Project #:   EI 02c

Project Title: Focal Species Risk Assessment

EBMWG Steering Committee Members: Jody Holmes, Glenn Dunsworth/Sally Leigh Spencer, Steve Gordon/Buck Tanner/Todd Manning.[1]

1.0 FUNDING

The total project cost including coordinator, domain experts, and peer review contractor costs, is $136,500.

2.0 PURPOSE

This project was intended to provide analysis of the implications of various scenarios at subregional and landscape unit scales on focal species habitat supply, information that will inform:

- the further development of detailed strategic plans (DSPs) by each First Nation,
- PIMC discussions on implementation
- G2G discussions between First Nations and the Province related to the harmonization of DSPs and the full implementation of EBM.
- spatial delineation of old growth reserve areas (OGRAs) and/or focal species reserves as a key component of EBM implementation[2]

3.0 EXTENT TO WHICH PROJECT OBJECTIVES WERE ACHIEVED

While the core objectives of this project did not change during the project lifetime, the scope of the project did expand resulting in the addition of a number of objectives. The project was originally designed to have at least one phase with the option of a second phase depending on the effectiveness of the first phase and the availability of resources. Under the guidance of the project steering committee, and with the approval of the EBM WG, this project evolved to have three phases. A summary of the tasks that were undertaken and the resulting of deliverables for each of these phases is described below (from Report #1 pg 17-18; see also Approval to Fund)

> "Phase 1: Preparation for strategic co-location scenarios
> In Phase 1, domain experts provided information and literature references on focal species in the coastal planning area, reviewed and recommended improvements to mapping, and made preliminary recommendations into co-location scenarios. The inputs from Phase 1 were used to prepare a proof of concept of a 'Co-location Tool' using MARXAN conservation planning software to strategically co-locate areas of old growth retention with

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[1] Note that because the project was incomplete during the EBMWG tenure, management of the project was transferred to ongoing management by the LRF Technical Liaison Committee.

[2] The project purpose statement was taken from the EI 02c detailed project description.

habitats for focal species. The proof of concept was tested for the South Coast planning sub-region.

Phase 2: Testing of strategic co-location scenarios
In Phase 2, domain experts reviewed outputs of various scenarios using MARXAN to test and assessed the sensitivity of the scenarios to changes in targets for old growth retention areas. Scenarios were run for the South Coast planning sub-region. Domain experts met in December to review the scenarios and develop recommendations for improving habitat mapping and to refine inputs into MARXAN.

Phase 3: Synthesizing results
In Phase 3, domain experts reviewed a final set of scenarios that represented low risk, best habitats and co-located solutions. Scenarios were run for the Mid and South Coast sub-regions. Domain experts used this review to develop strategic recommendations for the co-location of focal species' habitats in old growth reserves and management of habitats outside of reserves under EBM."

The detailed project description, summarizing the project purpose, objectives, key tasks, and deliverables, only reflects the first and second phases of the project and therefore does not provide a complete terms of reference for the project.   The table below, showing the evaluation of objective achievement, was populated based on the project's final amended Approval to Fund[3], which was updated several times during the life of the project and is consistent with the full project scope.

Objective	Description	Evaluation (Text)	Summary*
1	Identify a set of criteria and rationales for final focal species list	Rationale for focal species selection provided in the Report #3: Knowledge Base for Focal Species and their Habitats in Coastal BC	Fully met
2	Compile and evaluate the most up-to-date focal species habitat mapping data	Addressed at the 1st Focal Species Workshop (June, 2008) and identified in the workshop notes and Report #4: Summary of Habitat Mapping to Support EBM Implementation	Fully met
3	Identify the knowledge base for specified focal species including climage change vulnerability	A thorough review of focal species habitat requirements is provided in Report #3	Fully Met
4	Undertake a literature review to identify risk curves linking available habitat to species viability	This was partially addressed in the identification of Low Risk Scenarios and Upper Limits of Change for each focal species[4]	Partially met
5	Provide a recommended approach to modeling connectivity	Recommended approaches to addressing focal species connectivity requirements are provided for each species in Report # 3	Fully Met

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[3] Approval to Fund (ATF) documents were drafted by ILMB support staff. In most cases information in a project's detailed project description was used to populate the ATF (including project objectives, milestones, and deliverables). The total amount of EBM sub-trust funds required to undertake a project was also identified. Before the ATF was given to the EBM WG co-chairs for funding approval, the ATF was reviewed and approved by all of the project steering committee members.
[4] This objective will be incorporated into a separate Focal Species Risk Threshold Expert Workshop that will be undertaken late in 2009

