

FACTS & ISSUES BRIEF: Preserving Coastal Douglas-fir ecosystems in Halfmoon Bay, B.C.

Issue: Biologically important and at-risk Coastal Douglas-fir (CDF) ecosystems in Halfmoon Bay and along the lower Sunshine Coast are being permanently converted by human activities due to increased private land development.

Request: The [Community Development Forum for Halfmoon Bay](#) is requesting the [Sunshine Coast Regional District \(SCRD\)](#) to lead on and engage with other stakeholders to proactively protect the CDF ecosystems, and better mitigate the impacts of land development on this shrinking at-risk zone. Proposed steps include updating the 'sensitive ecosystems' maps and developing a new environmental [Development Permit Area](#) for CDF ecosystems on the Sunshine Coast.

Some considerations:

1. According to the [Coastal Douglas-fir Conservation Partnership \(CDFCP\)](#), the [CDF biogeoclimatic zone is the smallest and most at-risk biogeoclimatic zone in BC](#), occurring only on the east coast of Vancouver Island, the Gulf Islands and small portions of the Sunshine Coast, including Halfmoon Bay. This zone contains more species at risk than any other biogeoclimatic zone in B.C., [including 24 globally imperiled species and 282 species that are provincially-listed species at risk](#).
2. While approximately 94% of all land in B.C. remains in the public domain, 80% of the CDF biogeoclimatic zone is privately owned. Only 11% of this is protected in some way, [making it the least-protected biogeoclimatic zone in BC](#). Found in one of the most popular areas of the country to live, it is the most highly altered forest type in the province; approximately 50% of the CDF biogeoclimatic zone has been permanently altered.
3. The maps on the CDFCP website and the Sunshine Coast Habitat Atlas (developed by the [SCRD](#)) show that Halfmoon Bay ([Area B, 1271 sq km](#)) is within the CDF biogeoclimatic zone. However, the CDFCP website notes that their map is 'historical', and the Sensitive Ecosystem Inventory for the Sunshine Coast is dated 2007. (See maps and description in Annex.)
4. Upon becoming a [member of the CDFCP in 2013](#), the SCRD Board of Directors signed on to a [Statement of Cooperation](#) which commits the SCRD to “cooperation and partnership for conservation of Coastal Douglas-fir and Associated Ecosystems”.
5. The [2014 Halfmoon Bay OCP](#) includes the following objectives: (6.1) To protect sensitive habitats and wildlife corridors. (6.2) To preserve the remaining stands of trees in the Coastal Douglas Fir biogeoclimatic zone.
6. Despite the above commitments, large-scale residential development in this biogeoclimatic zone in Halfmoon Bay is accelerating, with minimal restrictions¹ on altering land and cutting trees. Examples include:
 - a. A large property ([DL1427, Block A - 27 acres](#)) was cleared in 2021 in preparation for a sub-division.

¹ The very limited exceptions are the [DPA areas demarcated in the 2014 Halfmoon Bay OCP](#).

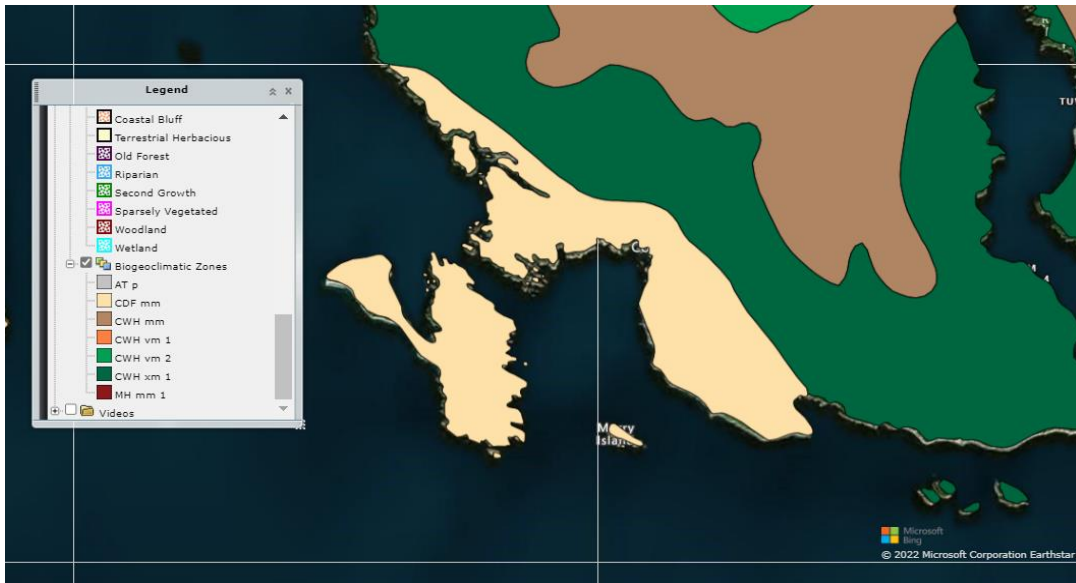
- b. A larger adjacent property ([DL1427, Block B – 45 acres](#)) is slated for purchase and development from October 2023.
- c. A steep property (DL2733 – 26.8 acres) adjacent to Redrooffs Road has been cleared for subdivision.
- d. The SCRD is considering a proposed OCP amendment to upzone another forested property ([DL2394 - 17 acres](#)) from 6 to 48 lots for higher density development.
- e. Two large properties ([DL6322 and 1485 – 163 acres](#)) obtained OCP and zoning amendments and are being subdivided for development.
- f. A large property on steep waterfront terrain ([DL1582 – 10.3 acres](#)) was almost entirely stripped of trees (except for a narrow riparian area) and is now fully developed.

