills Sawmill
- Burial sites and Cemeteries

- Cascade Canyon
- Cascade City (Townsite) and Cemetery
- Dam and Powerhouse (Cascade Water and Power Company)
- Santa Rosa Road/Rossland Cascade Road
- Fife and Hilltop
- Fife Quarry
- Pictographs
- Historical towns along the railway (Fife, Baker Creek, Lafferty, Gladstone)
- Merry Mill site near Paulson
- Mineral Claims
- Rail beds
- Dewdney Trail
- Rock wall along the Trans Canada Trail between Fife and Santa Rosa

In 2008, Electoral Area C/Christina Lake Heritage Conservation Service was established. In 2021, the Cascade Cemetery was designated as a heritage site, with Bylaw 1762, which amended the **Regional District's** Heritage Designation Bylaw, No. 1236, 2004.

Objectives

The objectives of the **Board** with respect to Heritage Resources are as follows:

- To raise public awareness of the potential for archaeological sites and the Provincial legislation that is in place to protect those sites.
- To raise public awareness of the heritage sites and features in the **Plan Area** and encourage the retention of heritage features.
- To recognize and support heritage tourism as a form of economic development.
- To support an age friendly culture within the community.
- To support reconciliation with Indigenous Peoples.

Policies

The policies of the **Board** with respect to Heritage Resources are as follows:

- 8.1 Advise landowners that submit applications to **Regional District** of the importance to check lands for potential archaeological sites and to comply with the *Heritage Conservation Act*.
- 8.2 Notify the BC Archaeological Branch of the Ministry of Forests, Lands, Natural Resource Operations and Rural Development of applications which affects areas identified by the Province as being of archaeological significance.

- 8.3 Encourage consultation with First Nations, whose traditional territories include lands within the **Plan Area**, and with the Province to identify areas of archaeological potential.
- 8.4 Conserve archaeological resources that are located on lands owned or leased by the **Regional District**, with consultation with First Nations, whose traditional territories are located within the **Plan Area**, and where necessary conduct archaeological impact assessments during the review of development proposal and prior to development occurring.
- 8.5 Consider providing long-term protection for heritage buildings, structures, lands or features of historical interest by establishing a Community Heritage Register, by designating heritage conservation areas, and consider additions to the Heritage Designation Bylaw of sites in the **Plan Area**.
- 8.6 Encourage the relocation of valued heritage structures where it is not feasible to retain such structures on site. Where it is not feasible to conserve whole buildings, historic elements should be encouraged to be preserved.
- 8.7 Support the efforts of groups and societies to document and share the history of the **Plan Area**. Forms of assistance may include in-kind support of **Regional District** staff, funding, and letters of support for grant funding.
- 8.8 Work with Indigenous residents and member communities to integrate traditional knowledge, perspectives and language about the history and land of the **Plan Area**.
- 8.9 Consider collaborating with First Nations and local heritage groups on conducting a place-naming study.
- 8.10 Encourage planning for fuel treatment methods for wildfire protection that considers the location of known archaeological and heritage sites to ensure their protection.
- 8.11 Encourage the implementation of the Age Friendly Christina Lake Action Plan.

9. Recreation Resources

Recreation resources in an area are essential for an active, engaged and attractive community. Outdoor recreation opportunities influence amenity migration to rural areas. Christina Lake provides a wide variety of recreation amenities that attract visitors and residents to the area. Recreation across the **Plan Area** contributes to the local economy and gives character to the **Plan Area**.

Approximately 40% of the **Plan Area** is park land, most of which is within Provincial Parks. There is also a large amount of publicly owned land that is used by residents and visitors for recreational purposes including trails. There is a Regional Parks and Trails service for the **Plan Area** that develops and maintains recreational areas, as well as a few local volunteer groups that are dedicated to trail development and promotion.

The following are identified as recreation resources in the **Plan Area**:

- Christina Lake
- Gladstone Provincial Park
- Gilpin Grasslands Provincial Park
- Christina Lake Provincial Park
- Christina Lake Community and Nature Park
- Use, Recreation and Enjoyment of the Public Reserves (UREP) located on West Lake Drive and on the North Bank of the Kettle River, at the end of Swanson Road, including the dog park
- Neighbourhood Parks – such as properties on Chase Rd. and Ness Rd.
- Christina Lake Golf Course
- Pickle Ball Courts/Tennis Courts
- Community Hall Grounds
- Lakeshore Road Ends – such as Johnson Road, Kingsley Rd
- Rail Trail
- Dewdney Trail
- Mountain bike trail network (Kettle River Mountain Bikers' Association)

Objectives

The objectives of the **Board** with respect to Recreation Resources are as follows:

- To encourage the provision of appropriate parks and facilities for residents and visitors of the **Plan Area**.
- To strive to legalise access to areas presently used by residents and visitors of the **Plan Area** for recreational purposes, through formal land agreements or land acquisition.
- To foster the continued collaborative development and stewardship of recreation resources among stakeholders.

Policies

The policies of the **Board** with respect to Recreation Resources are as follows:

- 9.1 Support the creation of a Trails Master Plan that includes trails for both non-motorized and motorized uses and considers the extension of a trail network from Gladstone Provincial Park to Cascade.
- 9.2 Encourage respectful use of recreation lands that minimize impact on the environment.
- 9.3 Consider the merits of referrals from the Province for recreational use of publicly owned land based on potential for impacts on the following: environmentally sensitive areas, wildlife corridors, adjacent property owners, other recreational users, and other matters that the **Board** may consider relevant.
- 9.4 Encourage recreation groups to document and legalise use of publicly owned land for recreational purposes.
- 9.5 Support non-profit community recreation facilities, programs, and partnerships in the **Plan Area** due to their importance to residents and visitors.
- 9.6 Future parks may include trails, conservation areas, heritage parks, UREPs, as well as Provincial, regional and community parks. These parks may be designated as 'Park and Recreation' or 'Rail/Trail Corridor'. If future development or demographics warrant, the **Regional District** may also consider land or cash-in-lieu for a small neighbourhood park. Section 19.11.1 details parkland categories that can be considered for parkland acquisitions, as well as locations identified on Map 1: Land Use Designations.
- 9.7 Consider the expansion of the trail network to extend from Gladstone Provincial Park to Cascade.
- 9.8 Support the construction of a bridge that provides pedestrian access across Christina Creek, from the end of Kimura Rd to the parkland on the opposite bank.

10. Sand and Gravel Deposits

Sand and gravel deposits are an important resource for road construction and maintenance, and for manufacturing concrete. The location and approximate area of known sand and gravel deposits and sites of extraction are shown on the Transportation, Sand, and Gravel map (Map 9). The longevity of these deposits for future sand and gravel extraction is unknown.

Objectives

The objectives of the **Board** with respect to Sand and Gravel Deposits are as follows:

- To discourage development that would irreversibly prohibit future extraction of sand and gravel deposits.
- To encourage sand and gravel extraction activities that minimize degradation of surface and ground water quality, and long-term impacts of extraction.
- To encourage sand and gravel operations to be considerate of adjacent land uses.

Policies

The policies of the **Board** with respect to Sand and Gravel Deposits are as follows:

- 10.1 Consider adopting regulations to manage the deposit and removal of soil to manage the impacts of aggregate operations.
- 10.2 Designate appropriate locations of sand and gravel deposits for industrial or resource uses.
- 10.3 Encourage the Province, through the referral process, to take into consideration the following when assessing applications for gravel pit operations:
 - a) Potential impacts on groundwater and surface water
 - b) Potential impacts on adjacent land uses, including potential for noise and dust;
 - c) Potential impacts on increased industrial traffic on nearby road infrastructure;
 - d) Reclamation plans for the disturbed lands; and
 - e) Other potential issues that the **Board** may identify through the review process.
- 10.4 Encourage reclamation and landscaping of publicly owned lands for public enjoyment.

11. Transportation

It is in the public interest that a cost-efficient and safe transportation network is developed and maintained. The Province is responsible for highways and roads in the **Plan Area**. The transportation network around Christina Lake includes highways and secondary roads, and resource roads as well as pathways and trails.

The existing transportation network in the **Plan Area** consists of the following:

- Highway 3.
- Highway 395, which accesses the border with the USA, south of Christina Lake.
- Several secondary roads serving local needs.
- Resource Roads.
- The Burlington Northern Railway.
- The Trans Canada Trail, which connects the **Plan Area** to Grand Forks and to the Kootenays in the East.
- The Promenade Trail, which is planned to run along the east shore of Christina Lake, extending from Texas Point to the core of the community south of the lake.
- Recreation trails, for motorized and non-motorized activities.

There are no immediate plans to expand the existing system of highways, secondary roads or railways.

Objectives

The objectives of the **Board** with respect to the Transportation are as follows:

- To provide access to clean transportation options suited for rural living.
- To encourage the development of a safe, efficient and functional transportation network for vehicles and non-vehicular traffic that minimizes environmental harm.
- To encourage the Province and its contractors to apply Provincial Best Management Practices (Develop With Care) to road construction and maintenance activities.
- To encourage a healthy, active lifestyle through increased walking, biking, and paddling by encouraging the development and use of non-motorized transportation corridors.

Policies

The policies of the **Board** with respect to the Transportation are as follows:

- 11.1 Support the Province's efforts to develop a safe and functional roadway system.
- 11.2 Provide for adequate off-street parking in the implementing bylaws to minimize congestion and promote the safe use of the transportation network.

- 11.3 Support the planning and development of roads which best serve the traffic needs of the **Plan Area** while having a minimal impact on the area's existing residential, rural, agricultural, and environmental qualities.
- 11.4 Encourage the development of secondary emergency access routes for growth areas.
- 11.5 Refer subdivision plans within wildfire interface areas to the Fire Chief and the Emergency Management Coordinator.
- 11.6 Support the development and maintenance of trails for non-motorized transportation, including but not limited to the Promenade Trail.
- 11.7 Support the development of an active transportation plan that can plan for connectivity amongst the residential neighbourhoods of Christina Lake, and where feasible, connectivity to communities outside of Electoral Area C.
- 11.8 Advocate to the Ministry of Transportation and Infrastructure to include bike lanes and pedestrian walkways in the highway right of way.
- 11.9 Encourage the Province to minimize soil disturbance and remediate disturbed soils in a timely manner following maintenance activities.
- 11.10 Collaborate with the Province to manage the cumulative effects of resource road development and maintenance.
- 11.11 To not support the extension of West Lake Drive or East Lake Drive beyond their current extents.
- 11.12 Identify an appropriate location for a potential public boat moorage within walking distances of local businesses.
- 11.13 Encourage the Province to maintain road access points to the lake, also known as road ends, for the purposes of encouraging active transportation by water.
- 11.14 Discourage senior levels of government from allowing commercial use of the lake surface that do not have a related land base, as permitted in the zoning bylaw.
- 11.15 Support planning and implementation of wayfinding strategies, including signage within the community that indicates landmarks, recreation resources and trail networks.
- 11.16 Encourage the Province to communicate parking restrictions clearly on rights of way that experience regular congestion.
- 11.17 Encourage residents and visitors to adhere to applicable regulations regarding boat moorage.
- 11.18 Encourage the Province to regulate non-authorized structures on road ends.
- 11.19 Explore options with senior government officials to address impacts of boat wakes on ecosystems.

