



Mudge Island APC Meeting

Lot Coverage Referral

January 19, 2018

Gabriola Office Boardroom

PRESENTATION OVERVIEW

- History of Mudge OCP/LUB vs. Gabriola OCP/LUB
- Islands Trust Regional Conservation Plan
- Habitat Loss “Thresholds” and Risks for Ecosystem Collapse
- Ecological Community at Risk – Coastal Douglas Fir Ecosystem
- Comparison with City of Nanaimo’s “Protection Island”
- Comparison between Mudge RR zone and Gabriola’s SRR/LRR zones
- APC’s tasks for discussion/recommendations to LTC

- Mudge Island (and Link Island) previously covered by OCP (Bylaw No. 4, 1978) and Zoning Bylaw (Bylaw No. 7, 1980) for Gabriola Planning Area (not including DeCourcy)
- Back in about 1997 when Gabriola began rewriting its OCP, there was no buy-in from Mudge Island (or Link/DeCourcy) on the goals and objectives of the OCP.
- The LTC simply decided to omit Mudge (and Link) Island and leave it under the old OCP so they could focus on getting a new OCP for Gabriola Island.
- Initial plan was to include Mudge (and Link and DeCourcy) later as an amendment to the Gabriola OCP
- Though the LTC ultimately ended up adopting a new, separate OCP (Bylaw 227, 2007) and LUB (Bylaw 228, 2007) for Mudge (and Link and Round) Island
- Based largely on the old OCP and LUB (definitions etc.)

HISTORY OF MUDGE OCP/LUB VS. GABRIOLA OCP/LUB

Excerpts from Islands Trust Regional Conservation Plan (RCP) Presentation to the Gabriola LTC (meeting Dec. 2017)

- Currently, approximately 1,600 ha (27.0%) of the ecosystems in the Gabriola Island LTA (including Mudge Island, Link, DeCourcy, Flat Top Islands etc.) have been disturbed
- The Gabriola LTA is one of the LTAs with the highest land conversions
- Most of this conversion is due to rural and urban development
- Gabriola LTA's land conversion amount flagged in RCP because 27% is on the high side for ecosystem disturbance

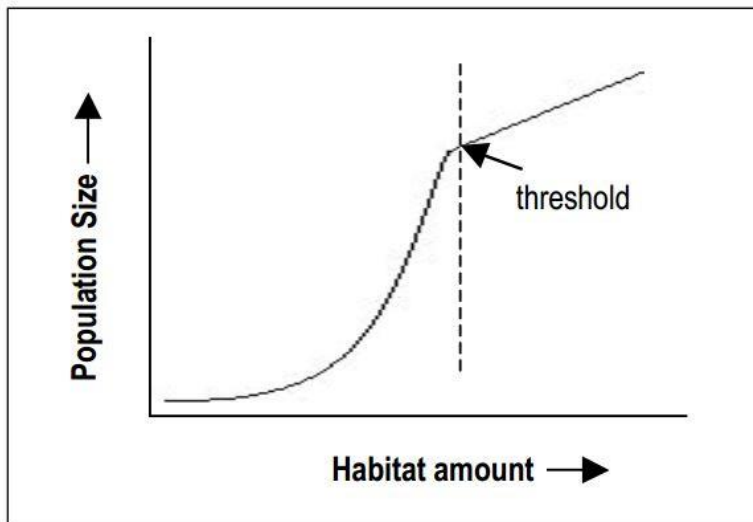
Data specific to Mudge Island was not calculated in the RCP (Gabriola LTA data only), but ...

Ecosystem Disturbances (2004 – 2014)

Disturbance Type	Area lost (Ha)	Percent lost
Deforestation - rural development and roads	3.25 hectares	1.45% (Total size of Mudge is approx. 224 hectares)

Maintaining 70% of the natural levels of any ecosystem = **lower risk** to ecological integrity
Maintaining 30% of the natural levels of any ecosystem = **higher risk** to ecological integrity

“In terms of habitat loss, a **decline in species presence become more pronounced as habitat loss increases, and the threshold of around 30-40% habitat loss is the beginning of a steeper decline of species abundance...**”



In general terms, this means that in the Gabriola LTA (27% disturbance), to preserve species, you will want to do your best to avoid any more loss of natural space and, if possible, try to restore landscapes no longer needed for humans.”

