

Synthesis of Local and Regional Conservation & Management Goals & Objectives for The Columbia Wetlands

Prepared for:



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Executive Summary

The Columbia Wetland System, which stretches 180 km along the Rocky Mountain Trench from Canal Flats in the south to the head of the Mica Reservoir just north of Donald, is one largest wetland complexes in British Columbia and provides important ecological services to the Columbia Valley and beyond. The land tenure is complex mix of public and private lands. As a result of ecological importance of the Columbia Wetlands and the variety of land tenures, their management is multifaceted involving many different jurisdictions.

The Columbia Wetlands Stewardship Partnership (CWSP) has compiled a database of reports related to the Columbia Wetlands. The database and this management plan review have identified almost 100 management plans related to the Columbia Wetlands. These include various land and/or water management, strategy, or action plans such as wildlife management area plans; park plans; invasive plant and pest management plans; official community plans; land use plans; and species management and recovery plans. A holistic review of all of these management plans and their implementation status would help identify which plans have the most impact on wetland protection, gaps and opportunities, and how CWSP Partners can collaborate to support common conservation goals.

The specific objectives of this management plan review were to: create a list of the management plans in the CWSP database and identify any missing plans; identify the key plans that have the most significant potential impact on management of the wetlands; and for the key plans provide a summary of the management goals and objectives, and implementation status. This review divided management plans into three main categories and focused on these plans:

- land-parcel specific management plans;
- regional government and First Nations community planning; and
- overarching non-land parcel specific plans.

An assessment of ownership of riparian and wetland habitat in the major floodplains in the Columbia Valley reveals that in upper Columbia Valley, 68% of the floodplain is secured in conservation lands (i.e. the Columbia Wetlands Wildlife Management Area)¹. This reinforces the importance of the *Operational Plan for the Columbia Wetlands Wildlife Management Area*. Four of the five provincial parks in the area are zoned as “Natural Environment” and there are several private properties that are managed for conservation purposes. However, land parcels cannot be managed in isolation from neighbouring properties and upland effects.

This review summarized First Nation land use plans and Official Community Plans (OCP) that exist for lands in and adjacent to the Columbia Wetlands. There is no OCP for the Columbia Shuswap Regional District “Area A” which extends from Spillimacheen to Golden. In general, all of the OCPs have broad language regarding the protection of the wetlands and most have Development Permit Areas for Riparian and/or Environmentally Sensitive Areas. The majority

¹ [Fish & Wildlife Compensation Program, Columbia Basin Riparian and Wetlands Action Plan](#). Draft. 2014. Pg.14.

of the OCPs refer to the Columbia Wetlands as an important ecological feature to protect and as one of the main features that attracts residents and tourists. As result many of the goals, strategies, objectives and policies in the OCPs include provisions for both protection of the wetlands and to provide recreational activities. This review did not assess if and how the broad policies in the OCPs are specifically supported through zoning and bylaws.

Assessment of the status of implementation of various management plans reveal, that in general, there is a lack of capacity to implement plans, track the status of implementation, and keep management plans up to date. Many overarching management plans rely on individual land owners/managers to implement projects and initiatives to meet overarching goals.

In December 2017, a Columbia Valley Conservation Action Planning Forum consisting of participants with diverse perspectives identified priority action items that generally align with goals and objectives outlined in the management plans reviewed.

Prior to the Forum, Partners of the Columbia Wetlands Stewardship Partners and the Kootenay Conservation Program concluded it was necessary to have a more scientifically based selection of high conservation value areas and analysis of threats (such as, invasive species, habitat fragmentation due to subdivision, recreational pressure, loss of natural hydrological processes, forest encroachment, and climate change). This management plan review did not review management plans associated with threats from cumulative effects or upland management practices. A review of threats, as well as the effectiveness of existing legislation and regulations may help further identify priority actions as would priority private land identified as priority conservation areas.

This review of management plans suggests that there are many synergies among the management plans, the priority activities identified at the Columbia Valley Conservation Action Planning Forum, and funding priorities for programs such as the Columbia Basin Trust's *Ecosystem Enhancement Program* and the Fish and Wildlife Compensation Program's *Riparian and Wetlands Action Plan*. A key success factor is ensuring sufficient capacity and collaborative efforts to link priority activities and achieve on-the-ground success. Priority activities would be determined by the main identified threats that will also be key focus areas identified in an overarching strategic management plan for the wetlands.

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1 Introduction

1.1 Background

The Columbia Wetlands are one of the largest wetland complexes in British Columbia, one of the few pristine floodplain wetlands in North America and contain the only undammed section in 2000 km of the mighty Columbia River. They are recognized as a wetland of international importance by the United Nations under the RAMSAR Treaty. The system stretches 180 km from Canal Flats in the south to the head of the Mica Reservoir just north of Donald.

The land tenure in Columbia Wetlands is a complex mix of federal, provincial, municipal and private lands. The Columbia Wetlands are part of the Traditional Territories of the Ktunaxa and Secwepemc First Nations. There are four land parcels that are managed as a National Wildlife Area. Provincial lands include Parks, Ecological Reserves and Wildlife Management Areas of which the most geographically extensive is the Columbia Wetlands Wildlife Management Area. There are also private lands, including some private lands secured for conservation purposes that are managed by organizations such as Nature Conservancy Canada and the Nature Trust of BC. The Canadian Pacific Railway has a right-of-way that spans the length of the Wetlands.

The Columbia Wetlands provide important ecological services. They provide habitat for many species at risk for which the provincial government and the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) have developed species at risk recovery plans. As a result of the ecological importance of the Wetlands and the complex mix of land tenures, their management is multifaceted involving many different jurisdictions.

The Columbia Wetland Stewardship Partnership (CWSP) has compiled a [database of resources](#) related to the Columbia Wetlands. Within this database there are over 80 documents that can be classified as management plans such as: guidelines for wetlands and habitat conservation; invasive plant and pest management plans; official community plans; species management and recovery plans; and various land and/or water management, strategy, or action plans. A holistic review of all of these management plans and their implementation status would help identify which plans have the most impact on wetland protection, gaps and opportunities, and how CWSP Partners can collaborate to support common conservation goals.

1.2 Project Goals and Objectives

The goals of this project are to:

- Synthesize the conservation goals and objectives that aim to protect the wetlands in existing conservation and management plans;
- Determine the implementation status of the various plans;
- Determine a process for CWSP to assist in the implementation of the various plans.

The objective of this report is collect and synthesize information on the goals and objectives of the various management plans so that CWSP members can identify synergisms and opportunities. The specific objectives of this report are to:

- Create a list of the management plans in the CWSP database and identify any missing plans;
- Identify the key plans that have the most significant potential impact on management of the wetlands; and
- For the key plans provide a summary of the management goals and objectives, implementation status, and contact information for personnel associated with the plan.

2 Methods

In order to complete this synthesis, the CWSP Resources Database was reviewed to identify all of the relevant management plans. To identify management plans that were not in the database, maps² of land tenure status and conservation areas were reviewed and internet research was conducted. Input on the project was gathered at the CWSP Directors Meeting on October 17th, 2017.

Plans identified as priorities to review were those associated with specific land parcels, regional government planning such as Official Community Plans, and plans that provide overall strategic direction and guidance to a variety of organizations. Invasive plant/pest management plans and species-specific management plans were not reviewed.

Management plans were divided into three main categories:

- land-parcel specific management plans;
- regional government and First Nations community planning; and
- overarching non-land parcel specific plans.

The overarching non-land parcel specific plan generally include provincial or funding programs, or other partnerships that provide guidance and to land managers and land owners in order to meet larger geographic goals, strategies, legislation. This review did include management plans for provincial parks but did not seek out management plans for local and regional parks.

For each plan, the vision, goals, objectives, purpose, policies and lists of associated legislation and regulations or bylaws (eg. development permit areas) were summarized in table format. Information on implementation plans and status were collected on an opportunistic basis. It was beyond the scope of this initial review to contact all of the plan authors or governing agencies to determine the status of implementation. In general, it appears that there is insufficient capacity

² [Nature Trust of BC Properties Web App](#) and the *Columbia Valley Wetland and Riparian Ownership Overview, Appendix B* in [Fish & Wildlife Compensation Program, Columbia Basin Riparian and Wetlands Action Plan Draft, September 2014.](#)

for implementation of many of the plans, and the progress on implementation is generally not tracked.

3 Summary of Management Plans

3.1 Overview of Plans in CWSP Database

The Columbia Wetlands Stewardship Partnership References Database currently contains 84 entries that can be classified as “management plans” (see spreadsheet Summary of Management Plans). The Database provides a brief summary of each plan and a link to the document. The number different types of plans in the database are outlined below in Table 1.

The CWSP database was compiled on an opportunistic basis and not with the specific intention of collecting all of the management plans. Therefore, the database is missing some land parcel-specific plans, Official Community Plans (OCPs), and First Nation community and land use plans. Some of the Official Community Plans in the database have also been replaced with more recent ones. In addition, some plans are no longer relevant such as the Park Purpose Statement and Zoning plan for Canal Flats, which is no longer a provincial park. Management Plans that were not in the CWSP database but were included in this review are outlined in Table 2.

The following plans or types of plans were not found in the CWSP Database and further research is necessary to determine if they exist and their relevance to the management of the wetlands:

- Recreational access management plans;
- Management of archeological and traditional use sites;
- CP Rail Management Plans (e.g. Management of CP Right of Way, Spill Response Plans, Stream Crossings, [CP Integrated Vegetation Management Plan](#));
- Plans for re-introduction of salmon (e.g. [Upper Columbia Salmon Restoration](#));
- Management plan for the golf course in Radium;
- Environmental management of farms and ranches (e.g. Environmental Farm Management Plans);
- Emergency response plans (e.g. flooding, train derailment)
 - While these plans do not have specific conservation goals, they may impact wetlands;
- Federal, provincial and regional polices, legislation, strategies and programs that may affect wetlands such as:
 - Regional zoning bylaws
 - Regional strategies such as:
 - RDEK Regional Parks Planning
 - [RDEK Regional Sustainability Strategy](#)

- [Columbia Valley Trail Alliance Trails Vision-2017:](#)
 - BC Water Sustainability Act;
 - Federal Policy on Wetland Conservation;
 - Agricultural Land Commission Act/Agriculture Land Reserve Act;
 - Dike Maintenance Act;
 - Plant Protection Act;
 - Transportation Act – No Net Loss Wetland Policy;
 - BC Conservation Framework;
 - Invasive Species Strategy; and
 - BC Invasive Mussel Defence Program.

The important contribution of legislation and regulations to the protection of wetlands was discussed briefly at the CWSP Directors Meeting on October 17th, 2017. It was not in the scope of this project to review all applicable legislation and regulations. However, the CWSP should determine if such a review is warranted. In 2010, the BC Wetlands Stewardship Partnership compiled a list of federal, provincial and municipal legislation related to wetlands (see Appendix B). This list could be updated and reviewed to determine the application of legislation in the context of protection for the Columbia Wetlands.

The Columbia Wetlands cannot be managed in isolation from the surrounding ecosystems and neighboring communities. At the Columbia Wetlands Stewardship Partnership’s Directors meeting on October 17th, 2017, the Directors discussed that land and water management practices upland (such are forestry practices) can have a significant impact on the wetlands. Other examples of practices that may impact the wetlands are interception of water and construction of dams and ponds for irrigation purposes and clearing of stream bed materials and beaver dam materials to protect transportation and railway infrastructure. There is also a 230 kilovolt (kV) transmission line from Radium to Golden on the west side of the Columbia Wetlands. While the route of the powerline was designed to avoid the Columbia Wetlands Wildlife Management Area, minimize visual impact from the Highway 95 corridor, and avoid major recreation areas, questions remain about how the presence of the transmission line may impact industrial development in the region and subsequent impacts on the wetlands. It is beyond the scope of this Project to review upland practices that may impact the wetlands and their associated management plans, policies, and regulatory frameworks. However, it may be useful for the Partnership to identify upland practices that have the greatest potential impacts on the wetlands and if and how these impacts are managed.

Table 1: Summary of Types of Plans in the Columbia Wetland Stewardship Partnership Database

Type of Plan	# of Plans in Database
Guideline	4
Invasive Plant/Pest Management Plan	5
Land and/or Water Management, Strategy or Action Plan	10
Official Community Plan	5

Land and/or Water Management, Strategy or Action Plan	10
Species - Provincial Management, Strategy or Recovery Plan	29
Species – COSEWIC Assessment, Status, or Update Report	14
Park Plan (Park Purpose or Management Direction Statement)	5
Status Report on Management Plan	1
Total	84

Table 2: List of plans not in the CWSP Database that were included in this review.

Type of Plan	Plan
First Nation Community or Land Management Plan	?akisqnuq First Nation Comprehensive Community Plan (2016)
First Nation Community or Land Management Plan	?akisqnuq First Nation Land Use Plan-Draft 2017
First Nation Community or Land Management Plan	Shuswap Band Land Use Plan Draft April 2016 “may no longer be valid” Pauline Eugene
First Nation Community or Land Management Plan	Shuswap Indian Band Land Code May, 2016
Park Plan	Marl Creek Provincial Park Purpose Statement and Zoning Plan (2013)
Park Plan	Thunder Hill Provincial Park Purpose Statement and Zoning Plan (2013)
Official Community Plan	Village of Radium Hot Springs Official Community Plan, June 2013
Official Community Plan	Town of Golden Official Community Plan Bylaw No.1222, 2008
Official Community Plan	Fairmont Hot Springs & Columbia Lake Area Official Community Plan Bylaw No.2779, 2017
Land and/or Water Management, Strategy or Action Plan	Columbia Lake Lot 48 Property Management Plan, British Columbia Region 2013-2018 ³

3.2 Land-Parcel Specific Management Plans

The management plans specific to individual land parcels are outlined in

Table 3. All reference sources are the management plans themselves, unless otherwise noted. Land-parcel specific management plans and/or private land holders have some of the highest

³ Personal Communication, Richard Klafki, Nature Conservancy Canada, December 2017

potential for protecting wetlands because land managers/land owners, if they have sufficient resources, can directly influence management.

The management plan that likely has the most impact on the management of Columbia Wetlands is the *Operational Plan for the Columbia Wetlands Wildlife Management Area (CWWMA)* because of its large geographical scope and the ability to enforce its management through the *Wildlife Act*. Some private land parcels are managed by the CWWMA such as the wetland portion of the Bergenham Wildlife Sanctuary and the Nature Trust of BC’s RCMP Flats Property. In addition, other plans indicate that properties will be managed in concert with CCWMA, such as the National Wildlife Area. The National Wildlife Area consists of four land parcels Wilmer, Spillimacheen, Brisco, and Harrogate managed by Environment and Climate Change Canada based on the *Migratory Birds Convention Act and Migratory Birds Regulations*, *Canada Wildlife Act and Wildlife Area Regulations*, and the *Species at Risk Act*.

Of the five Provincial Parks, Windermere Lake, Marl Creek, Thunderhill, and Burges and James Gadsden are zoned as “Natural Environment” while James Chabot is zoned as “Special Feature” and “Intensive Recreation”.

There are several private properties that are managed for conservation values within or directly adjacent to the Columbia Wetlands. This includes six Nature Trust of BC (TNTBC) conservation complexes and two Nature Conservancy of Canada (NCC) properties. The TNTBC conservation complexes are either managed directly by TNTBC, leased to Province for management in concert with provincial management (such as Wildlife Management Areas) or leased to the Federal Government for management under Federal jurisdiction such as the Columbia National Wildlife Area. The NCC has a management plan for its Lot 48 property and is currently developing a management plan for its Luxor Linkages property that should be completed in early to mid 2018⁴.

CP Rail has an [Integrated Vegetation Management Plan](#) that applies to its Right-of Way. Further research is needed to determine other management practices within the Right-of Way, such as how stream crossings are managed.

Table 3: Summary of Land Parcel Specific Management Plans

Land Parcel:	Columbia National Wildlife Area (NWA) (Wilmer, Spillimacheen, Brisco, and Harrogate)
Management Plan:	<i>Management Plan for the Columbia National Wildlife Area (Proposed) (2016)</i>
Vision/Goals:	The long-term vision for the NWA is conservation: that is, to maintain habitat for the benefit of migrating waterfowl, species at risk and other wildlife species. The NWA is to be managed as a ‘wilderness area’.

⁴ Personal Communication, Richard Klafki, November 2017.