Objective	Description	Evaluation (Text)	Summary*
6	Hold two workshops to test and discuss domain expert recommendations	Workshops held in June 2008 and December 2008 and workshop notes circulated to participants and the Steering Committee	Fully met
7	Prepare final project report	An interim report was prepared for the first phase of this project. Six other reports were prepared to address the second and third phases	Fully met
8	Incorporate peer review and PSC feedback into the report	The knowledge base for each focal species, provided by domain experts and compiled by the project coordinator, were peer reviewed. Focal species domain expert teams responded to all peer review comments by either amending the relevant reports or providing a response (with rationale) to the comment. This process, including all peer review comments and domain expert responses, is documented in Report # 6	Fully met
9	Coordinate post-February review by domain experts of Phase 3 co-location scenarios and summarize in an addendum to the March interim focal species report	Domain expert review of Phase 3 co-location scenarios was arranged by the project coordinator via a series of conference calls	Fully met
10	Prepare set of joint recommendations with co-location (DS04) and landscape pilot teams for the LRF	Joint recommendations were provided by the three project consultants in a Power Point presentation at the March 12 EBM WG meeting in Campbell River. These recommendations were then provided as part of the DS04b LU Reserve Planning Pilot project to the LRF WG.	Fully met
11	Provide recommendations to develop a set of optimally up-to-date and accurate habitat mapping layers, using most current methods of derivative mapping and/or up-to-date field data. To provide advice on - the effectiveness of old growth retention scenarios in meeting focal species requirements - approaches to addressing focal species within and outside of old growth reserves to incur a low risk to the species over time	These recommendations were provided for each focal species in Report #1	Fully met

* Use: Fully met (100%), Substantially met (>75%), Partially met (25-75%), Marginally met (0-25%), Not met (0%)

4.0 MAJOR TASKS COMPLETED

Task	Description	Date
1	Refine outstanding technical questions and prepare detailed work plan deliverables, timing relationship to other projects and budget requirements	March, 2008 (updated February 2009)
2	Confirm key focal/fine filter species to analyze	March, 2009
3	Collate/collect all existing focal/fine filter species modeling and ground-truthed information available.	April, 2009
4	Convene domain experts and/or peer reviewers for individual focal/fine filter species	June, 2008 and December, 2008
5	Provide inputs to DS04 and receive DS04 outputs for analysis	December, 2008 (2nd workshop)
6	Expert review of DS04 scenario outputs for sufficiency for individual focal/fine filter species	December, 2008 (2nd workshop)
7	Draft written report and any associated management recommendations for individual focal/fine filter species	March , 2009 (Part July, 2009 (Reports 1, 3, 4, and 5)
8	Final report	See report dates in Table 5.0: Key Products below

5.0 KEY PRODUCTS

Item #	Description	Completion Date	Location
1	1st Workshop Summary	August 2008	Posted on the EBM WG website
2	2nd Workshop Summary	February, 2009	Posted on the EBM WG website
3	Focal Species Project Interim Project Report	March, 2009	Posted on the EBM WG website
4	Part 1: Assessment of Co-location Outcomes and Implications for Focal Species Management under EBM	July, 2009	To be posted on the EBM WG website
5	Part 2: Methods for Strategic Co-location of Habitats within Areas of Old Growth Retention	March, 2009	Posted on the EBM WG website
6	Part 3: Knowledge Base for Focal Species and their Habitats in Coastal BC	March, 2009	Posted on the EBM WG website
7	Part 4: Summary of Habitat Mapping to Support EBM	April, 2009	Posted on the EBM

Item #	Description	Completion Date	Location
	Implementation		WG website
8	Part 5: Review of Phase 2 Co-location Scenario Outputs	March, 2009	Posted on the EBM WG website
9	Part 6: Summary of Peer Review Comments and Responses	August, 2009	To be posted on the EBM WG website

6.0 PEER REVIEW

The deliverables prepared for this project underwent various forms of peer review. This project was designed and managed by an EBM WG steering committee whose members attended both project workshops and reviewed and provided comments on project deliverables received prior to March 31, 2009. The Land and Resource Forum Technical Liaison Committee (LRF TLC) provided direction to the project coordinator for the completion of the final two project deliverables (Reports # 1 and 6) from April-August 2009.