12. Conservation Subdivisions

Conservation subdivisions encourage the grouping of new residential parcels onto part of the development parcel so the remainder can be preserved as open space, thereby maintaining rural character and preventing rural sprawl from consuming inordinate amounts of land. Density bonuses are usually offered to encourage this development approach, particularly where there would be benefits to the whole community. For conservation subdivisions, this can include undersized lots being allowed to permit the protection of a desirable landscape feature.

The establishment of cluster forms of rural residential development has several environmental, economic and social advantages. The advantages include: the reduction of private land consumption for housing; reduction of areas disturbed by construction; concentration of homes in the most desirable areas; reduction in servicing costs to developers, utility providers and government agencies; and the retention of environmentally sensitive areas, agricultural land, green space, viewsheds, and recreation areas for the general public.

Objectives

The objectives of the **Board** are to promote Conservation Subdivisions in particular in the following circumstances:

- That there are advantages to cluster forms of rural residential development in areas having at least one of the following characteristics: hillside topography or other natural hazards; environmentally sensitive areas; viewsheds, agricultural land and other potential food growing areas; and established or potential recreation areas.
- That development of lands in residential land use designations may be considered for conservation subdivisions.

Policies

The policies of the **Board** with respect to Conservation Subdivisions are as follows:

- 12.1 Cluster forms of residential development may be considered upon application as an alternative to conventional rural residential developments subject to meeting and being in conformity with the criteria identified in the policies of the **Plan**.
- 12.2 Designation as 'Cluster Rural Residential' and associated zoning may be considered upon application, and is preferred over traditional forms of rural residential subdivision for lands that are approximately 12 hectares in area or larger having one or more of the following features: significant hillside topography or other natural hazards, environmentally sensitive areas, agricultural land, established or potential recreation corridors;
- 12.3 Proposals to allow cluster rural development will be evaluated on criteria that may include, but is not necessarily limited to the following:
 - a) A minimum of 50% of the land proposed to be subdivided will be retained in perpetuity as a single parcel (e.g., through park land dedication or a Section 219 covenant) that must be contiguous unless there is no alternative;

- b) The portion of the property that is to remain undeveloped is contiguous, wherever possible, with other green space and/or recreational corridors;
 - c) Rural character should be maintained to the maximum extent possible by implementing the following design principles as appropriate: retaining forested, riparian and food growing areas; and leaving prominent hillsides, ridges, and natural hazard areas undeveloped;
 - d) Trail dedication is considered on areas of the property not designated for residential development;
 - e) Residential lots are located in such a way that they will not pose a detrimental impact on environmentally sensitive areas;
 - f) Residential lots are situated to avoid hillsides, where view impacts and geotechnical concerns are greatest;
 - g) Ideally the number of lots per cluster would be in the range of four to eight;
 - h) It is demonstrated that sewage and water servicing, whether they are proposed to be on-site or community systems, meet the requirements of the applicable government agency(s);
 - i) Proposed development should respect existing neighbourhood character;
 - j) Provision that no further subdivision may occur of protected areas through registration of a s. 219 covenant;
 - k) Residential clusters should be oriented to maximize solar access; and
 - l) Where possible, appropriate forms of alternative transportation are available.
- 12.4 Density bonuses of up to two times the parcel density permitted with a conventional subdivision in the implementing Zoning Bylaw may be considered particularly where other conservation measures are considered in the design including water and energy conservation.
- 12.5 Parcel yield would be determined based on the number of lots that could be created by a conventional subdivision under the existing land use designation at the time of application.
- 12.6 Clustering of parcels must include sufficient evacuation routes accounting for broad ranging natural hazard threat, such as flooding and forest fires, where routes may be cut off in areas distant from the development.
- 12.7 These policies and requirements apply to all subdivision and development approvals and may be implemented by way of rezoning.

13. Sewage Treatment

Parcels in the **Plan Area** are serviced with on-site sewage disposal systems. Currently, there is no public sewage treatment service in the **Plan Area**. The dispersed settlement pattern means the type of services and utilities commonly found in urban areas are difficult to provide economically and efficiently.

No new public sewer systems are anticipated during the life of this **Plan**. However, there is a strong community interest in investigating the costs of a sewage treatment service. This could be explored further through feasibility studies, which would result in the preparation of a liquid waste management plan.

A potential location was identified adjacent to the Kettle River and shown on Map 10 based on information contained in the *"Report of Water Supply and Wastewater Disposal at Christina Lake"* prepared by Kerr Wood Leidal in 1991. This engineering report investigated suitable locations and identified this site as favourable for sewage treatment lagoons in association with a collection system serving the South-End Townsite and Lavalley Point areas.

Objectives

The objectives of the **Board** with respect to Sewer Services are as follows:

- To develop a coordinated land use and sewer servicing strategy.
- To protect ground and surface water from potential contaminants originating from on-site sewage treatment systems.
- To identify the best options for potential wastewater treatment service in the **Plan Area**.
- To encourage designs of sewer services which promote community safety and sustainability.

Policies

The policies of the **Board** with respect to Sewer Services are as follows:

- 13.1 Minimum parcel sizes for unserviced lots shall be large enough to sustain independent onsite water and sewer services, using a minimum parcel size of one hectare as the baseline without further detailed assessment of the land.
- 13.2 Encourage the use of type 1 sewerage systems as the most suitable option.
- 13.3 Request that a back-up sewerage dispersal site be identified for proposed subdivisions that is appropriate for the permitted uses on the parcel.
- 13.4 For rezoning and temporary use permit applications that propose increased densities or additional uses, consider requesting that a backup sewerage dispersal site be identified. A restrictive covenant registered on title may be requested to preserve this site into perpetuity.
- 13.5 A rezoning application, which allows for higher density developments served by a private sewer system, will not be approved until comprehensive engineering studies and financial analysis are provided, which demonstrate that:

- a) A private community sewer system can be established, operated, and governed in a cost effective and efficient manner to serve the requested higher density; and
 - b) The applicant must demonstrate that maintenance charges and a 20-year capital replacement fund are part of the service contract for the sewage disposal system.
- 13.6 If a public community sewer system is established, consideration may be given to developing a regulated pump and haul program to service waterfront and boat access properties.
- 13.7 The implementing bylaws may permit higher density uses such as infill on existing residential lots. Townhouses, apartments, multi-family buildings and manufactured home parks may be considered, by way of rezoning, if the proposed development is connected to an approved community sewer system.
- 13.8 The site for a community sewer system, serving three or more lots or dwelling units, will require rezoning to evaluate its compatibility with adjacent land uses. A zoning amendment application for this purpose must include a report from a qualified engineer that provides the following information:
- a) The facility's distance from developed land;
 - b) A description of screening, fencing and lighting around the facilities;
 - c) Design of the proposed facility including its exterior colour; and
 - d) Enclosure of the digester facility would be preferred to reduce odours, noise and vibration from the treatment facility beyond the site's boundary. Consideration may be given to landscaping features designed to eliminate these impacts beyond the property boundaries instead of enclosure.
- 13.9 A publicly owned parcel on Swanson Rd. adjacent to the Kettle River, has been identified as a potential site for a publicly owned and operated community sewage treatment plant. This parcel is identified to protect the option for a public sewage treatment facility if this is pursued in the future.
- 13.10 Support an updated feasibility study for a liquid waste management plan to explore options for a community-based system.
- 13.11 A publicly operated sewer system will not be installed until the following conditions have been met:
- a) An approved amendment to this **Plan**, for a detailed secondary plan, which evaluates the benefits, consequences and costs of a proposed publicly operated community sewer system, that includes candidate areas for higher density development and their impact on the community's longer term servicing needs.

- b) Received comprehensive engineering studies and financial analysis, prepared by professionals, which demonstrate that the system can be established and operated in a cost effective and efficient manner.

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14. Water Services and Community Watersheds

The **Plan Area** has five water systems: two community water systems (Christina Waterworks District and the Sutherland Creek Waterworks District) and three private water systems (Christina Lake Water Suppliers Society, Deer Ridge Water Association, and Fife Water Users Community). The **Regional District** owns and operates the Christina Waterworks District.

The Sutherland Creek Waterworks District uses groundwater for its source, while the Christina Lake Water Utility and the Fife Water Users Community utilize surface water. The source for the Deer Ridge Water association is ground water, as is the Christina Lake Water Suppliers Society source (see Map 10 – Community Water Service Areas, Watersheds, and Aquifers).

Community water systems are expensive to install and maintain. With their permanent nature, they tend to have a profound and lasting effect on land use. To maintain an efficient service at a reasonable cost over the long term it is important that these systems be developed in relatively densely populated areas and in a manner which complements the anticipated rate and direction of growth. To do so, it is preferable to coordinate the land use and servicing strategy.

There are two **community watersheds** within the **Plan Area**: Moody Creek and Sutherland/Italy Creeks. Moody Creek was the water source for the Christina Lake Waterworks District prior to it being taken over by the **Regional District**. It is now operated as the Christina Lake Water Utility and draws its water from Christina Lake near Christina Lake Provincial Park. The water license for Moody Creek has been abandoned, though the Creek continues to be shown as a **community watershed**. The Sutherland/Italy Creek watershed is the source of the Fife Water Users Community.

There are no immediate plans to expand the existing water systems within the Plan Area.

Objectives

The objectives of the **Board** with respect to Water Services are as follows:

- To ensure adequate services are provided and coordinated with the appropriate land use.
- To ensure developments have appropriate water services for the proposed use and density.
- To encourage designs of water services which promote community safety and sustainability.
- To use water responsibly and efficiently and provide clean accessible water to residents and businesses while supporting the needs of our natural systems.

Policies

The policies of the **Board** with respect to Water Services are as follows:

- 14.1 Support the implementation of the Kettle River Watershed Management Plan and the Christina Lake Water Management Plan.