Management Challenges:	<ul style="list-style-type: none"> • Habitat damage caused by ATV's, off-road vehicles and mountain bikes • Loss of natural hydrological regime • Loss of natural fire regime • Increased potential of introduction of invasive plants • Presence of old dump site • Illegal Hunting
Implementation Status:	<ul style="list-style-type: none"> • The management plan proposed a ten-year plan (2016-2025) • The Plan states it will be reviewed and updated five years after formal approval by Environment and Climate Change Canada, and every ten years thereafter.
Authority	Environment & Climate Change Canada
Governing Legislation/ Regulations	<ul style="list-style-type: none"> • Migratory Birds Convention Act, 1994, and Migratory Birds Regulations • Canada Wildlife Act and Wildlife Area Regulations • Species at Risk Act
Land Parcel	Columbia Wetlands Wildlife Management Area (WMA)
Management Plan:	<i>Columbia Wetlands Wildlife Management Area: Operational Plan: 1998-2002</i>
Goal/Vision:	<p>Vision: “The Columbia River Wetlands will continue to function as a flood-plain ecosystem with a complex biological community governed by natural fluvial and ecological processes.”</p> <p>Primary Goal: “To maintain self-sustaining populations of indigenous fish, wildlife and plant species in the Columbia Wetlands WMA.”</p> <p>Secondary Goals are listed for the maintenance of fish, wildlife and plant communities and human use of the Wetlands.</p>
Principles & Management Components	<p>Nine Guiding Principles were developed to provide an interpretation of how the vision and goals of the WMA will be achieved.</p> <p>Management Actions include:</p> <p>Habitat Management- No extensive habitat management will occur, except under specific circumstances</p> <p>Wildlife Management- The management of wildlife populations in the wetlands is a shared responsibility between the CWS (waterfowl and other migrants) and the provincial Wildlife Program (other wildlife).</p> <p>Management of Human Activities- The management of human activity will be based on the vision, goals and principles articulated in this plan.</p>
Implementation Status:	<p>The plan states it will provide direction for the management of the WMA for the period 1998-2002 and that the plan will be reviewed at that time.</p> <p>The plan has not been updated since 2002 and is being revised in 2018.</p>
Authority/	Ministry of Forests, Lands, and Natural Resources Operations
Governing Legislation/ Regulations	Wildlife Act

Land Parcel	East Side Columbia Lake Wildlife Management Area
Management Plan:	No management plan currently exists for East Side Columbia Lake Wildlife Management Area. ⁵
Authority/ Governing Legislation/ Regulations	Ministry of Forests, Lands, and Natural Resources Operations Wildlife Act
Land Parcel	Windermere Lake Provincial Park
Management Plan:	<i>Windermere Lake Provincial Park Purpose Statement and Zoning Plan (2003)</i>
Goal/Vision:	Primary Role: To protect one of the last remaining tracts of native grassland and riparian habitats along the western shores of Windermere Lake. Secondary Role: To provide easily accessible day use opportunities in an undeveloped setting for residents and visitors of the area.
Known Management Issues:	<ul style="list-style-type: none"> • Forest encroachment(in-growth) • Minimal public boat launch facilities on Windermere Lake • Vandalism/unauthorized use • Trespass logging along western portion of the park above the secondary highway
Implementation Status:	Unknown
Authority	BC Parks
Zoning	The entire park (205 ha) is zoned Natural Environment.
Land Parcel	James Chabot Provincial Park
Management Plan:	<i>Management Direction Statement for James Chabot Provincial Park (2004)</i>
Goal/Vision:	Primary Role: To allow for public day use access to the shores and beachfront of Lake Windermere. Secondary Role: To provide nature appreciation and wildlife viewing opportunities in a foreshore environment and wetland habitat. Furthermore, the park serves as a natural buffer between adjacent commercial/residential development and Lake Windermere. The Park also provides a seasonal refuge to many avian, vertebrate, and invertebrate species, some of which are rare or endangered.

⁵ Personal Communication, Ariana McKay, Ministry of Forests, Lands, and Natural Resources, November 28, 2017.

	<p>The Park context states that the Park contains special habitat features that support known species at risk. The conservation Protected Area Attributes listed in the plan include:</p> <ul style="list-style-type: none"> • The important marsh/wetland component of the park is one habitat that provides fine-scale species diversity within the Columbia Basin and contains five ecosystem units (bulrush - cattail, bulrush - marsh arrow grass, beaked sedge - swamp horsetail, cottonwood - spruce-dogwood, and trembling aspen – dogwood - bluegrass). • Fish species resident in Lake Windermere include trout (bull, rainbow, cutthroat), kokanee, and whitefish. Two species, bull trout and chiselmouth (none collected since 1957), are blue listed (species of special concern) by the provincial Conservation Data Center (CDC). • Potentially occurring reptiles and amphibians that are currently listed by CDC are the northern leopard frog (red listed) and the painted turtle (blue listed). • Eight rare vascular plants are found outside of the park in similar habitats to those inside the park. • Two rare bird species that have the potential to occur in the park (observed within similar wetland habitat outside of park boundary) are the great blue heron and the American bittern. • The Columbia Wetlands have been reputed to contain a high diversity¹ of dragonflies. One red-listed invertebrate species (<i>Argia vivida</i>) has the potential to occur in the park.
Known Management Issues:	<ul style="list-style-type: none"> • Adjacent Private Development • Boat Access to Lake • Facility Use • Wetland Habitat Values
Implementation Status:	Unknown
Authority	BC Parks
Zoning	The Park is separated into two management planning zones: Special Feature and Intensive Recreation.
Land Parcel	Burges and James Gadsden Provincial Park
Management Plan:	<i>Burges and James Gadsden Provincial Park Purpose Statement and Zoning Plan (2004)</i>
Goal/Vision:	<p>Primary Role: To protect a small portion of an internationally significant wetland.</p> <p>Secondary Role: To provide non-intrusive recreation opportunities.</p>

Known Management Issues:	<ul style="list-style-type: none"> • The area lacks public access (i.e. crossing of CPR right of way and neighbouring private land) • Ongoing dyke maintenance requires periodic removal of trees/vegetation to retain structural integrity • Non-native species (Canada thistle) competing with native flora.
Implementation Status:	Unknown
Authority	BC Parks
Zoning	The entire park (401 ha) is zoned Natural Environment.
Land Parcel	Marl Creek Provincial Park
Management Plan:	<i>Marl Creek Provincial Park Purpose Statement and Zoning Plan (2003)</i>
Goal/Vision:	Primary Role: To protect remnant old growth forest and ecologically important wetland habitat along the western shores of the Columbia River. The Columbia River Wildlife Management Area is within close vicinity to the park and reinforces the park's role in complementing and buffering this globally significant wetland.
Known Management Issues:	<ul style="list-style-type: none"> • Mountain pine beetle infestations. In the late 1970's, 20% of trees were infected. • Small area of park identified for a land transfer with Evans Forest Products. Involves exchange for park land currently isolated from existing park by CPR railway for riparian habitat along the Columbia River. • Illegal fire wood removal and 4WD access.
Implementation Status:	Unknown
Authority	BC Parks
Zoning	The entire park (169 ha) is zoned Natural Environment.
Land Parcel	Thunder Hill Provincial Park
Management Plan:	<i>Thunder Hill Provincial Park Purpose Statement and Zoning Plan (2013)</i>
Goal/Vision:	Primary Role: To protect remnant open forested and grassland lake ecosystems of the East Kootenay Trench Ecoregion.
Known Management Issues:	<ul style="list-style-type: none"> • Non-native invasive plants (knapweed and hounds-tongue) threatening natural species and landscapes • Forest encroachment(in-growth). The entire Columbia Valley has witnessed reduced native grassland coverage within the last fifty years. • Loss of archaeological values • Apparent lack of interest of camping at this location.
Implementation Status:	Unknown
Authority	BC Parks

Zoning	Natural Environment (approximately 43 ha or 98% of the park) – Objective: To protect scenic values and to provide for recreation opportunities in a largely undisturbed natural environment. Special Feature (approximately 1 ha or 2% of the park) - Objectives: To protect and present significant natural or cultural resources, features or processes because of their special character, fragility and heritage values.
Land Parcel	The Nature Trust of BC: Columbia River Wetlands (Property #26)
Management Plan	Owned by TNTBC and leased to Environment and Climate Change Canada (Canadian Wildlife Service). It is managed as the Columbia River National Wildlife Area by Canadian Wildlife Service (CWS). It is comprised of three conservation complexes that the CWS refers to as the Brisco, Spillimacheen, and Harrogate Units.
Objective	Conservation of a portion of the wetlands within the Columbia River National Wildlife Area, a major bird migration corridor ⁶ .
Land Parcel	The Nature Trust of BC: Columbia River – Habart (Property #153)
Management Plan:	This small (1.8 ha) property is managed by TNTBC. It currently does not have a management plan.
Objectives	Protection of riparian and wetland ecosystems along the Columbia River. ⁷
Land Parcel	The Nature Trust of BC; Columbia River RCMP Flats (Property #32)
Management Plan:	Owned by TNTBC and leased back to FLNRORD for management. Managed as part of the Columbia Wetlands Wildlife Management Area.
Objectives	Conservation of an important marsh on the Pacific Flyway included in the Columbia Wetlands Wildlife Management Area. ⁸
Land Parcel	The Nature Trust of BC: Columbia River – Castledale (Property #157)
Management Plan:	Small parcel (12.2ha) that was secured by TNTBC in the last few years. It is owned and solely managed by TNTBC. No management plan currently exists.
Objectives:	Protection of riparian, floodplain, and wetland ecosystems along the Columbia River. ⁹
Land Parcel	The Nature Trust of BC: Hoodoos (Property #123)
Management Plan:	<i>Hoodoo-Hofert Property Management Plan (2004)</i>
Goal/Vision:	To maintain, restore and enhance the ecological integrity of the Hoodoo-Hofert property in order to ensure the property’s biodiversity values are maintained in perpetuity.

⁶ Property description on [Nature Trust British Columbia interactive map](#)

⁷ Property description on [Nature Trust British Columbia interactive map](#)

⁸ Property description on [Nature Trust British Columbia interactive map](#)

⁹ Property description on [Nature Trust British Columbia interactive map](#)

Implementation:	Ongoing – annual Operations and Maintenance, workplans and special projects continue to address priority management actions identified in the management plan. ¹⁰
Land Parcel	The Nature Trust of BC: Columbia Lake Eastside (Property #107)
Management Plan:	Several parcels, some managed by TNTBC, others leased to Province for management.
Objectives:	Conservation of habitat critical to elk, white-tailed deer, mule deer and waterfowl within the East Side Columbia Wildlife Management Area. ¹¹
Land Parcel	Nature Conservancy of Canada: Columbia Lake Lot 48
Management Plan:	<i>Columbia Lake Lot 48 Property Management Plan, British Columbia Region 2013 – 2018</i>
Stewardship Vision Statement	Lot 48 is integral component of a naturally functioning landscape that is collaboratively managed for ecological and cultural values.
Conservation Goals	<ul style="list-style-type: none"> • To maintain functional ecological linkages on the east side of Columbia Lake. • To collaboratively manage the property with the Ktunaxa First Nation. • To ensure cultural values are not impaired or diminished. • To create and/or maintain resilient ecological conditions through stand-level restoration and stewardship. • To work with land management partners to implement a management vision for the entire east side of Columbia Lake. • Support efforts to maintain and or enhance viable populations of species at risk. • To implement control measures to abate the spread of priority invasive species. • To enhance community support and participation in conservation activities. • Maintain community support by providing and managing non-motorized access. • Monitor and mitigate adverse impacts to ecological and cultural values.
Objectives	Contains biodiversity targets and viability based on ecosystem type as well as species-specific nested targets
Implementation	The Management Plan contains a summary of permitted activities, effectiveness monitoring, and conservation actions for 2013-2017 with target dates for completion.

¹⁰ Personal Communication, Chris Bosman, TNTBC, December 2017.

¹¹ Property description on [Nature Trust British Columbia interactive map](#)

Land Parcel	Nature Conservancy of Canada: Luxor Connection
Management Plan:	Currently being developed. Should be complete in 2018.
Land Parcel	Bergenham and Moberley Marsh Wildlife Sanctuary
Management Plan:	The wetland portions are Managed as part of the Columbia Wetlands Wildlife Management Area

3.3 First Nation & Regional Government

3.3.1 First Nation Community & Land Use Planning

The Columbia Wetlands are in the Traditional Territories of the Ktunaxa and Secwepemc First Nations and there are two reserves along the wetlands. The Akisqnuq First Nation Reserve extends from Windermere to Fairmont along the eastern shore of Lake Windermere and the Shuswap Indian Reserve is comprised of approximately 2,660 acres north of Invermere along the Columbia Wetlands. First Nation community and land use planning initiatives are outlined in Table 4.

The ʔakisqnuq First Nation has developed a Comprehensive Community Plan which was adopted on March 30, 2016. This was followed up with a Draft Land Use Plan in 2017. The Land Use Plan (LUP) is a document that sets forth a future vision for how ʔakisqnuq lands will be used. This Land Use Plan will complement any future land code adopted by –akis“nuq First Nation (AFN). However, even without a land code, the Land Use Plan can guide and direct decisions of Council and administration pertaining to land management.

The Shuswap Indian Band has a draft Land Use Plan and a Land Code. Further conversation with the Shuswap Indian Band is necessary to determine the status of the Land Use Plan.

Table 4: First Nation Land Use Planning

First Nation	ʔakisqnuq First Nation
Management Plan	ʔakisqnuq First Nation Comprehensive Community Plan
Vision	<u>Vision Statement of Ktunaxa Nation (also adopted by ʔakisqnuq First Nation):</u> As a Nation, we are striving to achieve strong, healthy citizens and communities, speaking our languages and celebrating who we are and our history in our ancestral homelands, working together, managing our lands and resources, as a self-sufficient, self-governing Nation (p.24)
Core Values	<u>The Natural Spirit of our Lands:</u> Our land is the most important gift that we borrow from the future. Therefore, we make all efforts to manage our lands in ways that preserve our spirits, the natural environment, and wildlife. (p.24)
Goals & Objectives	<u>Section 5.1.7 Land and Resource Goal:</u> Work with the community to gain self-governing jurisdiction over its own lands and preserve the archeology and natural environment for future generations. Objective #1: Assist the community to develop a land code. Objective #2: Implement environmental protection measures including preventing wildfire risk. Objective #3: Guide land use activities on the reserve through a community Land Code.

	Objective #4: Protect all natural resources including cultural and heritage sites. (p.33)
Implementation	Adopted on March 30, 2016. The plan outlines roles for Community Member, Chief and Council, and Administrative Staff in order to achieve the community’s vision. (p.34) <u>Section 6.3 Monitoring & Evaluation:</u> In two years of implementation, we hope to have established a baseline against which our future progress will be compared. Every five years, we will conduct a summative evaluation of our CCP to identify whether the Plan addressed the needs of our community and the impacts our programs have made on the lives of community members and the community at large. (p.24)
First Nation	ʔakisqnuq First Nation
Management Plan	ʔakisqnuq Land Use Plan Draft Version August 2017
Natural Law/ Principles	ʔakisqnuq First Nation is guided by the principles of ʔakisqnuq Natural Law: <ul style="list-style-type: none"> • Stewardship: we respect and take care of the land, water, animals and plants • We harvest natural resources and take only what we need, leaving enough for generations yet to come • We appreciate the sheer beauty of nature and life (p.vi/p.22)
ʔakisqnuq Ktunaxa Rights & Title	ʔakisqnuq First Nation upholds Ktunaxa Rights and Title: <ul style="list-style-type: none"> • We preserve and protect our rights and title for future generations • We use the entire Traditional Territory • We exercise our rights and title, as members of the Ktunaxa Nation • We oppose extinguishment of our rights and title (p.vi)
Top Four Priorities for Action	The top four priorities for action are: <ol style="list-style-type: none"> (1) Conservation Lands Management (2) Priority Housing Areas (3) Lot 37-4 Commercial Development (4) Campground Expansion (p.11) Map 3 shows six conservation areas, two of which are along the shoreline of Lake Windermere and two along the Columbia Wetlands (p.12)

<p>Conservation Management Key Principles</p>	<p>A key principle in this Land Use Plan (LUP) is to use the term Conservation Lands rather than protected area to reflect the active management and care for land that Ktunaxa people have been doing for centuries. Further, Conservation Lands identified in the LUP do not limit Ktunaxa people from exercising traditional rights and title on these lands nor does it restrict undertaking management activities on these areas, including wildfire management, wildlife habitat management or other similar activities that care for the land. Specific key principles for the Conservation Lands have been detailed in Section 5.3.(p.13)</p>
<p>Goals</p>	<ol style="list-style-type: none"> 1. Determine important ecological and archaeological areas. 2. Designate suitable land for future housing. 3. Consult the community in a meaningful and authentic way. 4. Identify opportunities for economic development /industrial-commercial activity. 5. Enhance the sense of community. (p.17)
<p>Conservation Land Use Designation/Purpose</p>	<p>Map 4 shows Land Use Zones (p.21)</p> <p>The purpose of the Conservation lands are to set aside land from future development to ensure there is care of natural systems, plants, animals, waterways, riparian areas, and wildlife habitat. (p.23)</p> <p>The purpose of the Conservation - Protection lands is to set aside the most sensitive, sacred and critical places from any future development to ensure protection of sensitive habitats and rare or endangered plant or animal species and preservation of significant cultural and sacred sites. (p.24)</p> <p>The purpose of the Conservation - Recreation lands is to set aside land from future development to ensure outdoor recreational, cultural, and community gathering opportunities for community members that respects conservation of the natural environment. (p.25)</p> <p>The purpose of the Agriculture & Natural Resources lands are to set aside land from future development and ensure adequate provision of land for agriculture, horticulture, natural resources management, forestry and wildlife habitat (p.27)</p> <p>The purpose of the Archaeological / Heritage Sensitive Lands are to protect from any development or disturbance identified archaeological / heritage areas. (p.28)</p>
<p>Recommended Activities/Land Uses for Nature/Conservation Zones</p>	<p><u>Conservation:</u> Habitat management / wildlife management, cultural activities, hunting/gathering / horseback riding, eco-tourism, guiding.</p> <p><u>Conservation – Protection:</u> Habitat management / wildlife management, cultural activities, hunting/gathering / horseback riding. No development.</p> <p><u>Conservation – Recreation:</u> Outdoor recreational activities for akis“nuknik including beach access and associated facilities,</p>

	<p>walking/hiking trails and facilities, access roads and other related outdoor/nature activities and facilities.</p> <p><u>Agriculture & Natural Resources:</u> Forestry and related habitat management, Cropland / pastureland / Animal Grazing, Farm-related buildings and facilities, Farmstead homes, Horticulture / Market-gardens & associated retail, Equestrian facilities, Home-businesses, Cultural Activities, Hunting / gathering / horseback riding / ATV / Snowmobile use, Ecotourism / guiding</p> <p><u>Archaeological / Heritage:</u> Recreation, Cultural activities, wildfire management (p.19)</p>
Implementation	<p>The intention of the Land Use Plan is that it is a ‘living document’. Amendments to the Land Use Plan can be completed through the Council approval process. (p.47)</p> <p>A review of the Land Use Plan every 5 to 10 years is recommended to ensure it remains current and applicable to the needs of ʔakisqnuq First Nation. (p.47)</p> <p>ʔakisqnuq First Nation (AFN) may wish to complete and implement an Environmental Management Plan to more specifically outline care for the natural environment on AFN lands and provide further detailed policy on the recommendations and direction of the Land Use Plan. (p.50)</p> <p><u>Tasks:</u> Update AFN GIS to include LUP zoning; Time Frame: Immediate; Status: Not yet started (Appendix A)</p>

3.3.2 Regional Government Official Community Plans

An Official Community Plan (OCP) is a local government bylaw that provides objectives and policies to guide decisions on planning and land use management within the area covered by the plan. OCPs are significant because, after their adoption, all bylaws and works undertaken by a Council or Board must be consistent with the plan. The Local Government Act authorizes the development of OCPs. There are requirements for statements and map designations in an OCP, but OCPs can vary in their content and structure. Development Permit Areas (DPA) may be used to achieve some of the objectives identified in an Official Community Plan. A DPA can be designated to: protect agricultural land, protect the natural environment, and guide the form and character of development.