We can use maximum lot coverage as a planning tool to help curb overall habitat disturbance and species loss on our islands.

Lot coverage can feel restricting to property owners as individuals, though important to consider its also **part of a larger plan** for habitat/ species preservation, marine/ foreshore/ groundwater protection etc. **island-wide.**

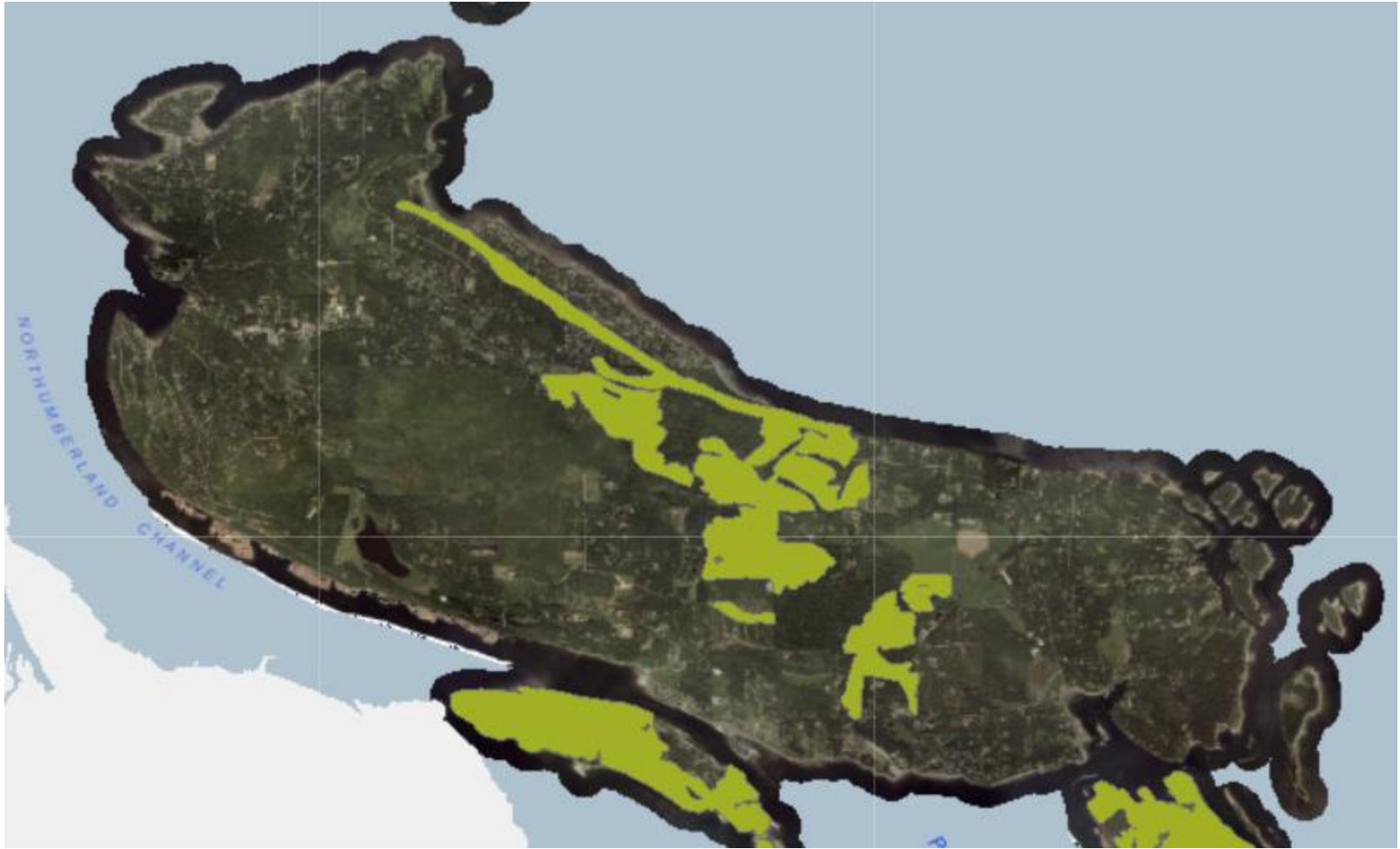
Ecosystem disturbance on one individual property is difficult to see, but if everyone follows the same pattern, effects start to become noticeable and increasingly difficult to reverse.

