

**Vanderhoof Land and Resource Management Plan
Mountain Pine Beetle Risk Assessment and Review Process
March 2005**



**Report of the Outcomes from the February 12th 2005 LRMP
Monitoring Committee Workshop:**

*Review and Discussion of how the Mountain Pine Beetle has Impacted
the Values in the General Management Direction of the LRMP*

Executive Summary

In April 2004, the Province announced a Provincial Mountain Pine Beetle (MPB) Action Plan to address the socio-economic and environmental implications of the MPB infestation. One component of the action plan entailed the need for consideration of strategic land use plans in the management and harvesting of MPB. The widespread scope of the MPB epidemic is placing significant risk and impact on many of the values and resources outlined in strategic plans such as Land and Resource Management Plans (LRMP's).

The LRMP's need to be reflective of the present day situation to ensure the considerable investment into plan development and the implementation of those plans is not compromised. The Vanderhoof LRMP monitoring committee is currently in the early stages of assessing the values-at-risk and working towards ensuring that the strategic level direction for the values identified are conserved during accelerated salvage harvesting.

The first workshop to assess the risk to the Vanderhoof LRMP was held on February 12th. This workshop involved discussion relating to the eleven values identified in the General Management Section of the LRMP. The group decision to discuss each value as one entity did not allow enough time to cover all of the eleven values. The values discussed include:

- Jobs and Community Stability
- Recreation and Tourism
- Access Management
- Fisheries and Lakeshore Management
- Biodiversity
- Wildlife

Based on this facilitated discussion, it appears that three values have been highlighted as “most-at-risk” and each has been identified as a priority for immediate action. These values are:

- 1) Access Management
- 2) Recreation and Tourism (specifically VQO's and scenic areas)
- 3) Wildlife

To address these risks, the general agreement from the table was that these values require additional work and discussion. The use of future workshops and sub-committees will be used to formulate specific action plans to address all of the values identified as being at risk. The sub-committees would consist of LRMP members and government agencies.

Other values identified as a high priority for action include Agriculture and Water & Lakeshore Classification. These will also require further work with the LRMP participants. Future workshops to accommodate this need are planned with the LMRP stakeholders in the spring of 2005. In the meantime government agencies are actively meeting to formulate the project plan of “next steps” that will guide the assessment process.

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1 - Background and Introduction

The Province announced a Provincial Mountain Pine Beetle (MPB) Action Plan to address the socio-economic and environmental implications of the MPB infestation in April, 2004. Minister of State, Roger Harris, was appointed to address the MPB situation with respect to four objectives. The four objectives outlined include the need to: foster new and emerging forest-based activities, limit further damage to forests and the environment, recover values from damaged timber, support and encourage economic development and diversity in affected communities.

Several initiatives commenced based on this direction including the review of strategic land use plans to determine if Land and Resource Management Plan (LRMP) direction is reflective of the current situation. Commencement of this review entails determining what action is required to conserve the long-term values identified in the LRMP. Currently the LRMP's under review include: Prince George and Vanderhoof.

A component of this Action Plan includes the need for strategic land use plans to be considered in the management and harvesting of MPB. Consideration of strategic level plans during MPB management can ensure the following are addressed:

- i) representation and conservation of the multiple values on the land base;
- ii) consistency with current land use plan direction;
- iii) economic benefits and community stability, and;
- iv) adequate land use values are conserved in the maintenance of dead pine stands.

While salvaging and optimising the use of MPB killed timber is economically crucial, there remains a need to assess if strategic land use plans provide the current relevancy to support balanced decision making. The widespread scope of the current MPB epidemic is placing significant risk and impact on many of the values and resources outlined in LRMP's. Therefore, there is a necessity to look at all the values and determine if any adjustments to the LRMP's or implementation are required.

It has been recognized that there is the need to invest into the ongoing maintenance of approved plans in order to accommodate significant social and environmental changes. If LRMP's are not reflective of the present day situation, the considerable investment into plan development and implementation of those plans could be compromised putting at risk the foundation of the "social license" and community support as strategic level guidance.

The Vanderhoof LRMP MPB Review and Risk Assessment has been deemed a provincial priority and an important component of the overall MPB Action Plan.

1.1 - The Vanderhoof Land and Resource Management Plan & Project Plan

The landscape in the Vanderhoof District is significantly different from what the original LRMP table members envisioned due to the MPB epidemic and the accelerated harvesting. Although many sections of this strategic land use plan may still provide adequate direction, there is a risk that certain sections have lost the relevancy necessary to provide sufficient strategic level direction for specific values.

