

MEETING NOTE

DATE: August 4, 2022

PREPARED FOR: Lori Halls, Deputy Minister, Ministry of Land, Water and Resource Stewardship

REGARDING: Meeting with Pete Corke, Centree Management Ltd. regarding their approach to the protection of old growth forest areas

INTRODUCTIONS: David Muter, Assistant Deputy Minister, Land Use Policy, Planning and Ecosystems

Brian Bawtinheimer, Executive Director, Provincial Stewardship Strategies and Planning

SUMMARY:

- Centree is a Vancouver based organization that is proposes to build a framework to finance old growth forest protection “by turning them into investable, living assets”.
- Their website describes the use of low-carbon blockchain technology to value and authenticate areas of old growth forests, followed by issuing digital securities that result in carbon-based revenues to land owners or stewards.
- Centree has indicated they have entered into an agreement with a B.C. First Nation community (un-named) to pilot to test the design and establish “proof of concept” of this framework.
- The Centree website reveals little details about the product or service that is provided. Ministry of Land, Water and Resource Stewardship (LWRS) staff reached out to Ministry of Forests (FOR), Ministry of Jobs, Economic Recovery and Innovation (JERI), and Ministry of Environment and Climate Change Strategy (ENV) to determine if previous meetings between Centree and those ministries have occurred in the past. There was no recognition of this organization from those ministries.
- Currently, it does not appear that B.C. government has considered or developed blockchain technology or the use of non-fungible tokens (NFT)¹ in natural resource management.

STRATEGIC CONSIDERATION AND MESSAGES:

- The province recognizes the importance of understanding emerging and new technologies that can support the province’s commitment to protect B.C.’s environment and support economic recovery and resiliency.
- The province’s commitment to a new integrated management approach for old growth is a paradigm shift for how B.C. manages old growth forests. This shift is being directed in partnership with First Nations, and through implementation of the recommendations of the Old Growth Strategic Review.

Attachment(s): Attachment 1: Centree Graphics

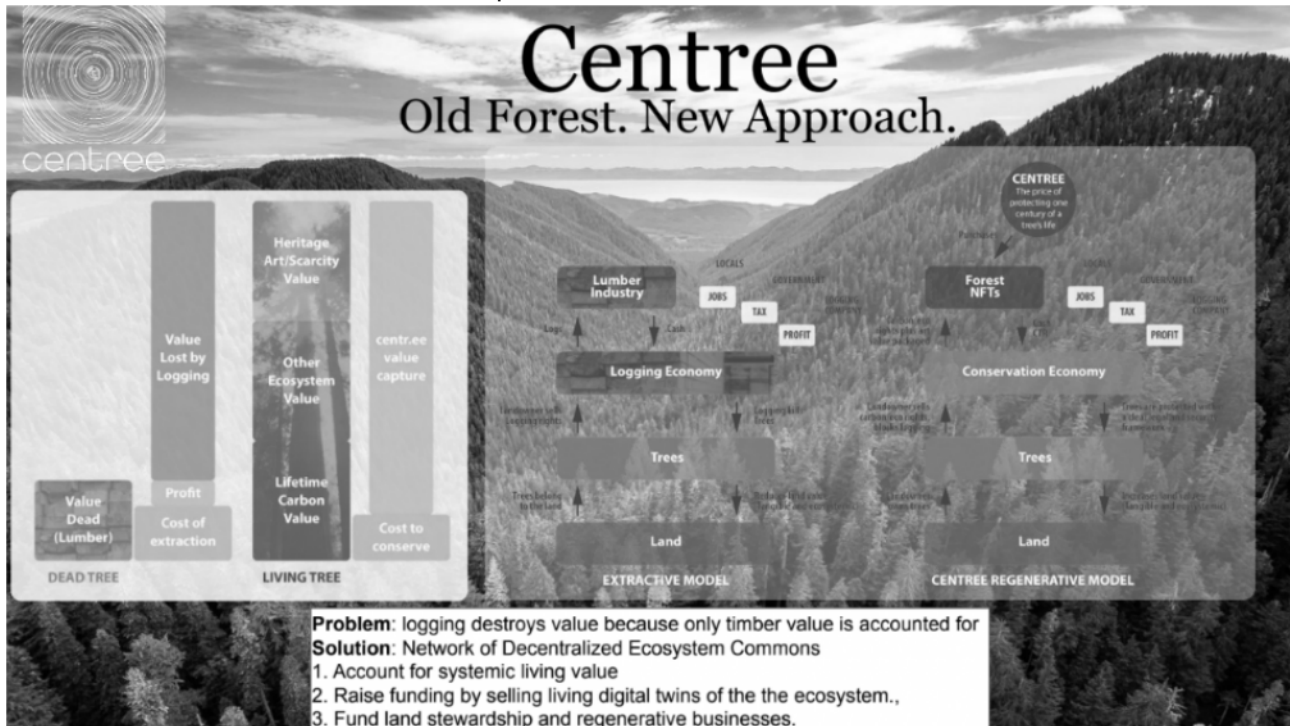
¹ Blockchain: Blockchain is a system of recording information in a way that makes it difficult or impossible to change, hack, or cheat the system. A blockchain is essentially a digital ledger of transactions that is duplicated and distributed across the entire network of computer systems on the blockchain.