While the majority of the Columbia Wetlands are crown lands managed under the Columbia Wetland Wildlife Management Area (CWWMA), a significant portion of the wetlands are within or bordered by areas under the jurisdiction of the Columbia Shuswap Regional District (CSRD) and the Regional District of East Kootenays (RDEK). In the CSRD, the Town of Golden has an OCP, but Area A, which includes or borders a large portion of the wetlands, does not. In the RDEK, much of the wetlands border the Steamboat-Jubilee Mountain and Fairmont Hot Springs & Columbia Lake Areas. Much smaller portions of the wetlands are found in the area plans for

the Town of Golden, Lake Windermere, and the Villages of Radium Hot Springs and Canal Flats.

Table 5 outlines the key environmental provisions in the OCPs that relate to protection of the wetlands. Details on Development Permit Areas are summarized in Appendix C. The majority of the OCPs refer to the Columbia Wetlands as an important ecological feature to protect and as one of the main features that attracts residents and tourists. As result many of the goals, strategies, objectives and policies in the OCPs include provisions for both protection of the wetlands and to provide recreational activities.

The majority of the OCP plan areas for the Steamboat-Jubilee Mountain and Windermere Lake are within the Agricultural Land Reserve (ALR). The use of the land within the ALR must conform to that permitted by the Agricultural Land Commission Act and regulations.

The Fairmont Hot Springs & Columbia Lake Area OCP identifies the development and improvements to Columbia River access points in Fairmont Hot Springs as a strategic priority and the CWSP as a Partner in this matter¹². The OCP also identifies the investigation of the establishment of a service area to provide a parks and recreation function for the establishment and ongoing maintenance of local or regional recreational amenities and a coordinated review of the Columbia Lake Management Strategy as strategic priorities. Also, in the list of strategic priorities the OCP identifies the CWSP as a lead organization to support a horsepower limit on the main channel of the Columbia River not already covered by a horsepower limit within the plan area for Fairmont Hot Springs & Columbia Lake Area.

¹² [Fairmont Hot Springs & Columbia Area Official Community Plan Bylaw No.2779, 2017](#). Regional District of East Kootenay. p.63

Table 5: Summary of Official Community Plans

Town of Golden Official Community Plan Bylaw No. 1222 (2008)	
Vision	Golden provides the opportunity for all to live in a healthy, vibrant community. The people of Golden take great pride in this spectacular mountain community. Through sustainable environmental practices and careful development, Golden will continue to utilize its many natural resources to maintain a community based on a strong and diverse economy, a healthy environment and active lifestyles. (p.44)
Goals	<p><u>Section Environmentally Sensitive Areas:</u> Golden will have identified, protected, and where possible, enhanced environmentally sensitive and aquatic natural resources for the long-term benefit of wildlife, natural ecosystems and the enjoyment of the present and future population and visitors to the Town of Golden. (p.63)</p> <p><u>Section Environment:</u> Take responsibility for a sustainable, positive community future by ensuring the ongoing health of the natural environment, both within and surrounding Golden. (p.69)</p>
Objectives	<p><u>Section Environmentally Sensitive Areas:</u> 1. To protect and enhance natural land forms and ecosystems. (p.63)</p> <p><u>Section 5 Environment:</u> 4. To work with the CSRD to acknowledge and support protection measures in the Columbia River Wetlands Management Plan. (p.69)</p>
Policies	<p><u>Section Land Use and Growth Management:</u></p> <p><u>Subsection Land Use Planning and Community Design:</u></p> <p>13. All public access trails, especially along river fronts, shall be secured, maintained and enhanced. (p.50)</p> <p>22. Public access will be developed, maintained and protected along all waterways within the Town of Golden." (p.51)</p> <p><u>Subsection Environmentally Sensitive Areas:</u></p> <ol style="list-style-type: none"> 1. Aim to identify, protect and enhance environmentally sensitive areas (ESAs). These include natural watercourses, riparian areas and steep slope challenged areas. 2. Require environmental impact assessments within riparian areas as identified in Development Permit Areas. 3. Identify natural watercourses, including tributaries, and maintain them in a natural state, through designation as ESAs. 4. Protect valuable existing green space/open space and foliage by appropriate regulations and guidelines on both private and public lands. 6. Limit or prohibit development within ESAs with guidelines and bylaws to protect the environment. 7. Adopt the principle of minimal impact to the aquatic environment by adhering to the documents titled —Land Development Guidelines for the Protection of Aquatic

	<p>Habitat (Ministry of Environment, Lands and Parks) and —Water Land and Air Protection Stormwater Management Guidebook.</p> <p>8. All Stormwater discharges should be designed based on best management practices as recommended in the publication titled —Urban Runoff Quality Control Guidelines for B.C. (Ministry of Environment, Lands and Parks). (p.63)</p> <p><u>Section Environment:</u></p> <p>9. Work in conjunction with the CSRD to develop an invasive species management and removal plan within the town boundaries (p.71)</p>
Development Permit Areas	<p>Development Permit #8: Riparian Areas: Qualifying Categories: 1. Protection of the natural environment, its ecosystems and biological diversity. 2. Protection of development from hazardous conditions. <u>Justification:</u> This area requires unique attention to address the existence of riparian areas.</p>

Steamboat-Jubilee Mountain Official Community Plan Bylaw No. 1926, 2006 (2014)	
Goals	<p>Minimize the impact of human developments on the natural environment by protecting ecologically sensitive natural areas, including wetlands, riparian zones and wildlife corridors. (p.5)</p> <p>Protect the wildlife and habitat values surrounding the plan area by supporting conservation efforts in important natural areas and wildlife corridors. (p.5)</p> <p>Preserve areas of environmental, historical and social importance. (p.5)</p>
Objectives	<p><u>Section 9 Open Space, Recreation and Trails:</u> Protection of environmentally sensitive land.” (p. 25)</p> <p><u>Section 10 Environmentally Sensitive Areas:</u> (1) Ensure that development causes minimal degradation of soil, air and water systems and that development is compatible with maintaining and enhancing wildlife habitat. (2) Foster awareness and protection of environmentally sensitive areas within and adjacent to the plan boundaries. (3) Encourage an integrated approach to managing environmental concerns within and adjacent to the plan area. (4) Protection of natural ecosystem features that are unique to the plan area. (p.27)</p> <p><u>Section 10 Columbia River Wetlands:</u> (a) Protection of sensitive wetland habitat. (b) To encourage non-consumptive and non-intrusive opportunities for the public to interact with and learn about the wetlands. (p.28)</p> <p><u>Section 10 Wildlife Habitat and Corridors:</u> (a) Maintain connectivity between Kootenay National Park and the Columbia Wetlands. (b) Retain designated wildlife corridors and undisturbed wildlife habitat. (c) Recognize and protect areas of critical wildlife habitat and winter range. (d) Provide support for the Columbia Wetlands Wildlife Management Area management plan. (p.30)</p> <p><u>Section 11 Invasive Plants:</u> (a) To increase awareness of the numerous ways that these plants are spread. (b) To minimize the spread of invasive plant species. (p.34)</p>

Policies	<p><u>Section 9 Open Space, Recreation and Trails:</u> Schedules D – D6 outline OSRT [Open Space, Recreation and Trails] designated areas, many of which are along watercourses, open spaces and the Columbia Wetlands Wildlife Management Area. <i>completed Dec 6/13 Bylaw2499</i> (p.25)</p> <p>Consideration of referrals for commercial recreation tenures will include balancing economic growth, human settlement and impacts to the environment and agriculture. (p.25)</p> <p><u>Section 10 Environmentally Sensitive Areas:</u> (1) OSRT areas have been designated to discourage future development in environmentally sensitive areas. (2) Conservation of land in corridors and watercourses through the use of a 30 metre buffer zone is strongly encouraged. This is of critical importance along the Columbia River, wetlands and other fish bearing and domestic use watercourses throughout the plan area. (3) Prior to significant development within identified wildlife corridors or environmentally significant areas, developers are encouraged to conduct an assessment of environmental impacts and an environmental inventory. (4) The various levels of government organizations, non- governmental organizations and the public are encouraged to work together to protect the environment of the plan area. (5) Residents within the plan area are encouraged to employ the Bear Smart and Bear Aware principles, with particular attention paid to removal of attractants such as garbage and fallen fruit. (6) Initiatives to identify, protect and restore environmentally significant areas within the plan area are supported. (7) To the greatest extent possible future development in the Wilmer and Dry Gulch area should avoid compromising the integrity of environmentally sensitive areas including, but not limited to, those areas identified on Schedule J and in Section 16A.2. Environmentally sensitive areas within the plan area include, but are not limited to, wetlands and riparian areas, sensitive grassland ecosystems, connectivity corridors, old growth forests, and the habitat of red and blue listed species. (8) The completion of a biophysical inventory of Crown land in the Dry Gulch corridor to identify land with significant environmental value is supported.” (p.27) <i>Note: (7) & (8) are supported by Bylaw.2499.</i></p> <p><u>Section 10 Columbia River Wetlands:</u> (a) Development which has the potential for negative impacts to the Columbia Wetlands is discouraged. (b) Efforts to enhance existing access points to mitigate impacts to the wetlands and to carry out public education opportunities surrounding the wetlands are encouraged. (c) A buffer of 30 metres along the Columbia River wetlands, as regulated in the Upper Columbia Valley Floodplain Management Bylaw No. 1034, 1993, is required. (d) Implementation of a 10 horsepower boating regulation in the Columbia Wetlands is supported. (e) Efforts to enhance and maintain the natural vegetation community within the wetlands are encouraged. (f) Agricultural operations adjacent to the wetlands are encouraged to employ the principles of Environmental Farm Planning to minimize impacts to the wetlands. (p.29)</p> <p><u>Section 10 Wildlife Habitat and Corridors:</u> (a) Schedule E outlines conceptual wildlife corridors that indicate the priority areas for wildlife and ecosystem values.</p>
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	<p>Development is encouraged to avoid these areas, or if development must occur, then it is to be limited to activities that have minimal impact on wildlife movement, or otherwise have the impacts mitigated through development design or other compensation (b) Development that considers and promotes connectivity of wildlife movement corridors is encourage. (c) Efforts to restore and enhance wildlife habitat are encouraged. (d) The Columbia Wetlands Wildlife Management Area has been designated as an OSRT policy area, development is also encouraged to follow the goals and policies of the provincial management plan. (f) Conservation and/or enhancement of the wildlife and habitat values within the plan area is encouraged. (g) Development is encouraged to avoid streams, wetlands and riparian areas. (p. 30) <i>Bylaw 2499 addresses planning for protection of badger.</i></p> <p><u>Section 11 Invasive Plants:</u> (a) Residents of the plan area are encouraged to: (i) learn to recognize and identify invasive plants; (ii) report invasive plant infestations to the RDEK Weed Control Coordinator; (iii) avoid the spread of weeds or invasive plant seeds, taking special care at campsites, roadsides, and trails heading into the backcountry; and (iv) avoid activities that disturb soil or remove native plants. (b) All users of the backcountry are encouraged to wash gear, rigs, bikes, and recreational vehicles before and after each outing. They are also encouraged to check all clothes and equipment for weed seeds. (p.34)</p> <p><u>Section 14 Crown Land Management:</u> (2) Referrals for tenure on Crown land will be supported where it can be demonstrated that the application does not conflict with the existing rural land uses and character and can be demonstrated to have mitigate or minimize impacts to wetlands or impediments to important wildlife habitat and movement corridors.(8) The Province is encouraged to develop an off-road vehicle management plan for both the Wilmer area and Dry Gulch area to minimize environmental impacts associated with the off-road vehicle recreation by identifying suitable and unsuitable locations for off-road vehicle use.(pg 42) <i>Note: (8) is supported by Bylaw 2499.</i></p>
<p>Development Permit Areas</p>	<p>Development Permit Area #1 applies to all areas designated as ESAs on Schedule J of the Steamboat – Jubilee Mountain Official Community Plan.</p> <p><u>Purpose:</u> The purpose of Development Permit Area #1 is for the protection of the natural environment, its ecosystems and biological diversity. (p. 46)</p>

Lake Windermere Official Community Plan Bylaw No. 2061, 2008 (2015)	
Goals	Encourage the management of Crown land to fully consider a range of environmental, recreational, cultural and resource interests. (4) To direct future development to areas that will minimize further habitat fragmentation and protect ungulate winter range, environmentally sensitive areas and wildlife corridors. (11) Develop land use policies that will assist in preserving the ecological integrity of Lake Windermere, the foreshore of Lake Windermere, the Columbia River and Columbia Wetlands and the other water resources located within the plan area. (p.9)
Objectives	<p><u>Section 10 Lake Windermere:</u> (1) To promote partnership opportunities between the Regional District and other government and non-profit organizations to work toward best management practices for the lake. (2) To establish criteria for considering future amendments to the surface water zoning regulations for Lake Windermere. (3) To identify the jurisdictions responsible for the management of the foreshore of Lake Windermere. (4) To protect water quality for the purpose of drinking water, recreation and aquatic life. (p.21) <i>Note: (2) is supported by Bylaw 2418.</i></p> <p><u>Section 12 Environmentally Sensitive Areas:</u> (a) To foster an awareness of the natural environment and to protect environmentally sensitive areas. (b) To support rehabilitation, restoration and enhancement of environmentally sensitive areas which were subject to negative impacts in the past. (c) To recognize the importance of containing and controlling noxious / invasive plants and preventing their establishment. (p.28)</p> <p><u>Section 12 Wildlife Habitat & Corridors:</u> (a) To maintain habitat connectivity through undisturbed open space and wildlife corridors to support the movement of various wildlife species and access to foraging and nesting areas. (b) To encourage the protection of natural ecosystems unique to the plan area.</p> <p><u>Section 12 Water Resources:</u> (a) To encourage the responsible use and protection of water resources and water quality for all designated water uses within the plan area. (b) To support the protection, rehabilitation and enhancement of wetland and riparian areas. (p.31)</p>
Policies	<p><u>Section 10 Lake Windermere:</u> (3) The construction of new or repair of existing retaining walls, groynes or breakwaters should integrate the creation of new fish habitat and aim to restore, where feasible, natural ecosystem function along the foreshore by moving structures back from the foreshore or decreasing the number of structures. The permitting and approvals process by the Department of Fisheries and Oceans (DFO) and Ministry of Environment must be completed for all applicable works undertaken in the foreshore or that may affect fish habitat or water quality. (11) The retention of natural vegetation and control of invasive plant species along the foreshore is encouraged. The control of invasive species must be in accordance with the <i>Weed Control Act</i>. (13) The water testing and monitoring program, stewardship initiatives and education activities by the Lake Windermere Ambassadors are supported. (16) Applications to amend the surface water zoning for Lake Windermere will be considered in regard to the goals, objectives and recommendations of the Lake</p>

Windermere Management Plan (LWMP) (2011). (p.22) *Note: (13) and (16) are supported by Bylaw 2418.*

Section 11 Open Space, Recreation and Trails: (f) The primary role as identified within the Provincial Purpose Statement and Zoning Plan for Windermere Lake Provincial Park, formerly known as Sunshine Ranch, is recognized as protecting the native grassland and riparian habitat within the park. However, the Provincial Government is encouraged to consider the importance of the secondary role identified, which is the provision of day use opportunities in recognition of the limited public opportunities to access Lake Windermere. (p.27)

Section 12 Environmentally Sensitive Areas: (a) Ecosystem restoration and reclamation initiatives by environmental organizations, local citizens or the responsible Provincial Ministry that restore and enhance disturbed environmentally sensitive areas to a more natural condition **are supported**. (b) Property owners and occupiers are required to control and manage noxious / invasive plants **as required** by the *Weed Control Act* through the continued development of prevention and control initiatives. (c) Recreation users within the plan area **are encouraged** to inspect their ATVs, mountain bikes, boats and vehicles for noxious / invasive plants to assist in prevention of the spread and establishment of these plants. (d) Property owners **are encouraged** to maintain and upgrade onsite septic systems in order to decrease potential nutrient loadings and bacteriology inputs to both groundwater and surface water in the plan area. (e) Trading of Crown land for private land may be suitable where there is clear public benefit, such as habitat protection or enhancement. (f) Property owners **should preserve wetlands, riparian areas, wildlife habitat, native vegetation and trees through consideration of the co-location of infrastructure and utilities, concentration of development and minimization of site grading**. All activities undertaken must comply with the applicable provincial and federal legislation and regulations. (g) Property owners along the creeks and tributaries leading into Lake Windermere **are encouraged** to protect and conserve the natural riparian vegetation along the creek. (h) Applications for further development or subdivision of properties that abut the Windermere Creek corridor **are encouraged** to dedicate land for conservation and protection purposes. (i) Property owners along the Toby Creek escarpment are encouraged to maintain the natural vegetation between Toby Creek Road and the escarpment. The dedication of land for conservation and passive recreation purposes along the escarpment **is encouraged**. (j) In order to ensure that private land in environmentally sensitive areas is conserved and protected, designation within comprehensive developments of land as OSRT, Open Space, Recreation and Trails **is encouraged**. Opportunities within the area designated OSRT would include passive uses with a minimal impact on the area, such as non-motorized recreation trails and non-land altering recreation activities. (k) The Regional District **encourages** management of Crown land in an environmentally responsible manner which: (i) protects surface and ground water sources; (ii) manages forest ingrowth; (iii) minimizes risk of interface fire and wildfire; (iv) enhances wildlife habitat; (v) protects viewscales and scenery; (vi) protects watershed ecological values, including fish and fish habitat; (vi) protects wildlife corridors and wildlife access to Lake Windermere;

