



**NOTICE – INDICATORS OF THE AMOUNT, DISTRIBUTION AND ATTRIBUTES OF
WILDLIFE HABITAT REQUIRED FOR THE SURVIVAL OF SPECIES AT RISK IN
THE NORTH ISLAND – CENTRAL COAST FOREST DISTRICT**

This Notice is given under the authority of section 7(2) of the *Forest Planning and Practices Regulation* (B.C. Reg. 14/04) and 9(3) of the *Woodlot Licence Planning and Practices Regulation* (B.C. Reg. 21/04).

The following Notice includes indicators of the amount, distribution and attributes of wildlife habitat required for the survival of the species at risk outlined in Schedule 1.

Approved Wildlife Habitat Areas are not included in the indicators of amount, distribution and attributes for each of the species outlined in Schedule 1. As per section 7(3) of the *Forest Planning and Practices Regulation*, forest tenure holders are exempt from the obligation to specify a result or strategy in relation to the objective set out in section 7(1) of the *Forest Planning and Practices Regulation*, for approved Wildlife Habitat Areas.

This Notice applies to the North Island – Central Coast Forest District.

Schedule 1

1) Coastal Tailed Frog (*Ascaphus truei*)

Amount:

1. 1735 ha not exceeding an impact to the mature timber harvesting landbase of 208 ha.

Distribution:

1. The amount of habitat referenced above must be distributed to provide:
 - areas of suitable habitat of the size, spatial distribution and connectivity identified in the species account for Coastal Tailed Frog the *Accounts and Measures for Managing Identified Wildlife* (Identified Wildlife Management Strategy Version 2004).
2. The areas described above are located within the biogeoclimatic units and preferred elevations identified in the species account for Coastal Tailed Frog in the *Accounts and Measures for Managing Identified Wildlife* in the Identified Wildlife Management Strategy Version 2004.

Attributes:

**Species:
Coastal Tailed
Frog**

Attribute	Characteristics
Size	Approximately 20 ha (depending on number and length of suitable stream reaches). Larger areas may be appropriate in watersheds with unstable terrain (class 4-5). Areas should include at least two streams or stream reaches (i.e., S4 to S6) with previous detections of tailed frogs. The area should include a 30 m core area buffered by a 20m management zone on both sides of occupied stream reaches.
Habitat Attributes	Tailed frog aquatic habitats are generally characterised by year round flow, non fish bearing (S4-S6), intermediate gradient (>2.5%), coarse substrates (>6.4 cm), stable channel beds and forest cover (generally associated with structural stage S6 or S7). Retain 100% of forest cover within the core area. Within the management zone maintain 70% basal area with appropriate structure to maintain riparian forest, important structural elements (e.g., coarse wood debris,) water quality and temperature (5 to 18 degrees), and naturally dispersed water flows.
Elevation	From sea level to 2140 m.

2) Great Blue Heron (*Ardea herodias fannini*)

Amount:

1. 240 ha not exceeding an impact to the mature timber harvesting landbase of 36 ha.

Distribution:

1. The amount of habitat referenced above must be distributed to provide:
 - areas of suitable habitat of the size, spatial distribution and connectivity identified in the species account for Great Blue Heron in the *Accounts and Measures for Managing Identified Wildlife* (Identified Wildlife Management Strategy Version 2004).
2. The areas described above are located within the biogeoclimatic units and preferred elevations identified in the species account for Great Blue Heron in the *Accounts and Measures for Managing Identified Wildlife* in the Identified Wildlife Management Strategy Version 2004.

Attributes:

**Species:
Great Blue
Heron**

Attribute	Characteristics
Size	Typically 80 ha to accommodate nesting areas/colonies, but may also target foraging areas. The core area should be approximately 12 ha and should include known nesting trees, foraging areas and flight paths. The boundary of the core area should be a 200 m radius around the aforementioned features. A management area should be captured to include a 300 m radius surrounding the core area.
Tree Features	Nests occur in fragmented forests, contiguous forest and isolated trees.
Tree Species	Red alder, black cottonwood, Douglas fir, Big-leaf maple, lodgepole pine, Sitka spruce, western white pine, hybrid white spruce, ponderosa pine, western red cedar, western hemlock.
Structural Stage	5 (young forest), 6 (mature forest), 7 (old forest).
Elevation	Sea level to 1100 m.

3) Marbled Murrelet (*Brachyramphus marmoratus*)

Amount:

1. An amount equal to the total amount of currently suitable nesting habitat in the non-contributing landbase. Government policy for determining the amount of suitable nesting habitat is provided in the species account for Marbled Murrelet in the *Accounts and Measures for Managing Identified Wildlife* (Identified Wildlife Management Strategy Version 2004);
2. Within Tree Farm License 37, a total of 7,100 ha of suitable nesting habitat within the non-contributing landbase;
3. An amount of suitable Marbled Murrelet nesting habitat within Old Growth Management Areas consistent with the direction from landscape unit planning; and
4. An amount of suitable nesting habitat to a maximum net mature timber harvesting landbase impact of 2097 ha.

Distribution:

1. The amount of habitat referenced above must be distributed to provide:
 - areas of suitable habitat of the size, spatial distribution and connectivity identified in the species account for Marbled Murrelet in the *Accounts and Measures for Managing Identified Wildlife* (Identified Wildlife Management Strategy Version 2004).
2. The areas described above are located within the biogeoclimatic units and preferred elevations identified in the species account for Marbled Murrelet in the *Accounts and Measures for Managing Identified Wildlife* in the Identified Wildlife Management Strategy Version 2004.