NFT means something that it’s unique and can’t be replaced with something else. For example, a bitcoin is fungible — trade one for another bitcoin, and you’ll have the same thing. Whereas a unique piece of art is non-fungible — it can not be traded for the same thing.

Rhoda Cage, Director, Provincial Initiatives
Provincial Stewardship Strategies and Planning
(778) 576-8941

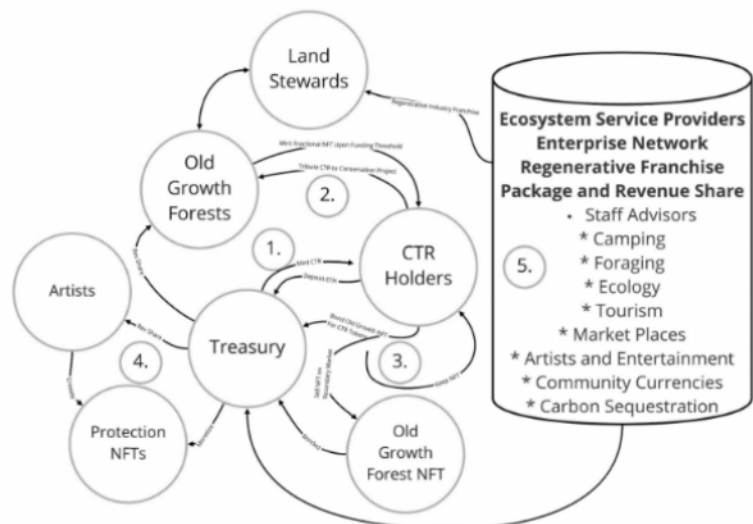
	Initials	Date
ADM	DM	Oct 27, 2022
Branch Exec.Dir.	BB	Aug 4/22

Attachment 1: Centree Framework Graphicsⁱ



The Centree Mechanism

1. CTR Tokens can be minted from the treasury
2. CTR Token holders tribute their tokens to conservation projects in exchange for old growth forest NFTs
3. Old Growth Forest NFTs can be bonded into the treasury, sold on secondary markets, or held privately
4. Artists can produce protection NFT's that will be sold on the Centree Platform to contribute funds towards conservation of old growth. The platform will return a share of proceeds to the artists.
5. Regenerative Franchise Package will be offered to land stewards as revenue sharing opportunities with Centree DAO



ⁱ Introducing Centree SNI Tech for Nature Essay Series, [Introducing... Centree! \(sovereignnature.com\)](https://sovereignnature.com) accessed July 27, 2022

Page 03 of 32

Withheld pursuant to/removed as

s.14

Page 04 of 32 to/à Page 05 of 32

Withheld pursuant to/removed as

s.13 ; s.14

Page 06 of 32

Withheld pursuant to/removed as

s.14

BRIEFING NOTE FOR DECISION

DATE: August 22, 2022

PREPARED FOR: Honourable Josie Osborne, Minister of Land, Water and Resource Stewardship

ISSUE: Work to update the categories of species under the *Forest and Range Practices Act* and *Oil and Gas Activities Act*

RECOMMENDED OPTION:

s.13

BACKGROUND:

- As part of supporting Minister mandate to protect species at risk, there is a need to update list of species at risk within provincial legislation.
- Lists of species at risk and ungulate species were established under FRPA and OGAA, but these have not been updated since 2006. An update to the lists in 2011 focused on nomenclature changes only; no species were added or removed.
- Over the past 16 years many species have been listed under the federal Species at Risk Act (SARA), causing the provincial and federal lists to be out of alignment. Given the need to update species nomenclature and the desire to increase alignment with the SARA, the provincial lists are under review and additional candidates are under consideration.
- Under the Government Actions Regulation (GAR) of FRPA, the minister responsible for the *Wildlife Act* has authority to identify categories of species of wildlife, i.e., either species at risk (SAR), regionally important wildlife (RIW), or ungulates requiring winter range for survival. Through Order in Councils (OICs) 92/2022 and 167/2022, the Minister of Land, Water and Resource Stewardship (LWRS) has been designated with this authority. A similar authority to identify species of wildlife applies through section 29 of the Environmental Protection and Management Regulation (EPMR) under OGAA authority.
- s.13
- Legal lists under the *Wildlife Act* and *Private Managed Forest Land Act* have also not been updated for many years s.13
- Species identified (or "listed") as SAR, RIW, or ungulates requiring winter range for survival under FRPA and OGAA must meet certain criteria, and must not already be adequately protected by other mechanisms. Criteria include conservation status, sufficiency of information, jurisdictional responsibility and threats. Attachment #1 provides details.
- There are currently 70 species, sub-species, and populations of SAR; and 15 ecological communities on the FRPA and OGAA list. s.13
- s.13
- No species have yet been identified as RIW; at this time, s.13
- s.13 The process and criteria for identifying RIW are similar to that used for SAR except RIW may not be provincially or federally at risk but are considered regionally important.

- A list of all ungulates that occur in British Columbia (B.C.), except Wood Bison was established in 2004.
- Listing species under FRPA and OGAA does not in itself provide protection to a species, its individuals or habitat. Rather, listing enables the ability to apply specific habitat provisions such as wildlife habitat areas or ungulate winter ranges. It is only through subsequent orders designating protection of habitat that actions supporting wildlife conservation are achieved. There is no direct socio-economic impact of the listing of species at risk, regionally important wildlife, or ungulates.