- 14.2 Support the provision of adequate quality and quantity of water to users.
- 14.3 Support the integration of existing community water systems if requested by an independent water system, in line with the **Regional District's Water Utility Acquisition and Sustainability Policies**.
- 14.4 Consider the capacity of the existing water services when considering permitted densities and minimum parcel size requirements for the creation of new parcels by subdivision.
- 14.5 Strive to ensure that permitted land uses and densities in **community watersheds** and above aquifers used as a source of domestic water are appropriate for the protection of those resources.
- 14.6 Support the continuation of referrals concerning forestry related activities in **community watersheds** and expand this to undesignated watersheds with the objective of facilitating ongoing communication between forestry companies, water purveyors, the **Regional District**, and water service providers.
- 14.7 Maintain effective communication links between the **Regional District** and the water service providers in the **Plan Area**.
- 14.8 Support initiatives regarding water conservation measures including, but not limited to, the development of and distribution of educational materials concerning xeriscaping, water conservation irrigation practices and the use of permeable material for hard surfaces, such as driveways.
- 14.9 Promote public awareness of source water protection including the location of **community watersheds** and the Intake Protection Zone, shown on Map 10, and considerations for land uses in those areas.
- 14.10 Promote public education and subsidy programs aimed at protecting groundwater quality, such as capping abandoned wells and protecting wellhead areas.
- 14.11 Encourage the Province to ensure that the remaining publicly owned lands in **community watersheds** remain publicly owned and to require that those lands be managed to the highest standard for water quality and quantity.
- 14.12 Work cooperatively with local and senior government agencies to implement watershed management plans that support groundwater recharge, retention and water recycling, and address water quality.
- 14.13 Require an assessment of the potential impacts of proposed land use changes that have a reasonable expectation to significantly influence ground and surface water quality and quantity.
- 14.14 Water recycling systems will be requested for parcels that are being re-zoned to permit the construction of a carwash.

15. Utility and Transportation Corridors

Corridors and rights of way occupy a significant amount of limited valley bottom land in the **Plan Area**. It is recognized that corridors and rights of way are necessary land uses. It is, however, in the public interest to avoid the creation of new and potentially unnecessary corridors and rights of way to the exclusion of other land uses. If a new corridor is necessary, the **Regional District** encourages the agency responsible for approval to involve the residents of the **Plan Area** in a public consultation exercise to obtain their input. It is expected that the approval agency will seriously consider the results obtained from the public consultation in their project plan.

Objectives

The objectives of the **Board** with respect to Utilities are as follows:

- To encourage the use of existing corridors and rights of way for all utility improvements and upgrades.
- To encourage public participation in the approval process for new corridors or rights of way.
- To ensure that the services and utilities, which are appropriate for the rural character of the **Plan Area**, are provided in an efficient, economic, and environmentally sound manner.

Policies

The policies of the **Board** with respect to Utilities are as follows:

- 15.1 Encourage utility providers through the referral process, to plan their facilities having regard for this **Plan**.
- 15.2 Encourage the installation of underground cable and wire utilities wherever feasible.
- 15.3 Encourage the consolidation of utilities onto one pole or tower where feasible.
- 15.4 Encourage the consolidation of linear utilities into multi-purpose corridors which, preferably, follow existing roads or other rights of way.
- 15.5 Encourage utility and infrastructure providers to consider the impacts of corridors on the natural environment, view-sheds, settlement patterns, and the long term or ultimate utility needs. This should include considerations for maintaining dark skies.
- 15.6 Consider the use of abandoned corridors for green space and recreational trails.
- 15.7 Discourage the use of pesticides for weed control along corridors.
- 15.8 Work with utility and infrastructure providers to prioritize and increase the resilience of critical infrastructure at high risk from the impacts of climate change.
- 15.9 Support deactivation of corridors as opportunities arise.

16. Solid Waste Management

The **Regional District** provides solid waste management services to residents and businesses in the **Plan Area**. Most residents in Area C have access to weekly curbside collection of garbage and green bin organics, and bi-weekly collection of blue box recycling. Curbside collection of garbage and green bin organics is provided by the **Regional District**; blue box recycling is provided by Recycle BC. The **Regional District** also provides scheduled garbage and blue box recycling collection services for boat-access residents at two boat launches on Christina Lake during the summer months.

Household garbage is collected and transferred to the Grand Forks Landfill for landfilling. Green bin organics are transferred to the Grand Forks Landfill for processing at the composting facility. The landfill has an estimated lifespan of over 20 years remaining.

The **Regional District** operates a transfer station where residents and businesses can drop off household/mixed waste and recyclable materials such as scrap metal and large appliances. At this site, the **Regional District** operates a Recycle BC depot, accepting residential blue box recyclables as well as Styrofoam, glass, and plastic film packaging. In addition, a separate depot area on site accepts blue box recyclables from the commercial sector. Yard and garden waste and clean wood waste are accepted and transferred to the composting facility at the Grand Forks Landfill.

The Solid Waste Management Plan (SWMP) for the **Regional District** was last updated in 2005. The SWMP is planned to be reviewed in the next few years.

Objectives

The objectives of the **Board** with respect to Solid Waste Management are as follows:

- To continue to work towards our goal of zero waste, promoting diversion from landfills.
- To maximize the life expectancy of the Grand Forks Landfill.
- To maximize the potential for implementing the five Rs of waste management: reduce, reuse, recycle, recover, and residual management¹³.
- To discourage dumping of refuse at unauthorized sites.
- To develop a 10-year plan establishing an economically and technically feasible program to recover resources and manage solid waste that is both environmentally safe and acceptable to the public.

Policies

The policies of the **Board** with respect to Solid Waste Management are as follows:

¹³ <https://www2.gov.bc.ca/gov/content/environment/waste-management/zero-waste>

- 16.1 Promote and encourage adoption of the “Extended Producer Responsibility” model for all waste management activities in British Columbia and advocate for the expansion of the extended producer responsibility programs covered by Recycle BC.
- 16.2 Divert all materials that are accepted in local recycling programs, plus yard and garden waste from **Regional District** landfills.
- 16.3 Implement a tipping fee structure that encourages people to make responsible choices regarding the five Rs of waste management.
- 16.4 Support organics diversion programs, including education, home composting and large-scale composting, aimed at reducing greenhouse gases and extending the life expectancy of the Grand Forks Landfill.
- 16.5 Consider, in conjunction with the Province, the implementation of a garbage clean-up program to remove refuse that is dumped on publicly owned lands and lands adjacent to highways.
- 16.6 Strive to minimize the number of trips required by vehicles for garbage and recycling pick up services.
- 16.7 Review and update the **Regional District’s** Solid Waste Management Plan that supports our zero-waste goal, including achieving zero waste in **Regional District** operations, reducing construction industry waste, and advocating to federal and provincial governments to improve consumer waste reduction policies.
- 16.8 Cooperate with communities in the Boundary Area to achieve the goals of the Solid Waste Management Plan.

17. Safety, Maintenance and Quiet Enjoyment of Property

The **Plan Area** has residential neighborhoods, recreational properties, as well as rural properties characterized by larger parcels and traditional rural land uses. Rural parcels may have elements of land use, such as the storage of machines and materials outside, which may be perceived as untidy by some visitors and residents. A balance can be found between agreeable property maintenance with those elements of land-use traditionally present in rural areas.

Objectives

The objectives of the **Board** with respect to Safety, Maintenance and Quiet Enjoyment of Property are as follows:

- To promote actions that contribute to the health and safety of residents in the **Plan Area**.
- To encourage landowners in the **Plan Area** to recognize the importance of maintaining visual values on their property whenever possible.
- To minimize disturbances to the natural environment as far as possible, and to promote a quiet, peaceful, and safe setting for the community.
- To recognize the natural visual qualities of the **Plan Area**.
- To encourage residents to maintain their properties in a healthy and safe manner.

Policies

The policies of the **Board** with respect to Safety, Maintenance and Quiet Enjoyment of Property are as follows:

- 17.1 Support the establishment of a bylaw to regulate noise.
- 17.2 Support the establishment of a bylaw to regulate unsightly premises.
- 17.3 Encourage the safe and quiet enjoyment of residential properties.
- 17.4 Encourage the proper care and maintenance of private property.
- 17.5 Encourage residents to minimize the impact smoke from burning on their property onto adjacent properties.
- 17.6 Maintain **Regional District** buildings and facilities in a sound and tidy condition and encourage senior governments to do so as well.
- 17.7 Encourage property owners to ensure their street address is highly visible from the road both during the day and at night.
- 17.8 Require all commercial and industrial properties to provide safe access for emergency vehicles.
- 17.9 Require that outdoor storage of goods and/or supplies on industrial and commercial properties have appropriate screening and fencing.
- 17.10 Encourage property owners to adhere to Fire Smart landscaping practices.

18. Affordable, Rental and Special Needs Housing

The RDKB's 2020 Housing Needs Report identified housing needs specific to Electoral Area C/Christina Lake. Some of these housing needs include:

- Year-round market rental housing;
- Youth safe house;
- Workforce housing;
- Accessible seniors-oriented rental or ownership housing including independent and senior's supportive housing (may not be feasible in rural areas but a consideration for neighbouring communities that might absorb anticipated migration trends).

There are several tools available to local governments to facilitate affordable, rental, and special needs housing; however, many are best suited to municipalities where high-density housing is more feasible and desirable due to the availability of services such as water, and sewer, and where residents do not have to be as reliant on automobile transportation.

This **Plan** includes policies regarding housing affordability such as increasing the supply of rental and affordable housing suited to rural areas including permitting secondary suites in residential areas; provisions regarding manufactured home parks; permitting dwelling units as a secondary use in commercial and industrial zones; permitting home-based businesses; and considering mixed-use commercial areas that permit residential uses in areas designated for commercial uses.

Objectives

The objectives of the **Board** with respect to Affordable Housing, Rental and Special Needs Housing are as follows:

- To recognize the need for affordable, rental and special needs housing within the **Plan Area**.
- To strive to ensure that affordable, rental, and special needs housing options are available and being used in the **Plan Area**.

Policies

The policies of the **Board** with respect to Affordable Housing, Rental and Special Needs Housing are as follows:

- 18.1 Support the development of a Boundary regional housing strategy.
- 18.2 Permit secondary suites in residential areas, where safe, in the implementing Zoning Bylaw.
- 18.3 Consider allowing dwelling units in conjunction with a principal commercial or industrial use in the implementing Zoning Bylaw.
- 18.4 Support expansion of existing manufactured home parks and establishment of new manufactured home parks in appropriate locations, including where services provided by the **Regional District** are available.

- 18.5 Consider, including by way of a rezoning application, proposals to create affordable and/or special needs housing in the **Plan Area**, including from a non-profit society or cooperative. Such applications will be evaluated on criteria that includes, but is not necessarily limited to the following:
- a) the suitability of the site proposed for such use (including neighbourhood impacts or access to community services such as water, sewer, transportation, and access to needs);
 - b) for housing projects creating more than three dwelling units, proof of ability to provide on-site sewage treatment, in line with the Sewage Treatment provisions of this **Plan** in addition to provincial requirements;
 - c) the provision of adequate off-street parking;
 - d) guarantees, through a Housing Agreement pursuant to Section 483 of the *Local Government Act*, or other approach acceptable to the **Board**, that the proposed development will remain exclusively as below market and/or special needs housing operated by a non-profit in perpetuity; and
 - e) consideration of creating a development permit area, Section 219 Covenant, or other approach acceptable to the Board, for site planning and the form and character of the buildings, should the proposed housing form be multiple family dwellings.
- 18.6 Consider, including by way of a re-zoning application, options for multiple dwellings on a lot, such as duplexes, triplexes, or fourplexes, often considered to be more affordable forms of housing, provided that the appropriate level of sewage treatment can be provided, in line with the Sewage Treatment provisions of this **Plan**.
- 18.7 Explore appropriate locations for seniors' housing and/or other special needs housing.

