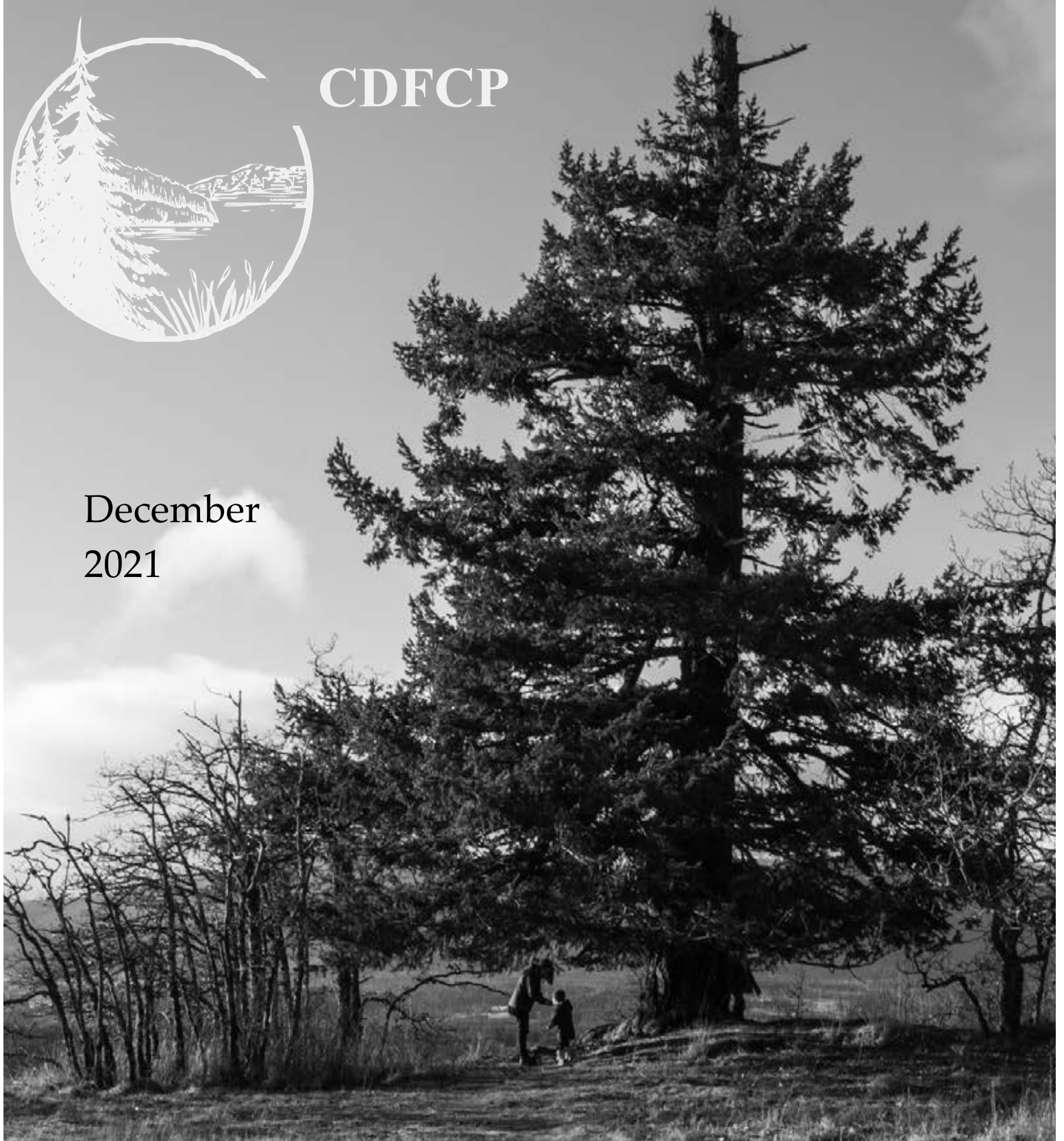




CDFCP

December
2021



COASTAL DOUGLAS-FIR
& ASSOCIATED ECOSYSTEMS
CONSERVATION PARTNERSHIP

CONSERVATION
STRATEGY

2021

Acknowledgements

This Conservation Strategy was developed by the Coastal Douglas-fir Conservation Partnership, under the guidance of the Steering Committee: Tim Ennis, Darryn McConkey, Andrea Tanaka, David Haley, Peter Arcese, Leanna Warman, Hillary Page, Katie Blake, Kathryn Martel, Lynn Campbell, Steven Godfrey and Erik Piikkila.