DISCUSSION

Over the last 30+ years, various measures have been initiated to provide management options for SAR and their habitat. Updating the lists and identifying priority RIW are pragmatic measures that enable regulatory tools available to mitigate impacts to species.

Ministry staff have developed a procedure and criteria (see Attachment #1) to select a candidate list
s.13 but these numbers may change somewhat as new information is received either through engagement or updates from the CDC or regions. The candidates have been vetted by the cross-ministry Species Listing Review Committee (LWRS, Ministry of Energy Mines and Low Carbon Innovation, Oil and Gas Commission), and 3 independent Indigenous technical advisors. The vetted list will be sent to the Provincial Species at Risk Committee (PSARC) for final review and endorsement to proceed with external engagement. Engagement and preparing the Minister's Order package requires committed effort and resourcing. The engagement process has specific requirements (Attachment 2) under GAR and EPMR and meeting the intentions of *Declaration on the Rights of Indigenous Peoples Act* will require time and effort from First Nations.

Updating the categories of species of wildlife under FRPA and OGAA is the LWRS Minister's authority, specifically establishing species at risk, regionally important, and ungulate species under GAR section 13 and the EPMR section 29. s.13

s.13

INDIGENOUS PEOPLES:

Candidate species selection includes ongoing input from Indigenous technical advisors; notification will include all 204 First Nations, and targeted engagement with First Nations and advisory forums having an interest (Attachment 2).

OPTIONS:

s.13



s.13; s.17

s.13

RECOMMENDATION:

s.13

Approved / Not Approved

Signature
Honourable Josie Osborne
Minister of Land, Water and Resource
Stewardship

Date

ATTACHMENT:

Attachment #1: Process and proposed Changes to the Categories of Species of Wildlife under FRPA and OGAA

Attachment #2: Species Listing Engagement Plan Summary

PREPARED BY:

Kathy Paige, Ecosystems Biologist
Sara Howard, Unit Head
Biodiversity Assessment
Ecosystems Branch
778 698-4373

REVIEWED BY:	Initials	Date
DMO	LH	Aug 29, 2022
ADM	DM	Aug 23, 2022
A/Executive Director, Ecosystems	CD	Aug 22, 2022

Process and Proposed Changes to the Categories of Species of Wildlife under *FRPA* and *OGAA*

DRAFT FOR DISCUSSION

August 2022

BACKGROUND

Under the Government Action Regulation of the *Forest and Range Practices Act* (FRPA) and the Environmental Protection and Management Regulation of the *Oil and Gas Activities Act* (OGAA), the Minister responsible for the *Wildlife Act* may establish categories of species of wildlife, specifically species at risk, regionally important wildlife, or ungulate species requiring winter range management. These species are eligible for special habitat management through the establishment of wildlife habitat features, wildlife habitat areas (WHAs), or ungulate winter ranges, along with associated general wildlife measures and objectives.

Lists of species at risk and ungulate species were established under FRPA and OGAA, but these have not been updated since 2006. An update to the lists in 2011 focused on nomenclature changes only; no species were added or removed. Also, over the past 16 years many species have been listed under the federal *Species at Risk Act* (SARA), causing the provincial and federal lists to be out of alignment. Given the need to update species nomenclature and the desire to increase alignment with the SARA, the provincial lists are under review and additional candidates are under consideration.^{s.13}

s.13

Potential candidates for consideration were initially screened using all of the following criteria:

- Is the species native to BC?
- Does it regularly occur in the province?
- Is it considered at risk in the province (i.e., assessed by the CDC as S1 – S3 or vertebrates assessed as S3S4 and nationally assessed as endangered, threatened or special concern by COSEWIC¹)?
- Is the decision to list supported by sufficient information and documentation?
- Is the species primarily of provincial jurisdiction?

s.13

¹ Committee on the Status of Endangered Wildlife in Canada (COSEWIC) is used to represent the national status of species under the federal *Species at Risk Act* (SARA) as it is most up to date compared to the Schedules under SARA.

Information was obtained from existing status reports and summaries or was provided by species experts. The resulting candidate lists were reviewed by internal species experts (e.g., CDC, Conservation Science, former Species at Risk Branch) and regional Ministry of Forests, Lands and Natural Resource Operations and Rural Development (FLNR) ecosystem biologists. Candidates were then vetted through an interagency Species Listing Review Committee.^{s.13}

s.13

PROPOSED CHANGES

The following sections summarize proposed changes to each of the categories of wildlife species for FRPA and OGAA.

s.13

Table 1. Proposed candidates for addition to the species at risk list under *FRPA* and *OGAA*

Common Name	Scientific Name	Prov. Status	COSEWIC status
Fish			
s.13			high priority
Birds			
s.13			
Mammals			
s.13			
Invertebrates			
Butterflies and Dragonflies			
s.13			

Common Name	Scientific Name	Prov. Status	COSEWIC status
s.13			
Plants			
s.13			

s.13

Table 2. Species that may be removed from the species at risk lists under *FRPA* and *OGAA*

Common Name	<i>Scientific Name</i>	Rationale
-------------	------------------------	-----------

s.13

Common Name	Scientific Name	Rationale
-------------	-----------------	-----------

s.13

s.13

Candidates proposed as Regionally Important Wildlife

Table 3 lists the species that have been suggested by regions as candidates for SAR updates but that do not meet the criteria for a species at risk (i.e., assessed by CDC as possibly secure (S3S4), apparently secure (S4) or secure (S5)). These species do however meet the criteria for regionally important wildlife. The criteria for regionally important wildlife are included in the Government Action Regulation and are: (a) species is important to a region of British Columbia, (b) species relies on habitat that requires special management that is not otherwise provided for in this regulation or another enactment, and (c) species may be adversely impacted by forest practices or range practices. Regionally important is defined in policy and includes culturally important species, socially important species (i.e., included in Land and Resource Management Plans, Land Use Objectives Orders, Land Use Planning process), high BC responsibility or at risk in a region but may not be provincially at risk.

