



Updated March 2, 2006

MATERIAL SUPPORTING THE NOTICE, BUT NOT PART OF THE NOTICE.

INFORMATION CONCERNING WILDLIFE HABITAT FOR THE SURVIVAL OF SPECIES AT RISK IN THE SUNSHINE COAST FOREST DISTRICT

This document is intended to provide background information and support to the legal framework of the Notice of indicators of the amount, distribution and attributes of wildlife habitat required for the survival of species at risk in the Sunshine Coast Forest District. This document is not part of the legal Notice. Its purpose is to provide additional information for consideration by delegated decision makers and by those persons required to prepare results and strategies consistent with section 7(1) of the *Forest Planning and Practices Regulation* or act in a manner consistent with section 9(3) of the *Woodlot Licence Planning and Practices Regulation*.

This supporting information replaces the information provided for the Sunshine Coast Forest District on December 30, 2004.

1. BACKGROUND INFORMATION

The 1% impact budget associated with the Identified Wildlife Management Strategy (IWMS) is directed at the short-term timber supply. For the purpose of this Notice the short-term timber supply budget represents the total mature timber harvesting land base (THLB) in age classes older than 60 years. Within the Sunshine Coast Forest District the short-term timber supply budget is equal to 1776 ha. Current to December 1, 2004, 37 approved wildlife habitat areas account for an impact of 492 ha to the mature timber harvesting landbase. Therefore, the remaining available budget is 1284 ha. Table 1 summarizes the amount of area included in the Notice as well as the amount of area in approved WHAs and their respective impacts to the mature THLB.

Indicators of amount, distribution and attributes included in the Notice are based on existing data, current knowledge of species distribution, current and future inventory efforts, and species biology, including territory size and intraspecific competition. In many cases, comprehensive inventories have not been completed. Where inventory work generates a different number of known occurrences and suitable habitat, the Notice may be amended to reflect a greater number of anticipated wildlife habitat areas. Any amendment to the Notice will be consistent with the policy direction on timber supply impacts.

Species accounts for each of the species mentioned in the Notice can be obtained from the Identified Wildlife Management Strategy website:

<http://www.env.gov.bc.ca/wld/identified/iwms2004.htm>

Table 1. Summary of mature THLB impacts for amounts included in the Notice and approved WHAs in the Sunshine Coast Forest District.

Species	Total Area (ha)	Estimated Mature THLB (ha)	Percent of 1% District Budget
Amounts in Notice			
Marbled Murrelet	Unknown*	495.0*	27.9
Grizzly Bear	4953.0	320.0	18.0
Vananda Creek Sticklebacks	678.0	237.0	13.3
“Queen Charlotte” Goshawk	1000.0	213.0	12.0
Coastal Tailed Frog	30.0	20.0	1.1
Subtotal	6661.0	1285.0	72.4
Approved Wildlife Habitat Areas			
Marbled Murrelet (2-001)	266.0	3.4	0.2
Marbled Murrelet (2-003)	50.4	40.7	2.3
Marbled Murrelet (2-018)	407.0	0.0	0.0
Marbled Murrelet (2-019)	205.0	0.0	0.0
Marbled Murrelet (2-020)	335.0	14.0	0.8
Marbled Murrelet (2-021)	259.0	4.0	0.2
Marbled Murrelet (2-022)	361.0	8.0	0.5
Marbled Murrelet (2-077)	606.0	0.0	0.0
Marbled Murrelet (2-078)	179.0	0.0	0.0
Marbled Murrelet (2-079)	87.0	0.0	0.0
Marbled Murrelet (2-080)	1043.0	0.0	0.0
Marbled Murrelet (2-081)	64.0	0.0	0.0
Marbled Murrelet (2-082)	170.0	0.0	0.0
Marbled Murrelet (2-083)	54.3	6.9	0.4
Marbled Murrelet (2-085)	87.0	43.9	2.5
Marbled Murrelet (2-088)	42.2	16.7	0.9
Marbled Murrelet (2-089)	92.3	23.1	1.3
Marbled Murrelet (2-091)	51.7	0.4	0.0
Marbled Murrelet (2-092)	66.4	4.0	0.2
Marbled Murrelet (2-093)	31.1	8.3	0.5
Marbled Murrelet (2-094)	12.5	8.2	0.5
Marbled Murrelet (2-095)	121.3	86.0	4.8
Marbled Murrelet (2-096)	70.6	27.8	1.6
Grizzly Bear (2-005)	111.0	0.0	0.0
Grizzly Bear (2-007)	43.0	0.0	0.0
Grizzly Bear (2-008)	149.0	22.5	1.3