Members of the Partnership met in the fall and winter of 2020/21 to review the Strategy and provide input into the objectives and actions.

The funding support for the planning process from Environment and Climate Change Canada and the Real Estate Foundation of British Columbia is gratefully acknowledged. We also appreciate the contributions from the Ministry of Forests, Lands Natural Resource Operations and Rural Development.

This project was undertaken with the financial support of:
Ce projet a été réalisé avec l'appui financier de:



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada



Writing and facilitation for this project was provided by Kelly Chapman.

INTRODUCTION

Purpose of the Conservation Strategy

This Conservation Strategy sets a 30-year vision and goals for the Coastal Douglas-fir Conservation Partnership (CDFCP); with objectives and actions identified for the next five years (2020–2025). The intent is to review and update this strategy at least every five years.



Coastal Douglas-fir and Associated Ecosystems

The Coastal Douglas-fir biogeoclimatic zone (CDF zone) is the smallest and most at-risk zone in British Columbia (B.C.). As home to the highest number of species and ecosystems at risk in B.C., many of which are ranked globally as imperilled or critically imperilled, it is of great conservation concern. The global range of the CDF lies almost entirely within B.C., underscoring both its global uniqueness and B.C.'s responsibility for its conservation. Old growth CDF forests are among the highest carbon storing ecosystems in the world. CDF forests also play a critical role in building watershed and wildfire resilience against climate change. Of all the zones in the province, the CDF has been most altered by human activities. Less than 1% of the CDF remains in old growth forests and 49% of the land base has been permanently converted by human activities. The trend of deforestation and urbanization continues and has resulted in a natural area that is highly fragmented with continuing threats to remaining natural systems. Approximately 11% of the CDF zone is currently protected in conservation areas. The extent of disturbance, combined with the low level

There are 271 known Red and Blue listed species (non-legal list) within the CDF, and 110 SARA-listed species." (data source BC CDC's Species & Ecosystems Explorer, accessed Mar 2021)

of protection, places the ecological integrity of the CDF zone at high risk. The federal government has acknowledged the importance of this area by identifying the South West of BC as a Priority Place under the Pan-Canadian Approach to Transforming Species at Risk.

As shown on the map, the area of concern to the CDFCP includes some parts of the Coastal Western Hemlock very dry maritime zone (CWHxm1 and CWHxm2), as these ecosystems share similar attributes and threats.

Threats to the integrity of the Coastal Douglas-fir and associated ecosystems (CDFAE) include:

- **Land conversion.** This is the number one threat. The CDF zone is 80% privately owned, in part due to the historic Esquimalt and Nanaimo (E & N) railway land grant. About 10% is provincially owned and the remaining 10% is owned by other levels of government. Much of the private land has been converted to urban and rural development, transportation and utility corridors, and agricultural use. Forty-nine percent (49%) of the land base in the CDF has been converted to human uses.
- **Ecosystem degradation and biodiversity loss.** Less than 1% of the CDF zone currently remains as old growth forest (over 250 years in age), and forests over 100 years in age now occupy only 4% of their former extent. Deforestation in a land base that was once predominantly forested has consequences for the small patch ecosystems, specialized habitats and at-risk species that were previously buffered and supported by the ecological processes of the surrounding forests. Remaining forests are predominantly younger, less diverse and bisected by roads. These changes affect hydrological patterns and the ability to filter and store water; destabilizes forest soils and reduces capacity to regenerate soils; alters the resistance to the invasion of alien species; alters prey-predator relationships; alters carbon and nutrient cycles, including the release of carbon to the atmosphere; and removes specialized habitat features for wildlife foraging, shelter and breeding.
- **Loss of natural processes.** Wildfires and deliberate burning by First Nations played an important role in shaping CDF ecosystems. Fires create openings in the canopy, kill off other less fire-resistant species, and help to establish and maintain the large, thick-barked Douglas-fir, Maple and Garry Oaks as the dominant trees in the area. Today and for the past 100 years, forest fires have been suppressed.
- **Species disturbance.** Human influence has artificially changed the balance of species, with resulting impacts on ecosystems. An example is the reduction in cougar and wolf populations, which has led to the hyper-abundance of deer populations and in turn reduction of native plants on which deer like to feed.
- **Invasive species** have increasingly intruded into all ecosystem types, displacing native plants and animals, altering ecosystem function and dynamics, and removing food sources for wildlife.
- **Climate change.** Changing climates are increasingly placing stress on native ecosystems and species through changes in seasonal temperatures, reduced snowpacks, winter rains instead of snowfalls, rain on snow events, and water availability, as well as introducing new pests and diseases.
- **Environmental Contaminants.** Environmental contaminants, including fertilizers, pesticides, household and industrial chemicals, sediment from human land disturbance, and human and animal wastes affects the function of ecosystems in the CDFAE. Some of these contaminants are from point sources, such as industry, but many come from non-point sources such as road infrastructure, housing developments, agriculture, and forestry.

A MOSAIC OF PROTECTION AND STEWARDSHIP

Coastal Douglas-fir and associated ecosystems (CDFAE) are found across the landscape. Large areas are set aside for ecosystem protection, forestry and agriculture, while small patches of natural habitat exist in community parks and backyards. The mosaic of protection and stewardship recognizes that this place is home to a diversity of native plants and animals, as well as home to many people. Some areas will be protected and set aside with a primary purpose of supporting ecological integrity; the primary use of other areas may be for economic, recreational or other uses. Stewardship of the CDFAE lands must balance these sometimes competing, sometimes complementary, roles.

This mosaic includes lands under government and private ownership and management, ranging in size from small to large parcels. Examples include:

- Protected areas (e.g., federal, provincial, regional and municipal parks, wildlife management areas, and non-government organization (NGO) owned nature reserves)
- Private lands managed for ecosystem values, including lands with conservation covenants
- Working landscapes (including forestry and agriculture)
- Connectivity corridors, including riparian areas
- Drinking water watersheds
- Community parks and recreation areas
- First Nations lands
- Private woodlots
- Urban forests
- Private backyards



THE COASTAL DOUGLAS-FIR CONSERVATION PARTNERSHIP AND ITS MISSION

The Coastal Douglas-fir Conservation Partnership (CDFCP) is a collaboration of agencies, organizations and land managers who are interested in promoting and protecting healthy CDFAE into the future. Land trusts, governments (federal, provincial, regional, municipal, and First Nations), environmental stewardship groups, resource industry professionals, private landowners and academic institutions are encouraged to become CDFCP Participants or Supporters.

As set out in its terms of reference, the CDFCP is led by a Steering Committee and supported by a series of Working Groups focused on different aspects of the CDFCP goals. The CDFCP provides a forum for collaboration, communication and action to effectively protect and steward Coastal Douglas-fir and associated ecosystems. Its mission is:

To promote the conservation and stewardship of the Coastal Douglas-fir and associated ecosystems in south-western British Columbia through sound science, shared information, supportive policies, and community education.

VISION FOR COASTAL DOUGLAS-FIR AND ASSOCIATED ECOSYSTEMS

By 2045:

Coastal Douglas-fir and associated ecosystems have ecological integrity and resilience to change. A system of core protected areas are actively managed to provide habitat for native species and places to learn about the importance of healthy ecosystems. Working landscapes are actively managed to enhance their ecosystem values, while also supporting jobs and economic development opportunities. The public and land managers understand that Coastal Douglas-fir and associated ecosystems are special places that merit support and investment.