HABITAT LOSS “THRESHOLDS” & RISKS FOR ECOSYSTEM COLLAPSE



- Based on our Terrestrial Ecosystem Map data, much of Mudge is comprised of young Douglas-fir dominated forests (Coastal Douglas Fir/dull Oregon-grape Ecosystem) (Burns Bog on the Mainland is this same ecological community at risk)
- Estimated viability of this ecosystem: **Fair, due to the extent of young forest and 25-75% fragmentation due to roads and rural residential development that has occurred throughout much of the island**

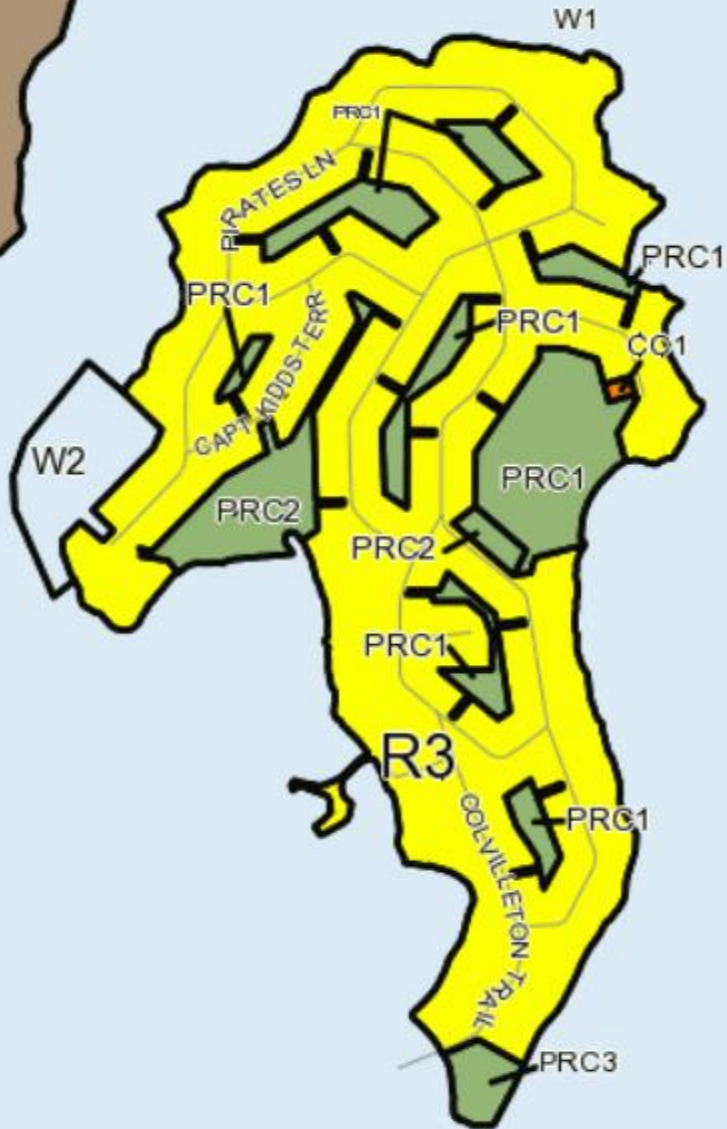
ECOLOGICAL COMMUNITY AT RISK – COASTAL DOUGLAS FIR ECOSYSTEM



ECOLOGICAL COMMUNITY AT RISK – COASTAL DOUGLAS FIR ECOSYSTEM

PROTECTION ISLAND in Nanaimo

- An “Urban Island’ approx. 68 hectares in size
- Similar in size to the northwest end of Mudge (Coho Estates development from 1970)
- 360 properties (compared to 185 properties in the Coho Estates development)