In August of 2004, agency staff from the Ministry of Forests, Water Land and Air Protection and the Ministry of Sustainable Resource Management did an initial review of all the objectives and strategies in the Vanderhoof LRMP to assign risk and possible action options. The focus of the review was to identify

which interests (values) in the Vanderhoof LRMP Resource Management Zones's (RMZ's) are in jeopardy as a result of the MPB epidemic and the concentration of accelerated harvesting and salvage operations, both in recent years and into the future.

This initial review was very high-level, comprehensive and strategic in nature, with the idea to have this “Draft Action Plan” become more detailed once additional input and advice from LRMP stakeholders, First Nations and forest industry has been collected.

The workshop held on February 12th was organized to collect information from the LRMP monitoring committee regarding the effects of the MPB epidemic and harvesting. It was the purpose of this workshop to determine whether the committee feels that in light of the MPB epidemic the General Management Direction (GMD) for each of the values identified is still valid and to what degree the value may be at risk. A key outcome of this workshop was input from the stakeholders that provides government with the direction needed to organize and facilitate the ‘next steps’ to address the values identified by the committee to be at risk.

2 – February 12th Workshop

The Vanderhoof LRMP identified thirteen key values to be subject to general management direction. Eleven of the values were determined to be within the scope of the risk assessment project and were subsequently included within a “General Management Synopsis” for reference during discussion. This synopsis highlighted the strategic intent of the GMD and attempted to capture the goals and guiding principles of each value. The LRMP monitoring committee was asked to examine each value within the synopsis and to assess the strategic intent of the GMD based on specific questions related to the impact of the mountain pine beetle (MPB) epidemic.

Those questions were:

- a) How has the MPB affected the value?
- b) Can the “strategic intent” of the value still be met in the short and long term (relevancy)?
- c) Are there related priorities for implementation?
- d) What needs to be changed or added?
- e) What process is required that best addresses the need of this specific value ~ how do we move forward?
 - i) RMZ by RMZ assessment of the objectives and strategies (Phase 2).
 - ii) Review only those specific values identified by the inter-agency committee as high risk (Phase 2).
 - iii) Revised General Management Direction based on Phase 1 input that would be an addendum attachment to the LRMP (no additional work required).

2.1 - Compilation of Discussion

Discussion surrounding the values was structured around the five pre-determined questions in order to focus on the affect that the MPB epidemic has or is having on the value, as well as to ensure meaningful and directed engagement of the group. The Result of those discussions has been categorized under each question by the general theme of the issue raised while specifics regarding that issue are included as bulleted points. Sections 4.1 to 4.6 detail the information gathered for each of the values discussed during the workshop in tabular format.

3 - Outcomes

There were eleven values on the agenda for discussion on Feb. 12th. The group decision to discuss each of the values as one entity did not allow enough time to cover all of them. Those that were covered include: Jobs & Community Stability, Recreation & Tourism, Access, Fisheries & Lakeshore Management, Biodiversity, and Wildlife. The values that were not addressed directly include: Agriculture and Grazing, Water, Heritage & Culture, Trapping & Guiding, and Timber Harvesting, Silviculture & Forest Health.

Table 1 is a summary of the key information collected from the group regarding recommendations for updating and making the LRMP document relevant given the changes to both economic and social perspectives in light of the MPB. All comments and discussion are included in sections 4.1 to 4.6. Many of the issues and discussions related to more than one value. Comments made that linked to more than one value have been included in the notes for each section in which they were applicable.

Table 1: Summary of recommendations from the LRMP monitoring committee

Value	Recommended Changes or Additions to the GMD	Recommended Action
Jobs and Community Stability	<ul style="list-style-type: none">- emphasise diversification- add support for post secondary study of alternative industry- cost / benefit analysis for ALL industries- replace FRBC with FIA wording	Revise (amend) the GMD – to reflect the current situation and comments made.
Recreation and Tourism	<ul style="list-style-type: none">- classify recreational trails- specify viewscapes given MPB changes to landscape	Revise the GMD. Formation of a sub-committee to evaluate VQO's.
Access Management	<ul style="list-style-type: none">- strategic direction for deactivation and reclamation – not just access control	Revise the GMD. Report out on the Access Survey Formation of a sub-committee.
Fisheries and Lakeshore Managmenet	<ul style="list-style-type: none">- scientific literature review on potential impacts and outcomes of the MPB	Revisit this value at future meeting. Presentations by hydrologists to gather information.
Biodiversity	<ul style="list-style-type: none">- include support for broadcast burning to emulate natural disturbance	Revise the GMD – provide clear targets and define objectives
Wildlife	<ul style="list-style-type: none">- consider elk in wording- Add Fisher to the identified species- Support population study on the effect of MPB and access on wildlife	Use the Draft Action Plan which highlights areas of high risk, to review specific objectives and strategies with the entire LRMP monitoring committee.