GOALS AND OBJECTIVES FOR THE CDFCP

The CDFCP have set three core goals for working towards a vision of ecological integrity for Coastal Douglas-fir and associated ecosystems (CDFAE). Three strategies reflect the broad approaches the CDFCP will use in achieving these goals.

Goals:

- 1. CDFAE values (including species and ecosystems at risk), are incorporated into local and regional policy and planning processes, and integrated into nature-based solutions for climate change mitigation and adaptation.*
- 2. Additional protection and stewardship of CDFAE is secured.*
- 3. CDFCP capacity to deliver the above goals is enhanced and sustained.*

Strategies:

- a. Encourage incorporation of science and traditional ecological knowledge into land-use planning, securement and stewardship.*
- b. Build effective partnerships among conservation groups, government, First Nations, universities and funders.*
- c. Increase awareness and support for CDFAE conservation and nature-based climate solutions.*

OBJECTIVES AND ACTIONS

In aid of achieving the CDFCP's goals, the following objectives have been proposed for the next five years (2020-2025). Supporting actions are also indicated. Objectives and actions are dependent on the availability of resources; the list below reflects the desired list of actions for the coming years, should resources (staff and funds) become available.

Summary of objectives and actions for 2020–2025:

GOAL 1: CDFAE values (including species and ecosystems at risk) are incorporated into local & regional planning processes, and integrated into nature-based solutions for climate change mitigation and adaptation.

OBJECTIVE 1.1: Collaborate with governments, First Nations and ENGOs to develop plans, policies, bylaws and incentives that recognize and enhance CDFAE values, and to integrate these values into nature-based solutions for mitigating climate change and climate change risk, with a focus on private and First Nations lands.

OBJECTIVE 1.2: Provide education and outreach support to local governments and First Nations working to incorporate CDFAE values and nature-based climate solutions into their planning processes.

OBJECTIVE 1.3: Keep up-to-date with mapping and modelling initiatives relevant to the CDFCP area and capitalize on opportunities to share, collaborate and improve/extend decision-support tools.

GOAL 2: Additional protection and stewardship of CDFAE is secured.

OBJECTIVE 2.1: Support local governments in establishing local conservation funds.

OBJECTIVE 2.2: Assist local governments, conservation groups and First Nations in identifying priority areas for securement and stewardship in their jurisdictions.

GOAL 3: CDFCP capacity to deliver the above goals is enhanced and sustained.

OBJECTIVE 3.1: Secure adequate and ongoing funding and support for CDFCP staffing and programs.

OBJECTIVE 3.2: Monitor and report on the status CDFAE and related natural capital assets.



GOAL 1: CDFAE values (including species and ecosystems at risk) are incorporated into local & regional planning processes, and integrated into nature-based solutions for climate change mitigation and adaptation.

OBJECTIVE 1.1. Collaborate with governments, First Nations and ENGOs to develop plans, policies, bylaws and incentives that recognize and enhance CDFAE values, and to integrate these values into nature-based solutions for mitigating climate change and climate change risk, with a focus on private and First Nations lands. o

ACTIONS:

- a. Work with the Species and Ecosystems at Risk Local Government Working Group (SEAR LGWG) on priorities relevant to CDFAE study area.
- b. Develop networks and relationships with local governments and First Nations, to encourage incorporation of CDFAE values (and related climate mitigation and adaptation actions) into various types of planning processes and sustainability initiatives (including assistance with best management practices, application of the Green Bylaws Toolkit, and assessment of development projects affecting species and ecosystems at risk).
- c. Engage with First Nations and other partners to explore opportunities for collaborating on pilot projects that integrate traditional ecological knowledge, values and management with CDFAE stewardship.
- d. Retain a part-time GIS specialist to provide technical mapping and modelling support for local government and First Nations planning processes.
- e. Collaborate with Climate Action Secretariat and other key partners to foster development of regional policy and decision-support frameworks that integrate biodiversity conservation, climate change mitigation and adaptation and municipal natural asset initiatives into land-use decision making. For example, work together and secure project funding to:
 - i. Explore barriers and opportunities associated with integrating biodiversity conservation and nature-based climate change mitigation (carbon storage and sequestration) and adaptation (watershed and wildfire resilience), with a focus on private and First Nations lands.
 - ii. Research opportunities and challenges associated with establishing a regional group carbon credits/offsets program, as part of a larger landscape protection initiative. Develop a 'white paper' and/or webinar series on tapping local/regional carbon markets for the restoration of CDFAE.