	<p>and (vii) maintains diverse plant communities by managing invasive / noxious plants. (p.29)</p> <p>Section 12 Water Resources: Within riparian areas the use of established access points and trails is encouraged to minimize the level of impact within these sensitive ecological areas. The creation of new access points is generally discouraged. (b) Development adjacent to waterbodies or watercourses should consider stormwater management options for impermeable surfaces to mitigate the impact of stormwater run-off on riparian and environmentally sensitive areas. (c) Ecosystem restoration of wetlands and riparian areas is encouraged, subject to appropriate approvals by Provincial and Federal authorities. (d) Riparian areas should be retained in an undisturbed and natural state throughout and after the development process to promote slope stabilization, vegetation retention and preservation of fish and wildlife habitat. (e) Resource extraction and development within watersheds should not compromise the ability to utilize the water sources for domestic purposes, harm fish and wildlife habitat or negatively impact water quality. (f) The following alterations to the foreshore of Lake Windermere require a permit from the Ministry of Environment, approval from the Department of Fisheries and Oceans, and may require approval from Transport Canada. (i) adding or removing fill; (ii) construction or maintenance of retaining walls, bank protection installations, docks, marinas, boathouses, groynes or breakwaters, or other structures within the foreshore; (iii) any activity that may alter, disrupt or destroy fish habitat; (iv) removing foreshore or riparian vegetation; or (v) other significant works. (p.31)</p> <p>Section 14 Floodplain Management: (a) Minimum setbacks and flood construction levels for development near the ordinary high-water mark of water bodies are established within the Upper Columbia Valley Floodplain Management Bylaw. All floodplain requirements must be met unless a site-specific exemption has been granted by the Regional District. (b) All development within a floodplain or along a watercourse or water body, or potentially impacted by site specific hydrologic hazard, such as flooding or channel avulsion, must ensure that adequate protection measures are incorporated into development designs. Specific geotechnical studies may be required as per section 56 of the Community Charter. (c) The development of land susceptible to flooding is discouraged. Lands susceptible to flooding should be used for parks, open space, recreation or agricultural uses.</p>
<p>Development Permit Area</p> <p><i>(DPA #2 supported by Bylaw 2484)</i></p> <p><i>(DPA #3 supported by Bylaw 2418)</i></p>	<p>Development Permit Area #2 – Protection of Environmentally Sensitive Areas (ESAs). <u>Purpose</u> of Development Permit Area #2 is for the protection of the natural environment, its ecosystems and biological diversity.</p> <p>Development Permit Area #3 – Protection of the Natural Environment (Lake Windermere Shoreline) (1) Area Development Permit Area #3 applies to those portions of the shoreline of Lake Windermere designated as red and orange shoreline zones on Schedules M1, M2 and M3 of the Lake Windermere Official Community Plan. Where the shoreline is designated as a red or orange shoreline zone the Development Permit Area extends 30 m into the lake and 15 m upland from the natural</p>

	boundary. <u>Purpose</u> of Development Permit Area #3 is for the protection of the natural environment, its ecosystems and biological diversity.
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Fairmont Hot Springs & Columbia Lake Area Official Community Plan, Bylaw No. 2779, 2017	
Vision	The Fairmont Hot Springs and Columbia Lake area is a place where people of all ages and stages of life can live, work, connect and play. The local economy is diverse and resilient. Development is high quality, contributes to a sense of place and is accessible to pedestrians. The natural environment and cultural heritage are respected, enhanced and celebrated. Access to recreation can be found from one’s doorstep. (p.5)
Goals	5. Enhance wildlife connectivity and habitat values within and surrounding the plan area by preserving important natural features and wildlife corridors within the plan area. 13. Recognize environmentally sensitive areas and the animal and plant species that rely on these ecosystems and establish Development Permit guidelines to protect the natural environment. (p.7)
Objectives	<p><u>Section 12 Wildlife & Habitat Corridors:</u> (a) Ensure that development causes minimal degradation of soil, air and water systems and is compatible with maintaining and enhancing wildlife habitat. (b) Retain critical wildlife habitat, wildlife corridors and ungulate winter range. (c) Maintain north-south and east-west habitat connectivity through undisturbed open space and wildlife corridors to support the movement of various wildlife species and access to important habitat. (p.24)</p> <p><u>Section 12 Invasive Species:</u> (a) Recognize the importance of containing and controlling invasive species. (b) Support initiatives that prevent the spread and establishment of invasive species. (p.26)</p> <p><u>Section 12 Water & Air Quality:</u> (a) Encourage the responsible use and protection of water resources and water quality for all designated water uses within the plan area. (b) Protect groundwater, surface water sources and community watersheds for domestic water and irrigation use in order to ensure sustainable water supplies. (p.27)</p> <p><u>Section 12 Conservation Lands:</u> (a) Encourage the conservation of private lands in order to support ecological, cultural and recreational values within a working landscape. (b) Recognize the contribution that the natural environment and wildlife make to the economy of the plan area. (p.28)</p> <p><u>Section 12 Environmentally Sensitive Areas:</u> (a) Foster awareness of the natural environment and protect Environmentally Sensitive Areas (ESAs). (b) Support the protection, rehabilitation and enhancement of ESAs. (p.28)</p>
Policies	<p><u>Section 6 Commercial & Resort Land Use:</u> (f) The following uses may be supported outside of the Fairmont Hot Springs commercial area if there will be no significant adverse impact on adjacent uses, rural character, or the environment: (i) commercial tourism or recreation activities adjacent to a site with recognized recreation capability; (ii) ecotourism activities that provide economic diversification and have limited impacts on the environment, agriculture and heritage resources. (p.7)</p> <p><u>Section 10 Open Space, Recreation and Trails:</u> (4) Support the enhancement of public access points for Columbia River users. This includes developing educational</p>

material aimed at encouraging safe river use, reducing conflict between river users and adjacent land uses such as golf courses and private residences and minimizing impacts on the movement of wildlife (p.21)

Section 11 Columbia Lake: (10) A review and update of the Columbia Lake Management Strategy (1997) is supported. (p.23)

Section 12 Environmental Considerations: (d) Future land uses should promote connectivity and discourage fragmentation of contiguous ecosystems and ecosystem components to preserve landscape diversity and allow wildlife and waterfowl use, movement and dispersal. (f) Conservation and/or enhancement of fish and wildlife habitat values within the plan area by local citizens, environmental organizations and Provincial and Federal jurisdictions is encouraged. (k) Habitat connectivity, sensitive ecosystems, vulnerable plant communities and movement of endangered animal species must be considered at the time of rezoning or OCP amendment applications. Notwithstanding the development permit requirements of section 20.3 of this plan, additional development approval information may be required by the RDEK as part of the development approval process. For example, submission of a report by a qualified professional that includes, but is not limited to the following: (i) Identification of any endangered or vulnerable species that utilize the area under consideration; (ii) Identification of opportunities for mitigation of the proposed development on wildlife movement corridors through development design or other compensation; (iii) Identification of areas, as appropriate, to be dedicated as conservation areas; (iv) Site specific additional requirements identified by the RDEK at the time of application. (l) Preservation and restoration of wildlife connectivity corridors is encouraged and supported by the following: (i) Contiguous habitat areas should be preserved. (ii) Structures and barriers that impede wildlife movement such as exclusion fencing should be avoided within connectivity corridors. For example, solid walls or fences erected to control wildlife capable of jumping over a fence 2.0 m in height should not be used. (iii) Extensive development within connectivity corridors that restricts the opportunity for wildlife movement should be avoided. (iv) If the construction of a structure within a connectivity corridor cannot be avoided, the structure should be located at the periphery of the corridor to limit the impediment of wildlife movement. (v) Extensive pruning of underbrush within connectivity corridors should be avoided. (vi) Forest cover should be maintained to encourage the use of connectivity corridors by wildlife. (vii) Native vegetation within connectivity corridors should be maintained. Conversion of vegetation within corridors to nonnative species should be avoided. (viii) Snags, downed logs, stumps and other forest features should be preserved unless they present a danger to personal or public safety. (m) In addition to development permit area guidelines for environmentally sensitive areas found in Section 20.3, **landowners clearing vegetation, particularly during the migratory breeding bird window between April and August, should be aware of the regulations contained under the federal Migratory Birds Convention Act (1994).** (p.24)

Section 12 Invasive Species: (c) Support installation of interpretive signage at public and private boat launches and lake access points to educate the public about the impact of invasive aquatic species. (d) Boat inspections and cleaning stations aimed at

reducing or eliminating the spread of invasive species are supported. These stations should not slow or disrupt highway travel. (p.26)

Section 12 Water & Air Quality: (a) Development is encouraged to avoid streams, wetlands and riparian areas and to provide appropriate development setbacks and buffer areas. (b) Property owners adjacent to water bodies or watercourses are encouraged to protect and conserve the natural riparian vegetation. Any land altering activities within a riparian area must comply with the applicable provincial and federal legislation, regulations and approvals. (c) No person may carry out a work or undertaking which impacts fish or fish habitat in contravention of the Federal Fisheries Act. (d) Development adjacent to water bodies or watercourses should consider storm water management options that mitigate the impact of run-off on riparian and environmentally sensitive areas. (e) Approved development and associated management activities such as dredging within or adjacent to water bodies, wetlands or riparian areas should be conducted following appropriate best management practices and in accordance with the required approvals. (f) Golf courses should employ strategies to minimize or eliminate nonpoint source pollution to surface water bodies. (g) Livestock and manure should be kept out of water bodies and watercourses to the greatest extent possible to avoid increased amounts of sediment and nutrient inputs to downstream water bodies. (h) Resource extraction and development within watersheds should not compromise watershed integrity or the ability to utilize the water sources for domestic use, harm fish and wildlife habitat or negatively impact water quality. (p.27)

Section 12 Conservation Lands: (a) Support the designation and zoning of properties purchased by conservation groups to OSRT in order to protect ecological, cultural and resources and opportunities for passive and active recreation where appropriate. (b) Support partnerships between conservation groups, land owners and the Province in order to expand ecosystem restoration projects on crown land to include private conservation properties. (c) Support public access to, and appropriate use of, private conservation properties. (p.28)

Section 12 Environmentally Sensitive Areas: (a) Future development should minimize disturbance to the integrity of ESAs. ESAs within the plan area include, but are not limited to areas identified on Schedules K and K1 to K3, such as wetlands and riparian area ecosystems, grassland ecosystems, habitat for species at risk and Bighorn Sheep habitat. (b) Development within ESAs identified on Schedules K and K1 to K3 will be managed through the Development Permit process. Prior to undertaking any works within an ESA, applicants must receive an approved Development Permit in accordance with section 20.3 of this plan. (c) In order to ensure that private land in ESAs is conserved and protected, designation of land as OSRT, Open Space, Recreation and Trails within comprehensive developments is encouraged. Opportunities within an area designated OSRT would include passive and active uses with minimal impact such as non-motorized recreation trails and non-land altering recreation activities. (p. 28)

Section 13 Development Constraints: (a) Minimum setbacks and flood construction levels for development near the ordinary high-water mark of water bodies and

	<p>watercourses are established within the <i>Upper Columbia Valley Floodplain Management Bylaw</i>. All floodplain requirements must be met unless a site specific exemption has been granted by the RDEK. (b) Applications to vary the minimum usable site area requirements contained within the zoning bylaw will generally not be supported. (c) All development within a floodplain or along a watercourse or water body, or potentially impacted by a site specific hydrologic hazard, such as flooding or channel avulsion, must ensure that adequate protection measures are incorporated into development designs. Specific geotechnical studies prepared by a qualified professional may be required prior to issuance of a building permit, development permit or other development approval as per provincial legislation. (d) The development of land susceptible to flooding is discouraged. Lands susceptible to flooding should not contain structures used for habitation. Suitable uses for land susceptible to flooding include but are not limited to parks, open space, recreation or agricultural uses. (p.31)</p>
<p>Development Permit Area</p>	<p>Development Permit Area #2 – Protection of Environmentally Sensitive Areas (ESA) (1) Area Development Permit Area #2 applies to all areas designated as ESAs on Schedules K and K1 to K3 of this OCP. <u>Purpose:</u> For the protection of the natural environment, its ecosystems and biological diversity. (p.46)</p>

Village of Radium Hot Springs Official Community Plan June 2013	
Vision	The vision for the Village of Radium Hot Springs includes: “We are intrinsically linked with our natural surroundings and wildlife in a harmonious relationship.....Altogether, the intention is to foster a resort community that attracts both residents, who appreciate the special privileges of living in a mountain community, and visitors, who want to share in the authenticity of our Village while enjoying the many natural and resort based amenities.” (p.4)
Planning Principles/ Strategies	<p><u>Section 2.2 Planning Principles:</u> Balanced consideration and conservation of our natural assets to maintain and enhance the natural features, viewsapes, flora, and fauna that make our Village attractive. (p.5)</p> <p><u>Section 4 Environmentally Sensitive Areas:</u> Protect and enhance the Columbia Valley Wetlands and Sinclair Creek to support fish and wildlife populations. Heighten awareness of the ecological importance of ESAs by providing opportunities for public enjoyment of them in ways that respect their environmental sensitivity. Support the development of wildlife corridors and greenways throughout the region. (p.19)</p> <p><u>Section 4 Stream Stewardship:</u> The Village will continue to periodically conduct fish habitat assessments and restoration of Sinclair Creek. Heighten awareness of the ecological importance of aquatic habitat by providing opportunities for public enjoyment of them in ways that respect their environmental sensitivity. Consider revision of the watercourse leave strip requirements contained in the zoning bylaw for the purposes of both riparian area protection and public safety. (p.21)</p> <p><u>Section 4 Environmental Restoration:</u> Support initiatives that raise awareness of the impacts that daily public and private practices and development projects can have on environmental assets. Support the education of residents and visitors about restoration benefits. Collaborate with partners to identify, fund and conduct restoration initiatives. (p.23)</p>
Goals	<p><u>Section 2.4 Community Goals:</u> Goal #5: Act to maintain our basic natural resources – clean air and water, healthy landscapes and wildlife populations – as critical assets for current and future generations. Goal #7: Develop additional recreational, park and cultural facilities for the Village. Goal #9: Continue to develop partnerships with the private sector, nonprofit organizations and neighbouring jurisdictions that will assist the Village in achieving cooperative and community goals. Goal #11: Acquire lands, as funding and opportunities allow, for a broad spectrum of municipal uses, including but not limited to park, institutional, recreational, and community gatherings. (p.6)</p> <p><u>Section 4 Environmentally Sensitive Areas:</u> • Identify and protect environmentally sensitive areas (ESAs). • Avoid or mitigate disturbance of ESAs from human activity and development. • Preserve aquatic habitat. • Provide opportunities for nature appreciation. • Protect biological diversity, wildlife and important wildlife habitats, features and functions. (p.19)</p> <p><u>Section 4 Stream Stewardship:</u> The Sinclair Creek drainage is an important part of the Columbia River Wetlands and is the only natural stream located within the municipality. The Village wishes to protect all existing fish habitat including riparian corridors. In addition, the Village intends to encourage restoration of damaged or</p>

	<p>degraded critical habitats. Goals: • Preserve aquatic habitat. • Protect and restore the Columbia Valley Wetlands and Sinclair Creek to support fish and wildlife populations. • Provide opportunities for nature appreciation and angling. (p.21)</p> <p><u>Section 4 Environmental Restoration:</u> • Restore degraded environmental values where financially and practically feasible. • Be proactive in the prevention of negative impacts to environmental values. • Work with partners to keep informed of developments in restoration science and strategies and in the acquisition of funding and resources. • Provide opportunities for citizens to participate in restoration initiatives and best practices. (p.23)</p>
<p>Policies</p>	<p><u>Section 3.5.3 Parks and Open Space:</u> (2) Continue to develop parks, trails and interpretive information adjacent to the Columbia River Wetlands and Sinclair Creek.</p> <p><u>Section 4 Environmentally Sensitive Areas:</u> 1. While the environmental protection of natural streams and wetlands is of paramount importance, the Village will encourage outdoor recreation of these areas, where such uses are compatible with preservation and enhancement objectives. 2. Require a minimum watercourse buffer zone from development. 3. Designate the following areas as Environmentally Sensitive: • The marshlands along the Columbia River and the delta where Sinclair Creek enters the Columbia River (Schedule B – Habitat Class Dark Green); • The Sinclair Creek leave strip corridor (Schedule B – Habitat Class Dark Green and Yellow); • The remaining native grasslands (Schedule B – Habitat Class Dark Green) • The forested slopes on the steep bank below Forsters Landing Road and below Highway 93, which is designated as rural on the Planned Land Use Map; • Wildlife migration routes and the natural habitat for the Rocky Mountain Bighorn Sheep (Movement Corridors indicated on Schedule B). 4. All applications for OCP amendments, rezoning, or development permit in an environmentally sensitive area must be accompanied by an Environmental Impact Assessment prepared by qualified independent professionals and with terms of reference agreed to by Village staff. All costs are to be borne by the applicant. The Environmental Impact Assessment will include, but not necessarily be limited to: • Sufficient data and analysis to determine the probable environmental impacts of the proposed development; • The proposed mitigation and/or avoidance measures that will eliminate or reduce the negative environmental impacts; • The identification of residual impacts following the completion of mitigation or avoidance measures undertaken during development and construction, and; • A monitoring program to ensure that site development and construction is undertaken in accordance with clearly stated environmental requirements and objectives. 5. Prohibit development that would have a negative impact on environmentally sensitive areas, if the proposed mitigation measures are deemed to be inadequate. 6. Protect and preserve environmentally sensitive areas using one or more of the following measures, depending on which measure(s) are appropriate for the given situation: • Dedication as park land or pathway, where the area complements the goals of the Village’s park and pathway systems; Registration of a restrictive covenant for conservation purposes with the Village, the Province of British Columbia and/or a non-governmental organization eligible to hold conservation covenants. (p.20)</p>