4.1 Jobs and Community Stability

This value's General Management Direction is outlined in the Vanderhoof LRMP (1997) in Section 2.1, page 21.

Table 2 Discussion for the General Management Direction of Jobs and Community Stability

How has the Mountain Pine Beetle affected the value?	
ISSUE	The effect that the epidemic is having on the wildland tourism industry is compounded by the accelerated harvest levels and the true impact is yet to be determined.
	<ul style="list-style-type: none"> • Red trees vs. cutblocks: <ul style="list-style-type: none"> ○ clientele from out of town (lower mainland, Europe and US) are “appalled” at the magnitude of harvest and cutblocks ○ locals are much more understanding of the situation, the red trees are intriguing to some and afford the opportunity to educate clients about the natural phenomenon • Is there a decrease in the number of tourists due to the change in viewscape, or has there been an increase due to the curiosity? <ul style="list-style-type: none"> ○ over the last few years it is difficult to say with certainty that the number of tourists have decreased ○ last year there was a 40% decrease but it is hard to quantify the impact related to MPB because of the fires ○ the future is uncertain because so much of the business is related to “word of mouth” and repeat business • Impacts to tourism will have both direct and indirect impacts – ‘fall down’ in the tourism industry will be felt throughout the community.
ISSUE	Community stability is in serious question for the long term, especially in those communities dependent on one or two resources with little capacity to diversify.
	<ul style="list-style-type: none"> • Economic development is hard to accomplish in some areas • The ability to look at and consider alternative industry is difficult at the moment – the accelerated cut and the need for immediate action compound an already difficult situation. • Fraser Lake is a key example – the mine is scheduled to close in 2010 and that corresponds with the estimated fall-down in the timber harvesting industry, the community may ‘die’.
ISSUE	Diversification is needed and in some respects the MPB epidemic has been positive in bringing this point to the forefront.
	<ul style="list-style-type: none"> • The MPB is a natural phenomena and to deal with the issue there is a need to look at the long term and do the best we can in light of the situation • The short term job situation is good; however, in the long term there will be a fall down in the timber harvesting industry <ul style="list-style-type: none"> ○ In the FSP jobs are broken down as 38% forestry, 11% agriculture with no reference to tourism

	<ul style="list-style-type: none"> ○ Advertisement of large license for alternative wood use may bring 10 – 15 yrs of 200-300 direct jobs as well as those jobs to build the facility – continued existence after the epidemic (shipping wood in)? ○ What is happening in Quesnel has to happen here
ISSUE	Agriculture has been identified as an alternative industry in the area but there are roadblocks to fulfilling the potential.
	<ul style="list-style-type: none"> • There is an increased cost of agriculture leases and uncertainty where expansion onto crown land may be considered <ul style="list-style-type: none"> ○ the soil hydrology is changing ○ wildlife is becoming habituated to fields • Industry obligations are problematic when harvesting lands suitable for agriculture <ul style="list-style-type: none"> ○ Trees on ADA land should be left for a few years until price has risen (current \$50 stumpage and only \$48 m³). ○ Dead trees make land easier to clear due to ‘loose roots’ ○ Risk: shelf life expiry and rot • Suggestion: Homestead Act as a solution <ul style="list-style-type: none"> ○ Application for land already inventoried – deeded land makes better collateral for funding development • Conditions need to be right to encourage expansion of the agriculture industry – Forestry can no longer be King
Can the “strategic intent” of the value still be met in the short and long term?	
<ul style="list-style-type: none"> • What is the short term and what is the long term? <ul style="list-style-type: none"> ○ Forest industry considers 20 years short, tourism considers 20 years long ○ Agriculture considers themselves even longer term investment than forestry due to yearly turn over • Defined for the purpose of the LRMP Assessment: <ul style="list-style-type: none"> ○ Short term will be considered as the time of TSR III or the length of time that the cut is sustained at the inflated rate – estimated now at 12 years, longer term will look at the period after this and specifically focus on 20 years in the future. • NRFL's employment – <i>appurtenance</i> – there is no guarantee that the wood will stay within the community it was harvested from • Values are directly affected by the management direction employed by harvesting licensees 	
Are there related priorities for implementation?	
ISSUE	Entry level positions are limited due to industry mechanization.
	<ul style="list-style-type: none"> • the third bullet under the GMD outlines the objective to “...facilitate additional skilled and semi-skilled job opportunities in resource management such as forestry, wildlife and watershed enhancement” • jobs such as tree-planting should be focused on local area youth not contractors – the problem lies in who is applying for the job • the bullet needs to be updated to emphasize other opportunities in other economic industries besides “resource management”

