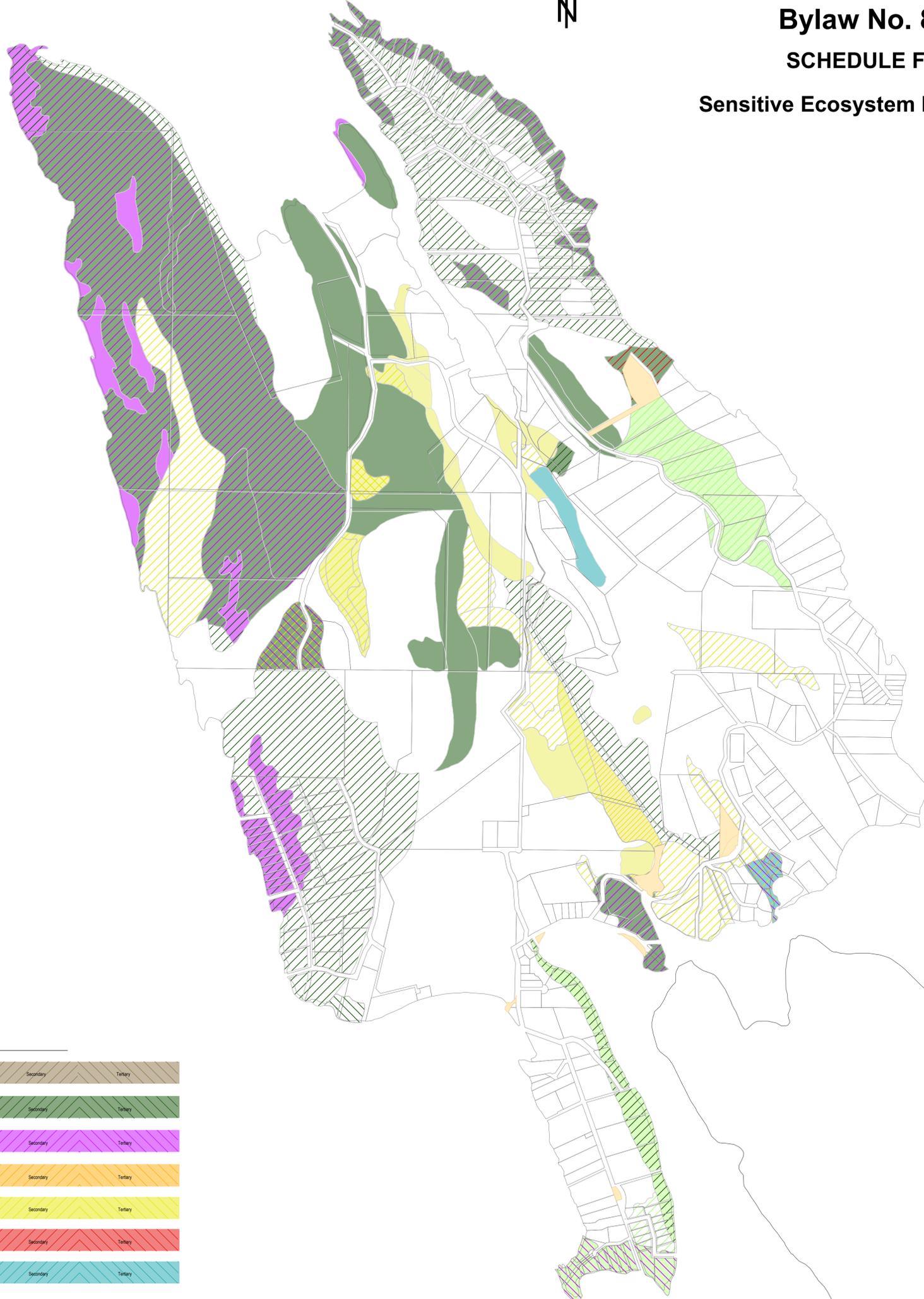


THETIS ISLAND

Official Community Plan Bylaw No. 88

SCHEDULE F

Sensitive Ecosystem Mapping



Sensitive Ecosystems

Old Forest (OF):	Primary Ecosystem	Secondary	Tertiary
Woodland (WD):	Primary Ecosystem	Secondary	Tertiary
Herbaceous (HB):	Primary Ecosystem	Secondary	Tertiary
Riparian (RI):	Primary Ecosystem	Secondary	Tertiary
Wetland (WN):	Primary Ecosystem	Secondary	Tertiary
Cliff (CL):	Primary Ecosystem	Secondary	Tertiary
Freshwater (FW):	Primary Ecosystem	Secondary	Tertiary

Rare Ecosystems

Mature Forest (MF):	Primary Ecosystem	Secondary	Tertiary
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What is a Sensitive Ecosystem?

For the purpose of this study, an ecosystem is considered to be a portion of the landscape with relatively uniform dominant vegetation.

Sensitive ecosystems are those which are fragile and/or rare, or those ecosystems which are ecologically important because of the diversity of species they support.

Rationale

Intense development pressure fueled by population and economic growth has fragmented and degraded many terrestrial ecosystems. A high proportion of these ecosystems are now designated as 'at risk' in BC. Sensitive ecosystems typically have high biological diversity and are a vital part of the landscape. They provide ecosystem services for a healthy economy and for social well being. They regulate climate, clean water, generate and clean soils, recycle nutrients and pollinate our crops. To protect these areas, sensitive ecosystems must be located, identified and mapped. From 1993 to 1999 the Provincial and Federal Governments completed a Sensitive Ecosystems Inventory of East Vancouver Island and the Gulf Islands. This mapping product is an updated version of that product.

Purpose

The purpose of this Sensitive Ecosystems map is to identify the location of sensitive ecosystems. The goal of this mapping exercise is to encourage informed land use decisions that will conserve sensitive ecosystems. This map and the accompanying data provide site-specific ecological information that can be used to flag sites of conservation concern, to promote land stewardship and to prompt detailed field surveys and consideration of ecological values before changes to the land are initiated.