	<p><u>Section 4 Stream Stewardship:</u> As determined by the Approving Officer (subdivision) or Council (Zoning and Development Permit Process), a minimum leave strip from a watercourse shall be maintained to preserve wildlife habitat, the integrity of the watercourse and prevent potential environmental damage. 2. The minimum naturally-vegetated leave strip in low-density residential areas on each side of the watercourse is 15 metres measured perpendicular from the highwater mark. This ‘leave strip’ does not take into account additional requirements relating to flood safety. 3. The usual minimum naturally-vegetated leave strip for commercial, industrial and multiple family developments is 30 metres measured perpendicular from the highwater mark on either side of the watercourse. This ‘leave strip’ may be reduced to a minimum of 15 metres if it can be demonstrated, to the satisfaction of the Village, that both riparian area integrity and public safety are not compromised. This ‘leave strip’ does not take into account additional requirements that may be imposed due to flood plain location. 4. Where appropriate, limited passive use such as pathways, wildlife enhancement and viewing may be permitted in leave strip and riparian areas provided such uses will not conflict with or otherwise detrimentally affect the prime function of the area. 5. Pathways will be designed and constructed to minimize impacts to riparian areas. (p.21)</p> <p><u>Section 4 Environmental Restoration:</u> 1. Initiate restoration projects when environmentally degraded sites are identified within the Village. 2. Require developers to provide environmental mitigation and restoration plans, with financial securities, for development on environmentally sensitive lands. (p.23)</p> <p><u>Section 7 Evaluating Proposals for OCP and Zoning Amendments:</u> 1. Proposed OCP amendments or rezoning applications will be considered if the development: • will not cause unacceptable impacts to the community or environment; • exhibits high standards of design, landscaping, and environmental sensitivity; (p.33)</p>
<p>Development Permit Areas</p>	<p>There are 7 Development Permit Areas. All 7 have “protection of the natural environment, its ecosystems and biological diversity” as a Development Permit designation under Part 26 of the Local Government Act. The most relevant to the Columbia Wetlands is:</p> <p>Development Permit Area #6 – Sinclair Creek/Columbia River</p> <p><u>Justification:</u> The Sinclair Creek/Columbia River lands encompass important fish and wildlife habitats, and require protection of the natural environment. Development shall be required to protect the natural environment and prevent hazardous conditions.</p>
<p>Implementation</p>	<p><u>Section 2.3 Natural Attribute Benchmarks:</u> (1) Size & health of sheep herd (2) Sinclair Creek biodiversity and health (3) Diversity of nature based recreational opportunities (p. 6)</p>

Village of Canal Flats, 2005

<p>Vision</p>	<p>We visualize a strong sense of community pride based on programs which will include the provision of quality community services, expanded land use, infrastructure enhancement and beautification. We will maintain our small town friendly character.</p>
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	We will practice sound environmental stewardship while generating new business opportunities and promoting our area. (p.3)
Primary Principles	<p>Protect and Enhance the Natural Environment. Preserve the significant environmental features, water and air qualities, viable agricultural areas and natural habitats that are critical for Canal Flats’ long-term health and welfare. The recreational and marine environments are highly valued by the residents of Canal Flats. Only low-impact, sustainable development will be permitted after these unique features have been protected or preserved. (p.5)</p> <p>Use Limited Land Wisely. Because of the Agricultural Land Reserve, environmentally sensitive areas as well as steep hillsides and floodplain constraints Canal Flats has limited areas to develop. Therefore, more intensive land uses and higher densities should be directed to the existing areas designated for development. Infilling of existing lands is encouraged. Wise land use decisions are required to maximize a finite resource. Sprawl is not encouraged. An urban containment boundary has been designated to direct future growth.</p>
Policies	<p>Section 4: Environmentally Sensitive/Hazardous Areas (p.10)</p> <p>Section 5: Open Spaces (p.13)</p>
Development Permit Areas	No Environmentally Sensitive Development Permit Areas.
Implementation	<p>The OCP outlines several Implementation Actions:</p> <p><u>Section 2: Environment and Natural Hazards:</u></p> <p>Action 3: Council will investigate a policy for permissive tax exemptions where a property owner proposes to establish a conservation covenant to protect and preserve riparian property. (p.32)</p> <p>Action 4: Canal Flats will pursue means of handling storm water discharge to mitigate environmental concerns. (p.32)</p> <p><u>Section 3 Open Spaces:</u></p> <p>Action 4: Canal Flats will pursue various means to acquire, develop, use, and protect lands for parks and open space.</p> <p>Village of Canal Flats Official Community Plan Amendment Bylaw No. 138, 2012 (Parks and Trails Plan) identifies Tilley Memorial Park and indicates proposed trails.</p> <p>Village of Canal Flats is currently looking for funding to update its Official Community Plan¹³.</p>

¹³ Personal communication, Sylvie Hoobanoff – Corporate Officer, Village of Canal Flats, February 5, 2018.

3.3.3 Other Regional Government Planning Documents

Two regional government planning documents in the CWSP database are the Columbia Lake Management Strategy and the Lake Windermere Management Plan. Further research is necessary to review other regional government planning documents and their impact on the management of the Columbia Wetlands.

The *Columbia Lake Management Strategy* was written in 1997 to provide a framework of lake and foreshore management recommendations. The strategy outlines recommendations for:

- A Columbia Lake Management Steering Committee,
- Water Quality,
- Water Level,
- Habitat,
- Foreshore Lease and Access, and
- Boating.

The recommendations enable relevant government regulatory bodies and private citizens to manage foreshore development and lake use.

The *Lake Windermere Management Plan (LWMP)* was initiated by the Regional District of East Kootenay (RDEK) in November 2008 to address lake-related issues following the adoption of the Lake Windermere Official Community Plan (OCP). The LWMP contains information on the biophysical and social characteristics of Lake Windermere and its surroundings. The lake is highly valued by the public for its healthy environment, clean water, diverse year-round recreation opportunities, sense of community, spiritual values, and as a primary economic driver for the region. Some of the major concerns about the lake include: habitat loss, water quality deterioration, motorized uses affecting human enjoyment and the environment, lack of public access to the lake, and the challenges of lake management. The plan includes vision, goals and objectives and plans for issues on topics such as lake boating and use, foreshore management, upland management and land use, and environmental quality.

The **vision** of the Lake Windermere Management Plan is:

“Lake Windermere has high water quality, providing drinking water and supporting healthy and diverse habitats for fish and wildlife. The lake, in its spectacular setting, supports a wide range of recreational pursuits which are accessible to everyone. The surrounding communities offer a high and enjoyable quality of life for all residents and visitors; everyone works together to ensure that human activities and behaviour respect the environment and human safety. The authority for management of the lake is simplified and coordinated, including enforcement of regulations and guidelines. Lake Windermere is a key economic asset for the Columbia Valley, helping to attract and retain residents, businesses, and tourists.”

The **goals** of the Lake Windermere Plan are to:

- Protect and enhance the environmental health and integrity of the lake,
- Ensure the continuation of diverse and safe recreational opportunities,
- Encourage and support the development of a community that will work together to respect and balance the various interests on the lake, and
- Clarify and strengthen responsibilities for management and enforcement.

3.4 Overarching Non-Land Parcel Specific Plans

3.4.1 Partnership, Government, and Funding Programs

The CWSP Reference Database contains several overarching non-land parcel specific plans that provide strategic direction and guidance to land managers/owners and others that are interested in wetland conservation and protection.

Table 6 summarizes some of these plans. These plans generally depend on partner organizations or other programs to implement on-the-ground actions.

The Columbia Valley Conservation Neighbourhood, a joint initiative by Kootenay Conservation Program and CWSP to collaboratively develop a conservation planning process, has recently identified priority conservation actions that can be undertaken in the next five years for the Canal Flats to Spillimacheen region of the Columbia Valley (see Section 3.4.1.1 below). The priority actions generally align with the goals and objectives of other management plans reviewed in this report.

It was not within the scope of this review to identify and review priorities for funding programs. However, the mandates and strategic priorities of funding programs such as the Columbia Basin Trust's *Ecosystem Enhancement Program* and the Fish and Wildlife Compensation Program's *Columbia Basin Riparian and Wetlands Action Plan*, impact available resources to implement other management plans. The goals and objectives of the *Columbia Basin Riparian and Wetlands Action Plan* are summarized below in Section 3.4.1.2 and Table 6.

3.4.1.1 Columbia Valley Priority Conservation Actions Summary Report

In 2017, the Kootenay Conservation Program (KCP) organized an initial meeting with partners in the Columbia Valley to begin framing an approach to identify biodiversity hotspots and improve collaboration and conservation outcomes. Partners concluded it was necessary to have a more scientifically based selection of high conservation value areas and analysis of threats (such as, invasive species, habitat fragmentation due to subdivision, recreational pressure, loss of natural hydrological processes, forest encroachment, and climate change). They identified a role for KCP and CWSP to collaboratively develop a conservation planning process which led to a "Columbia Valley Conservation Neighbourhood" and a Columbia Valley Conservation Action Planning Forum in Invermere, B.C in December 2017.

During this full-day Forum, 36 participants representing diverse perspectives as worked together to identify priority actions that would contribute to maintaining healthy fish and wildlife populations and ecological functions in the Columbia Valley from north of Canal Flats to Spillimacheen and from the heights of land in the Rocky Mountains in the east to the Purcell Mountains in the west. It does not include the portion of the Columbia wetlands from Spillimacheen to Donald.

The Forum focused on 6 themes and resulted in 8 priority action plans. The themes were:

- Conserve populations of species of concern;
- Prevent and control invasive species;
- Protect existing high-quality habitats;
- Enhance connectivity and corridors;
- Reduce recreational pressure; and
- Advance climate change resilience.

The 8 Priority Action Plans (not ranked) are:

1. Conserve and Restore Montane Valley-Bottom Processes and Habitats that Benefit a Suite of Species of Interest and Conservation Concern;
2. Document Species Diversity, Relative Abundance and Location of Bats;
3. Identify and Protect Existing High-Quality Habitats;
4. Conserve and Restore Riparian and Wetland Habitats;
5. Protect, Monitor and Mitigate Decreases in Hydrologic Inflows into the Columbia River and Wetlands;
6. Identify and Enhance Connectivity and Corridors;
7. Develop a Statutory Recreational Access Plan for the Columbia Valley; and
8. Take Aggressive Local Action to Reduce Emissions for Climate Change.

For each of the 6 themes “top recommendations that will make a difference” and for the 8 priority actions, activities, resources, potential partners and collaborators, and time frames were identified (see Appendix D for a summary of Priority Actions 5 & 6). Many of these components align with existing plans and identified in this review.

3.4.1.2 Fish & Wildlife Compensation Program

The Fish and Wildlife Compensation Program (FWCP) has a set of inter-related plans that guide its investments to compensate for hydro-electric development impacts in the Columbia Basin. Organizations seeking funding from the FWCP are advised to review the plans and ensure their project aligns with the objectives outlined in the plans.

The FWCP plans include the:

- Columbia Basin Plan, 2012;
- Riparian and Wetlands Action Plan – Draft, 2014;
- Columbia Basin Large Lakes Action Plan – Draft, 2012;
- Columbia Basin Species of Interest Action Plan – Draft, 2014; and

- Upland/Dryland Action Plan – Draft, 2012.

The Columbia Basin Plan outlines the vision, principles, policy context and strategic objectives that form the foundation of the FWCP. A short description of the Columbia Basin landscape includes an overview of the hydro-electric facilities and footprint impacts created by those facilities. The priority setting process is then described, followed by a short synopsis of the priority Action Plans. Taken together, the Basin Plan and the accompanying Action Plans present the FWCP priorities for investments in compensation activities within the Columbia Basin. Organizations seeking funding from the FWCP for projects in the Columbia Wetlands should review the priority actions for the Upper Columbia Basin (see list in Table 6 below).

A portion of the FWCP program activities include small-scale, short-duration strategic projects that target specific issues identified by program partners or others (e.g., community members). These could include projects not yet identified in any action plans, as well as lower priority action plan items that require timely response in order to take advantage of an investment or partnership opportunity.

The **vision** of the Fish and Wildlife Compensation Program is for:

“Thriving fish and wildlife populations in watersheds that are functioning and sustainable.”
The FWCP **strategic objectives** are:

- **Conservation**
 - Maintain or improve the status of species or ecosystems of concern.
 - Maintain or improve the integrity and productivity of ecosystems and habitats
- **Sustainable Use**
 - Maintain or improve opportunities for sustainable use, including harvesting and other uses
- **Community Engagement**
 - Build and maintain relationships with stakeholders and aboriginal communities.

*The **Riparian and Wetlands Action Plan** outlines and prioritizes action items for conserving and protecting Riparian and Wetland Areas. The Upper Columbia Valley is identified as a focal area. The Plan focuses on the securement, creation and restoration of wetlands and riparian areas. Inventory, monitoring and the development of management plans are a lower priority but are often required before actions on these three priority actions can proceed effectively. The plan includes mapping of wetland and riparian ownership. Assessment of knowledge gaps identified that there is little long-term monitoring of ecological processes in this area. The priority actions for the Upper Columbia Basin are outlined below in*

Table 6.

The **Columbia Basin Large Lakes Action Plan** focuses on fisheries resources in five high-priority lakes: Kootenay Lake, Duncan Reservoir, Arrow Lakes Reservoir, Revelstoke Reservoir

and Kinbasket Reservoir. Other large lakes included in the Program are Columbia Lake and Windermere Lake. Detailed planning has not been conducted for these lakes. However, priority actions have been developed including research and information acquisition, habitat-based actions, land securement, monitoring & evaluation.

The ***Species of Interest Action Plan*** identifies actions for 7 species: Mountain Caribou, Northern Leopard Frog, American Badger, Western Screech-owl, Yellow-breasted Chat, Lewis' Woodpecker, and White Sturgeon. The plan also cross references focal species with priority and supporting ecosystem action plans. The FWCP considers projects targeting focal species and their habitats as priorities for consideration where clear habitat, land or species-based actions are available for implementation.

The ***Upland/Dryland Action Plan*** sets out priorities for improving the condition and productivity of priority upland/dryland native habitats which include fire-maintained ecosystems, exceptional old growth forests, deciduous forests, and ungulate winter range. Actions identified specific to the Columbia Valley include securing important connectivity habitat for carnivores and ungulates. The plan includes maps of ungulate winter ranges.

Table 6: Non-Land Parcel Specific Plans

<i>FWCP Riparian and Wetlands Action Plan, Draft, 2014</i>	
Organization	Fish and Wildlife Compensation Program
Purpose	The FWCP Riparian and Wetlands Action Plan outlines how the FWCP guides its investments. Organizations seeking funding from the FWCP for projects in the Upper Columbia Basin should review the action priorities in the Action Plan for the Upper Columbia Basin.
Objectives	<ol style="list-style-type: none"> 1. Maintain Productive and Diverse Ecosystems. <ol style="list-style-type: none"> a. Secure remaining Category 1 riparian and wetland habitat within the FWCP-Columbia program area b. Restore degraded or create new riparian and wetland habitat (Category 2). c. Maintain the productivity of Category 2 (created) riparian and wetland habitat. d. Reduce threats to Category 1 riparian and wetland habitat. 2. Maintain or Improve the Status of Habitat Important to Recovery and Focal Species. 3. Maintain or Improve Opportunities for Sustainable Use. 4. Maintain or Improve Opportunities for Community Engagement.
Action Priorities (for upper	Research and Information Acquisition: <ol style="list-style-type: none"> 1. Inventory, map and monitor the seral stage distribution of riparian

Columbia Basin)¹⁴	<p>habitat (including but not limited to cottonwood, aspen and cedar) (p.22)</p> <ol style="list-style-type: none"> 2. Monitor wildlife species presence and abundance in wetland and riparian areas (p.22) 3. Map the abundance and distribution of riparian habitats (p.22) 4. Map the abundance and distribution of wetlands (p.23) 5. Establish a reference condition for wetland and riparian areas (p.23) 6. Collaborate and share information with organizations and agencies in this focal area to monitor and assess the functional processes and basic ecological parameters of wetlands and riparian areas. (p.23) 7. Monitor status of introduced species (e.g. wild rice) to determine impact on wetland and riparian areas (p.23) 8. Conduct an information review on fish presence and abundance in wetland and riparian areas within the focal area (p.24) 9. Review available species' inventories in order to identify changes, trends and information gaps. (p.24) <p>Habitat-based Actions:</p> <ol style="list-style-type: none"> 1. Monitor and treat aquatic invasive species in wetland and riparian areas. (p.24) 2. Monitor and treat terrestrial invasive species in wetland and riparian areas. (p.24) 3. Restore and create wetland and riparian area habitat, where feasible to address impacted, degraded or lost habitat (including but not limited to gravel pits where they exist on the floodplain, oxbows and side channels). (p.25) 4. Explore options to collaborate with partners, in order to conserve and enhance wetland and riparian areas. (p.25) 5. Restore wetland and riparian areas impacted by livestock use. (p.30) 6. Support actions developed by the Northern Leopard Frog (NLF) recovery team for the Upper Columbia Valley NLF population. (p.31) <p>Land Securement (contributing to the establishment of easements or covenants or the purchase of private land for conservation purposes):</p> <ol style="list-style-type: none"> 1. Identify threats to habitat connectivity and support opportunities, including but not limited to land securement, in order to secure and steward lands with high conservation values for wetland and riparian areas. (p.25) <p>Monitoring and Evaluation:</p>
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¹⁴Actions described on pages 22-25 of the *FWCP Riparian and Wetlands Action Plan* are for the entire Columbia Basin while those on described on pages 30-31 are specific to the Upper Columbia Basin).