7. Many Halfmoon Bay and Sunshine Coast residents are concerned about the cumulative and irreversible loss of sensitive ecosystems, as well as the implications for damage to infrastructure, private and public property resulting from the growing number of extreme weather events.

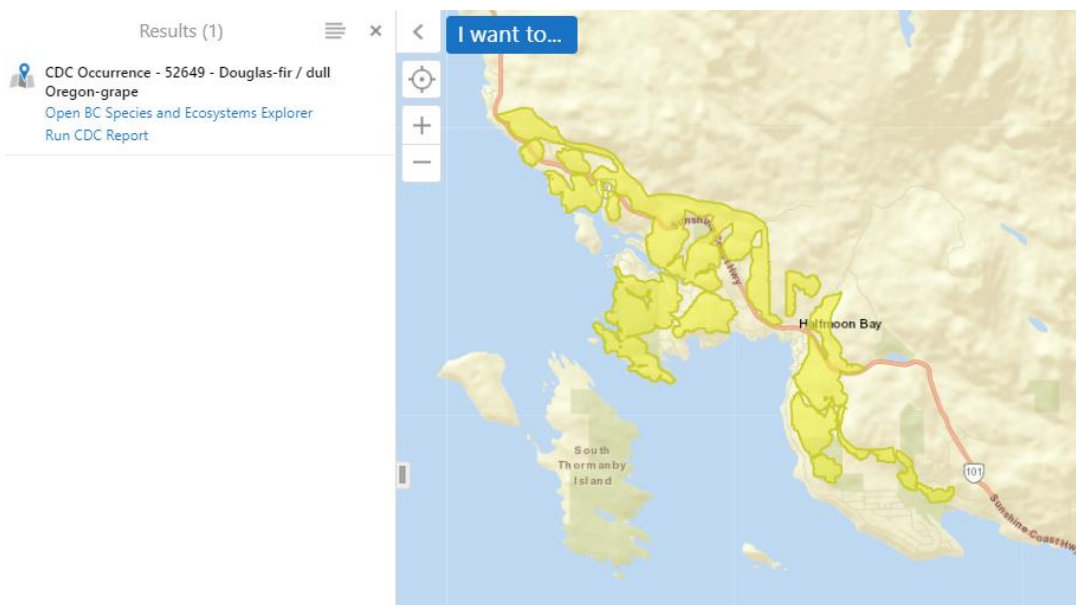
Annex

Locations of CDFmm, [Sunshine Coast Habitat Atlas](#) (yellow area is within Area B, Halfmoon Bay)