All of the Focal Species Project products were developed based on contributions from "domain experts" – 18 biologists with expertise in the ecology and management of habitats for each of the seven focal species. Over a 15 month period domain experts participated in two workshops, worked in teams, and held numerous conference calls to: 1) asses co-location simulations using MARXAN to determine the status of habitat protection in existing reserves and the potential to capture additional habitat, to meet the SCC and CNC Legal Objectives; 2) identify a "low-risk" scenario to use as a reference point; and 3) estimate outstanding gaps in habitat protection for each species under EBM.

A comprehensive peer review process occurred at the end of Phase 2, whereby peer reviewers for each of the seven focal species reviewed and assessed documents summarizing the knowledge base for focal species, a summary of habitat mapping, and recommended methods for co-location, including targets for risk. Domain expert teams reviewed all peer review comments in detail and either made the proposed amendments to the chapters or provided a written rationale as to why the comments were not accepted (See Report # 6: Summary of Peer Reviewer Comments and Responses). Of the 17 peer reviewers, eight were hired consultants and the remaining nine were either government employees (provincial, federal and U.S. state or federal) or CFCI company staff. The final peer review documents were submitted to the EBM Working Group in five separate documents – Reports #2-6.

The EBM Working Group made a decision to not fund a final peer review post March 31. As a result the outcomes of Phase 3, submitted as "Part 1: Management recommendations for focal and fine filter species under Ecosystem-Based Management', was not peer reviewed. This decision was made with the acknowledgment that much of the content in Report #1 was peer reviewed during the Phase 2 review[5].

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[5] Cost for additional peer review of the final product was estimated at $13,000.

7.0   MAJOR FINDINGS/CONCLUSIONS

7.1 Knowledge Base and Habitat Mapping
Under this project the most current information related to habitat requirements for each of the focal species were assembled, reviewed and finalized. The knowledge base provides a detailed synopsis of the following information for each species: species overview, habitat quality (e.g. food and den availability and winter and spring habitats), habitat distribution, spatial configuration, and connectivity, habitat quantity, research and inventory gaps, and references and recommended readings.

The most recent habitat mapping and modeling information for each focal species was also compiled under this project. These maps and data are available on the EBM Data Centre. Such a comprehensive collation of focal species habitat requirements and inventory information has never been undertaken and made accessible before.

7.2 Habitat retention targets by focal species

In the table below the low risk scenario for each focal species are summarized (from the executive summary of Report #1) and the upper limits of change are identified (from Tables 1-7 in Report #2).

The Low Risk Scenario combines low risk habitat targets (identified for each focal species by domain experts) for all seven focal species with targets for old growth retention by site series surrogate as set out in Section 14 of the Central & North and South-Central Coastal Orders. A formal risk assessment process was not undertaken, instead, focal species domain expert teams defined population objectives and estimate targets for habitat retention that in their opinion reflect a low risk to achieving the population objective.

Upper Limit of Change With the exception of goats and deer, domain experts were unable to provide initial estimates of the amount of habitat reduction or alteration that would equate to a high level of risk to focal species.   They did note an Upper Limit of Change for the purposes of the co-location exercise. In general, domain experts state that the risk to the species increases, the more that habitats are lost or altered, particularly where these habitats are of high quality.

The below tables summarize the preliminary expert opinions about risk to focal species. Readers of this close-out report should note that the approach used in this project to establish focal species risk scenarios is different than the approach outlined in the EBM Handbook. Readers should also note that information pertaining to the application of low risk and upper limits of change targets is not easily summarized and is therefore not included in this close-out report. The rationale and assumptions underlying the scenarios summarized in the table are, along with additional focal species management recommendations for co-location, are available in Report #1 (pg 28-102). These other recommendations include:
-   Recommended inputs to strategic co-location in Marxan
-   Assessment of co-location outcomes
-   Implications of co-location results for management of the focal species
-   Recommendations for co-location of habitats within and outside of old growth reserves