	<ol style="list-style-type: none"> 1. Compile, assess and document the effectiveness of completed wetland and riparian restoration projects. (p.26) 2. Monitor species use of habitat created or restored with support from the FWCP (i.e. past projects). (p.26) 3. Monitor and assess the effectiveness of FWCP's efforts to re-introduce Northern Leopard Frogs into this focal area. (p.31) 4. Implement program to monitor population trends of species in wetland and riparian areas including but not limited to amphibians. (p.31)
Implementation	<p>The FWCP implements its program through funding projects.</p> <p>The FWCP outlines performance measures and targets for each objective. (p.16)</p>
Implementation Plan: Wetlands and Associated Species, 2010.	
Organization	<p>Columbia Intermountain Joint Venture (CIJV)</p> <p>Partners include: BC Cattlemen's Association, BC Field Ornithologists, BC Hydro, BC Ministry of Environment, City of Kelowna, Ducks Unlimited Canada, East Kootenay Conservation Program, Environment Canada (Canadian Wildlife Service), Grasslands Conservation Council of BC, The Land Conservancy of BC, The Nature Conservancy of Canada, The Nature Trust of BC, Teck Resources Ltd., UBC Centre for Applied Conservation Research</p>
Vision	"A landscape that supports healthy populations of birds, maintains biodiversity and fosters sustainable resource use".
Summary	This Implementation Plan (IP) outlines the approach to be taken by the CIJV partners to meet CIJV vision. The focus is on wetlands and waterfowl species, and other water-associated birds are discussed where information is sufficient. Direct programs focus on securing key natural breeding habitats that are at high risk of loss or degradation. Stewardship programs are focused on changing broad land use for the benefit of wetlands.
Objectives	The IP is consistent with the principles, objectives and priorities of the North American Waterfowl Management Plan (NAWMP) and is complementary to other planning documents currently available or relevant to conservation planning in the CIJV.
Challenges	<p>The CIJV outlines key challenges related to achieving its vision:</p> <ul style="list-style-type: none"> • Tracking Populations of Priority Wetland Birds • Understanding Limiting Factors • Improving Habitat Objectives • Tracking Changes in Wetland Habitats • Increasing and Validating the Effectiveness of Stewardship and Policy • Increasing Funding and Capacity

Implementation	CIJV activities are coordinated by a Board which includes representatives from its major active partners. Activities are often dependent on funding from individual partners or external sources.
A Wetland Action Plan for British Columbia, 2010.	
Organization	Wetland Stewardship Partnership Partners include: Environment Canada, The Nature Conservancy of Canada, BC Ministry of Environment, BC Wildlife Federation, BC Ministry of Forests and Range, BC Nature (The Federation of BC Naturalists), BC Ministry of Healthy Living and Sport, The Grasslands Conservation Council of British Columbia, BC Hydro, The Nature Trust of British Columbia, The Union of BC Municipalities, The Pacific Salmon Foundation, Ducks Unlimited Canada, Royal Roads University
Mission	The mission of the Wetland Stewardship Partnership is to promote collaboration among government and non-government organizations to maintain, restore, and protect wetland ecosystems throughout British Columbia by implementing the Wetland Action Plan
Summary	In this document, the WSP proposes a comprehensive Wetland Action Plan to be implemented cooperatively by governmental and non-governmental organizations in order to protect British Columbia's remaining natural wetlands, and to restore important wetlands that have been severely damaged. The Action Plan sets out goals to address constraints to the effectiveness of wetland conservation policies.
Objectives/Goals	<p>A. Clear and Comprehensive Information</p> <ol style="list-style-type: none"> 1. Develop a comprehensive and reliable wetland information base to support effective planning, law-making, and policy development. 2. Increase public, industry, and government awareness of the importance of wetlands and commitment to wetland protection and restoration. <p>B. Effective Legal and Planning Tools</p> <ol style="list-style-type: none"> 3. Enhance legal protection of wetlands through effective and effectively enforced laws and policies. 4. Ensure the effective integration of wetland protection in strategic land use processes. <p>C. Effective Actions and Incentives for Wetland Protection</p> <ol style="list-style-type: none"> 5. Secure the protection of priority wetlands and the conservation and restoration of natural wetlands throughout the province. 6. Improve coordination and strengthen partnerships to maximize effectiveness in wetlands protection and restoration.
Implementation	The plan states that each year a workplan will be implemented to address priority actions and associated tasks. The Wetland Action Plan will be reviewed in five years.

Bird Conservation Strategy for Bird Conservation Region 10 Pacific and Yukon Region: Northern Rockies, 2013	
Organization	Environment Canada
Purpose	The primary aims of Bird Conservation Region (BCR) strategies are to present Environment Canada’s priorities with respect to migratory bird conservation, and to provide a comprehensive overview of the conservation needs of bird populations to practitioners who may then undertake activities that promote bird conservation in Canada and internationally.
Summary	<p>The priority species list in BCR 10 is dominated by landbirds (65% of the total list) but also includes waterbirds (14%), waterfowl (16%) and shorebirds (5%). However, approximately half of all waterbirds, waterfowl, and shorebirds occurring in the BCR were identified as priority species (55%, 50% and 44%, respectively), compared to only 28% of landbirds. Forty-two per cent (42%) of the priority species are considered at risk, either federally or provincially.</p> <p>Identifying the broad habitat requirements for each priority species within the BCR allowed species to be grouped by shared habitat-based conservation issues and actions.</p> <p>Wetlands are an important habitat type in the BCR and are used by 20 priority species.</p> <p>An assessment of threats identified a number of conservation issues facing priority species in the various habitats of BCR 10.</p>
Objectives	<p>Conservation objectives were designed to address threats and information gaps that were identified for priority species. They describe the environmental conditions, and research and monitoring, that are thought to be necessary for progress towards population objectives and to understand underlying conservation issues for priority bird species.</p> <p>The majority of conservation objectives for BCR 10 relate to maintaining or enhancing habitat quality and quantity. Included in these objectives are: the maintenance of the full range of naturally occurring habitat types, maintaining the quality of existing habitats, and retaining important features on the landscape (e.g., standing dead snags for cavity nesting birds). Also important is the need to reduce mortality of priority species (which includes reducing collisions with human made structures, destruction of nests, pesticide poisoning and mortality caused by ingestion of lead shot) and managing impacts of climate change on habitat availability and suitability. Other objectives relate to reducing human disturbance of breeding birds, ensuring pesticide use does not deplete food supplies for insectivorous birds, and targeted management of some individual priority bird species.</p>
Recommended Actions	Recommended actions indicate on-the-ground activities that will help to achieve the conservation objectives.

	Actions relating to the development of beneficial management practices or other voluntary private sector codes of practice comprise nearly 50% of the total recommended actions. This is due in part to the fact that the development of voluntary beneficial practices are recommended to address both the need for land/water protection and management.
Implementation	Users from all levels of government, Aboriginal communities, the private sector, academia, NGOs and citizens will benefit from the information. BCR strategies can be used in many different ways depending on the needs of the user, who may focus on one or more of the elements of the strategy to guide their conservation projects.
A Habitat Restoration Strategy for the Upper Columbia Basin, 2004	
Organization	Columbia River Greenways Alliance
Summary	The Columbia River Greenways Alliance asked BioQuest International Consulting Ltd. to develop an overall strategy for ecosystem restoration and a specific strategy for the restoration of nodes of habitat in the area between Canal Flats and Donald, in the Upper Columbia River basin. Based on interviews with over 50 people involved in restoration efforts, 100 plus potential restoration projects were identified. Fifteen projects were of highest interest to the Greenways Alliance, based on the organization's objectives and mandate.

4 Conclusion

4.1 Summary and Opportunities identified by the CWSP steering committee;

Appendix A: List of Plans

Type of Plan	Name of Plan	Date Plan Published	In CWSP Database	Status of Implementation
First Nation Community or Land Management Plan	ʔakisqnuq First Nation Comprehensive Community Plan	2016	No	Plan adopted March 30 2016
First Nation Community or Land Management Plan	ʔakisqnuq First Nation Land Use Plan- Draft Version	2017	No	Draft
First Nation Community or Land Management Plan	Shuswap Band Land Use Plan Draft April 2016	unknown if published	No	unknown
First Nation Community or Land Management Plan	Shuswap Indian Band Land Code May, 2014	2016	No	
Guideline	Columbia Lake Shoreline Management Guidelines for Fish and Wildlife Habitats	2010	Yes	
Guideline	Develop with Care: Environmental Guidelines for Urban and Rural Land - Kootenay Boundary Region	2014	Yes	
Guideline	Wetland Ways: Interim Guidelines for Wetland Protection and Conservation in British Columbia	2009	Yes	
Guideline	Windermere Lake Shoreline Management Guidelines for Fish and Wildlife Habitats	2009	Yes	
Invasive Plant/Pest Management Plan	Akisqnuq First Nation Invasive Plant Management Plan	2016	Yes	
Invasive Plant/Pest Management Plan	Columbia Shuswap Invasive Species Society Strategic Plan 2013 to 2018	2013	Yes	
Invasive Plant/Pest Management Plan	CSRD Pest Management Plan. Mosquito Control Management Plan for Golden, Revelstoke & Scotch Creek	2016	Yes	
Invasive Plant/Pest Management Plan	East Kootenay Invasive Plant Council 2013-2018 Regional Strategic Plan	2013	Yes	
Invasive Plant/Pest Management Plan	Operational Plan for Terrestrial Invasive Plants in the Columbia Shuswap 2014-2019	2013	Yes	

Type of Plan	Name of Plan	Date Plan Published	In CWSP Database	Status of Implementation
Land and/or Water Management, Strategy or Action Plan	A Habitat Restoration Strategy for the Upper Columbia Basin	2004	Yes	
Land and/or Water Management, Strategy or Action Plan	A Wetland Action Plan for British Columbia	2010	Yes	The Wetland Action Plan will be reviewed
Land and/or Water Management, Strategy or Action Plan	Columbia Basin Large Lakes Action Plan – Draft	2012	Yes	
Land and/or Water Management, Strategy or Action Plan	Columbia Basin Plan	2012	Yes	
Land and/or Water Management, Strategy or Action Plan	Columbia Basin Species of Interest Action Plan – Draft	2014	Yes	
Land and/or Water Management, Strategy or Action Plan	Columbia Lake Lot 48 Property Management Plan, British Columbia Region 2013-2018	2012	no	
Land and/or Water Management, Strategy or Action Plan	Columbia Lake Management Strategy	1997	Yes	
Land and/or Water Management, Strategy or Action Plan	Columbia Wetlands Wildlife Management Area: Operational Plan: 1998-2002	1998	Yes	Plan currently being reviewed and updated.

Type of Plan	Name of Plan	Date Plan Published	In CWSP Database	Status of Implementation
Land and/or Water Management, Strategy or Action Plan	Implementation Plan: Wetlands and Associated Species	2010	Yes	
Land and/or Water Management, Strategy or Action Plan	Lake Windermere Management Plan	2011	Yes	
Land and/or Water Management, Strategy or Action Plan	Management Plan for the Columbia National Wildlife Area (Proposed)	2016	Yes	
Land and/or Water Management, Strategy or Action Plan	Riparian and Wetlands Action Plan – Draft	2014	Yes	
Land and/or Water Management, Strategy or Action Plan	Upland/Dryland Action Plan – Draft	2012	Yes	
Land and/or Water Management, Strategy or Action Plan	Wildlife and Habitat Prescription for Hoodoo-Hofert Property Management Unit 23 East Kootenay Region, British Columbia	2004	Yes	
Official Community Plan	Fairmont Hot Springs & Columbia Lake Area Official Community Plan, Bylaw No.2779	2017	No	
Official Community Plan	Fairmont Hot Springs Area Official Community Plan Bylaw 1734, 2004	2015	Yes	This bylaw was repealed in 2017 by bylaw 2779.
Official Community Plan	Lake Windermere Official Community Plan Bylaw No.2061	2008; 2015	Yes	
Official Community Plan	Official Community Plan Village of Canal Flats 2005	2005	Yes	Village of Canal Flats Official Community Plan Amendment Bylaw No. 138, 2012 (Parks and Trails

Type of Plan	Name of Plan	Date Plan Published	In CWSP Database	Status of Implementation
				Plan) identifies Tilley Memorial Park and indicates proposed trails. Village of Canal Flats is currently looking for funding to update its Official Community Plan (Personal communication, Sylvie Hoobanoff – Corporate Officer, Village of Canal Flats, February 5, 2018.)
Official Community Plan	Steamboat-Jubilee Mountain Official Community Plan, Bylaw No.1926	2006	Yes	
Official Community Plan	Toby Benches Official Community Plan Bylaw No.2676	2016	Yes	
Official Community Plan	Town of Golden Official Community Plan Bylaw No. 1222	2008	No	
Official Community Plan	Village of Radium Hot Springs Official Community Plan Bylaw No. 254	2002	Yes	
Official Community Plan	Village of Radium Hot Springs Official Community Plan, June 2013	2013	No	
Park Plan	Marl Creek Provincial Park Purpose Statement and Zoning Plan (2013)	2013	No	
Park Plan	Burges and James Gadsden Provincial Park Purpose Statement and Zoning Plan	2003	Yes	
Park Plan	Canal Flats Provincial Park Purpose Statement and Zoning Plan	2003	Yes	No longer valid. Canal Flats is no longer a provincial park and is now a local park.
Park Plan	Management Direction Statement for Columbia Lake Provincial Park	2004	Yes	
Park Plan	Management Direction Statement for James Chabot Provincial Park	2004	Yes	
Park Plan	Thunder Hill Provincial Park Purpose Statement and Zoning Plan	2013	no	
Park Plan	Windermere Lake Provincial Park Purpose Statement and Zoning Plan	2003	Yes	

Type of Plan	Name of Plan	Date Plan Published	In CWSP Database	Status of Implementation
Species -COSEWIC Assessment, Status, or Update Report	COSEWIC Assessment and Status Report on the American Badger <i>Taxidea taxus</i> in Canada	2012		
Species -COSEWIC Assessment, Status, or Update Report	COSEWIC Assessment and Status Report on the Caribou <i>Rangifer tarandus</i> : Northern Mountain population, Central Mountain population, Southern Mountain population in Canada	2014		
Species -COSEWIC Assessment, Status, or Update Report	COSEWIC Assessment and Status Report on the Flammulated Owl <i>Otus flammeolus</i> in Canada (Cannings 2010)	2010		
Species -COSEWIC Assessment, Status, or Update Report	COSEWIC Assessment and Status Report on the Grizzly Bear <i>Ursus arctos</i> Western population in Canada (McLoughlin 2012)	2012		
Species -COSEWIC Assessment, Status, or Update Report	COSEWIC Assessment and Status Report on the Lewis's Woodpecker <i>Melanerpes lewis</i> in Canada (Beauchesne 2010)	2010		
Species -COSEWIC Assessment, Status, or Update Report	COSEWIC Assessment and Status Report on the Limber Pine <i>Pinus flexilis</i> in Canada (Achuff 2014)	2014		
Species -COSEWIC Assessment, Status, or Update Report	COSEWIC Assessment and Status Report on the Western Painted Turtle (COSEWIC 2006)	2006		
Species -COSEWIC Assessment, Status, or Update Report	COSEWIC Assessment and Status Report on the Westslope Cutthroat Trout <i>Oncorhynchus clarkii lewisi</i> . British Columbia population, Alberta population in Canada (Costello 2006)	2006		
Species -COSEWIC Assessment, Status, or Update Report	COSEWIC Assessment and Update Status Report on the Grizzly Bear <i>Ursus arctos</i> in Canada - Prairie population, Northwestern population (Ross 2002)	2002		
Species -COSEWIC Assessment, Status, or Update Report	COSEWIC Assessment and Update Status Report on the Northern Leopard Frog <i>Lithobates pipiens</i> Rocky Mountain population in Canada (Taylor 2009)	2009		

Type of Plan	Name of Plan	Date Plan Published	In CWSP Database	Status of Implementation
Species -COSEWIC Assessment, Status, or Update Report	COSEWIC Assessment and Update Status Report on the Southern Maidenhair Fern <i>Adiantum capillus-veneris</i> in Canada (COSEWIC 2000)	2000		
Species -COSEWIC Assessment, Status, or Update Report	COSEWIC Assessment and Update Status Report on the Wolverine (<i>Gulo gulo</i>) Eastern population, Western Population in Canada (Slough 2003)	2003		
Species -COSEWIC Assessment, Status, or Update Report	COSEWIC Status Appraisal Summary on the Long-billed Curlew <i>Numenius americanus</i> in Canada (Perkins 2011)	2011		
Species -COSEWIC Assessment, Status, or Update Report	COSEWIC Status Report on the Western Toad (Slough 2012)	2012		
Species Management, Strategy or Recovery Plan	A Management Strategy for Species at Risk in a Semi-Urban Landscape on the Shuswap Reserve at Invermere, B.C. (Jamieson et al 2009)	2009		
Species Management, Strategy or Recovery Plan	A Strategy for the Recovery of Mountain Caribou in British Columbia (The Mountain Caribou Technical Advisory Committee 2002)	2002		
Species Management, Strategy or Recovery Plan	Bird Conservation Strategy for Bird Conservation Region 10 Pacific and Yukon Region: Northern Rockies (Environment Canada 2013)	2013		
Species Management, Strategy or Recovery Plan	Columbia Basin Species of Interest Action Plan – Draft	2012		
Species Management, Strategy or Recovery Plan	Columbia River White Sturgeon Management Plan. Monitoring Program and Physical Works Annual Report: 2015 (BC Hydro 2015)	2015		
Species Management, Strategy or Recovery Plan	Conservation Framework. Conservation Priorities for Species and Ecosystems Primer (MoE 2009)	2009		
Species Management, Strategy or Recovery Plan	Kootenay Elk Management Plan 2010 to 2014 (MoE 2010)	2010		

Type of Plan	Name of Plan	Date Plan Published	In CWSP Database	Status of Implementation
Species Management, Strategy or Recovery Plan	Kootenay-Boundary Mule Deer Management Plan 2014-2018 (FLNRO 2014)	2014		
Species Management, Strategy or Recovery Plan	Management and Protection of Badgers in the East Kootenay of British Columbia - Draft (Newhouse 2001)	2001		
Species Management, Strategy or Recovery Plan	Management Options and Related Actions for Mountain Caribou in British Columbia (Mountain Caribou Science Team 2006)	2006		
Species Management, Strategy or Recovery Plan	Management Plan for the Flammulated Owl (<i>Otus flammeolus</i>) in Canada and in British Columbia (Environment Canada 2013)	2013		
Species Management, Strategy or Recovery Plan	Management Plan for the Grey Wolf (<i>Canis lupus</i>) in British Columbia (Wilson 2014)	2014		
Species Management, Strategy or Recovery Plan	Management Plan for the Lewis's Woodpecker (<i>Melanerpes lewis</i>) in Canada (Environment Canada 2016)	2016		
Species Management, Strategy or Recovery Plan	Management Plan for the Northern Rubber Boa (<i>Charina bottae</i>) in British Columbia (Gregory 2015)	2015		
Species Management, Strategy or Recovery Plan	Management Plan for the Painted Turtle – Intermountain–Rocky Mountain Population (<i>Chrysemys picta</i> pop. 2) in British Columbia (BC Ministry of Environment 2017)	2017		
Species Management, Strategy or Recovery Plan	Management Plan for the Western Toad (<i>Anaxyrus boreas</i>) in British Columbia (Provincial Western Toad Working Group 2014)	2014		
Species Management, Strategy or Recovery Plan	Management Plan for the Westslope Cutthroat Trout (<i>Oncorhynchus clarkii lewisi</i>) in British Columbia (BC Ministry of Environment BC Freshwaters Program 2014)	2014		