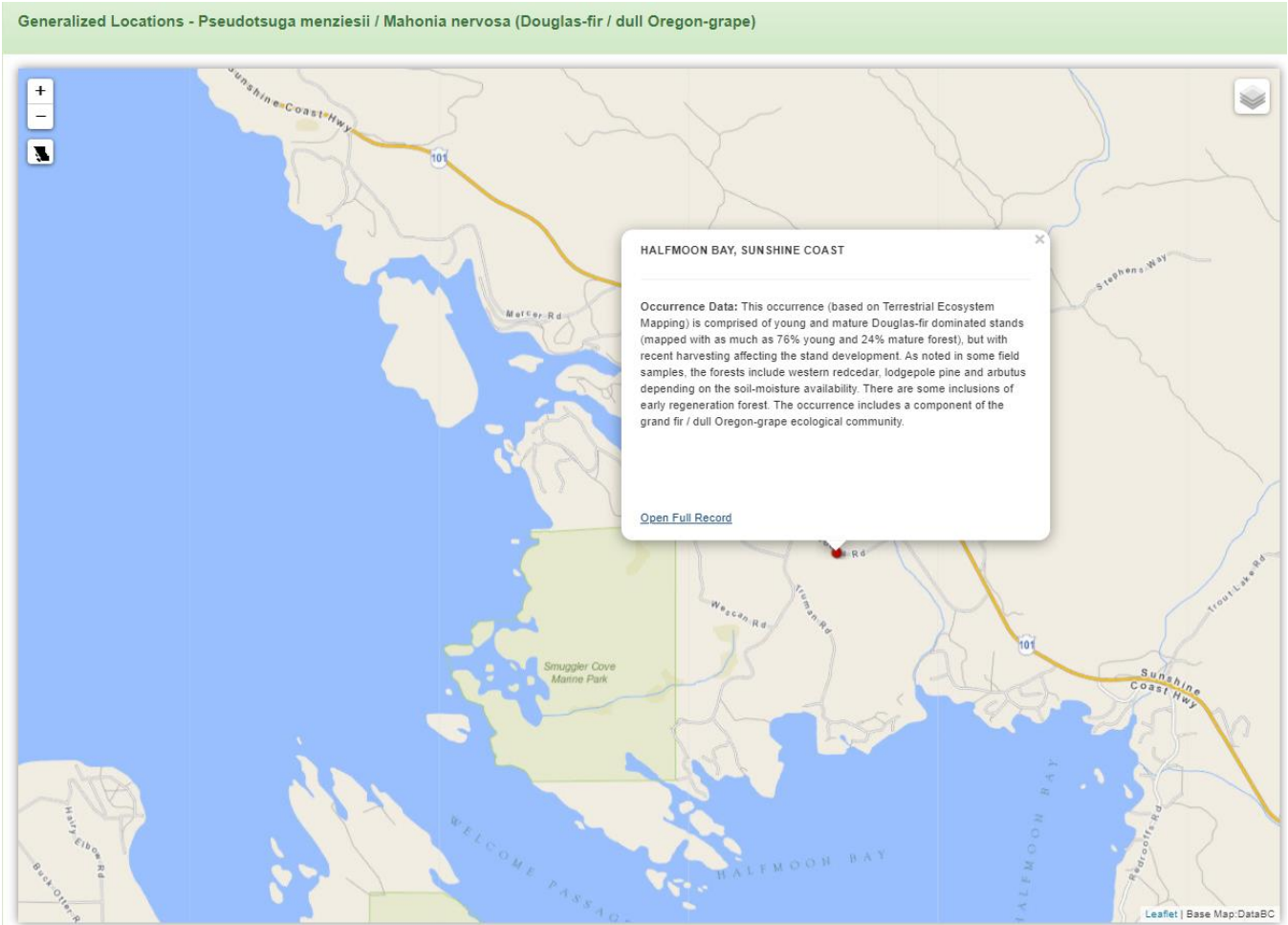
Created by Sunshine Coast Regional District (SCRD) in partnership with Fisheries and Oceans Canada (F&OC).



Locations of CDFmm, [B.C. Conservation Data Centre iMap](#) (Reports and References)



2007 Survey Site and Report for *Pseudotsuga menziesii* / *Mahonia nervosa* (Douglas-fir / dull Oregon-grape)





BC Conservation Data Centre: [Ecosystem Occurrence Report](#)

Shape ID: 52649

Scientific Name: *Pseudotsuga menziesii* / *Mahonia nervosa*

English Name: Douglas-fir / dull Oregon-grape

Identifiers

Occurrence ID: 8401
Shape ID: 52649
Element Group: Ecological Community

Status

Provincial Rank: S1
BC List: Red
Global Rank: G2

Locators

Survey Site: HALFMOON BAY, SUNSHINE COAST
Directions:
Biogeoclimatic Unit: CDF mm
Ecosection: GEL

Occurrence Information

First Observation Date: 2003 **Last Observation Date:** 2007

Occurrence Data:

This occurrence (based on Terrestrial Ecosystem Mapping) is comprised of young and mature Douglas-fir dominated stands (mapped with as much as 76% young and 24% mature forest), but with recent harvesting affecting the stand development. As noted in some field samples, the forests include western redcedar, lodgepole pine and arbutus depending on the soil-moisture availability. There are some inclusions of early regeneration forest. The occurrence includes a component of the grand fir / dull Oregon-grape ecological community.