- iii. Generate valuations for different CDFAE values with respect to carbon storage and sequestration, and other natural capital assets. Partner with local governments and First Nations to pilot the integration of CDFAE conservation and valuations with municipal natural asset evaluations, watershed planning, climate change adaptation, and carbon credit initiatives.
- iv. Develop scenario analysis and decision frameworks for conservation planning and incentive options, such as integrative weighting systems to identify trade-offs and help balance competing objectives.
- v. Review and make recommendations on a suite of possible incentives for enhancing CDFAE values (financial and non-financial, e.g. recognition programs, shared fuel management planning, group carbon certification, agricultural sector opportunities, new land designation, etc.). Explore opportunities for pilot projects and partnerships with other groups, to support necessary changes to government policies.

OBJECTIVE 1.2: Provide education and outreach support to local governments and First Nations working to incorporate CDFAE values into their planning processes.

ACTIONS:

- a. Collaborate with SEAR LGWG and other partners to deliver webinars and workshops on an as needed basis (e.g. on legislation updates, carbon offsets/credits, tools and incentives, successful initiatives, etc.)
- b. Secure project funding to build out ‘single window’, mobile-friendly website (and YouTube channel) that includes a comprehensive set of well organized/current links to:
 - SEAR information,
 - planning tools/incentives,
 - technical resources,
 - outreach materials (e.g. webinar recordings), and
 - partner programs and websites.
- c. Opportunistically deliver targeted communications that support integration of conservation values into planning processes.

OBJECTIVE 1.3: Keep up-to-date with mapping and modelling initiatives relevant to the CDFCP area and capitalize on opportunities to share, collaborate and improve/extend tools.

ACTIONS:

- a. Ensure the CDFCP steering committee includes members with modelling and mapping expertise.
- b. Identify and facilitate opportunities to access, improve and develop mapping and modelling tools, including:
 - CWHxmi mapping, Marxan tool, sensitive ecosystems, and species and ecosystems at risk;
 - Traditional ecological knowledge and cultural assets;
 - Contiguous forest cover mapping, Canadian Forest Service disturbance mapping; and
 - Other emerging spatial data and tools to help assess: ecosystem conversion rates, landscape/ecosystem connectivity, carbon storage and sequestration capability, restoration potential, watershed function, hydrological risk, wildfire risk, etc.



GOAL 2: Additional protection and stewardship of CDFAE is secured.

OBJECTIVE 2.1: Support local governments in establishing local conservation funds.

ACTIONS:

- a. Develop networks and relationships with local governments and conservation groups, to encourage and support establishment of local conservation funds.
- b. Develop and implement a multi-year strategy for establishing local conservation funds.

OBJECTIVE 2.2: Assist local governments, conservation groups and First Nations in identifying priority areas for securement and stewardship in their jurisdictions.

ACTIONS:

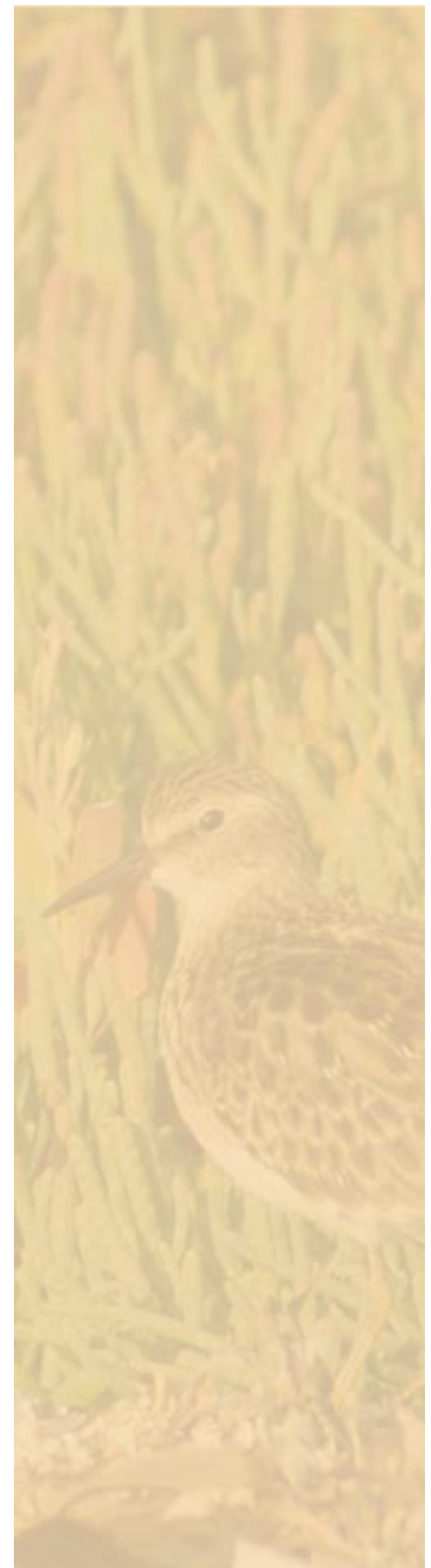
- a. Encourage securement through networks and relationships.
- b. Continue coordinating Securement Working Group, and help with the development of shared priorities.
- c. Provide technical mapping and modelling support for securement and stewardship initiatives undertaken by local governments, conservation groups and First Nations.
- d. Opportunistically deliver targeted communications that support securement and stewardship efforts.

GOAL 3: CDFCP capacity to deliver the above goals is enhanced and sustained.

OBJECTIVE 3.1: Secure adequate and ongoing funding and support for CDFCP staffing and programs.

ACTIONS:

- a. Maintain a committed chair and vice-chair and an active and diverse steering committee that reflects the suite of knowledge, capacity and networks needed to serve CDFAE conservation.
- b. Establish a technical advisory committee with expertise that includes: local government planning, carbon storage and sequestration, carbon offsets/credits, ecosystem mapping, natural asset valuation, watershed management, wildfire management, hydrological modeling, and climate