Table 3. Candidates for Regionally Important Wildlife under FRPA and OGAA

Common Name	Scientific Name	Proposed by (DRAFT)
-------------	-----------------	---------------------

s.13

DRAFT

Species Listing Engagement Plan Summary

Ecosystems Branch, August 2022

Engagement to Date:

Early internal engagement on the process and criteria for identifying candidate species began in autumn 2021 with species experts and regional (FLNRORD) staff. As the criteria were revised based on initial comments, staff provided further input on the resulting draft candidate list. In January of 2022 we initiated the Species Listing Review Committee (SLRC), an internal committee with representation from the Ministry of Land, Water and Resource Stewardship (LWRS), the Ministry of Energy, Mines and Low Carbon Innovation (EMLI), and the Oil and Gas Commission (OGC) as the agencies responsible for administering the *Forest and Range Practices Act* (FRPA) and the *Oil and Gas Activities Act* (OGAA), respectively. Since the creation of LWRS, the representatives on the committee from the former FLNRORD are now in LWRS and there is no representation from ministry of Forests (FOR). A representative from FOR will be requested.

Three Indigenous Technical Advisors (ITAs) were contracted to be members of the SLRC from its inception to contribute an Indigenous perspective and ensure Indigenous knowledge and values are included in the process of selecting species.

The SLRC has concluded the initial task of reviewing the process, criteria, and resulting candidate species lists (species at risk, regionally important wildlife, and ungulates) and the membership supports the species proposed to bring forward for external engagement. ^{s.13; s.16}

s.13; s.16

Planned Engagement:

Updating the categories of species under FRPA and OGAA does not require broad public engagement, but there are legal requirements to engage with First Nations and industry associations. Three types of engagement are planned: continued internal to government, First Nations, and industry associations (timeline for each is summarized in Table 2).

For further awareness and consideration of broader provincial perspectives the candidate species lists will be shared with the Provincial Species at Risk Committee (PSARC) in September 2022 to seek endorsement of the lists before beginning external engagement. PSARC has membership from across the NRS and has the role of facilitating inter-agency collaboration on species at risk stewardship and the advancement of conservation outcomes. ^{s.13}

s.13

In accordance with the 2005 BC-Canada bilateral agreement, BC is required to inform the Federal Government of any updates to legal listing of species at risk. ^{s.13}

s.13

s.13

A) First Nations Organizations

Guidance under FRPA and OGAA through the Government Actions Regulation (GAR) and Environmental Protection and Management Regulation (EPMR) does not include direction on engagement with First Nations. ^{s.13}

s.13

B) Industry

Legal requirements for notifications and consultation on changes to the categories of species lists are set out in the Government Actions Regulation (GAR) s.3(1) under FRPA, and in the Environmental Protection and Management Regulation (EPMR) s. 36(1) under OGAA. Under GAR, before a Minister

¹ See <https://gwww.nrs.gov.bc.ca/env/node/4409>

makes an order, the Minister must provide an opportunity for review and comment to organizations or associations that represent tenure or agreement holders that may be affected by the order. The requirement under EPMR is similar.

The purpose of the review and comment process is to seek input from the organizations and associations on potential impacts of the order. Although an order to update the categories of species under FRPA does not apply to a particular location on the ground, and will not pose any immediate impacts, the opportunity to provide comment must still be given. This obligation is the same under EPMR. s.13

s.13

Table 2. Engagement Timeline (internal = green, external = blue)

Timing	Groups	Details	Purpose/ information provided
August-September	Brief key ADMs <ul style="list-style-type: none"> FOR (OCF) EMLI LWRS 	<ul style="list-style-type: none"> Shane Berg (Office Chief Forester); Rachel Pollard (Dir) Simon Coley (ADM, EMLI); Mark Graham (ED) James Mack (ADM); Jennifer Davis (ED) 	<ul style="list-style-type: none"> Awareness of intended changes to FPA and OGAA Consider broader provincial perspectives Seek endorsement of the lists prior to external engagement
September	Provincial Species at Risk Committee (PSARC)	LWRS, FOR, ENV, AF, EMLI, OGC, IRR, TRAN, MUNI, TACS, JERI	
September	LUPPE Regional Management Committees	<ul style="list-style-type: none"> South – Heather Wiebe Coast – Matt LeRoy North – James Cuell 	<ul style="list-style-type: none"> Awareness Consider regional perspectives
September-October	Existing internal working groups	<ul style="list-style-type: none"> Ongoing discussion with internal working groups e.g: <ul style="list-style-type: none"> Ecosystem Leads Team GAR Working Group Wildlife Habitat Working Group 	<ul style="list-style-type: none"> Awareness Identify connections and efficiencies
		<ul style="list-style-type: none"> Request to present at existing tables and forums (e.g.) 	

s.13



s.13

Timing	Groups	Details	Purpose/ information provided
--------	--------	---------	-------------------------------

MEETING NOTE

DATE: August 26, 2022

PREPARED FOR: Honourable Josie Osborne, Minister of Land, Water and Resource Stewardship

REGARDING: Meeting with Scott Lunny and Jessie Uppal from the United Steelworkers Union to discuss: 1) fish farming & workforce impacts, 2) BC's transition to low carbon economy, 3) forest policy & B.C. communities, and, 4) UFAWU request for Labour Force Adjustment Program for the B.C. fishing industry.