Methodology

Mapping methods are based on the Resource Information Standards Committee (RISC) Standard for Terrestrial Ecosystem Mapping (TEM) in BC. This Sensitive Ecosystems map was themed from TEM data using the RISC Standard for Mapping Ecosystems at Risk in BC. Field survey protocols followed 'Describing Terrestrial Ecosystems in the Field' (RISC 1998).

Data Limitations

The Sensitive Ecosystems map is a tool to alert decision makers to the existence of sensitive ecosystems. However, when land-use changes are proposed, detailed on-ground site assessments are necessary. For sites that were not field checked, the accuracy of the data depends heavily on the expertise, local knowledge, and professional judgment of the mapper and the quality and quantity of available source data. Because the area is changing rapidly, reference to the data set(s) used as the information source is advised.

Due to the mapping scale of the aerial photographs, the minimum polygon size is generally 1/2 hectare. Enlargement of the data beyond the source scale may result in unacceptable distortion and faulty registration with other data sets.

What can be done to protect the sensitive ecosystems?

Direct and indirect impacts to these ecosystems can be avoided by:

- Retaining or creating vegetated buffers around sensitive ecosystems to isolate them from outside disturbances;
- Controlling land and water access to fragile ecosystems;
- Controlling invasive species;
- Allowing natural disturbances to occur;
- Maintaining water quality

If development must occur, develop carefully!

Conduct an ecological inventory to identify the existing flora and fauna and to locate any threatened or endangered plant and animal species, plant communities, and habitat features needing protection.

Plan and implement all development activities in a manner that will not adversely affect or disturb the sensitive ecosystem. Consult a qualified professional to interpret the ecological inventory data and work to incorporate designs that maintain the functions and values of the natural ecosystem.

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