Focal Species	Low Risk Scenario	Upper Limit of Change

Grizzly bear	• Low Risk = 100% of Class 1 and Class 2.
	• Best Habitats for purposes of the co-location exercise = 100% of Class 1, 50% of the highest priority Class 2 habitats including
	• Assume rules were applied in MARXAN to pick up the best of Class 2 habitats:
	  • Early and late spring habitats in valley bottoms and at low elevations due to their rarity and lack of seasonal alternatives. Ecosystem units on floodplains or associated with wetlands and estuaries in CWH variants are particularly important.
	  • 100% of habitats in hypermaritime BEC subzones (i.e., CWHvh) because the few essential habitats that occur in the hypermaritime are likely to have disproportionate value to resident and transient bears.
	  • Fall habitats that protect salmon spawning areas, near where bears fish, if these areas are not already protected by hydro-riparian management.
	Other key aspects of low risk grizzly bear habitat management under EBM include hydroriparian management, seral stage distribution and within-stand retention.
	Class 1 habitats are already protected under the coastal orders and 50% of Class 2 habitats (of unspecified quality) are protected in the Central & North order.
		• Not defined.
		• The retention of old growth is only one component of a suite of factors that influence the health of grizzly bear populations (other factors include mortality risk from human interaction, the health of salmon populations, etc.).
		• The impact on bears depends on the type and amount of changes to habitats and their spatial configuration and whether or not there is also mortality risk from humans.

Marbled murrelet	The overall target for habitat retention is based on Recovery Team goals i.e., a minimum of 69% of suitable (Class 1 – 3) habitats retained. • For the purposes of the co-location work, the habitat retention target was reduced to 62% to reflect 10% use of lower value habitats by murrelets. • The low risk scenario is to capture 100% of Class 1 and 2 habitats, the remainder made up to 62% with Class 3	• The larger the short-fall in habitat conserved (under the 62% target), the more likely it will be that the level of risk assigned to the species will remain static or increase in future.
Mountain goat	Different models were used to map winter habitat quality in each of the three sub-regions. • In the South Coast, a resource selection function (RSF) was developed for female goats based on research using GPS collars from an adjacent area. The Low Risk target for the South Coast is to retain 90% of very high value (Goat_1) winter habitats or an	• Any loss of winter range habitat is considered a risk and the amount of risk increases with the amount of alteration. • Loss of more than 40% of habitats defined as suitable

	equivalent area of minimum 70% Goat_1 and twice the area of Goat_2 (high value) habitat • In the Mid Coast, the bimodal habitat layer was derived using a GIS algorithm based on aspect, slope and elevation. The Low Risk target for habitat retention is 90% of suitable habitat • Mapping of mountain goat habitats in the North Coast is based on a resource selection probability function (RSPF). The Low Risk target for habitat retention is 100% of suitable habitat. In all study areas, 100% of approved ungulate winter ranges are included.	(North and Mid Coast) or Type 1 (South Coast) within a landscape unit is considered a very high risk to achieving the objective of sustaining local populations of mountain goats and should be avoided as an outcome. • At this time, there may be a low probability of exceeding 40% habitat loss, however, the consequences of this loss are considered to be very high.
Northern goshawk	The following targets were identified for the purposes of the co-location experiments for nesting and foraging habitat. Targets do not necessarily represent the views of the NG Recovery Team but they were developed by species experts who participate on the NG Recovery Team for the purposes of the co-location exercise. • Nesting habitat: 100% of known nest sites and associated nest areas/post fledging areas. • Modelled nest areas: 60% [N1 + N2] with at least half (30%) of this scenario comprised of N1. Modelled nesting habitat is a priority over modelled foraging habitat in the co-located solution • Foraging habitat: 60% [F1 + F2] with at least half (30%) of this scenario comprised of F1.6	• Not defined due to lack of knowledge around factors influencing populations at the upper limits.

Tailed frog	• Experimental low risk target: 50% Class 1; 45% Class 2; 30% Class 3; 40% Class 4 by landscape unit.
	• Fragmentation: low
	The above targets are based on expert opinion and are suggested as a starting point for experimenting with co-location. Targets will be better defined as inventory and research improves understanding of coastal tailed frogs and their response to changes in habitat
		• Experimental high risk scenario:
		  20% Class 1
		  20% Class 2
		  20% Class 3
		  20% Class 4
		• Fragmentation: moderate

Black bear	There is no appropriate habitat suitability layer for black bear for use in co-location at this time. The following habitat features for black bear should be included in future co-location work: • Ensuring a dispersal of reserves across landscape units, with an emphasis on providing cover and security across female home ranges; and	• Not defined due to lack of habitat inventory

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[6] Targets were identified for the purposes of the co-location experiments for nesting and foraging habitat. Targets do not necessarily represent the views of the NG Recovery Team but they were developed by species experts who participate on the NG Recovery Team for the purposes of the co-location exercise.