Grizzly Bear (2-010)	81.0	0.0	0.0
Grizzly Bear (2-011)	144.0	0.0	0.0
Grizzly Bear (2-013)	115.0	1.4	0.1
Grizzly Bear (2-014)	309.0	38.1	2.1
Grizzly Bear (2-015)	287.0	24.9	1.4
Grizzly Bear (2-016)	314.0	54.0	3.0
Grizzly Bear (2-017)	117.0	13.3	0.7
Grizzly Bear (2-070)	185.0	20.0	1.1
Grizzly Bear (2-071)	89.0	22.0	1.2
Grizzly Bear (2-072)	93.0	0.0	0.0
Grizzly Bear (2-076)	140.0	0.0	0.0
Subtotal	6838.8	491.6	27.6
Total	13,499.8	1776.6	100.0

* Note: The amount included for Marbled Murrelet does not include the area within the non-contributing landbase.

Figures and spatial information (shapefiles) to support the amount and distribution statements for species included in the Notices are included in the folders titled “Figures” and “Spatial Data” on the following ftp site:

ftp://ribftp.env.gov.bc.ca/pub/outgoing/cdc_data/Approved_FRPR_sec7_WLPPR_sec9_Notices_and_Supporting_Info/Species_at_Risk/Sunshine_Coast_FD/Supporting_Info/

Inclusion of draft and proposed Wildlife Habitat Area boundaries in the supporting information does not prejudice the review and comment that may be ongoing around these Wildlife Habitat Areas. Where Wildlife Habitat Areas have not been through the full review and comment process, MWLAP will continue to work with affected parties to address the Wildlife Habitat Area boundaries.

The following section is intended to clarify the amount, distribution and attribute statements in the legal Notice.

1) Marbled Murrelet (*Brachyramphus marmoratus*)

Amount:

The *Marbled Murrelet Letter of Clarification* outlines current policy for the management of Marbled Murrelet nesting habitat; establishment of Old Growth Management Areas (OGMA), the available portion of the district 1% budget and the non-contributing landbase. Amounts included in the Notice for Marbled Murrelet are considered additive to one another.

The Notice identifies 495 ha of mature timber harvesting landbase impact that is to be used to manage suitable nesting habitat. It is anticipated that this amount will address the timber supply impacts of potential and proposed wildlife habitat areas within the Sunshine Coast Forest District as well as compliment high quality smaller patches within the non-contributing landbase (or

existing patches in OGMA) to provide high quality large polygons. Industry planning for MAMU WHAs is continuing and the 495 ha will be used to support that planning process.

It is intended that suitable marbled Murrelet nesting habitat within the non-contributing landbase will be identified as per the Marbled Murrelet account in the Identified Wildlife Management Strategy. A model has been developed with the support of the Marbled Murrelet Recovery Team to identify potential suitable Marbled Murrelet nesting habitat at a coarse scale for the entire coast. Work is currently underway to field verify the model and test its accuracy in different Marbled Murrelet Conservation Regions. This model serves as a useful tool for identifying potential habitat at a coarse scale, but should not be used to identify individual habitat polygons at an operational scale. Air-photo interpretation followed by aerial flight overviews continue to be the best methods for identifying suitable Marbled Murrelet nesting habitat. Additional models are being developed at a local scale to serve as more accurate predictors of suitable nesting habitat. Contact the Ministry of Water, Land and Air Protection for more information.

Landscape Unit Planning is ongoing for many of the Landscape Units within the Sunshine Coast Forest District. It is intended that forest tenure holders will work to identify old growth management areas that overlap suitable Marbled Murrelet nesting habitat consistent with the Landscape Unit Planning Guidelines and Marbled Murrelet habitat requirements outlined in the species account for Marbled Murrelet in the *Accounts and Measures for Managing Identified Wildlife* (Identified Wildlife Management Strategy Version 2004).

Distribution:

Figure 2 shows potential suitable nesting habitat as determined by the Marbled Murrelet Recovery Team habitat algorithm mapping, it should also be used as a source of information to identify distribution of suitable nesting habitat.

Note: The amount included in the Notice does not take into account 13 WHAs for Marbled Murrelet approved in the Howe and Brittain Landscape Units on December 2, 2004 and March 17, 2005 respectively, as impact assessments have not yet been completed.

2) Grizzly Bear (*Ursus arctos*)

Amount:

The amount in the Notice is based on 45 future wildlife habitat areas with a total area of 4953 ha with an estimated mature timber supply impact of 320 ha. These habitat areas are located in the Homathko, Quatam, Bute East and Bute West Landscape Units where there is known use of high value foraging and security habitats for Grizzly Bear. Information is available from the Ministry of Water, Land and Air Protection.