19. Land Use Designations

The Land Use Designations, both present and proposed, are delineated on the Land Use Map (Map 1). When a land use designation boundary is shown following a highway or watercourse, the centreline of such feature is the designation boundary. There are a total of 14 land use designations including the following:

- Residential
- Waterfront Residential
- Rural Residential
- Rural
- Rural Resource 1 & 2
- General Commercial
- Waterfront Commercial
- Campground Commercial
- Industrial
- Lake
- Parks and Recreation
- Rail/Trail Corridor
- Institutional and Community Facilities

Objectives

The objectives of the **Board** with respect to all land use designations are as follows:

- To place all lands in the **Plan Area** in land use designations that reflect the needs of the community while balancing the community's desire to preserve rural character and reduce greenhouse gas emissions; and
- To designate areas of land to meet estimated housing needs for at least the next 5 years.

Policies

The policies of the **Board** with respect to all land use designations are as follows:

19.0.1 Land Use Designations are delineated on Map 1.

19.0.2 Uses permitted in all land use designations may include, but not necessarily be limited to: utility uses and transmission facilities (excluding office, maintenance garages and storage areas), which are essential for the provision of water, sewer, electricity, telephone and similar services to the **Plan Area**; schools; day cares; parks; trails; museums; police and ambulance stations; fire halls and similar civic facilities. Many of these uses are not permitted in the Agricultural Land Reserve (ALR) and may require approval from the ALC if the parcel is located in the ALR.

- 19.0.3 Permit the establishment of an outbuilding of a limited size on a property without a principal permitted use for the non-commercial storage of personal goods.
- 19.0.4 Under the *Local Government Act* Section 492, the entire **Plan Area** is designated to allow for temporary uses. A use that is not permitted on a specific parcel but may be permitted within the bylaw may be considered. A use not permitted within the bylaw may also be considered. Such temporary use permits will be subject to site-specific operational conditions to ensure that the temporary land use will be compatible with the surrounding area.
- 19.0.5 Permit the non-commercial use of a recreational vehicle or tent for temporary accommodation.

The objectives and policies for each land use designation are described in detail below.

19.1 **Residential**

The Residential land use designation applies to lands outside the Agricultural Land Reserve (ALR) that are serviced by public water systems or are in areas that could next be connected to a service area. Most lands currently designated residential are within either the Christina Lake Water Utility water service or the Sutherland Creek Waterworks District.

Connection to a water system permits smaller lot sizes. Interior Health provides the general guidelines of one (1) ha size for parcels that will have a septic system and well, to provide enough space for effluent to disperse without impact on a drinking water source. With a connection to a water system, contamination of drinking water is less of a concern.

Objectives

The objectives of the **Board** with respect to 'Residential' are as follows:

- To identify lands in a community water service area, or to which a community water service could be expanded for residential development and establish appropriate uses and parcel sizes.
- To protect residential areas from expansion of commercial and industrial areas.
- To consider higher density residential developments within existing residential areas alongside of available water and sewer capacity.

Policies

The policies of the **Board** with respect to 'Residential' are as follows:

- 19.1.1 Designate all non-ALR lands, serviced by community water, or lands that could be connected to a community water service if service was expanded, as 'Residential'.
- 19.1.2 Permitted uses in the 'Residential' land use designation may include but not necessarily be limited to: single family dwelling; secondary suite; sleeping

quarter, bed and breakfast; home-based business; and accessory uses, buildings and structures.

- 19.1.3 With respect for the rural and small-town character of the **Plan Area**, density, parcel coverage and setbacks in the implementing bylaw will ensure that development is proportional to the lot.
- 19.1.4 In the Residential land use designation, for parcels located in a water service area, the minimum parcel area for new parcels created by subdivision is 2000 m² when the parcel is connected to the water system and 1 ha when the parcel is not connected to the water system.
- 19.1.5 In the Residential land use designation, when a parcel is not within the boundaries of a water service area, the minimum parcel size required will be 10 ha.
- 19.1.6 Multi-family residential development may be considered, including by way of rezoning, in conjunction with the Sewage Treatment and Water Servicing sections of this Plan. This may include considering inclusion of duplexes and triplexes as permitted uses in the implementing bylaw. Further considerations for higher density residential development will include:
- a) Proximity to community features such as commercial areas;
 - b) The provision of off-street parking;
 - c) Creation of a development permit area for site planning and the form and character of the buildings, if the proposed housing form is multiple family dwellings.

19.2 **Waterfront Residential**

Waterfront residential areas are characterized by existing smaller lots on the lakeshore serviced by septic systems and individual water systems, such as wells or waterlines from the lakes. Often these parcels have difficult terrain conditions from the slope and soil present. These factors, together with the anticipated higher per unit costs for the installation of or connection to community services suggest that further development of these parcels could negatively impact the health of Christina Lake and could contribute to the degradation of lake water quality and the shoreline in general. This degradation may result from further development in the riparian area surrounding the lake and an increase in the number of septic systems in closer proximity to the lake.

There are boat access only parcels that extend north along the lake. Generally, these parcels have remained less developed because of the expense and logistics associated with boating in construction material and maintaining year-round access for residents.

Objectives

The objectives of the **Board** with respect to the 'Waterfront Residential' land use designation are as follows:

- To identify lands adjacent to Christina Lake that are not serviced by a community water system that are outside the South Townsite and Lavalley

Point areas for residential development and establish appropriate uses and parcel sizes.

- To protect the integrity of Christina Lake in line with policies outlined in the Lake designation and the Environmentally Sensitive Areas section of this **Plan**.

Policies

The policies of the **Board** with respect to the 'Waterfront Residential' land use designation are as follows:

- 19.2.1 Designate residential parcels that are adjacent to Christina Lake and are not connected to a community water service as 'Waterfront Residential'.
- 19.2.2 Permitted uses in the 'Waterfront Residential' land use designation may include but not necessarily be limited to: single family dwelling; sleeping quarter, bed and breakfast; home-based business; and accessory uses, buildings and structures.
- 19.2.3 Including secondary suites as a permitted use in the implementing bylaw in this designation will be considered alongside the lot size and effectiveness of onsite sewerage system to manage the flows associated with an additional dwelling unit.
- 19.2.4 The minimum parcel size for the creation of parcels required within the Waterfront Residential area shall be 10 ha.
- 19.2.5 Discourage the use of concrete retaining walls in proximity to the lake.
- 19.2.6 Where removal of existing walls is not viable, request a redesign of the wall to reduce environmental impacts to the foreshore.

19.3 Rural Residential

Parcels designated as Rural Residential are neighbourhoods that are slightly removed from the denser residential neighbourhoods and have a more rural aspect, while still with neighbours in proximity. They tend to be pocket neighbourhoods in amongst a more rural landscape. Parcels are generally around 1 ha in size, with Cascade being the main exception, with parcels sizes established in the historic Cascade townsite. Most do not have community water systems, though part of the area on McRae Road is in the Deer Ridge Water System.

Objectives

The objectives of the **Board** with respect to the 'Rural Residential' land use designation are as follows:

- To provide residential options in a rural setting on lots which are large enough to support independent and self-sustaining services without adversely impacting the surrounding natural environment.
- To protect rural residential areas from urbanization.

Policies

The policies of the **Board** with respect to the 'Rural Residential' land use designation are as follows:

- 19.3.1 Permitted uses in the 'Rural Residential' land use designation may include but not necessarily be limited to: single family dwelling; secondary suite; sleeping quarter, bed and breakfast; home-based business; and accessory uses, buildings and structures.
- 19.3.2 Preserve the rural nature of parcels designated as 'Rural Residential' by preventing high density residential uses and commercial and industrial uses from being established.
- 19.3.3 Notwithstanding the above policy, a small neighbourhood store may be permitted by way of a rezoning.
- 19.3.4 In the Rural Residential land use designation, the minimum parcel area for new parcels created by subdivision is 1 ha.
- 19.3.5 Consider applying to remove the Cascade 'Rural Residential' area from the ALR.

19.4 Rural

The 'Rural' land use designation applies to the lands that are further removed from densely populated areas. Some of these areas may have limiting aspects including topography or natural hazards that may limit further development. These lands may be partially or wholly located in the ALR and tend to be larger parcels. These lands can be seen as the separating lands between the Residential and Rural Residential land use designations and the Rural Resource land use designations.

Objectives

The objectives of the **Board** with respect to the 'Rural' land use designation are as follows:

- To retain the low density of lands designated as Rural by limiting the intrusion of higher density residential development.
- To protect the rural character, values, lifestyles, and economic pursuits that predominate in Fife, the Santa Rosa Road, the Stewart Creek Road and along the Kettle River/U.S. border corridor.
- To encourage agriculture within the Agricultural Land Reserve.

Policies

The policies of the **Board** with respect to the 'Rural' land use designation are as follows:

- 19.4.1 The permitted uses within the Rural area include but are not necessarily limited to: single family dwelling; secondary suite; home based business; agriculture; kennels; resource use; and accessory uses, buildings and structures.

- 19.4.2 The minimum parcel sizes within the Rural area shall be 10 ha unless the land is within the ALR, in which case the minimum parcel size is 20 ha.
- 19.4.3 Avoid, where possible, considering lands in the 'Rural' land use designations for re-designation and re-zoning to a 'Rural Residential' land use designation, given the likelihood of more appropriate land in other more densely populated residential designations.
- 19.4.4 Recognize that the majority of the privately owned ALR lands in Electoral Area C/Christina Lake are in the Rural land use designation and that the *Agricultural Land Commission Act*, as amended, apply to these lands.

19.5 **Rural Resource 1 and 2**

The 'Rural Resource' land use designations apply to non-serviced lands that may also have topographical constraints to development and tend to be located further from Christina Lake. The 'Rural Resource' designation is split into two: 'Rural Resource 1', designates large parcels of privately owned land that are more remotely located; 'Rural Resource 2' land, is publicly owned land further from those developed areas (Map 1).

Objectives

The objectives of the **Board** with respect to the 'Rural Resource' land use designations are as follows:

- To reserve areas designated as Rural Resource for resource use.
- To encourage wise use of natural resources, ensuring long-term community stability and prosperity.
- To promote the management of lands in a manner that reduces threat of wildfire.
- To recognize that protecting water quality and the natural environment is vital to the community's well-being.

Policies

The policies of the **Board** with respect to the 'Rural Resource' land use designations are as follows:

- 19.5.1 Permitted uses in the 'Rural Resource 1' designation may include but not necessarily be limited to: single family dwelling; secondary suite; home based business; resource use; agriculture; campground; and accessory uses, building and structures.
- 19.5.2 Permitted uses in the 'Rural Resource 2' designation may include but not necessarily be limited to: resource use; agriculture; campground; and accessory buildings and structures.
- 19.5.3 The minimum parcel area required for new parcels created by subdivision in the 'Rural Resource 1' designation is 50 ha.
- 19.5.4 The minimum parcel area required for new parcels created by subdivision in the 'Rural Resource 2' designation is 100 ha.