	• Mapping and retaining areas of high denning potential at the landscape and stand scale.	
Black-tailed deer	• The Low Risk target is to retain 90% of high value (Deer_1) winter habitats or an equivalent area of minimum 70% Deer_1 and twice the area of Deer_2 (moderate value habitat). • Only South Coast deer mapping information is recommended for use at this time.	• > 40% reduction in existing deer winter range within a landscape unit

7.3 Co-location Outcomes

The Focal Species Project was completed in three phases in close collaboration with the DS04 Co-Location Project to design a strategic co-location planning tool using MARXAN conservation planning software. Once the DS04 Colocation project is completed . the recommendations and the close out report should be referred to when reviewing and using recommendations in the focal species report as the two are closely related. In the first two phases of the focal species project domain experts provided focal species habitat information to develop a proof of concept co-location tool using Marxan software and reviewed outputs of various Marxan scenarios to assess the scenario's sensitivity to changes in old growth target retention areas. These scenarios were run only in the South Coast planning sub-region.

In Phase 3, domain experts reviewed a final set of MARXAN outputs derived from running the Low Risk, Best Habitats and Co-located LUO scenarios (see Report #1 pg 23 for a description of these scenarios) Scenarios were run for the Mid and South Coast sub-regions. Domain experts used this review to develop strategic recommendations for the co-location of focal species' habitats in old growth reserves and management of habitats outside of reserves under EBM. Note that, due to funding and time constraints, not all scenarios were re-run or recommended revisions fully applied. For some species, this hindered the ability of domain experts to fully assess MARXAN solutions.

The approach to the assessment of co-location outcomes varies depending on the focal species, the type of habitat, and other conservation factors, such as spatial configuration of OGRAs and habitat distribution. There is no one approach for all focal species. Depending on the species, co-location outcomes may be assessed by the absolute amount of habitat retained within established OGRAs or the relative (%) amount retained or both.

The reliability of information should be factored into assessing the effectiveness of draft OGRAs for habitat protection. Where information is more reliable, the certainty about habitats and their conservation within OGRAs may be greater than where information is more uncertain. This will vary from species to species (see Report #1 pg 115 Research and Inventory Priorities). Another important consideration for some focal species is what is happening outside of reserves, in the working forest.

7.4 Implementing Co-location for Multiple Species

Domain experts do not recommend setting priorities among focal species during the co-location exercises. Instead they recommend:

- Co-locating high value habitats for multiple species to the extent possible; and
- Identifying priorities for habitat capture within individual landscape units as part of landscape unit design[7] (see Report #1 pg 106), with the input of domain experts, as necessary, and guided by the considerations in the focal species' reports.

7.5 Recommended methods for co-locating multiple focal species habitats include:
1) maximizing overlap of high quality habitats. The ecosystems of primary overlap can be broadly characterized as mid-slope to valley bottom zonal forest on rich sites. One consideration would be to give heavier weighting to polygons that are "best habitats' for two or more focal species while ensuring selection of these areas are not at the expense of capturing the highest quality habitats for individual species.
2) setting priorities for habitat capture within individual landscape units; The following is recommended for setting priorities within landscape units:
- Step 1: Seek to maximally overlap multiple species habitats by sub-region and landscape unit using MARXAN, by applying the rules and targets developed as part of the co-location exercises and the conditions established by the Coastal Orders.
- Step 2: Design OGRAs for individual landscape units in consideration of:
  - Habitat values at the sub-regional scale as well as within individual landscape units (suitability and capability) (as per the above criteria);
  - The amount of habitat captured within the landscape unit as well as the overall tally for the sub-region. This combined assessment should occur on an ongoing basis;
  - Habitat available and captured in reserves in adjacent landscape units;
  - Priorities already identified through strategic planning processes (e.g., biodiversity emphasis options)
  - Overall seral stage distribution within landscape units (this applies to northern goshawk, black-tailed deer and grizzly bears)
  - Contribution of other EBM objectives such as the objectives for aquatic habitats and the upland streams objective
  - Implications for human use of wildlife e.g., harvest of deer for sustenance purposes; wildlife viewing
  - Consider species specific considerations (summarized in Table 22 pg 107 in Report #1) when setting priorities for habitats within a landscape unit.
3) applying the range of EBM objectives to achieve co-located solutions; and
4) ensuring that habitats are distributed across landscape units, including lower elevation areas;