Although the Toba Landscape Unit is not included in the Notice, it remains a provincially significant area for Grizzly Bears (i.e., it is the most important watershed in the Lower Mainland Region for Grizzly Bears). Once habitat mapping is completed in the Toba and other Landscape Units, the Notice may be amended to reflect seasonally important grizzly bear habitat in these other areas.

Distribution:

Figure 1 shows the locations of future habitat areas for Grizzly Bear in the Sunshine Coast Forest District.

3) Vananda Creek Sticklebacks (*Gasterosteus* species 16 and 17)

Amount:

The amount in the Notice is based on an estimated total area of 678 ha that includes the Crown land portion of Spectacle Lake, Priest Lake and Emily Lake Community Watersheds where there is known occurrence of 2 species of Vananda Creek Sticklebacks. More information is available from the Ministry of Water, Land and Air Protection or the Recovery Team. Estimates of mature timber supply impacts (237 ha) are based on mapping completed by Ministry of Sustainable Resource Management using TSR 2 data. Forest tenure holders should work closely with the Vananda Creek Sticklebacks Recovery Team to prioritize location for the habitat area.

Distribution:

Figure 1 shows the current Community Watershed boundary and the Crown land within which the habitat area is located.

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

Amount:

The amount in the Notice is based on providing wildlife habitat areas for “Queen Charlotte” Goshawk in 5 of 10 currently known sites in the Sunshine Coast Forest District. Each of these 5 future wildlife habitat areas is anticipated to have a total area of approximately 200 ha with an estimated mature timber supply impact of approximately 42 ha each. The other 5 sites have not been included in the Notice due to insufficient timber supply impact budget within the Sunshine Coast Forest District to manage for this species. Estimates of mature timber supply impacts are based on approximations provided by the Northern Goshawk Recovery Team.

The amount statement has been revised to include “a maximum of 1000 ha” in recognition of the fact that it may not be possible to achieve 1000 ha of the habitat described without exceeding the mature THLB impact outlined.

WHA boundaries have not been mapped for these nest locations. Information is available from the Ministry of Water, Land and Air Protection, Greg George.

5) Coastal Tailed Frog (*Ascaphus truei*)

The amount in the Notice is based on the anticipated need for 2-3 future wildlife habitat areas for Coastal Tailed Frog. Each of the wildlife habitat areas should be approximately 10-15 ha in size with an estimated mature timber supply impact of 7-10 ha each. The wildlife habitat areas are

expected to be linear in shape and encompass predominantly the riparian area of occupied streams. This species is known to occur in the Sunshine Coast Forest District and is thought to be locally uncommon; however, occurrence data is incomplete. Estimates of WHA size and mature timber supply impacts are based primarily on information provided in the “Estimated Impact of the Identified Wildlife Management Strategy (Version 2004) on Provincial Timber Supply” and the IWMS species account for Coastal Tailed Frog.

WHA boundaries have not been mapped for these nest locations. Information is available from the Ministry of Water, Land and Air Protection, Greg George.

6) Red-legged Frog (*Rana aurora*)

No amount for Red-legged frog has been included in the Notice as there is insufficient occurrence information and insufficient timber supply impact budget within the Sunshine Coast Forest District to manage for this species. This species is expected to occur in the Sunshine Coast Forest District; however, currently there are no confirmed occurrences on Crown forest land. If new inventory information becomes available, the Notice may have to be amended to include an amount for Red-legged frog.

Forests with abundant coarse woody debris adjacent to standing water or other riparian features at low slope gradient and low elevation are thought to be important habitat areas.

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

No amount for Great Blue Heron has been included in the Notice as there is insufficient occurrence information and insufficient timber supply impact budget within the Sunshine Coast Forest District to manage for this species. This species is expected to occur in the Sunshine Coast Forest District; however, currently there are no confirmed occurrences on Crown forest land. If new inventory information becomes available, the Notice may have to be amended to include an amount for Great Blue Heron.

Mixed conifer and deciduous forest stand types in or around riparian features are thought to be important nesting habitat areas.

8) Keen’s Long-eared Myotis (*Myotis keenii*)

No amount for Keen’s Long-eared Myotis has been included in the Notice as there is insufficient occurrence information and insufficient timber supply impact budget within the Sunshine Coast Forest District to manage for this species. This species is expected to occur in the Sunshine Coast Forest District; however, currently there are no confirmed occurrences. If new inventory information becomes available, the Notice may have to be amended to include an amount for Keen’s Long-eared Myotis.

Generally, protection of maternity colonies, hibernacula and roosting sites is important. Keen's Long-eared Myotis appear to be associated with cool wet coastal montane forests and karst features. Caves >100 m in length and above 500 m elevation with stable temperatures and 100% relative humidity were important winter hibernation sites for myotis bats on northern Vancouver Island.