- 19.5.5 Encourage management of resource extraction activities in the 'Rural Resource' designations that takes into consideration the impacts of those activities on recreational activities, the natural environment, natural hazards, and water quality.
- 19.5.6 Provincial agencies responsible for the resource management of publicly owned land are encouraged to recognize that the Christina Lake is a consumptive watershed and to manage the environment and viewshed accordingly. Intact forested slopes surrounding the community are considered a community asset.
- 19.5.7 Build awareness of recreational resources available throughout the 'Rural Resource 2' designation.
- 19.5.8 Encourage Provincial agencies with jurisdiction, to protect publicly owned land from sale in the 'Rural Resource 2' designation.

19.6 **General Commercial**

Parcels designated as 'General Commercial' are centrally located, primarily along the Highway, in the townsite at the south end of the Lake and in the Lavalley Point neighbourhood (Map 1).

Objectives

The objectives of the **Board** with respect to the 'General Commercial' land use designation are as follows:

- To promote a core commercial area that provides a sense of community, that is contiguous with other commercial development as well as community institutions and recreation.
- To encourage the use of green space and design for development that is attractive and environmentally sustainable commercial areas.

Policies

The policies of the **Board** with respect to the 'General Commercial' land use designation are as follows:

- 19.6.1 Include all lands designated as 'General Commercial' into commercial development permit areas that building design, layout of buildings, landscaping and parking in the guidelines to create attractive, safe and functional commercial areas.
- 19.6.2 Permitted uses in the General Commercial designation may include, but not necessarily be limited to: retail; eating and drinking establishments; personal services; offices; tourist accommodation; entertainment facilities; recreation facilities; automotive servicing; commercial greenhouses and nurseries; an accessory dwelling unit; and accessory uses, buildings and structures.

- 19.6.3 Guidelines for preferred designs for commercial development will be considered for inclusion in this Plan with process being led by a community group.
- 19.6.4 Some light industrial uses such as artisan workshops, storage and warehousing may be permitted by way of rezoning if the following guidelines are clearly demonstrated:
- (a) that they support the primary commercial character of the area;
 - (a) add to the functional mix of activities; and that the proposed use is compatible with the uses of the neighbouring properties.
- 19.6.5 Mixed commercial/residential uses may be permitted by way of a zoning amendment, provided that:
- a) This amendment occurs on a property located at the south end of the lake; and
 - b) That all, or substantially all, of the ground level floor space will be for commercial uses.
- 19.6.6 Seniors' housing may be permitted within the areas designated General Commercial upon submission of a zoning amendment application where such use is compatible with and complimentary to neighbouring commercial uses.
- 19.6.7 Commercial signage will be regulated as to the number, size, type, form, appearance, and location.
- 19.6.8 Privately owned land north of Christina Creek along Kimura Road is designated as Commercial, but existing parcels zoned residential may remain as such in the implementing bylaw and may be used or developed for residential purposes until the owners elect to apply for commercial zoning.
- 19.6.9 Notwithstanding the other commercial policies, the **Regional District** strongly discourages the amendment of lands designated as residential to commercial along Kingsley Road.

19.7 **Waterfront Commercial**

The waterfront resort commercial designation covers properties that currently or are proposed to have resort businesses along that border on the foreshore of Christina Lake.

Objectives

The objectives of the **Board** with respect to the 'Waterfront Commercial' land use designation are as follows:

- To ensure that waterfront commercial developments are consistent with the rural small-town character of the community.
- To encourage attractive, environmentally sensitive development.

- To limit the commercial use of the waterfront to those already designated commercial.
- To encourage, where feasible, the development of well-planned year-round resort facilities, which could strengthen the local economy.
- To encourage restoration of lakeshore habitats and reduce the use of concrete retaining walls in these habitats.

Policies

The policies of the **Board** with respect to the 'Waterfront Commercial' land use designation are as follows:

- 19.7.1 Principal permitted uses for the Waterfront Commercial designation may include, but are necessarily limited to: resorts; restaurants
- 19.7.2 Dwelling unit, retail and entertainment facilities may be permitted as accessory uses.
- 19.7.3 Campgrounds may be a permitted use in the Waterfront Commercial designation by way of zoning amendment, provided that:
 - a) The applicant demonstrates the campground is compatible with the surrounding neighbourhood;
 - b) The proposed means of sewage disposal is consistent with the Sewage Treatment section of this Plan; and
 - c) Campsite density will be established in the implementing bylaw and will provide for spacious sites and provide protection of environmentally sensitive areas;
- 19.7.4 New marinas may be permitted in the Waterfront Commercial designation by way of a zoning amendment and may include as principal permitted uses, but not necessarily be limited to: sales, rental, repair and other associated uses. The proposed marina must be outside the intake protection zone (IPZ) identified in the Christina Lake Water Utility Source Water Protection Plan (2019), shown on Map 10, and indicate how best management practices will be followed to prevent fuel contamination of Christina Lake.
- 19.7.5 Moorage for patrons of a permitted use will be supported.
- 19.7.6 Include all lands designated as waterfront commercial into development permit areas that address the environmentally sensitive nature of proximity to the lake and the form and character of developments.
- 19.7.7 Discourage the use of concrete retaining walls in proximity to the lake.
- 19.7.8 Where removal of existing walls is not viable, request a redesign of the wall to reduce environmental impacts to the foreshore.

19.8 **Commercial Campground**

The campground commercial designation covers properties that are currently or are proposed to have privately owned commercial campground businesses that are located away from the lake.

Objectives

The objectives of the **Board** with respect to the 'Commercial Campground' land use designation are as follows:

- To encourage development of campgrounds that respect the natural environment.

Policies

The policies of the **Board** with respect to the 'Commercial Campground' land use designation are as follows:

- 19.8.1 Principal permitted uses for the Waterfront Commercial designation may include but are necessarily limited to: Campgrounds.
- 19.8.2 Dwelling units and small retail areas may be permitted as accessory uses.
- 19.8.3 Include all lands designates as Campground Commercial into commercial development permit areas that building design, landscaping and parking in the guidelines to create attractive, safe and functional commercial areas.
- 19.8.4 Campsite density will be established in the implementing bylaw and will provide for spacious sites and provide protection of environmentally sensitive areas.
- 19.8.5 New private commercial campgrounds may be allowed, by amending this Plan and re-zoning, provided that:
 - a) The applicant demonstrates the campground is compatible with the surrounding neighbourhood; and
 - b) The proposed means of sewage disposal is consistent with the Sewage Treatment section of this **Plan**.
- 19.8.6 Retail sales of gas and oil, and the rental, sales and maintenance of motorized watercraft will not be permitted on parcels in this designation.
- 19.8.7 Discourage the use of concrete retaining walls in proximity to watercourses.
- 19.8.8 Where removal of existing walls is not viable, request a redesign of the wall to reduce environmental impacts to the foreshore.

19.9 **Industrial**

Industrial lands in the **Plan Area** are located on Highway 395 and Ponderosa Drive, south of the Kettle River. Industrial lands provide an important space for economic growth in a community.

Objectives

The objectives of the **Board** with respect to the 'Industrial' land use designation are as follows:

- To encourage industrial development that complements the rural and resort character of the Plan Area.
- To require actions to mitigate potential negative effects of industrial land uses.
- To encourage environmentally safe and sustainable industries.

Policies

The policies of the **Board** with respect to the 'Industrial' land use designation are as follows:

- 19.9.1 Permitted uses in the 'Industrial' designation will be light industrial uses and may include, but not necessarily be limited to: storage; freight terminals; automotive dealers and services; building supply stores; an accessory dwelling unit; retail that is accessory to another use on the parcel; light manufacturing; and accessory buildings and structures. The implementing Zoning Bylaw will further define which industrial uses will be permitted in each industrial zone.
- 19.9.2 Proposals to create additional industrial lands or to expand existing industrial lands may be permitted by way of a zoning amendment with an OCP amendment. Considerations would include, but not be limited to:
 - a) Demonstration that the properties currently designated as industrial would be unsuitable for the proposed use;
 - b) Potential impacts of the proposed industrial land use on the owners and occupiers of adjacent parcels of land; and
 - c) Potential impacts of the proposed land use on the natural environment.
- 19.9.3 Industrial uses that may include, but not limited to, any of the following: noise, glare, and odour, must be located within a wholly enclosed building.
- 19.9.4 The designation of development permit area(s) to address the form and character of industrial activities with regards including how industrial areas blend with the rural character of the surrounding neighbourhoods. Consideration will be given to the inclusion of guidelines for reduction of greenhouse gas reduction, energy and water conservation.
- 19.9.5 Encourage the remediation of industrial land and support provincial action that requires remediation.
- 19.9.6 The following industrial uses will be prohibited in the implementing bylaw:
 - a) Gasification industries producing synthesis gas (syngas) and similar products by incineration, thermal treatment, or other means from

materials including, but not limited to, hazardous waste, municipal solid waste, wood waste, compost or other biomass;

- b) Hazardous waste processing, recycling, or treatment facilities (excluding municipal solid waste disposal, recycling, and transfer facilities operated by, or with the consent of the **Regional District** pursuant to an approved Solid Waste Management Plan);
 - c) Hammer mills, rolling mills, blast furnaces, foundries, drop forges, brick kilns, and flour mills;
 - d) The distilling, incinerating, processing, rendering or canning of fish or animal products, and the manufacture of matches, paper or rubber;
 - e) The manufacture, processing, refining, mixing or bulk storage of bitumen, coal or tar products or derivatives and corrosive, noxious, highly flammable or explosive minerals, chemicals, gasses and fission or fusion products;
 - f) The manufacture, processing, refining and mixing of petroleum and petroleum products including asphalt plants;
 - g) The smelting, refining and reducing of minerals and metallic ores;
 - h) The operation of stockyards, the slaughtering of animals or poultry and the manufacture of fertilizers;
 - i) Pulp and paper plants; nor
 - j) The storage of the following:
 - i) Waste pest control product containers and wastes containing pest control products, including wastes from the application of pest control products to wood;
 - ii) Radioactive dangerous goods;
 - iii) Waste wood products treated with wood preservatives;
 - iv) Used tires;
 - v) Used batteries.
- 19.9.7 Notwithstanding the above, portable asphalt plants and similar facilities required for short-term infrastructure construction and renovation projects may be permitted through the issuance of a temporary use permit.
- 19.9.8 Agriculture will be a permitted use on Lot 35, Ponderosa Estates.

19.10 **Lake**

Objectives

The objectives of the **Board** with respect to the 'Lake' designation are as follows:

- To maintain and improve water quality of Christina Lake for domestic water consumption, recreation and aesthetic qualities.
- To maintain and restore aquatic and lakeshore habitats.