SUMMARY: The United Steelworkers Union (USW) is the largest private sector union in North America with more than 225,000 Canadian members and represents every sector of the economy. Scott Lunny is the Director of USW District 3, which covers the four western provinces and three northern territories.

1) Fish Farming & Workforce Impacts

Fisheries and Oceans Canada (DFO) recently released a document detailing the vision of the federal 2025 Net-Pen Transition Plan engagement process. Industry and coastal and Indigenous communities that rely on the sector have expressed concern over the upcoming federal 2025 Transition Plan, and the socioeconomic impacts that removal of the industry would have to communities.

2) British Columbia's Transition to Low Carbon Economy

British Columbia (BC) has committed to reducing greenhouse gas emissions to 40 percent from 2007 levels by 2030. The CleanBC Roadmap to 2030 maps details ways to reach this target and some of the pathways outlined will likely impact local economies through an increased use of clean power sources, and the development of a Circular Economy Strategy where more resources are reused, repaired, and recycled. Part of the Roadmap is the CleanBC Communities Fund which is a partnership with the federal government through the Investing in Canada Infrastructure Program. The Province and the federal government have committed as much as \$240 million of combined investment into the fund over three rounds.

3) Forest Policy & BC Communities

The Province, along with other partners, has developed a new approach to sustainable forest management that prioritizes ecosystem health and community resiliency throughout BC which has seen 11 temporary deferrals encompassing nearly 200,000 hectares of old-growth forest. Changes to BC's foresting practices are impacting the livelihoods of forestry workers for which the Province has established a variety of support programs.

4) Labour Force Adjustment Program Needed for the B.C. Fishing Industry (Added Aug 26)

The USW works closely with the United Fishermen and Allied Workers Union (UFAWU) which have written a discussion paper titled: Urgent Need for Labour Force Adjustment Program for the B.C. Fishing Industry. In recent years, DFO has announced multiple reductions and closures in various B.C. fisheries and aquaculture sectors that are having cumulative impacts on many of B.C.'s coastal communities. The paper outlines the lack of financial support offered to fisheries workers in response to the various closures and it compares the financial and social supports offered to similar industries in resource extraction (forestry workers) and food production (agriculture sector).

MESSAGES:

- I am committed to putting people at the centre of everything we do. In April of this year the Ministry of Land, Water and Resource Stewardship (LWRS) was created for better accountability of integrated land and natural resource management, and as a single ministry will be better focused on objective setting for land and marine environments, effectively managing cumulative

effects, advancing reconciliation with Indigenous peoples, environmental sustainability, and economic growth.

- The Province is committed to renewing economic prosperity and creating jobs in rural and coastal communities.

1) Fish Farming & Workforce Impacts

- BC is committed to working with the federal government on the process to transition from open net pen salmon farming and have committed to working at a strategic oversight committee to help oversee the development of the federal 2025 Transition Plan. The Province has made it clear that the federal government must provide timely and comprehensive supports and programs to those affected by their decisions.
- Additionally, LWRS is tasked with leading the development of BC's first Coastal Marine Strategy to better protect coastal marine habitats while growing coastal economies. This strategy will be created alongside two additional interconnected provincial strategies: The Watershed Security Strategy and the BC Wild Salmon Strategy.

2) BC's Transition to Low Carbon Economy

- The CleanBC Communities Fund is part of the CleanBC Roadmap to 2030, the Province's plan to expand and accelerate climate action by building on BC's natural advantages – abundant and clean electricity, innovative technology and a highly skilled workforce. It sets a path for increased collaboration to build a British Columbia that works for everyone.

3) Forest Policy & BC Communities

- The Province is bringing together co-ordinated and comprehensive supports for workers, communities, and First Nations to offset economic impacts that may follow from changes in harvesting old growth forests. Support programs include a Bridging to Retirement Program, Forest Employment Program, Skills Training for Employment Program, and a Rural Business and Community Recovery Initiative.

4) Labour Force Adjustment Program Needed for the B.C. Fishing Industry (Added Aug. 26, 22)

See attached Bullets for Minister's September 6, 2022 meeting with the UFAWU (Ref# #:27230/639).

- We will continue to press the federal government to ensure they are bringing supports to affected industries, including the individuals and businesses that support our many coastal communities in B.C.
- We recognize the importance of finding ways to mitigate the cumulative impacts to our interconnected fisheries, aquaculture and seafood businesses and the communities that rely on them.