Type of Plan	Name of Plan	Date Plan Published	In CWSP Database	Status of Implementation
Species Management, Strategy or Recovery Plan	National Recovery Strategy for American Badger, <i>jeffersonii</i> subspecies (<i>Taxidea taxus jeffersonii</i>) draft paper (jeffersonii Badger Recovery Team 2003)	2003		
Species Management, Strategy or Recovery Plan	Provincial Framework for Moose Management in British Columbia (FLNRO 2015)	2015		
Species Management, Strategy or Recovery Plan	Recovery Plan for the Northern Leopard Frog (<i>Lithobates pipiens</i>) in British Columbia (Northern Leopard Frog Recovery Team 2012)	2012		
Species Management, Strategy or Recovery Plan	Recovery Strategy for the Badger (<i>Taxidea taxus</i>) in British Columbia. British Columbia Recovery Strategy Series (<i>Jeffersonii</i> Badger Recovery Team 2008)	2008		
Species Management, Strategy or Recovery Plan	Recovery Strategy for the Lewis's Woodpecker (<i>Melanerpes lewis</i>) in Canada (Proposed) (Environment Canada 2016)	2016		
Species Management, Strategy or Recovery Plan	Recovery Strategy for the Northern Leopard Frog (<i>Lithobates pipiens</i>), Rocky Mountain Population in Canada (proposed) (Environment and Climate Change Canada 2016)	2016		
Species Management, Strategy or Recovery Plan	Recovery Strategy for the Olive-sided Flycatcher (<i>Contopus cooperi</i>) in Canada (Environment Canada 2016)	2016		
Species Management, Strategy or Recovery Plan	Recovery Strategy for the Southern Maidenhair Fern (<i>Adiantum capillus-veneris</i>) in British Columbia (Smith et al. 2007)	2007		
Species Management, Strategy or Recovery Plan	Recovery Strategy for the Southern Maidenhair Fern (<i>Adiantum capillus-veneris</i>) in Canada (Sadler 2013)	2013		
Species Management, Strategy or Recovery Plan	Recovery Strategy for the Woodland Caribou, Southern Mountain Population (<i>Rangifer tarandus caribou</i>) in Canada (proposed) (Environment Canada 2014)	2014		

Type of Plan	Name of Plan	Date Plan Published	In CWSP Database	Status of Implementation
Species Management, Strategy or Recovery Plan	Recovery Strategy for White Sturgeon (<i>Acipenser transmontanus</i>) in Canada. In Species at Risk Act Recovery Strategy Series (Fisheries and Oceans Canada 2014)	2014		
Species Management, Strategy or Recovery Plan	Upper Columbia White Sturgeon Recovery Plan (Upper Columbia White Sturgeon Recovery Initiative 2002)	2002		
Species Status Report	Status of Chiselmouth (<i>Acrocheilus alutaceus</i>) in the Windermere and Columbia Lake Watersheds (Radridge 1998)	1998		
Species Status Report	Status of Rocky Mountain Bighorn Sheep in British Columbia (Demarchi 2000)	2000		
Species Status Report	Status of Rocky Mountain Bighorn Sheep in the East Kootenay (Teske 2015)	2015		
Species Status Report	Status of the Badger in British Columbia (Rahme 1995)	1995		
Species Status Report	Status of the Bald Eagle in British Columbia (Blood 1994)	1994		
Species Status Report	Status of the Flammulated Owl in British Columbia (van Woudenberg 1999)	1999		
Species Status Report	Status of the Least Chipmunk (<i>Tamias minimus</i>) subspecies <i>T. m. oreocetes</i> and <i>T. m. selkirki</i> in British Columbia (Nagorsen 2010)	2010		
Species Status Report	Status of the Lewis's Woodpecker in British Columbia (Cooper 1998)	1998		
Species Status Report	Status of the Sandhill Crane in British Columbia (Cooper 1996)	1996		
Species Status Report	Taking Nature's Pulse: The Status of Biodiversity in British Columbia (Austin 2008)	2008		
Species Status Report	The Status of Bull Trout in British Columbia: A Synthesis of Available Distribution, Abundance, Trend, and Threat Information (Hagen 2011)	2011		
Status Report on Management Plan	Status Report East Kootenay Angling Management Plan (East Kootenay Angling Management Plan Committee B.C. Water, Land, and Air Protection 2003)	2003		

Appendix B: Existing Wetland Policies and Legislation¹⁵

The following list of wetland policies and legislation was drawn from [A Wetland Action Plan for British Columbia](#) (Wetland Stewardship Partnership, March 2010). There are updates to these policies and legislation as well as new ones such as the [Water Sustainability Act](#).

International Conventions, Agreements, and Programs Four international conventions and agreements confer wetland-related responsibilities directly on BC:

- The Convention on Wetlands of International Importance (Ramsar, Iran, 1971)
- The Convention on Biological Diversity (CBD) (Rio de Janeiro, Brazil, 1992)
- The North American Waterfowl Management Plan (NAWMP) (1986)
- The Britain (Canada) – USA Migratory Birds Convention Act (1916 and 1994)

National Policies and Legislation:

- Federal Policy on Wetland Conservation
- Canada Wildlife Act – National Wildlife Areas
- Species at Risk Act
- National Parks Act
- Oceans Act - Marine Protected Areas Act
- Canadian Environmental Assessment Act
- Canadian Environmental Protection Act
- Federal Fisheries Act
- Income Tax Act

Provincial Legislation

The following provincial legislation and regulations may affect or help protect BC wetlands:

- Agricultural Land Commission Act - Agricultural Land Reserve Use, Subdivision and Procedure Regulation
- Agriculture Land Reserve Act
- Columbia Basin Trust Act
- Community Charter - Spheres of Concurrent Jurisdiction — Environment and Wildlife Regulation
- Dike Maintenance Act
- Drainage, Ditch and Dike Act
- Drinking Water Protection Act – Drinking Water Protection Regulation
- Ecological Reserve Act and Regulations
- Environmental Assessment Act - Reviewable Projects Regulation
- Environmental Management Act - Contaminated Sites Regulation; Municipal Sewage Regulation; Agricultural Waste Control Regulation
- Farm Practices Protection (Right to Farm) Act
- Fish Protection Act - Riparian Area Regulation; Sensitive Streams Designation and Licensing Regulation

¹⁵ List from [A Wetland Action Plan for British Columbia](#), Wetland Stewardship Partnership, March 2010.

- Fisheries Act - Fisheries Act Regulations; Aquaculture Regulation
- Flood Relief Act
- Forest Act
- Forest and Range Practices Act
- Greenbelt Act
- Heritage Conservation Act
- Islands Trust Act - Islands Trust Regulation; Islands Trust Natural Area Protection Tax Exemption Regulation
- Land Act - Land Use Objectives Regulation
- Land Title Act
- Local Government Act
- Local Services Act
- Mineral Tenure Act
- Mining Right of Way Act
- Motor Vehicle (All Terrain) Act
- Muskwa-Kechika Management Area Act
- Park Act - Park, Conservancy and Recreation Area Regulation
- Petroleum and Natural Gas Act - Drilling and Production Regulation; Geophysical Exploration Regulation
- Plant Protection Act
- Protected Areas of British Columbia Act
- Public Health Act - Sewerage System Regulation; West Nile Virus Control Regulation; Health Act Communicable Disease Regulation³²
- Range Act and Range Regulation
- Significant Projects Streamlining Act
- Transportation Act – No Net Loss Wetland Policy
- Water Act -Water Regulation
- Weed Control Act -Weed Control Regulation
- Wildlife Act – Wildlife Management Areas Regulation; Tofino Mudfats Wildlife Management Area Regulation; Wildlife Management Areas (e.g., Serpentine and Bert Brink) Regulation; Wildlife Management Areas (Squamish Estuary) Regulation

Provincial Strategies and Programs

Several non-statutory provincial strategies and programs have the potential to affect wetlands:

- Provincial Water Strategy (Living Water Smart)
- BC Climate Action Plan (Live Smart BC)
- BC Conservation Framework
- BC Air Action Plan
- Integrated Watershed Management/Land Use Planning
- Water Use Planning
- Invasive Species Strategy
- Best Management Practices (Develop with Care)
- Drought Protection Strategy
- Watershed Based Fish Sustainability Planning
- Code of Practice for the Use of Reclaimed Water (Municipal Sewage Regulation)

- Flood Hazard Land Use Management Guidelines
- Integrated Community Sustainability Planning Initiative (ICSP)

Local Government

The Community Charter and the Local Government Act allow local governments to undertake land use planning and protect wetlands through:

- Official Community Plans
- Local Area Plans
- Land Use Bylaws
- Environmental Protection Bylaws
- Regional Growth Strategies
- Environmentally Sensitive Areas (ESAs) mapping
- Environmental Development Permit Areas (EDPAs)
- Local and Regional Conservation Strategies

Appendix C: Summary of Development Permit Areas

Town of Golden Official Community Plan Bylaw No. 1222 (2008)

Development Permit #8: Riparian Areas: Qualifying Categories: 1. Protection of the natural environment, its ecosystems and biological diversity. 2. Protection of development from hazardous conditions.

Justification: This area requires unique attention to address the existence of riparian areas.

Guidelines:

1. Developments in this area shall follow the Provincial Riparian Area Regulations.
2. An —Environmental Impact Assessment shall be required for all properties affected by the riparian areas specified in Development Permit Area #8 in order to evaluate the impacts of a proposed development on the natural environment.
3. Environmental Impact Assessment shall include the following information:
 - a. Information regarding potential impacts of the proposed development, mitigation options and design alternatives;
 - b. Evidence that the development will not result in Harmful Alteration, Disruption, or Destruction (HADD) of riparian areas;
 - c. Indicate that the slope stability will not be jeopardized if the area has a slope of 30% or more; and
 - d. Identifies measures that will be required to maintain the integrity of the riparian area.
4. A drainage plan must be completed and include recommendations for implementation with the proposed development. The drainage plan should aim to minimize to the fullest extent the impact the development may have on the riparian area, while developing and when built. The drainage plan must include recommendations that address the following factors: a. Water quality; b. Water quantity; c. Erosion control; d. Impact on fish and wildlife habitat; and e. Physical riparian functions.
5. Existing trees and native vegetation within the riparian assessment area are to be retained to the fullest extent. Therefore, a landscape architect is required to complete a viewscape plan prior to any clearing or land alteration.
6. A Qualified Environmental Professional (QEP), in conjunction with a landscape architect, is required to provide a re-vegetation plan if the proposed area to be developed was previously cleared of native vegetation or is cleared during the process of development. Conditions and requirements respecting implementation of the vegetation management may be specified in a development permit. The chosen vegetation should be native to the Town of Golden and be selected for erosion control and/or fish habitat and animal habitat values as needed. Vegetation species used in replanting, restoration and enhancement shall be selected to suit the soil, light and groundwater conditions of the site.

Steamboat-Jubilee Mountain Official Community Plan Bylaw No. 1926, 2006 (2014)

Development Permit Area #1 applies to all areas designated as ESAs on Schedule J.

Purpose: The purpose of Development Permit Area #1 is for the protection of the natural environment, its ecosystems and biological diversity. (p. 46)

Exemptions (vi) The proposed activities are considered to be normal agricultural practices as defined in the Farm Practices Protection (Right to Farm) Act or designated as farm use within the Agricultural Land Commission Act and Regulations. **This exemption does not apply to those land altering activities that require site grading or extensive removal of vegetation that occur within 15 metres of the natural boundary of the Columbia River and wetlands.(p.47)**

Justification: “The Steamboat – Jubilee Mountain Official Community Plan area includes a range of significant ecosystems, habitats and features. These include: (i) Wetland and riparian ecosystem. Wetlands and riparian ecosystems play a critical role in helping maintain biodiversity as they provide habitat and wildlife corridors for many terrestrial and aquatic species. Wetland and riparian ecosystems, including both the wetted area and adjacent supporting land and vegetation, provide productive fish habitat and are important to fish survival.” (p. 48)

Wetland and Riparian Ecosystem Guidelines:

- (i) Human settlement and other land development activities within, or adjacent to wetlands is discouraged.
- (ii) Proposals that offer to register a conservation covenant on the title of the lands in order to permanently protect wetland or riparian ecosystems are encouraged. The covenant should be registered before any development, including subdivision and should be in favour of the Regional District, other public agencies including the Province, or non- governmental organizations, such as a private land trust committed to the management of watercourses or streamside areas.
- (iii) Locating road and utility corridors along or across wetland or riparian ecosystems should be avoided in order to maintain natural connectivity.
- (iv) A riparian buffer for watercourses, lakes, ponds and wetlands must be established within which no development or alteration of land is permitted. The minimum size of the riparian buffer must be equal to or greater than the minimum setback distance as required by the Regional District’s floodplain regulations. The riparian buffer adjacent to lakes, marshes, ponds and wetlands should include the bed and area between the natural boundary and a perpendicular line inland a minimum of 15 m from the natural boundary.
- (v) Despite subsection 16A.2(6)(b)(iv), development proposals that involve disturbance of watercourses, lakes, ponds, marshes, wetlands or riparian ecosystems may be permitted in compliance with the following guidelines:
 - (1) For development proposals that involve disturbance within the riparian buffer, or the filling in of lakes, ponds, marshes, wetlands or riparian ecosystems, an Environmental Impact Assessment Report by a QEP must be completed to determine appropriate measures to protect wetland hydrology and ecological processes. All approved development should be completed in accordance with the recommendations of the Environmental Impact Assessment Report.
 - (2) All channelization or alterations of creeks must incorporate mitigation measures as determined by a QEP in an Environmental Impact Assessment Report to minimize adverse environmental effects and be in compliance with the federal Fisheries Act, the provincial Water Act and any other applicable legislation or regulations.
 - (3) Applications for development activities that will negatively impact wetland or riparian ecosystems should include appropriate compensatory enhancement or restoration measures as determined by a QEP in an Environmental Impact Assessment Report in order minimize the net loss of wetlands and riparian ecosystems.

(vi) When an Environmental Impact Assessment Report by a QEP is prepared to satisfy guidelines in subsection 16A.2(6)(b)(i)-(v), the potential for upland development to impact riparian ecosystem areas through increased runoff, sedimentation, loss of shade, or increased watercourse temperature must be considered. Appropriate mitigation strategies should be identified where applicable. All approved development should be completed in accordance with the recommendations of the Environmental Impact Assessment Report. (p. 50)

Lake Windermere Official Community Plan Bylaw No. 2061, 2008 (2015)

Development Permit Area #2 – Protection of Environmentally Sensitive Areas (ESAs).

Purpose of Development Permit Area #2 is for the protection of the natural environment, its ecosystems and biological diversity. (DPA #2 supported by Bylaw 2484)

Requirements (a) Within Development Permit Area #2, owners must obtain a Development Permit before: (i) Subdivision creating one or more vacant parcel(s) where any portion of the parcel under application is located within Development Permit Area #2; (ii) Construction, addition or alteration of a building, structure or fencing within Development Permit Area #2; or (iii) Alteration of land, including the removal of vegetation or site grading within Development Permit Area #2.

Justification (a) The Lake Windermere Official Community Plan area includes a range of significant ecosystems, habitats and features. These include: BL 2484 Nov 1/13 Lake Windermere Official Community Plan Bylaw No. 2061 Page 59 (i) Wetland and riparian ecosystems Wetlands and riparian ecosystems play a critical role in helping maintain biodiversity as they provide habitat and wildlife corridors for many terrestrial and aquatic species. Wetland and riparian ecosystems, including both the wetted area and adjacent supporting land and vegetation, provide productive fish habitat and are important to fish survival.