Policies

The policies of the **Board** with respect to the 'Lake' designation are as follows:

- 19.10.1 Principal permitted uses in the 'Lake' designation include recreational uses and moorage facilities accessory to a residence (as authorized through Provincial licensing processes).
- 19.10.2 Houseboats and floating homes will not be permitted.
- 19.10.3 Encourage the maintenance and restoration of lakeshore and aquatic habitat, through education on invasive species, native plant species and the benefits of a natural shoreline for protection against wave action and flooding.
- 19.10.4 Discourage the use of concrete retaining walls in proximity to the lake.
- 19.10.5 Where removal of existing walls is not viable, request a redesign of the wall to reduce environmental impacts to the foreshore.

19.11 Parks and Recreation

The 'Parks and Recreation' land use designation applies to both publicly and privately owned parks and parcels used for recreation purposes (Map 1). The following is a list that generally describes the lands that are designated Parks and Recreation:

- Gladstone Provincial Park
- Gilpin Grasslands Provincial Park
- Christina Lake Provincial Park
- Christina Lake Community and Nature Park
- Use, Recreation and Enjoyment of the Public Reserves (UREP) located on West Lake Drive and on the North Bank of the Kettle River, at the end of Swanson Road
- Neighbourhood Parks – e.g., properties on Chase Rd. and Ness Rd.
- Dog Park
- Golf Course
- Community Hall Grounds
- Pickle Ball Courts/Tennis Courts

Objectives

The objectives of the **Board** with respect to the 'Parks and Recreation' land use designation are as follows:

- To support the preservation of land and water with high scenic, natural and recreational values for public use and enjoyment.
- To encourage the Province to develop and manage provincial parks in a manner which is environmentally sensitive while serving the needs of local residents and visitors.
- To legalise access to areas presently used by residents of the Plan Area for recreational purposes, possibly through land acquisition.

Policies

The policies of the **Board** with respect to the 'Parks and Recreation' land use designation are as follows:

- 19.11.1 Parkland dedications will be directed towards the development of the system of community parks as identified on the Land Use Map. The system consists of the following elements:
 - a) Community Parks - encompassing and supplementing the existing lands and facilities in the vicinity of the community hall (i.e., the pickle ball courts, bike pump track and ball diamond), the vicinity of the Welcome Centre, and the dog park.
 - b) Neighbourhood Parks - providing safe areas for quiet recreational activities serving the needs of residents in that particular area (e.g., children's playgrounds and walking paths).
 - c) Special Feature Parks - intended to protect and plan for the recreational use of unique areas or features present within the **Plan Area** (e.g., the Fife Quarry, the Cascade Falls and the Santa Rosa lookout).
- 19.11.2 Support the development of a multi-purpose recreational trail network within the **Plan Area**. Some important elements of this system could include the Badger Trail, the historic Dewdney Trail, the Park Reserve along the south bank of the Kettle River and the former CPR railway grade.
- 19.11.3 Consider locations for trails and recreational uses throughout the **Plan Area** that can provide recreational opportunities and connectivity.
- 19.11.4 Maintain inventory of publicly owned land and Road-Ends to assist in developing a long-term strategy for their use.
- 19.11.5 Permitted uses in the 'Parks and Recreation' designation may include but not necessarily be limited to: wildlife reserves; eating and drinking establishments; guest cabins; camping; recreational vehicle accommodation; public assembly uses; recreation facilities; and accessory uses, buildings and structures.
- 19.11.6 Consider amendments to this Plan and the Zoning Bylaw to recognize additional park land locations.

- 19.11.7 Encourage parks and trails users to inform themselves regarding land ownership and not to cross private land without permission.
- 19.11.8 Encourage parks and trails users to inform themselves about the risks involved in recreational activities including water safety and hazards.

19.12 **Rail/Trail Corridor**

The **Plan Area** includes an abandoned railway corridor and one that is in the process of being decommissioned (Map 1). Mining in the area at the turn of the century lead to a railroad race to transport the minerals to smelters and markets outside the area. The Trans Canada Trail is in the abandoned Columbia and Western railway corridor. This corridor has remained intact and is used for recreational purposes. The one that is currently being decommissioned, the Kettle Falls International Railway Co. runs along the south side of the Kettle River through Gilpin then turns south to the United States near the Cascade Falls. This corridor could transition into recreational use.

Objectives

The objective of the **Board** with respect to the 'Rail/Trail Corridor' land use designation is as follows:

- To protect the integrity of the railway rights of way in the Plan Area for corridor type uses.
- To recognize the importance of railway corridors for economic activity in the Christina Lake area.

Policies

The policies of the **Board** with respect to the 'Rail/Trail Corridor' land use designation are as follows:

- 19.12.1 Support the continued use of existing railways in the **Plan Area** for rail transportation purposes and endeavour to protect the continued operation of such railways under the zoning bylaw.
- 19.12.2 Permitted uses in the 'Rail/Trail Corridor' designation may include, but not necessarily be limited to: railways; recreational trails and similar transportation and utility corridors; and accessory uses, buildings and structures.
- 19.12.3 Consider requiring fencing and buffering in the implementing bylaw when a trail is established on a railway right of way adjacent to the ALR to buffer trails and agricultural lands in an effort to prevent conflicts between the uses.

19.13 **Institutional and Community Facilities**

As communities grow, so do the requirements for land which will be set aside for institutional and community facilities. Such needs are as diverse as: schools; fire halls; museums; places of worship; cemeteries; and border crossing facilities.

At the time this Plan was adopted, the following parcels were designated for 'Institutional and Community Facilities' as shown on Map 1:

- Christina Lake Elementary School;
- Christina Lake Community Hall;
- US/Canadian Customs; and
- Fire Hall.

Objectives

The objectives of the **Board** with respect to the 'Institutional and Community Facilities' land use designation are as follows:

- To identify sufficient lands for the institutional and community facilities needs of the residents of the **Plan Area** and to recognise such uses where they already exist.

Policies

The policies of the **Board** with respect to the 'Institutional and Community Facilities' land use designation are as follows:

- 19.13.1 Permitted uses in the 'Institutional and Community Facilities' land use designation may include but not necessarily be limited to: libraries; community halls; care facilities; places of worship; cemeteries (excluding crematoriums); customs offices and similar civic facilities; and accessory uses, buildings, and structures.

20. Implementation

An official community plan does not commit or authorize the **Board** to proceed with any project that is specified in the Plan. However, all bylaws enacted or works undertaken by the **Board** after the adoption of the Plan must be consistent with it.

20.1 **Zoning and Subdivision Control**

Electoral Area C/Christina Lake Zoning Bylaw No. 1300, 2004 shall remain in effect until it is replaced by a new zoning bylaw which is consistent with the policies of this **Plan**. Application for amendments to the zoning bylaw will be reviewed considering this **Plan** and only be approved if consistent with the **Plan**.

To accommodate specific site conditions and circumstances, the densities and uses referred to in this **Plan** may be further defined in the implementing bylaws, provided the general intent and purpose of the **Plan** is not altered. The **Regional District** may avail itself of the full range of planning and land use-management powers to advance the implementation of this Plan, and references to such powers in one context shall not limit the use of those powers in a different context not referenced in this **Plan**.

Subdivision approval remains with the Ministry of Transportation and Infrastructure's Approving Officer, who should have regard for the policies of this Plan in considering applications. Subdivision on properties in the ALR must be approved by the Agricultural Land Commission via a subdivision application. This **Plan** is a strong indicator of the public interest. Subdivision approval shall be subject to the provision of a reliable supply of potable water and a sewage disposal system both of which meet the appropriate Provincial standards. Costs for the provision of services to a subdivided parcel of land shall be borne by the owner.

20.2 **Parcel Size Exceptions in the Zoning Bylaw**

The minimum parcel sizes referred to in this **Plan** apply only to subdivision applications submitted after this **Plan** is adopted. In the zoning bylaw, existing undersized parcels shall be recognized and therefore may continue to be occupied by the use set out for the respective land use category in which they are located.

Minor reductions in the minimum parcel sizes set out under the land use designations may be permitted in the zoning bylaw to accommodate losses of land incurred because of a required dedication for roads or other public purpose after the date of adoption of this bylaw.

Interior lot lines adjustments of adjoining existing undersized parcels may be permitted provided no additional parcels are created and the area required for sewage disposal and building setbacks is not reduced.

20.3 **Development Approvals Information Area**

Through the authority of Section 485 of the *Local Government Act*, a local government may specify circumstances and designate areas in an Official Community Plan for which development approval information is required. This designation allows the local government to require an applicant to provide information to support an application to amend an Official Community Plan or Zoning Bylaw or issue a development permit or temporary use permit at their own

expense. The main objective of using this legislative provision is to ensure that appropriate studies and information are provided thereby enabling the **Regional District** to evaluate an application prior to adopting an amendment bylaw, or issuing a development permit, or temporary use permit per the *Local Government Act* Section 487.

A Development Approval Information Area hereby applies to all the lands in the **Plan Area**. The **Regional District's** Development Approval Information Bylaw No. 1507 will be amended to include this **Plan Area**. Bylaw No. 1507 establishes procedures and policies regarding the process for requiring development approval information under Section 486 of the *Local Government Act*. The Development Approval Information Bylaw also specifies matters for which additional on-site and off-site information will be required. Given the community's interest in maintaining a healthy environment, clean water, the rural character of the community, and mitigating the impact of natural hazards in the **Plan Area**, for example, the following issues are of particular importance:

- Determination of the location and extent of environmentally sensitive areas, such as riparian areas among others, so they may be protected where possible;
- Demonstration that proposed sewage and water servicing, whether they are proposed to be on-site or community systems, meet the requirements of the applicable government agency;
- Consideration of wildfire interface hazards in the planning of residential clusters so hazards may be avoided where possible; and
- Consideration of the location of areas of geotechnical concern so they may be avoided where possible.

21. Waterfront 100 Development Permit Area

21.1 Area

Lands included in Waterfront 100 Development Permit Area are legal parcels of privately owned or leased land, including land covered by water within 100 m from the present natural boundary of Christina Lake or the high watermark of any of its tributaries. The general locations of this development permit area are shown on Map 11, however in the case of a discrepancy, the text description of the development permit area prevails.

21.2 Category

The Waterfront 100 Development Permit Area is designated pursuant to the *Local Government Act*:

- Section 488(1)(a) protection of the natural environment, its ecosystems and biological diversity.
- Section 488(1)(b) protection of development from hazardous conditions.

21.3 Justification

Christina Lake, its tributaries, and outflow are domestic water sources for many residents and visitors. Christina Lake also has very high recreational values. Water quality is therefore of utmost importance to the community. Careful management of this area to protect these values is necessary. Inadequate or malfunctioning septic systems have been identified as a concern for source water contamination, including the introduction of pathogens and nutrients into waterbodies that can cause a risk to human health and to the health of the aquatic ecosystem.

Nutrient loading from phosphorus and nitrogen which is present in sewage effluent and lawn fertilizers, among other sources, can lead to eutrophication in waterbodies, increasing algal blooms and reducing oxygen available for aquatic life.

Another source of contamination which can impact water quality and aquatic ecosystems is suspended sediment. Sediment enters watercourses naturally during rain events. However, increased sediment loads can occur on sites where soil has been disturbed, such as from construction and development.