PREPARED BY:

Kevin Romanin
Senior Policy Analyst
FAWS Branch
778 974-4884

REVIEWED BY:

	Initials	Date
DM	LH	August 26, 2022
ADM	DM	August 25, 2022
Program Dir/Mgr.	DT	August 24, 2022

BRIEFING NOTE FOR INFORMATION

DATE: August 31, 2022
PREPARED FOR: Honourable Minister Josie Osborne
ISSUE: Forest Practices Board Report Response

BACKGROUND:

- The Forest Practices Board (Board) is British Columbia's (BC's) independent watchdog for forest and range practices. The Board conducts audits and investigations, and issues reports on industry and government performance regarding meeting the intent of BC's forest practices legislation.
- In January 2022, the Board released a special report "[Forest Practices and Water: Opportunities for Action](#)". This special report summarized Board findings looking at 28 audit and investigation reports over the last 15 years involving forestry and water concerns; it also outlines four main issues with current practices and identifies four opportunities for improvement.
- The Ministry of Forests (FOR) initiated and is leading the coordination of a formal response with The Ministry of Land, Water and Resource Stewardship (LWRS) to the special report. The response will be published publicly alongside the Report to the Board's "[Recommendations](#)" section.
- The Board's last special report on water explored the Board's experience with forestry and water users in 2011 and responded to a discussion paper on modernizing the *Water Act*.

DISCUSSION:

Given the ministry re-organization earlier this year, some of the Board report recommendations now fall to the purview of LWRS. Summary information about the ministry re-organization was prepared for the Board in the Draft Cover Letter for the Board. Contributing to the response with FOR is an opportunity for LWRS to demonstrate its new role and leadership on water.

FOR and LWRS staff developed a joint response that prioritizes updates on key initiatives responsive to the Board's report recommendations, including the Watershed Security Strategy, the Healthy Watersheds Initiative, and priority Water Sustainability Act (WSA) policy development areas such as WSA Objectives and Water Sustainability Plans.

For LWRS, the response is an opportunity to convey positive feedback to the Board for their attention to water in a forestry context. The four priority recommendations are welcome suggestions for improvements to forestry practices. To build on the four recommendations, LWRS staff identified a number of future areas for further discussion with the Board, should they be interested in diving more deeply into those additional topics.

NEXT STEPS:

- James Mack to meet with the Chief Forester, Shane Berg (appointed August 16, 2022) to discuss the response to the board report and shared strategic priorities.
- FOR will coordinate approvals, finalize the response and send when ready.



- Signatories to the response are James Mack and Shane Berg.

Attachment(s):

1. Cover Letter_FPB Report Water_FOR and LWRS_Aug 17, 2022
2. Forest Practices Board Response_FOR and LWRS_v5_Aug 17, 2022_Province

PREPARED BY:

Heike Lettrari
Water Policy Advisor
WPSB, WFCPP
778 678-4394

REVIEWED BY:

	Initials	Date
DM		
ADM	JM	08/23
Program Dir/Mgr.	JV	08/22

Draft Cover Letter text to accompany the Forest Practices Board Report Response

Please find attached the response to the “Forest Practices and Water: Opportunities for Action” Report (January 2022).

Important note: Since the publication of *Forest Practices and Water*, the Ministry of Forests, Lands, Natural Resource Operations and Rural Development has been restructured resulting in two separate ministries: The Ministry of Forests (FOR) and a new ministry of Land, Water and Resource Stewardship (LWRS). Following government direction, LWRS and FOR intend to work closely together. As the opportunities within the report were initially directed to FOR, elements of the special report now also speak to both mandates of FOR and LWRS. The response to the Board Report has been jointly developed between the two ministries.

LWRS is accountable for integrated land and natural resource management, including effectively managing cumulative effects, advancing reconciliation with Indigenous peoples, environmental sustainability and economic growth. Part of the role of the ministry is also to provide provincial leadership on water science and water policy alongside several strategic priorities. As introduced in the special report, the Watershed Security Strategy and Fund is also being led by the ministry. LWRS also has a strategic natural resources management and objective-setting role, which positions FOR to implement those objectives on the ground through forest management.

As the Board continues its work as the province’s third-party watchdog on forest practices, the Office of the Chief Forester Division of FOR will continue its role as the official liaison between the government and the Board. The Board and ministries share the interest in improving the interaction of existing laws to protect water and water values. This special report comes at a time when government is implementing modernized provincial forestry legislation, developing the Watershed Security Strategy and Fund, piloting both the Forest Landscape Planning regime and new objectives set under the *Water Sustainability Act*.

Response to Forest Practices Board report Forest Practices and Water, 2022

Introduction

Please accept the province's response to the Forest Practices Board's (the Board) special report: *Forest Practices and Water* (January 2022). As part of the province's response to this special report, updates are provided on the progress of several current initiatives.

Overall, the province finds this report provides a positive contribution towards a more holistic approach to watershed management through enhanced forestry practices that can help protect or restore water values in British Columbia. This document is the province's response to the Report's four opportunities, and includes potential areas to further explore related to water stewardship.

Opportunity 1: Improve public involvement by making water a core value in forest planning, including forest landscape planning

Improving public involvement and enabling new opportunities for shared decision-making with First Nations are the driving forces behind the provincial mandate to modernize forest policy. Through recent changes to the *Forest and Range Practices Act* (FRPA), licensees under the Forest Stewardship regime will be required to publish the approximate location of planned roads and cutblocks and provide 30 days for public review and comment using the anticipated Forest Operations Mapping tool (FOM). Licensees will also be required to make reasonable efforts to meet with Indigenous groups affected by the plan to discuss planned developments.