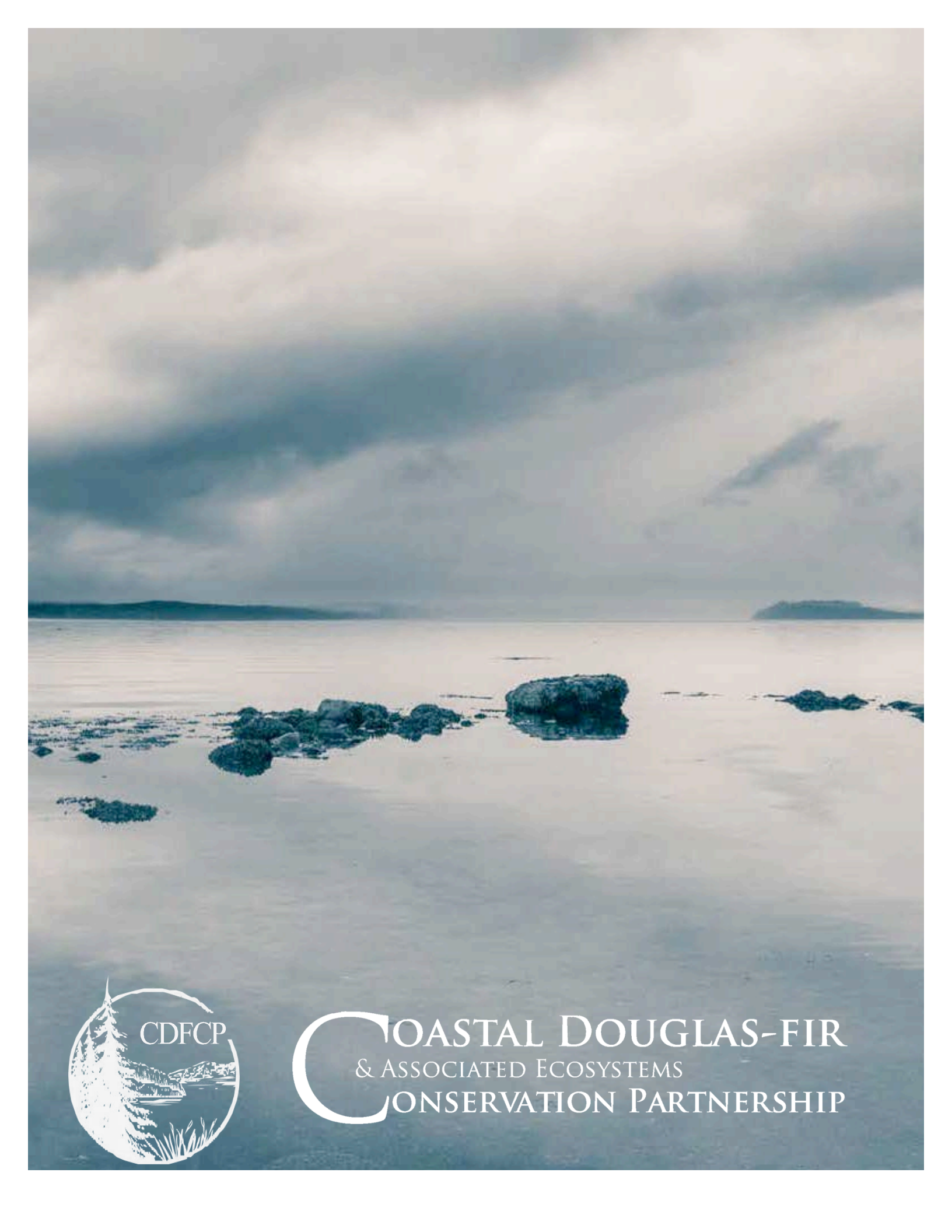
- c. Hire an experienced program manager with a strong background in CDFAE biology and local government planning, to helm strategy implementation with direction and support from the steering committee, the chair and vice-chair, and the technical advisory committee.
- d. Hire a junior coordinator to support the program manager in program delivery, conduct membership outreach and communications, carry out project administration and reporting, and prepare funding applications.
- e. Engage with local governments and CDFCP members to determine interest in/viability of retaining shared ecosystems specialist/conservation planner to 1) provide conservation support for local governments and First Nations (especially those with low in-house environmental planning capacity), and 2) coordinate and share knowledge with other conservation planners and partners, including University of Victoria Environmental Law Group regarding the Green Bylaws Toolkit.
- f. Secure ongoing project funding through grants and partner contributions.
- g. Network and collaborate with CDFCP partners and other organizations working on conservation, to keep abreast of opportunities for partnerships, knowledge sharing and funding.
- h. Initiate discussions with BC Climate Action Secretariat, Pacific Institute for Climate Solutions (PICS) and others to identify areas of program compatibility and opportunities for partnership, funding and program integration.
- i. Maintain communication with CDFCP members via E-news (every two months).

OBJECTIVE 3.2: Monitor and report on the status CDFAE and related natural capital assets.

ACTIONS:

- a. Secure project funding to generate CDFAE benchmarks and indicators, to allow for ongoing evaluation of the status of CDFAE and related natural capital assets.
- b. Prepare annual reports on CDFAE indicators; communicate results to members via E-news and website.





COASTAL DOUGLAS-FIR
& ASSOCIATED ECOSYSTEMS
CONSERVATION PARTNERSHIP