21.4 Development Requiring a Permit

Section 489 of the *Local Government Act* details the development that is prohibited in specific development permit areas without first obtaining a permit.

A development permit is required for developments in the Waterfront 100 Development Permit Area in the following circumstances, unless exempted in section 21.5:

- a) Subdivision;
- b) The construction of, addition to, or alteration of a building or other structure; and
- c) Alteration of the land.

21.5 Exemptions

A Waterfront 100 Development Permit is not required for any of the following:

- .1 the alteration of land, except when a septic system is being installed.
- .2 the sewage disposal system serving the new or existing building is located more than 100 m beyond the natural boundary of Christina Lake or tributary stream.
- .3 the repair, alteration, extension or renovation of an existing building or structure which does not involve the addition of floor area to a dwelling unit.
- .4 subdivision.
- .5 Construction of free-standing fences and signs. To be clear, this does not include retaining walls.
- .6 Emergency response actions necessary to prevent, control, or reduce immediate and substantial threat to life or property during emergency events.

21.6 Guidelines

- .1 If a landowner plans any development activity as defined in section 489 of the *Local Government Act* within the area designated as Waterfront 100 DPA that has not been exempted, they must submit an application that includes a site plan and a report from a qualified professional.
- .2 The report from the qualified professional must assess that the method of sewage treatment for the parcel provides appropriate treatment, that meets or exceeds the Provincial standards. Meeting and exceeding Provincial standards is explained with the following points:
 - a. A type 1 onsite sewerage system is preferred, due to minimal maintenance and allow for absorption of nutrients from effluent by plants and soil processes.
 - b. For sewerage systems requiring a dispersal field, an alternate site on the parcel is to be identified as a back-up location for an onsite sewerage system. This space may be placed under a section 219 covenant to prevent future development.
 - c. Type 1 onsite sewerage system must be sited as far back from a watercourse as possible, with a 30 m setback being the minimum as established in Provincial standards. A distance greater than this will exceed the Provincial standards.
 - d. If a Type 2 or Type 3 system is being recommended, the Provincial standards will be exceeded by integrating nutrient capture into the system, to limit the nitrogen and phosphorous found in sewerage effluent entering watercourses.
 - e. That replacement be recommended if a system that is already in place is assessed and found to have less than 15 years of capacity left before it would need to be replaced.

- f. If the onsite sewerage system is designed to the permitted density of the parcel rather than the proposed bedrooms of the development, especially if a secondary suite is a permitted use.
 - .3 A development permit may be issued based on the above guidelines and after the submission of a report and letter of assurance from a professional that includes the following:
 - a. A site map showing the area of investigation, including existing and proposed: buildings, structures, onsite sewerage system locations, drinking water sources and natural features;
 - b. Demonstrate that the unique characteristics of the parcel have been considered and as well as the nature of the existing or proposed development including a description of the existing vegetation and any proposed vegetation removal;
 - c. An assessment of hydrogeology, including soil types, drainage characteristics, seepage zones, springs and seasonally saturated areas, groundwater depth, flow direction & pathways, and shallow bedrock;
 - d. Provide specifics as to how nutrients from the septic system will be captured and prevented from being released into aquatic systems and the expected efficacy of the chosen system;
 - e. A discussion of expected impacts from climate change, including, but limited to, increased potential for occurrences of flooding and drought;
 - f. If a type 1 system is not being used, statements about as to why it is not the system being recommended;
 - g. Statement(s) about the aspects of the recommended system that meet and are an improvement over the requirements of the Sewerage System Regulation standard practices manual, including the reduction of nutrients in effluent;
 - h. Provide a recommendation for the preferred option(s) for the subject site, with a clear justification for the choice, including statements about how the proposed development and onsite sewerage system will not compromise water quality with pathogens or nutrients;
 - i. Provide a maintenance schedule that supports the expected lifespan of the sewerage system;
 - j. Report must also describe how and where silt screening will be installed to prevent sediment from entering a watercourse and silt fencing must be installed as detailed in the report. It must be in place during the period of construction on the parcel; and
 - k. Further investigations may be required if it is determined that they are needed to support the proposed system.
 - .4 The report and site plan must demonstrate that the following have been considered:
 - a. How disturbance of soils and removal of vegetation will be minimized during development.
 - b. Use of pervious and natural vegetation landscaping, including for driving surfaces;
 - c. Landscaping that avoids the use of material treated with creosote, paint or other chemicals that can be toxic to fish and other organisms;

- d. Avoiding the use of concrete retaining walls in proximity to watercourses.
- .5 Requirement in the development permit may include specifications pertaining to the maintenance of the sewerage system as described in the report.
- .6 Once a development permit has been issued, a follow-up assessment by the professional is required to ensure that the use of the land is consistent with the professional reports requirements, the *Sewerage System Regulation*, and the **Regional District's** conditions and requirements included in the development permit.

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22. Riparian Development Permit Area

22.1 Area

Lands included in the Riparian Development Permit Area are the “riparian area” along a watercourse, such as a lake, river, stream, or wetland including along Christina Lake and other watercourses in the **Plan Area**. Lands that are a part of the development permit area are further defined in section 22.5.1. Unless determined otherwise by a Qualified Environmental Profession (QEP), the extent of the “Riparian Area” required for a parcel is as follows:

- a) 10 metres from the natural boundary of lakes;
- b) 30 metres from the top of bank of Christina Creek and the Kettle River; and
- c) 15 metres from the top of bank of other watercourses and from the natural boundary of wetlands;

This includes lands on legal parcels of privately owned or leased land.

The general locations of this development permit area are shown on Map 11, however in the case of a discrepancy, the text description of the development permit area prevails.

22.2 Category

The Riparian Development Permit Area is designated pursuant to the:

- Section 488.1(a) of the *Local Government Act*, protection of the natural environment, its ecosystems and biological diversity; and
- Section 488(1)(b) of the *Local Government Act*, protection of development from hazardous conditions.

22.3 Justification

Christina Lake and the Kettle River area are highly valued by residents and visitors. These watercourses and their riparian areas provide important habitat for bird species, pollinators and for fish rearing and spawning habitat. The maintenance and enhancement of riparian areas is important for preserving the quality of water and ecosystems, including for the use of the watercourses as sources for drinking water, for recreational purposes, and to support resiliency against natural hazards such as flooding and drought.

The “riparian area” is the area along the edge of watercourses where certain water tolerant plant communities grow. Section 22.5.1 defines the base distances where a riparian area is considered to exist at Christina Lake. These areas support a unique mixture of vegetation, from trees and shrubs to emergent and herbaceous plants. The vegetation in riparian areas directly influences water quality in the lake and streams and provides important aquatic habitat. The functions of a riparian area are numerous and varied. Maintaining riparian areas adjacent to lakes and streams provides several benefits:

- Riparian vegetation stabilizes shorelines, reducing erosion caused by wave

action from wind and boat traffic;

- Natural vegetation acts as a filter strip that helps prevent silt, lawn fertilizer, herbicides, pesticides, and other runoff pollution from reaching the lake or stream;
- Shoreline vegetation supports fish habitat by providing cover to moderate water temperature as well as providing a source of food, nutrients and organic matter to the lake or stream;
- Riparian areas provide habitat to a variety of species, including birds, bats, water mammals, and pollinators that support a complete and healthy ecosystem; and
- Vegetated riparian areas reduce the amount of fertilizer and herbicide needed on a shoreline property compared to that required to maintain lawns.

It is the intent of this development permit area to protect riparian areas from land development activities that may negatively impact water quality, habitat, as well as to protect development from wave action and flooding. This involves protecting vegetated, riparian areas on properties located along watercourse in Electoral Area C/ Christina Lake

According to the 2009 Christina Lake Foreshore Inventory and Mapping, 77% of Christina Lake's foreshore has been disturbed with a demonstrated relationship between disturbance and upland residential development.

While distances from watercourse boundaries have been included below to define where this development permit area is within the **Plan Area**, the extent of a riparian area on any given parcel is site specific and best determined by a qualified environmental professional.

The *Riparian Area Protection Regulation (RAPR)* is a Provincial regulation that details how the riparian area should be defined. This regulation applies to large areas of the Province, including the Lower Mainland and the Okanagan. The RAPR does not apply to the **Plan Area**. A RAPR manual provides guidance on methods to determine a riparian area, helping to implement the regulation. This manual also provides overarching understanding of how riparian areas are defined in British Columbia and is the standard in which many Qualified Environmental Professionals (QEPs) are trained.

It is recognized that the existing undersized waterfront parcels and the topographic constraints on parcels impose practical limitations to meeting the riparian area setbacks in many circumstances. It is also recognized that parcels upland of the foreshore need access to the watercourse. A pathway through the riparian area, referred to as the 'access corridor', is considered in this development permit area.

The development permit area guidelines are intended to balance the goal of protecting and regenerating a riparian area with the historic realities of development at Christina Lake. The purpose of this development permit area is not to prohibit development on parcels adjacent to watercourses. Rather it is to ensure that development activities are undertaken in a way that support the growth of the riparian area and the health of aquatic ecosystems.

22.4 Development Requiring a Permit

Section 489 of the *Local Government Act* details the development that is prohibited in specific development permit areas without first obtaining a permit.

A development permit is required for developments in the Riparian Development Permit Area in the following circumstances, unless exempted in section 22.5:

- d) Subdivision;
- e) The construction of, addition to, or alteration of a building or other structure; and
- f) Alteration of the land.

22.5 Exemptions

.1 A Riparian Development Permit is not required for any of the following:

- a. Projects involving the repair, alteration, extension or renovation of an existing building or structure that does not:
 - i. increase the floor area of the building or structure; nor
 - ii. involve alteration of land within a “riparian area”, including the removal of vegetation or the grading, removal, deposit, or moving of soil.
- b. Development located, or land alteration done, outside the riparian area of a watercourse (as identified below).
- c. Development or land alteration conducted in accordance with the Provincial FireSmart Manual, provided that all landscaping is conducted within 10.0 metres of an existing structure or building, though existing on-site native plants which meet the FireSmart Manual guidelines are to be maintained as part of the landscaping.
- d. Manual site preparation for the purpose of planting species appropriate for riparian restoration in the Boundary region, as determined by a Qualified Environmental Professional. This does not include use of machinery for site preparation.
- e. If land where disturbance is occurring is part of a defined access corridor connecting the upland property to the watercourse. The access corridor can include up to 15% of the riparian area provided it has a permeable surface which promotes infiltration of drainage into the ground rather than directing runoff into the watercourse.
- f. Construction of free-standing fences and signs. To be clear, this does not include retaining walls.
- g. Manual removal of invasive plants as recognized by the Invasive Species Council of BC.
- h. Gardening and yard maintenance activities within an existing landscaped area, such as mowing lawns, pruning trees and shrubs, planting vegetation and maintenance of irrigation systems.

- i. Emergency response actions necessary to prevent, control, or reduce immediate and substantial threat to life or property during emergency events.
- j. Farming activities on land within the Agricultural Land Reserve.