The transition from the Forest Stewardship regime to the Forest Landscape Planning regime will further increase public involvement through similar information sharing requirements. The new Forest Landscape Plan (FLP) will require a process for consultation and cooperation with an Indigenous governing body prior to its establishment. Public review and comment for the FLP will take place after the Indigenous governing body has examined the plan.

As a tactical plan, the FLP is developed at the watershed, landscape, or Timber Supply Area level. To support the FLP's landscape-level objectives, a Forest Operations Plan (FOP) describes all planned forestry activities (including approximate location of new roads and cutblocks alongside historic development) within a specified timeframe. Each FOP must demonstrate how the outcomes in a licensee's FLP are met and is to be published for public review and comment prior to its implementation. Recognizing that FLPs are a forward-looking tool, plans may not address the impact of past forestry practices in an area, which is also important from a water perspective.

The eleven FRPA values will continue to be effective categories to guide forest management under the FLP regime. Values that may inform the FLP include, but are not limited to, soils, timber,

wildfire, water/fish/biodiversity within riparian areas, water in community watersheds, wildlife and biodiversity, visual quality, karst, and cultural heritage resources. Other values to be considered will vary based on local circumstances and may include those raised by local government, Indigenous Nations and/or communities. The objectives set by government under FRPA for these values will remain unchanged.

As proven by the Board's numerous investigations and reports related to water, water is a value that is critically important to British Columbians and will be an inherent component/value to each FLP. Although new legislation does not constitute which values must be considered in an FLP, it is intended that the FLP will contribute to managing for water related values.

When it comes to water and watersheds, LWRS has the lead leading role in land use and watershed planning and stewardship. LWRS and FOR are working together to bring consistency to planning approaches, which will facilitate the acceleration of the development of WSA area-based tools such as water sustainability plans (WSPs) and WSA Objectives. WSA Objectives can be developed on their own or be included as part of a broader land or water planning initiative, such as modernized land use planning, forest landscape plans, or water sustainability plans.

A relatively recent initiative between the Office of the Wet'suwet'en and the Province of B.C., called the Widzin Kwah Water Sustainability Plan, to jointly develop *Water Sustainability Act* (WSA) objectives ("WSA Objectives") under WSA s. 43 is looking into ways to include First Nations communities and watershed parties in the process of co-developing area-based objectives. Robust and iterative engagement during WSA Objectives development will be important to ensure they are responsive to the watershed priorities, values and issues within the Widzin Kwah. The objectives will be designed to sustain water quality and quantity for specified purposes and for protecting or restoring the health of aquatic ecosystems. By design, their implementation is meant to support increased consideration of water values, including in forest planning and forest management decisions, by requiring forestry and other statutory decision-makers to consider the objectives in authorizations of proposed activities.

Opportunity 2: Manage cumulative effects of forest practices on water as a legal requirement in all watersheds

Currently, regulations under the Forest Planning and Practices Regulation are in place to preserve stand-level water values. These values include riparian areas, fish habitat, licenced waterworks, community watersheds and drinking water. Despite the high degree of compliance by forest licensees to these regulations, the cumulative effects of forestry activities on the land base shows that a change in forestry planning is needed to protect the ecological resilience of the greater watershed. This concern, among other interests, has inspired the province to modernize forest policy in a manner that will improve forest management at the landscape (or watershed) level.

As outlined in the Board's 2019 report *Tactical Forest Planning: The Missing Link Between Strategic Planning and Operational Planning in B.C.*, the intent of the Forest Landscape Planning regime is to reduce cumulative effects of forestry practices at the landscape level by coordinating forestry

activities amongst licensees and leveraging the latest science and technology to set and measure targets of FRPA values against the landscape's current condition.

The reduction in cumulative effects from forestry activities is sought through the iterations of the Forest Landscape Planning cycle. FOR currently has a cumulative effects framework in place that helps to identify critical areas that are affected by forestry.

Regarding watersheds, the mandate for the new Ministry of Land, Water and Resource Stewardship includes a new focus on integrated management of land and water use activities and natural resource development, including more effectively managing cumulative effects. During the first period of engagement on the Watershed Security Strategy and Fund discussion paper, there were many comments raised by the First Nations, public, and stakeholders concerning the cumulative effects of forestry practices, other land uses and climate change on watersheds and water values. Consequently, it's an area that will require consideration when developing the actions that may eventually be included as part of the Watershed Security Strategy and Fund.

There may also be opportunities within the suite of tools provided in the *Water Sustainability Act* (WSA) to support or require management of cumulative effects in forestry and other land use decisions. For example, WSA Objectives under Section 43 of the Act may result in legal requirements for specified decision-makers to address (proactively avoid) cumulative effects, including from forestry, in watersheds. This recommendation will be considered as guidance for this tool and other relevant WSA area-based tools is developed.

Opportunity 3: Improve regulation of forest practices that contribute sediment to streams.

In the 2020 special investigation *Protection of fish habitat under FRPA*, the Board recommended strengthening regulations by adding a road maintenance provision. In response, FOR has updated the Engineering Manual to enhance guidance for sediment management on forest roads. Additionally, FOR's Engineering Branch worked with the Association of B.C. Forest Professionals and the Association of Professional Engineers and Geoscientists of B.C. to incorporate sediment management into professional practice guidance.

In addition to the five regulations in place for forestry activities to reduce deposition of sediment into adjacent streams, amendments to FPRA and the *Forest Act* have created a new authority for the minister to order the deactivation of a road. Regulation updates to the Forest Planning and Practices Regulation will bring this new authority into force. It is expected that this new regulation will further help reduce sedimentation into streams by limiting traffic on forest roads.