General Description:

This occurrence is located on the Sunshine Coast from McNaughton Point in the north to Sargeant Bay in the south. This occurrence is along the coastline and is bisected by the Sunshine Coast highway. The terrain is undulating.

Environmental Summary:

The terrain is mostly covered with glaciomarine veneers or blankets, with some morainal veneers and blankets, over undulating rock. The soils are shallow and well-drained.

Occurrence Rank and Occurrence Rank Factors

Rank*: B : Good estimated viability

Note: in the case of Ecological Communities, "viability" should read as "ecological integrity".

Rank Date: 13-01-18

Rank Comments:

The Ecological Integrity of this large sized occurrence is calculated as good due to the large size and good landscape context assessment, due to the natural coastal location and relatively natural vegetation in the surrounding landscape to the east.

Condition of Occurrence:

The original mapping indicated that this area is comprised of young (76%) and mature (24%) forest stands, however there has been some recent harvesting in the area. There is low internal fragmentation (<25%) from roads, rural residential development along the coastline and the recent forest harvesting. Condition is assessed as Fair.

Size of Occurrence:

The size of this occurrence is considered large within this fragmented landscape (878.8 ha).

Landscape Context:

There is greater than 80% natural vegetation in surrounding landscape. However, some fragmentation of the landscape (25-75%) is due to rural residential development, the Sunshine Coast Highway and forest harvesting. This occurrence is naturally isolated from other occurrences due to climatic conditions and larger bodies of water. Thormanby Islands is the nearest occurrence. Landscape Context is assessed as Good to Fair.

Version

Version Date: 2013-01-18

Version Author: de Groot, A. and C.M. Cadrin

Mapping Information

Estimated Representation Accuracy: Medium

Estimated Representation Accuracy Comments: The ecological community occupies 65.01% (878.8 ha) of the mapped occurrence.

Confident that full extent is represented by Occurrence: ?

Confidence extent Definition: Uncertain whether full extent of EO is known

Additional Inventory Needed: Y

Inventory Comments: This element occurrence is based on available ecosystem mapping. Many factors influence the reliability of an ecosystem map. Depending on the scale of aerial images used to capture the ecosystems, very small ecosystems and some types of disturbance may not be visible and will not be mapped. If the air photos are not current, new disturbance may have occurred since the time of mapping and the inventory may not accurately represent the current state of the landscape. Other factors, such as the skill and experience of the mapper within the study area, and the field survey intensity level will also influence the reliability of the map.

Documentation

References:

Cadrin, C., H. Reid and A. de Groot. 2013. Element occurrence and element occurrence rank specifications for *Pseudotsuga menziesii* / *Mahonia nervosa* ecological community of British Columbia. Unpublished document. Version 4, January 18, 2013. B.C. Minist. Environ., Conservation Data Centre, Victoria, B.C. 13 pp.

Madrone Environmental Services Ltd. 2008. Terrestrial Ecosystem Mapping of the Coastal Douglas-Fir Biogeoclimatic Zone. Unpublished report prepared for Integrated Land Management Bureau (ILMB), Duncan, B.C. 123pp.

Terrestrial Ecosystem Mapping [TEM] of the Coastal Douglas-fir Biogeoclimatic Zone. 2008. Prepared for B. Zinovich, Integrated Land Management Bureau, B.C. Minist. of Agric. and Lands, Nanaimo B.C. by Madrone Environmental Services, Duncan B.C.
1:20,000 spatial data.

Please visit the website http://www.env.gov.bc.ca/cdc/gis/eo_data_fields_06.htm for definitions of the data fields used in this occurrence report.

Suggested Citation:

B.C. Conservation Data Centre. 2014. Occurrence Report Summary, Shape ID: 52649, Douglas-fir / dull Oregon-grape. B.C. Ministry of Environment. Available: <http://maps.gov.bc.ca/ess/hm/cdc>, (accessed Jan 27, 2023).