7.6 Recommendations for Strategic Co-location
- A comparison of co-location experiments in the Mid Coast and South Coast showed that a greater proportion of high value habitats are captured in existing reserves in the Mid Coast than in the South Coast likely due to the longer more intensive logging history in the South Coast;
- The following are guidelines for dealing with the THLB and NTHLB during strategic co-location:
  - Both the spatial and tabular outcomes of the MARXAN runs need to be assessed to ensure an optimal spatial distribution as well as sufficient habitat. Where applicable, targets for

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[7] Given that focal species were selected to represent a range of habitats, there is not a high degree of overlap between focal species best habitats: just a more general overlap of habitat for broad ranging species. As a result there is a general tendency for habitats to overlap in mid-slope to valley bottom zonal forests leading domain experts to recommend co-location with OGRAs is best undertaken by identifying priorities for habitat capture within landscape units in the context of sub-regional scale distribution across landscape units (particularly for widely distributed species like Marbled murrelet).

MARXAN scenarios can be stratified to ensure representativeness across the landbase, e.g. by BEC.

- o Apply formal designations to habitats to be reserved in the NTHLB to safeguard against future accessibility to development.
- o The NTHLB should not be considered part of the 'reserve layer' in MARXAN. It has not been included as a reserve layer in the previous co-location scenarios. Also, when assessing the co-location outcomes, do not assume that habitats in the NTHLB are de facto protected as harvesting does occur in areas outside of the defined THLB.
- o To gain a better understanding of the implications of the cost layer domain experts recommend running a low risk MARXAN scenario without the cost layer to project the possible OGRA layer without timber values influencing the solution.

- When there is a shortfall of old forest consider Table 23 (pg 112) of Report #1: strategies for recruitment of habitats in old growth retention areas. Domain experts recommend that, where there is a shortfall of old growth, the highest capability lands be spatially identified to support focal species. This can be considered at the LU design phase.
- Domain experts identified connectivity as an important issue for black-tailed deer, mountain goat, and tailed frogs. Strategies to address connectivity in co-location are noted for these species in Table 9: Connectivity during co-location (pg 53) in Report #2. At the landscape scale connectivity is not an issue for black bear, grizzly bears, marbled murrelet, or goshawk.

7.7 Research and Inventory Priorities
- Recommendations to improve habitat mapping for each focal species are identified in Report #4
- Domain experts identified priorities for research and inventory for each focal species in Table 23, pg 115, in Report #1.

8.0 LRF TECHNICAL LIAISON COMMITTEE RECOMMENDATIONS
The LRF TLC recommends that the LRF Working Group considers the following actions:

1. Ensure that most up to date habitat information layers and the associated knowledge base from this project are incorporated into the EBM Data Centre site. Recommend ensuring a direct linkage with MoE to ensure that ongoing updates are provided to the EBM Data Centre in a timely fashion.
2. Provide the initial opinions and estimates that the domain experts provided regarding the risk that habitat reduction or alteration poses to achieving the stated focal species population objectives (Section 7.2 above) as background information to the focal species Risk Threshold workshop.
3. Use the domain expert recommendations on co-location (Sections 7.3 – 7.6 above) as input for development of strategic reserve design and detailed reserve planning methods . In particular, note the uncertainties associated with specific data layers (detailed in Part 3), the need to clarify other knowledge uncertainties and underlying assumptions used, and the need to incorporate a more up to date "cost" layer (e.g. forestry economic operability and other spatial and non-spatial economic information) once this becomes available.
4. Forward the focal species research and inventory priorities identified by the domain experts (Section 7.7 above) to the Adaptive Management Steering Committee.
5. Inform domain experts and peer reviewers that the project is completed

9.0 RELEVANCE/SIGNIFICANCE FOR EBM IMPLEMENTATION

The primary objective of the Focal Species Analysis project was to assess the implications of EBM implementation on management for several focal species at the sub-regional and landscape unit scale. Co-location scenarios of focal species habitats were developed by MARXAN software and assessed by domain experts to determine the status of habitat protection in existing reserves and the potential to capture additional habitat in old growth reserve areas (OGRAs).

Current focal species habitat inventory information compiled for this project, and assessments of co-location scenarios, provides valuable information for consideration when undertaking strategic and detailed landscape reserve design planning in the region – see caveats suggested above in Recommendation #4.
Domain experts identify a number of habitat inventory and research issues that they recommend be addressed to improve the reliability of focal species habitat information and inform decision support in future reserve design planning processes.