In scenarios where further mitigation or watershed restoration actions may be needed and that are not being adequately addressed using other regulatory tools, water sustainability plans (WSPs) may offer a pathway to addressing persistent issues regarding sediment contributions to streams from forestry activities. In the most extreme scenario, WSPs can restrict or prohibit certain activities, or require restoration actions to protect or address risks to water quality or risks to aquatic ecosystem health. The implementation of a WSP may also bring opportunities for additional requirements that need to be given consideration in forest planning activities and for forestry decision makers.

Likewise, WSA Objectives enables establishing area-based objectives across natural resource activities, including forestry, regarding water quality (including sediment) and water quantity priorities. Work is ongoing to explore how WSA Objectives may interact with forestry regulations to improve sediment and other outcomes within a watershed.

Opportunity 4: Reduce the impact of historical practices on water through a renewed program of watershed restoration

The Province recognizes the importance of prioritizing healthy watersheds and wetlands. Work in restoration has been undertaken with a number of ministry programs already leading in this area. In 2020, the Province invested \$27 million (M) in watershed restoration and conservation projects as part of its [Economic Recovery Plan](#). This funding is now known as the [Healthy Watersheds Initiative \(HWI\)](#) and is administered by the Real Estate Foundation of British Columbia. An additional investment of \$30M to improve and restore [B.C.'s watersheds was made in April 2022](#). This funding will build on the momentum of the HWI and will help support restoring and maintaining ecosystem services and watershed health, as well as climate resiliency. The new funding will also support reconciliation with Indigenous communities and partnerships across levels of government and non-governmental organizations.

Restoration initiatives are being further explored through the development of the Watershed Security Strategy and Fund. The need for more restoration work was raised as a priority by members of the public, Environmental Non-Governmental Organizations and local governments through the first period of engagement on the Strategy and Fund discussion paper.

Under the Water Sustainability Act, water sustainability plans (WSPs) may also offer a pathway to restoration through the planning process. While WSA Objectives do not offer a direct pathway to requiring watershed restoration, the objectives that are established under this tool may guide the restoration interests of collaborative groups, including First Nations, local governments, forestry companies and public stakeholders, to work together to restore a damaged, degraded or destroyed watershed on their own initiative.

Opportunities for Future Discussion

The province acknowledges and builds on the valuable contributions of the Report to offer several opportunities to build on and further explore water stewardship from a forestry perspective.

Opportunity 1

- Examine climate change influences on water and watersheds, including implications for shifting hydrologic (stream) baselines and added complexity regarding disturbance and recovery relationships in watersheds.
- Consider opportunities to advance reconciliation and provide economic opportunities for Indigenous and non-Indigenous communities in watershed restoration to help address legacy forestry activities. Discussion could build on the recent Delphi report "[Working for Watersheds](#)" that identified the opportunity to grow a world-class watershed sector based, in part, on watershed restoration.

- Explore effectiveness monitoring for cumulative effects on water quality and water quantity, and the importance of expanded monitoring in key areas (i.e., monitoring streamflow/water levels, water quality parameters such as sediment load, temperature, and aquatic life and habitat). Doing so may help describe the condition of water in addition to the pressures/stressors described in the cumulative effects frameworks and effectiveness monitoring processes.

Opportunity 2

- Grow our collective knowledge of how water sources vary through space and time, recognizing that watersheds draw on water sources from above and below ground. How could contributions of different water sources look in the context of forest practices and cumulative effects assessments?
- Explore the effects of forestry practices on groundwater recharge and discharge.
- Examine how potential effects of forestry practices on lakes, wetlands, shallow groundwater may result in risks to drinking water sources.

Opportunity 3

- Explore forestry road impacts, including beyond the deactivation phase, by examining contributions to erosive power (more concentrated flows) and quickening the flow of water to streams through increased drainage density, creating flow diversions, and altering seasonal flows and sediment in a system.
- Grow and share knowledge related to broader community concerns of forestry activities on water quality, such as herbicides, fertilizers, road salt, fire retardants, hydrocarbons, metals, nutrients, and water temperature.

Opportunity 4

- Explore watershed restoration opportunities further to include the potential of bio-cultural restoration approaches that have been drivers of some Indigenous-led restoration projects.
- Increasing understanding of cause and effect in changing watershed hydrology to inform watershed restoration investments and practices to better identify what will work and what will not work.
- Looking further at the importance of watershed restoration planning before implementing riparian and in-stream channel measures in response to forestry impacts.

Conclusion

The province appreciates the Forest Practices Board re-applying their focus on forestry impacts on water. Forthcoming amendments to the Forest Planning and Practices Regulation will support the opportunities presented in the Board's report through applications such as the Forest Operations Map and the implementation of mandatory public review and comment periods in forestry planning. Outcomes for water values under an FLP will further support watershed values. Soon to be realized through policy, it is intended for water to be a primary value covered under the FLP. As the FLP pilot projects continue to evolve, the Board will remain informed on their progress by the Forest Science, Planning and Practices Branch. The recommendations outlined in the Report will also inform the development of a Watershed Security Strategy and Fund.

In this response, the province also provides information about initiatives currently underway and have identified a few areas for future discussion with the Forest Practices Board, should the Board wish to take up the invitation.