The objective of Development Permit Area #2 is the protection, preservation, restoration and enhancement of the significant ecosystems, habitats and features identified in 21.4(5)(a)(i)-(vi). These ecosystems, habitats and features are considered vital to the retention of the character and ecosystem health of the plan area. Activities within these areas must be undertaken in a manner that minimizes the disruption or alteration of its environmental integrity. The intent is not to preclude all development in these areas, but to provide notice that the areas include unique

Guidelines Proposed development must comply with the Guidelines. Development Permits issued shall be in accordance with the following: (a) General The following guidelines apply to all areas identified as ESAs on Schedule L1 – L4 of the Lake Windermere Official Community Plan: (i) All development proposals are subject to the applicable requirements and approval processes under the federal Fisheries Act, Navigation Protection Act, Canadian Environmental Assessment Act and the provincial Water Act, Health Act and Environmental Management Act. Identification of the permits and approvals required must be submitted with the development permit application. Issuance of the development permit will be conditional upon the acquisition of all required permits and approvals from the responsible jurisdictions. (ii) Where development is considered in an ESA, the following strategies may be used to meet guideline provisions and direct development away from the ESA: (1) Variance through the Development Permit to vary setbacks or siting regulations in the zoning bylaw; (2) Reduction of minimum parcel sizes in a subdivision application may be considered on the parcel that contains the ESA if the proposed subdivision is based on Conservation Subdivision Design principles and conserves the environmentally sensitive

feature or area as recommended by a QEP in an Environmental Impact Assessment Report. Further details on Conservation Subdivision Design can be found in Randall Arendt's Conservation Design for Subdivisions: A Practical Guide to Creating Open Space Networks. Washington, DC: Island Press, 1996;

(3) Registration of a conservation covenant against the title of the property which requires that the environmentally sensitive area be protected in its natural, existing, or restored state as recommended in an Environmental Impact Assessment Report prepared by a QEP. (iii) The Regional District may require additional information as part of the Development Permit application process, for example, submission of an Environmental Impact Assessment Report prepared by a QEP. (iv) When an Environmental Impact Assessment Report by a QEP is prepared as part of a Development Permit application for Development Permit Area #2, an inventory of any habitat that supports species at risk which are identified as extirpated, endangered or threatened by the federal Species at Risk Act or provincial Wildlife Act must be completed as part of the identification of relevant baseline information. If habitat that supports species at risk is identified, the Environmental Impact Assessment Report must: (1) Document the species at risk and their habitat which may be impacted by the proposed activity or development; (2) Identify and describe any potential and likely impacts of the activity or development on the species at risk and their habitat, including any cumulative effects when combined with other projects proposed or under development; (3) Evaluate the impacts in terms of their significance and the extent to which they might get mitigated; and (4) Make recommendations as to conditions of approval that may be appropriate to ensure that undesirable impacts are mitigated or avoided; in accordance with accepted impact assessment methodology. All approved development should be completed in accordance with the recommendations of the Environmental Impact Assessment Report. (b) Wetland and Riparian Ecosystem Guidelines **The following guidelines apply to areas identified as wetland and riparian ecosystem ESAs on Schedule L1 – L4 of the Lake Windermere Official Community Plan:** (i) Human settlement and other land development activities within, or adjacent to wetlands is discouraged. (ii) Proposals that offer to register a conservation covenant on the title of the lands in order to permanently protect wetland or riparian ecosystems are encouraged. The covenant should be registered before any development, including subdivision and should be in favour of the Regional District, other public agencies including the Province, or non-governmental organizations, such as a private land trust committed to the management of watercourses or streamside areas. (iii) Locating road and utility corridors along or across wetland or riparian ecosystems should be avoided in order to maintain natural connectivity. (iv) A riparian buffer for watercourses, lakes, ponds and wetlands must be established within which no development or alteration of land is permitted. The minimum size of the riparian buffer must be equal to or greater than the minimum setback distance as required by the Regional District's floodplain regulations. The riparian buffer adjacent to lakes, marshes, ponds and wetlands should include the bed and area between the natural boundary and a perpendicular line inland a minimum of 15 m from the natural boundary. (v) Despite subsection 21.4(6)(b)(iv), development proposals that involve disturbance of watercourses, lakes, ponds, marshes, wetlands or riparian ecosystems may be permitted in compliance with the following guidelines: (1) For development proposals that involve disturbance within the riparian buffer, or the filling in of lakes, ponds, marshes, wetlands or riparian ecosystems, an Environmental Impact Assessment Report by a QEP must be completed to determine appropriate measures to protect wetland hydrology and ecological processes. All approved development should be completed in accordance with the recommendations of the Environmental Impact Assessment Report. (2) All channelization or alterations of creeks must incorporate mitigation measures as determined by a QEP in an Environmental Impact Assessment Report to minimize adverse environmental effects and be in compliance with the federal Fisheries Act, the provincial Water

Act and any other applicable legislation or regulations. (3) Applications for development activities that will negatively impact wetland or riparian ecosystems should include appropriate compensatory enhancement or restoration measures as determined by a QEP in an Environmental Impact Assessment Report in order to minimize the net loss of wetlands and riparian ecosystems. (vi) When an Environmental Impact Assessment Report by a QEP is prepared to satisfy guidelines in subsection 21.4(6)(b)(i)-(v), the potential for upland development to impact riparian ecosystem areas through increased runoff, sedimentation, loss of shade, or increased watercourse temperature must be considered. Appropriate mitigation strategies should be identified where applicable. All approved development should be completed in accordance with the recommendations of the Environmental Impact Assessment Report.

Development Permit Area #3 – Protection of the Natural Environment (Lake Windermere Shoreline)

(1) Area Development Permit Area #3 applies to those portions of the shoreline of Lake Windermere designated as red and orange shoreline zones on Schedules M1, M2 and M3 of the Lake Windermere Official Community Plan. Where the shoreline is designated as a red or orange shoreline zone the Development Permit Area extends 30 m into the lake and 15 m upland from the natural boundary.

Purpose The purpose of Development Permit Area #3 is for the protection of the natural environment, its ecosystems and biological diversity under Section 919.1(1)(a) of the Local Government Act. (*DPA #3 supported by Bylaw 2418*)

Requirements (a) For land located within Development Permit Area #3, an owner shall obtain a Development Permit prior to proceeding with any of the following: (i) Construction, addition or alteration of a building or other structure; or (ii) Alteration of land, including the removal of riparian or aquatic vegetation, site grading, deposition of fill, beach creation, or dredging.

Development Permit Area #3 is applicable to the red and orange shoreline colour zones. These zones have been identified as being sensitive to development pressure and essential to the long term maintenance of key habitat and fish and wildlife values.

The objective of Development Permit Area #3 is the protection, preservation, restoration and enhancement of the natural ecosystem along the shoreline of Lake Windermere. Activities within and along the shoreline must be undertaken in a manner that minimizes the disruption or alteration of the natural ecosystems that create fish and wildlife habitat and maximizes the opportunity for restoration and enhancement. The intent is not to preclude all development in these areas, but to provide notice that these portions of the shoreline provide unique characteristics that warrant special review and consideration, and to ensure appropriate mitigation or protection measures are prescribed where identified by a Qualified Environmental Professional (QEP).

Fairmont Hot Springs & Columbia Lake Area Official Community Plan, Bylaw No. 2779, 2017

Development Permit Area #2 – Protection of Environmentally Sensitive Areas (ESA) (1) Area Development Permit Area #2 applies to all areas designated as ESAs on Schedules K and K1 to K3 of this OCP.

Purpose: For the protection of the natural environment, its ecosystems and biological diversity. (p.46)

Requirements: (a) Within Development Permit Area #2, owners must obtain a Development Permit before: (i) Subdivision creating one or more vacant parcel(s) where any portion of the parent parcel under

application is located within Development Permit Area #2; (ii) Construction, addition or alteration of a building or structure where any portion of the proposed development footprint is located within Development Permit Area #2; or (iii) Alteration of land, including the removal of vegetation or site grading, where any portion of the proposed development footprint is located within Development Permit Area #2. (p.47)

Justification: (a) The plan area includes a range of significant ecosystems, habitats and features. These include: (i) Wetland and riparian ecosystems Wetlands and riparian ecosystems play a critical role in helping maintain biodiversity as they provide habitat and wildlife corridors for many terrestrial and aquatic species. Wetland and riparian ecosystems, including both the wetted area and adjacent supporting land and vegetation, provide productive fish habitat and are important to both aquatic and terrestrial wildlife. (p. 49)

Guidelines: Proposed development must comply with the Guidelines. Development Permits issued must be in accordance with the following: (i) All development proposals are subject to the applicable requirements and approval processes under federal or provincial legislation or regulations. Identification of the permits and approvals required must be submitted with the Development Permit application. Issuance of the Development Permit will be conditional upon the acquisition of all required permits and approvals from the responsible jurisdictions. It is the responsibility of the applicant to identify and complete the applicable federal and provincial approval processes. (ii) Where development is considered in an ESA, the following strategies may be used to meet guideline provisions and direct development away from the ESA: (A) Variance through the development permit to vary setbacks or siting regulations in the zoning bylaw; (B) Reduction of the minimum parcel sizes specified in the zoning bylaw in a subdivision application may be considered on the parcel that contains the ESA if the proposed subdivision is based on Conservation Subdivision Design principles and conserves the environmentally sensitive feature or area as recommended by a QEP in an Environmental Impact Assessment Report. Further details on Conservation Subdivision Design can be found in Randall Arendt's Conservation Design for Subdivisions: A Practical Guide to Creating Open Space Networks. Washington, DC: Island Press, 1996; (C) Registration of a conservation covenant against the title of the property which requires that the environmentally sensitive area be protected in its natural, existing, or restored state as recommended in an Environmental Impact Assessment Report prepared by a QEP. (iii) The RDEK may require additional information as part of the development permit application process, for example, submission of an Environmental Impact Assessment Report prepared by a QEP. Guidelines Proposed development must comply with the Guidelines. Development Permits issued must be in accordance with the following: (a) General The following guidelines apply to all areas identified as ESAs on Schedules K and K1 to K3 of this plan: (i) All development proposals are subject to the applicable requirements and approval processes under federal or provincial legislation or regulations. Identification of the permits and approvals required must be submitted with the Development Permit application. Issuance of the Development Permit will be conditional upon the acquisition of all required permits and approvals from the responsible jurisdictions. It is the responsibility of the applicant to identify and complete the applicable federal and provincial approval processes. (ii) Where development is considered in an ESA, the following strategies may be used to meet guideline provisions and direct development away from the ESA: (A) Variance through the development permit to vary setbacks or siting regulations in the zoning bylaw; (B) Reduction of the minimum parcel sizes specified in the zoning bylaw in a subdivision application may be considered on the parcel that contains the ESA if the proposed subdivision is based on Conservation Subdivision Design principles and conserves the environmentally sensitive feature or area as recommended by a QEP in an

Environmental Impact Assessment Report. Further details on Conservation Subdivision Design can be found in Randall Arendt's *Conservation Design for Subdivisions: A Practical Guide to Creating Open Space Networks*. Washington, DC: Island Press, 1996; (C) Registration of a conservation covenant against the title of the property which requires that the environmentally sensitive area be protected in its natural, existing, or restored state as recommended in an Environmental Impact Assessment Report prepared by a QEP. (iii) The RDEK may require additional information as part of the development permit application process, for example, submission of an Environmental Impact Assessment Report prepared by a QEP.

(p.50)

(b) Wetland and Riparian Ecosystem Guidelines The following guidelines apply to areas identified as wetland and riparian ecosystem ESAs on Schedules K and K1 to K3 of this plan: (i) Human settlement and other land development activities within, or adjacent to wetlands is discouraged. (ii) Proposals that offer to register a conservation covenant on the title of the lands in order to permanently protect wetland or riparian ecosystems are encouraged. The covenant should be registered before any development, including subdivision, and should be in favour of the RDEK, other public agencies including the provincial government, or nongovernmental organizations, such as a private land trust committed to the management of watercourses or streamside areas. (iii) Locating road and utility corridors along or across wetland or riparian ecosystems should be avoided in order to maintain natural connectivity. (iv) A riparian buffer for watercourses, lakes, ponds and wetlands must be established within which no development or alteration of land is permitted. Unless an Environmental Impact Assessment Report by a QEP indicates otherwise, the size of the riparian buffer must be equal to or greater than the minimum setback distance as required by the RDEK's floodplain regulations and no less than 15m adjacent to lakes, marshes, ponds and wetlands measured on a perpendicular line inland from the natural boundary. (v) Despite subsection 20.3(7)(b)(iv), development proposals that involve disturbance of watercourses, lakes, ponds, marshes, wetlands or riparian ecosystems may be permitted in compliance with the following guidelines: (A) For development proposals that involve disturbance within the riparian buffer, or the filling in of lakes, ponds, marshes, wetlands or riparian ecosystems, an Environmental Impact Assessment Report by a QEP must be completed to determine appropriate measures to protect wetland hydrology and ecological processes. All approved development should be completed in accordance with the recommendations of the Environmental Impact Assessment Report or the conditions of the development permit. (B) All channelization or alterations of creeks must incorporate mitigation measures as determined by a QEP in an Environmental Impact Assessment Report to minimize adverse environmental effects and be in compliance with federal or provincial legislation or regulations. (C) Applications for development activities that will negatively impact wetland or riparian ecosystems should include appropriate compensatory enhancement or restoration measures as determined by a QEP in an Environmental Impact Assessment Report in order to minimize the net loss of wetlands and riparian ecosystems. (vi) When an Environmental Impact Assessment Report by a QEP is prepared to satisfy guidelines in subsection 20.3(7)(b)(i)-(v), the potential for upland development to impact riparian ecosystem areas through increased runoff, sedimentation, loss of shade, or increased watercourse temperature must be considered. Appropriate mitigation strategies should be identified where applicable. All approved development should be completed in accordance with the recommendations of the Environmental Impact Assessment Report.

(p. 52)

There are 7 Development Permit Areas. All 7 have “protection of the natural environment, its ecosystems and biological diversity” as a Development Permit designation under Part 26 of the Local Government Act. The most relevant to the Columbia Wetlands is:

Development Permit Area #6 – Sinclair Creek/Columbia River

Area: Development Permit Area #6, as shown on Schedule F, encompasses lands adjacent to the western portion of Sinclair Creek and the Columbia River.

Justification: The Sinclair Creek/Columbia River lands encompass important fish and wildlife habitats, and require protection of the natural environment. Development shall be required to protect the natural environment and prevent hazardous conditions.

Designation: The following Development Permit designations under Part 26 of the Local Government Act apply to the ‘Sinclair Creek/Columbia River’ development permit area: • protection of the natural environment, its ecosystems and biological diversity, and; • protection of development from hazardous conditions. 4

Guidelines/Protection of The Natural Environment and Hazardous Conditions: The Columbia River and Sinclair Creek area is high quality wildlife habitat and an important migration corridor. It is also located within a flood plain. Development may be subject to requirements of the Village to ensure protection of these attributes and public safety. While the environmental protection of natural watercourses and wetlands is of paramount importance, the Village will encourage outdoor recreation uses when they are compatible with preservation and enhancement objectives, on a site-specific basis. (p.43)

Village of Canal Flats, 2005

No Environmentally Sensitive Development Permit Areas.

Appendix D: Summary of Priority Activities from the *Columbia Valley Conservation Action Planning Forum*

ACTION #4: CONSERVE AND RESTORE RIPARIAN AND WETLAND HABITATS

Activities

- Inventory riparian habitat within the region and assess its ecological health status
- Rank riparian habitat for its ability to produce ecosystem services
- Put in place a combination of voluntary stewardship agreements, Payment for Ecosystem Services agreements, covenants, and purchases to conserve private land riparian
- Establish special management designations on Crown riparian areas
- Develop educational materials specific to the Upper Columbia for private landowners including information such as, Environmental Farm Planning and Best Management Practices
- Target outreach to private landowners living along the Columbia wetlands and riparian areas, e.g., to promote bird-friendly agricultural practices on agricultural land

- Identify priority areas for conservation and restoration through partnerships and use GIS analysis – look at acquisition of lands with important riparian habitat
- Organize a workshop or focus groups with First Nations to identify cultural values and traditional knowledge associated with riparian areas and specific areas of concern
- Ensure Columbia Wetlands Stewardship Partners’ Strategic Plan links with Columbia Wetlands Management Area Management Plan to implement habitat recommendations
- Develop specific recommendation for species at risk dependent on wetlands and riparian habitats
- Identify important areas for riparian restoration projects
- Work with local government and OCPs to influence development pressure along wetlands and riparian habitat

Resources

- First Nations knowledge holders
- GIS layers from Ministry of Forests, Lands, Natural Resource Operations and Rural Development
- Environmental Farm Plan Program for farmers and ranchers
- Farmland Advantage support and incentives for ecosystem services
- Kootenay & Boundary Farm Advisors
- Public support through citizen science initiatives like the Waterbird Monitoring Survey and involvement with Lake Windermere Rod & Gun Club projects.

Potential partners/collaborators: Ktunaxa and Secwepemc Nations, Columbia Wetlands Stewardship Partners, Ministry of Forests, Lands, Natural Resource Operations and Rural Development, Columbia Lake Stewardship Society, Wildsight-Golden’s Waterbird Monitoring Survey, Farmland Advantage, Kootenay & Boundary Farm Advisors, Lake Windermere Rod & Gun Club, Kootenay Conservation Program, professional environmental consultants.

Timeframe:

- Columbia Wetlands Stewardship Partners Strategic Plan in 2018
- Revision of the Columbia Wetlands Wildlife Management Area Plan in 2018 by MFLNRORD
- Other actions over 3 years (2018-2021)

ACTION #5: PROTECT, MONITOR AND MITIGATE DECREASES IN HYDROLOGIC INFLOWS INTO COLUMBIA RIVER AND WETLANDS

Protect hydrological inflows into the Columbia River & Wetlands by expanding water monitoring and implementing adaptive measures for ecosystem health to ensure that protecting inflows is based upon a comprehensive water budget.

Activities

- Monitor water flows and make recommendations for adaptive feedback
- Need a strategic program of where to monitor – what are high priority sites
- Understand water allocation and budget
 - Need to be working with Farmer’s District for more efficient irrigation to identify

- and conserve water
- Need to have wetland vegetation/habitat maps to understand what wetland types are most vulnerable to changes in the flood pulse (extreme drought or floods)
- Need to input into the Columbia Wetlands Wildlife Management Area revised plan – there are already 84 management plans in area. Don't need another plan.
- Work with CBT's new Ecosystem Enhancement Program to prioritize the Columbia Wetlands as a project area
- Develop groundwater monitoring program with Living Lakes Canada
- Identify structural hydrologic monitoring and recommendations through Columbia Wetlands Stewardship Partners with expertise from Martin Carver, Suzanne Bayley and MFLNRORD
- Document water allocation (water budget) for the Columbia Wetland's hydrologic system based on water meters and measuring efficiency of irrigation practices
- Develop maps for different wetland community types and assess their hydrologic vulnerability (LIDAR7 could be used)
- Create and implement management plans specific for hydrology (e.g., Columbia Wetlands Stewardship Partners strategic plan)

Resources

- Funding agencies, e.g., FLNRO and different departments
- Quality GIS and remote sensing expertise
- Multi-phased funding

Potential partners/collaborators: Columbia Wetlands Stewardship Partners, Living Lakes Canada, Dr. Martin Carver, Ministry of Forests, Lands, Natural Resource Operations and Rural Development, Ministry of Environment, CBT's Ecosystem Enhancement Program, Regional District of East Kootenay, Environment Canada, Columbia Basin Watershed Network, BC Hydro (Spillimacheen Dam), Windermere District Farmers Institute, First Nations.

Timeframe: Begin immediately for 2018-2020