22.6 Guidelines:

- .1 Healthy riparian areas are essential to maintain the health of aquatic ecosystems. The extent of the "Riparian Area" required for a parcel is as follows:
 - d) 10 metres from the natural boundary of lakes;
 - e) 30 metres from the top of bank of Christina Creek and the Kettle River; and
 - f) 15 metres from the top of bank of other watercourses and from the natural boundary of wetlands;

unless determined otherwise by a Qualified Environmental Profession (QEP) in accordance with RAPR principles.
- .2 The Riparian Area is to be maintained in its natural state and is not to be developed, unless there is both no other developable area on the parcel and the proposed development includes mitigation and/or enhancement measures in accordance with QEP recommendation and included as conditions in a DP, and as further detailed in 22.5.4 Maintenance of a natural state includes removing invasive plants while protecting and planting native plant species identified as appropriate for riparian areas.
- .3 If disturbance of the riparian area might occur, prior to disturbance, the owner must submit an application that includes a landscape plan and other supporting information, which will either demonstrate that the riparian area will be maintained, or any disturbance in the riparian area will be following the recommendation of a QEP.
- .4 Development or disturbance within the riparian area of a watercourse will only be considered in instances where all the following criteria are fulfilled:
 - a. The applicant demonstrates that size or topographical constraints severely limit the ability to develop elsewhere on the parcel;
 - b. The applicant will demonstrate through written and graphic materials that every alternative site and building design that could minimize the impact on the riparian area adjacent to the watercourse has been explored, which may include variances or reductions in all possible requirements (including, but not limited to, setbacks and height);
 - c. A report from a QEP is provided demonstrating the location of the riparian area and how disruption of the riparian area can be minimized through avoidance, restoration and compensation in other areas on the parcel;
 - d. This report will also identify portions of the riparian area that will be lost through development, the size of the area and species composition;

- e. Development is directed to areas already subject to human disturbance; and
 - f. On-site environmental values will be restored in accordance with a restoration plan prepared by a QEP.
- .5 Applications for development permits will be accompanied by a report prepared by a QEP, as defined in the *Riparian Area Protection Regulation*, as amended, which assesses the proposed development using the methodology provided in the Province's Riparian Areas Protection Regulation Technical Assessment Manual, as amended.
 - .6 Report must consider expected impacts from climate change.
 - .7 Report must also describe how and where silt screening will be installed to prevent sediment from entering a watercourse and silt fencing must be installed as detailed in the report. It must be in place during the period of construction on the parcel.
 - .8 Where vegetation has been removed from the property within the Riparian Area, beyond the designated access corridor, discussed above, a development permit application will include a re-planting scheme consistent with a QEP's Report submitted with the application.
 - .9 Once a development permit has been issued, a follow-up assessment by the QEP is required to ensure that the use of the land is consistent with the QEP's reporting requirements and the Regional District's conditions and requirement included in the DP.
 - .10 Discourage the use of concrete retaining walls in proximity to watercourses.
 - .11 Where removal of existing walls is not viable, request a redesign of the wall to reduce environmental impacts to the foreshore.

23. Commercial Development Permit Area

23.1 Area

All lands identified as “General Commercial”, “Waterfront Commercial”, and “Campground Commercial” on Map 1: Land Use Designations.

23.2 Category

The Commercial Development Permit Area is designated pursuant to:

- Section 488(1)(a) of the *Local Government Act* - establishment of objectives to protect environmentally sensitive areas;
- Section 488(1)(d) of the *Local Government Act* – revitalization of an area in which a commercial use is permitted;
- Section 488(1)(f) of the *Local Government Act* - establishment of objectives for the form and character of commercial, industrial or multi-family residential development;
- Section 488(1)(i) of the *Local Government Act* - establishment of objectives to promote water conservation;

23.3 Justification

Electoral Area C/Christina Lake’s commercial areas are situated mostly in the Lavalley Point neighbourhood, along the Highway 3 corridor of Christina Lake and in the townsite at the south end of Christina Lake. The commercial core of the community consists of several empty or underused lots. The vibrancy of the commercial areas has diminished with the loss of businesses and structures over the past number of years. Revitalization could be achieved with refocusing commercial growth to the commercial areas along the highway and the core area south of the lake. The intention is that consistency in structure and layout will create an attractive core that will attract further businesses.

Many of the parcels adjacent to the commercial areas are residential neighbourhoods. To prevent conflict with residential uses on surrounding parcels, the Commercial Development Permit Area focuses on minimizing the potential impacts of commercial uses on the use and enjoyment of other lands surrounding commercial areas. Also, that commercial areas present an attractive appearance, are accessible, and focused on environmental resiliency, including protecting environmentally sensitive features, such as Christina Lake and its riparian area.

23.4 Development Requiring a Permit

Section 489 of the *Local Government Act* details the development that is prohibited in specific development permit areas without first obtaining a permit.

A development permit is required for developments in the Commercial Development Permit Area in the following circumstances, unless exempted in section 23.5:

- g) Subdivision;

- h) The construction of, addition to, or alteration of a building or other structure;
and
- i) Alteration of the land.

23.5 Exemptions

A Commercial Development Permit is not required for any of the following:

- a) Subdivision;
- b) Site preparation and maintenance including the alteration of land;
- c) Minor alterations to buildings or structures not involving additional floor area;
- d) Construction of fences, decks, stairs, and similar add-ons to the exterior of existing buildings.

23.6 Guidelines

- .1 Consideration is to be given to the location of the proposed development activity in relation to the current and potential future adjacent land uses.
- .2 An application for a Commercial Development Permit must include graphic and written materials addressing the items identified in following guidelines, including an artistic rendering showing the proposed building in colour.
- .3 Buildings must be sited to face a public road, the lake, or open space such as a square. The rear walls of buildings should not be visible from a public road or lake.
- .4 Buildings must be finished on all sides with consistent exterior materials and colours.
- .5 Building designs, colours, and materials must harmonize with and accentuate the natural setting of Christina Lake.
- .6 If parcel borders on a watercourse, buildings and structures must be low profile.
- .7 Buildings must have safe, practical access and parking areas for passenger vehicles. A plan showing parking areas with proposed traffic circulation patterns will be provided as part of the application.
- .8 Parking areas and driveways for the new developments must be surfaced with a material that is permeable and minimizes dust.
- .9 Landscaping is to be implemented to enhance the appearance of the commercial area.
- .10 A higher standard of form and character is to be applied to parcels and portions of parcels that are adjacent to potentially conflicting land uses, such as residential.
- .11 Screening in the form of permanent vegetative buffers, fences or a combination thereof is required between commercial and residential properties.

- .12 Developments which involve multiple uses on one property are strongly encouraged.
- .13 Developments must incorporate the concept of a well-designed central gathering place and focus for the community.
- .14 Signs must be consistent with building designs and complement their surroundings.
- .15 Service and storage areas must be screened to diminish their appearance or impact. This includes structures such as shipping containers (sea cans).
- .16 Discourage the use of concrete retaining walls in proximity to watercourses.
- .17 Where removal of existing walls is not viable, request a redesign of the wall to reduce environmental impacts to the foreshore.
- .18 The development plan will be assessed by a fire safety specialist to ensure compliance with the *BC Fire Services Act*.
- .19 Lighting must be designed to minimize light spill, glare and sky glow. Lighting is to be directed at the ground, using non-glare, full cut-off fixtures.

24. Industrial Development Permit Area

24.1 Area

All lands identified as “Industrial” on Map 1: Land Use Designations.

24.2 Category

The Industrial Development Permit Area is designated pursuant to:

- Section 488(1)(f) of the *Local Government Act* - establishment of objectives for the form and character of commercial, industrial or multi-family residential development;
- Section 488(1)(h) of the *Local Government Act* - establishment of objectives to promote energy conservation;
- Section 488(1)(i) of the *Local Government Act* - establishment of objectives to promote water conservation;
- Section 488(1)(j) of the *Local Government Act* - establishment of objectives to promote the reduction of greenhouse gas emissions.

24.3 Justification

Electoral Area C/Christina Lake’s industrial areas are situated to the south of the Christina Lake townsite, mostly along Highway 395. Many of the neighbouring properties are rural, with primarily residential uses.

The objective of the Industrial Development Permit Area is to promote efficient building designs and landscaping to improve energy conservation, water conservation, reduce greenhouse gas emissions, and to present an attractive and orderly industrial area that limits the impact of industrial uses on neighbouring properties. Some of the identified impacts of the industrial lands are noise, dust, heavier traffic, and production of heat.

24.4 Development Requiring a Permit

Section 489 of the *Local Government Act* details the development that is prohibited in specific development permit areas without first obtaining a permit.

A development permit is required for developments in the Industrial Development Permit Area in the following circumstances, unless exempted in section 24.5:

- j) Subdivision;
- k) The construction of, addition to, or alteration of a building or other structure; and
- l) Alteration of the land.

24.5 Exemptions

A Development Permit is not required for any of the following:

- a) Subdivision;

- b) Minor alterations to buildings or structures not involving additional floor area;
- c) Alteration of land; or
- d) Construction of fences.

24.6 Guidelines

- .1 An application for a Development Permit must be accompanied by graphic and written materials in which effective means of addressing issues related to the proposed industrial use are clearly described.
- .2 Measures to mitigate the impact of noise, vibration, odour, heat, dust and other potential effects of industrial land uses on adjacent lands are required. Examples of methods of mitigation include siting and orientation of buildings; and the use of building materials that absorb sound and vibration. The **Regional District** may request proof that proposed methods for mitigation of impacts will be effective. This could be in the form of a report from a professional stating that proposed methods are effective for mitigation of known impacts from proposed use.
- .3 Areas disturbed during construction activities must be revegetated. Coverage by other permeable, dust free surfaces may be acceptable in some cases, however vegetation is preferred.
- .4 Vegetation planted is to be drought tolerant.
- .5 In addition to screening regulations in the Zoning Bylaw, supplementary screening in the form of walls, landscaped berms, fencing, hedging, planting, other screening materials must be used to create an aesthetically pleasing environment and to provide buffers to reduce potential noise, glare, heat, odour, and other potential effects of industrial activities on adjacent lands:
 - a. Around outdoor storage areas; and
 - b. Along parcel boundaries adjacent to roadways.
- .6 Access to and from parking and loading areas must not impede traffic flows on roadways and residential and rural areas.
- .7 Access lanes and parking areas should be surfaced with a material that is permeable and minimize dust.
- .8 Large expanses of parking will be broken up with landscaping islands into smaller subsections.
- .9 The development plan will be assessed by a fire safety specialist to ensure compliance with the BC Fire Services Act.
- .10 Buildings and structures will be permanent in nature.
- .11 Buildings finished in light, natural, earth tone colours are encouraged, and that the use of more than two colours for fencing materials is discouraged.
- .12 Lighting will be designed to minimize light spill, glare and sky glow. Lighting is to be directed at the ground, using non-glare, full cut-off fixtures.

- .13 A higher standard of form and character will be applied to parcels and portions of parcels that are adjacent to potentially conflicting land uses such as residential.

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