PROTECTION ISLAND (ZONED BY CITY OF NANAIMO)

Protection Island	Mudge Island
Approx. 68 hectares	Approx. 224 hectares
R3 - Low Density Residential	RR – Rural Residential
11 public parks	2 public parks
Connected to City services (water, sewer, road maintenance, phone/internet)	Phone/internet/BC Hydro; no public water, sewer services; provincial road maintenance
Maximum 1 house / lot	Maximum 1 house/lot (plus cottage on lots 1.9 ha or larger)
Minimum lot size = 0.2 ha	Minimum lot size = 4.0 ha
Maximum lot coverage is 35%	Maximum lot coverage is 10%



	Mudge Rural Residential (RR) zone	Gabriola Small Rural Residential (SRR) zone	Gabriola Large Rural Residential (LRR) zone
Maximum Lot Coverage	10%	20%	10%
Maximum Number of Single Family Dwellings Per Lot	1	1	1
Maximum Number of Cottages Per Lot	1 (on lots 1.9 ha or larger)	1 (on lots 2.0 ha or larger)	1 (on lots 2.0 ha or larger)
Minimum Lot Area for Subdivision	4 Ha	0.5 Ha	2 Ha
Minimum Average Lot Area for Subdivision	8 Ha	2 Ha	4 Ha
LUB Definition of “Lot Coverage”	the total area of a lot covered by buildings and structures measured within the outer most walls, or if there are no walls, measured to the outer edge of the drip-line, expressed as a percentage.	the total area covered by buildings and structures measured within the outer most walls, or if there are no walls, measured to the outer edge of the dripline	
LUB Definition of “Building”	any roofed structure used or intended to be used for the shelter, habitation, storage, accommodation, assembly of persons, animals, goods or chattels.	a roofed structure , including a mobile home, used or intended to be used for accommodating or sheltering any use or occupancy and : 1. within this Bylaw’s land-based zones, having a floor area not less than 10.0 square metres (107.64 square feet); 2. within water-based zones, there is no minimum floor area qualification; and 3. for purposes of this Bylaw, buildings connected by a covered walkway and located no more than 3.0 metres (9.8 feet) apart are deemed to be one building	
LUB Definition of “Structure”	any construction and human made land alteration fixed to, supported by, or sunk into land or water; for clarity septic fields, septic tanks, absorption fields and related appurtenances, concrete and asphalt paving or similar surfacing of the land, and retaining structures are considered structures.	anything constructed or erected that is fixed to, supported by or sunk into land or water, whether underwater or otherwise, excluding vehicles except for vehicles used as a restaurant where a restaurant is a permitted use, floating vessels, paving for vehicle parking, sidewalks, and sewage absorption fields; for clarity, swimming pools, dugouts, cisterns, above ground septic tanks and detached ground level decks are considered structures	

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Non Vacant Rural Residential Properties on Mudge Island



APC discussion to provide recommendations to the Gabriola Local Trust Committee on potential amendments to the Mudge Island Official Community Plan and Land Use Bylaw in relation to Lot Coverage including:

- a) Modifying the definition of lot coverage to exempt cisterns or other structures to support water conservation;
- b) Modifying maximum lot coverage in the rural residential zone;
- c) Regulating the size of dwellings and accessory buildings and structures;
- d) Regulating impermeable surface coverage;
- e) Incorporating Mudge Island as a “Special Area” under the Gabriola Official Community Plan and Land Use Bylaw.