Attributes:

**Species:
Marbled
murrelet**

Attribute	Characteristics
Size	Maintain a balanced range of patch sizes including a mix of large (>200 ha), medium (50-200 ha) and small (<50 ha) patches within managed forests. The area should include vertical canopy complexity,
Tree Features	Large branches or branches with deformities, and presence of mossy platforms
Tree Species	It is unlikely that Marbled murrelets select particular tree species, however certain species are more likely to provide large horizontal platforms suitable for nesting. This includes yellow cedar, western hemlock, Sitka spruce, Douglas-fir and western red cedar. Less likely species include mountain hemlock and amabilis fir.
Nesting Habitat Features	Suitable nesting habitat includes old seral stage coniferous forests, providing large trees with platforms (limbs or deformities >15cm diameter) with variable canopy structure and small gaps in the canopy. Readily nest on steep slopes but is not essential if forest canopies are non-uniform.
Tree Size	Most nesting trees in BC are >200 yr. Nest trees are typically >40 m tall and nest heights are typically >30 m. Nest limbs range in size from 15-74 cm diameter.
Structural Stage	7: old forest (>250 yr - age class 9, but 8 is acceptable if older forest is not present and the age class 8 provides platform limbs and other nest attributes).
Additional information	Table 3 of the IWMS Version 2004 species account for Marbled Murrelet provides detailed information about the habitat features that are associated with most likely, moderately likely and least likely habitat within each of the Marbled Murrelet Conservation regions.

4) “Queen Charlotte” Goshawk (*Accipiter gentilis laingi*)

Amount:

1. 462 ha not exceeding an impact to the mature timber harvesting landbase of 128 ha.

Distribution:

1. The amount of habitat referenced above must be distributed to provide:
 - areas of suitable habitat of the size, spatial distribution and connectivity identified in the species account for “Queen Charlotte” Goshawk in the *Accounts and Measures for Managing Identified Wildlife* (Identified Wildlife Management Strategy Version 2004).
 - areas of suitable goshawk breeding habitat to minimize overlap between goshawk home ranges (approximately 5-8 km separation).
2. The areas described above are located within the biogeoclimatic units and preferred elevations identified in the species account for “Queen Charlotte” Goshawk in the

Accounts and Measures for Managing Identified Wildlife in the Identified Wildlife Management Strategy Version 2004.

Attributes:

**Species: Queen
Charlotte
Goshawk**

Attribute	Characteristics
Nesting and PFA Area	Approximately 200 ha in size.
Stand Features (Nesting and PFA)	Structural stage 5-7 (>45yrs), multi-layered canopies, structurally diverse, canopy closure (greater than 50%), large diameter trees (for the locale), snags and coarse woody debris (CWD), typically not along forest/non-forest edges. Not near urban areas and generally on the lower 2/3 of slopes where slope gradient is <40%.
Tree Species (Nesting and PFA)	Western hemlock, Douglas fir, Sitka spruce, Western red cedar, amabilis fir and red alder.
Structural Stage	5 (young forest - is used but is generally not preferred), 6 (mature forest) and 7 (old forest).
Elevation (Nesting and PFA)	Areas managed for nesting must generally be below 900 m.

5) Grizzly Bear (*Ursus arctos*)

Amount:

1. 16,000 ha not exceeding an impact to the mature timber harvesting landbase of 10,000 ha; and
2. 1700 ha not exceeding an impact to the mature timber harvesting landbase of 170 ha.

Distribution:

1. The amount of habitat referenced above must be distributed to provide:
 - areas of suitable habitat of the size, spatial distribution and connectivity identified in the species account for Grizzly Bear in the *Accounts and Measures for Managing Identified Wildlife* (Identified Wildlife Management Strategy Version 2004).
2. The areas described above are located within the biogeoclimatic units and preferred elevations identified in the species account for Grizzly Bear in the *Accounts and Measures for Managing Identified Wildlife* in the Identified Wildlife Management Strategy Version 2004.

Attributes:

Species:
Grizzly Bear

Attribute	Characteristics
Size	1-500 ha, depending on the area of use, extent of seasonal habitat and buffer size required.
Critical patch habitats	Critical patch habitats include beaches and beach margins, estuaries, rich non-forested fens, the edges of forested and non-forested bogs, herb-dominated patches on avalanche chutes with adjacent forest (particularly south-facing ones), herb-dominated subalpine parkland meadows, skunk cabbage swamps, floodplain ecosystems, and areas where bears fish for spawning salmon. Den cavities and surrounding stands are also considered critical. Non-forested critical habitats include a core area and buffer of forested cover. Forested critical habitats are not buffered.
Denning Habitat Features	Hibernating habitats tend to be high elevation areas that are sloped with dry, stable soil conditions that remain frozen throughout the winter. Dens are typically located on steep north-facing slopes, areas where vegetation will stabilize the den roof and where snow will accumulate for insulation. Dens are rarely re-used but Grizzly bears will often return to the same vicinity to dig new dens.
Foraging Habitat Features	Habitat selection is strongly influenced by meeting nutritional requirements, access to mates, thermal cover (i.e., dens), social interactions and the presence and activities of people. Habitat requirement vary greatly as some bears are more transient while others are more resident. Both residents and transients select patches or complexes of habitats within landscapes.
Structural Stage	Generally, foraging is more abundant in non-forested sites, sites with partial forest or sites with many tree gaps in older forest. Closed forest sites near quality habitat may be used for security and day bedding areas. Many or all structural stages can be used seasonally or for specific needs and as such, forage type is not necessarily tied to one particular structural stage.
Elevation	All elevations from sea level estuaries to high alpine meadows and talus slopes.