ISSUE	Job diversification within the community is key and there is a strong need for secondary economic industry development.
	<ul style="list-style-type: none"> • Legislation may be required to “push” the need for job development and diversification <ul style="list-style-type: none"> ○ Example given: Milk from the area is shipped south for pasteurization, cheese production etc., these are secondary industries that could be developed in the area if incentives were in place • The group feels strongly about identifying some forum to encourage secondary economic industries
ISSUE	Government profits should be coming back to the community to support diversification.
<ul style="list-style-type: none"> • Taxes and stumpage are paid to the government and also there are profits from licensees “why can’t a percentage of these revenues be funnelled into the Vanderhoof area?” • Need to build industries that create and sustain jobs in the area – not just forestry. • The abilities and skills exist but there is little incentive or funding 	
What needs to be changed or added?	
<ul style="list-style-type: none"> • GMD need to be changed to emphasise other values and diversity of economic possibilities • Some emphasis needs to be given to supporting university or secondary institute focus on other resource use in the area • Replacement for FRBC – FIA related wording 	
What process is required that best addresses the need of this specific value ~ how do we move forward?	
<ul style="list-style-type: none"> • Revise General Management Direction • Look at a regional scale for overall policy or societal nature of direction • Policy development for economic diversification <ul style="list-style-type: none"> ○ link to other areas and values within the LRMP and in this way relate to the land 	

4.2 Recreation and Tourism

This value's General Management Direction is outlined in the Vanderhoof LRMP (1997) in Section 2.1, page 29 - 31.

Table 3 Discussion of the General Management Direction for Recreation and Tourism

How has the Mountain Pine Beetle affected the value?	
ISSUE	The effect on the wildland tourism industry is compounded by the accelerated harvest levels and although in the short term there is yet to be discernable economic consequences the true long-term impact is yet to be determined.
	<ul style="list-style-type: none"> • issues regarding the long term effects of repeat visitation and word of mouth • Red trees are better than no trees <ul style="list-style-type: none"> ◦ Estimated loss of 1 client due to red trees, loss of 4 due to logging • Recreation and tourism industry need the LRMP to be relevant • Recreation users are going elsewhere to find quality wilderness experiences
ISSUE	During suppression mode there was a relaxation of specific objectives for VQO's and lakeshore management and subsequently that has impaired those objectives.
	<ul style="list-style-type: none"> • VQO's have been harvested regardless of the objective • Lakeshores have been harvested to the edges • The industry is reactionary and giving little consideration to other values <ul style="list-style-type: none"> ◦ Consider Waterton Lakes National Park natural regeneration and the applicability to small scale / site specific areas businesses would like addressed • VQO's, Lakeshore Classifications, Access Management, Wildlife Values, and Sustainable Ecosystem Management have all been compromised to accommodate logging MPB • The LRMP has reduced relevancy due to the harvest and this benefits forest industry
ISSUE	The accelerated harvesting and the subsequent AAC uplift will result in new operators and uncertainty with regards to their practices and respect of LRMP direction
	<ul style="list-style-type: none"> • NRFL's, SNRFL's and EOI
ISSUE	Access management has been poorly addressed and the remoteness within the district is disappearing.
	<ul style="list-style-type: none"> • Issues regarding where, when and the degree of use • People have the ability to access areas as never before, where there are roads people will use them • Increased cut volumes decreases wilderness areas • The variety of recreational opportunities are being replaced by a monolithic landscape of roads and logging blocks • Access management fails to address impacts to wildlife and wilderness

ISSUE	Stakeholders feel FRPA has put onus on them to provide industry with input but that that input is being ignored as is the social direction from the LRMP.
	<ul style="list-style-type: none"> • A reactionary industry considers only the economic values at risk, not the other equally important values on the landbase <ul style="list-style-type: none"> ◦ Forest companies control land use planning processes • There needs to be balance and focus on all resources <ul style="list-style-type: none"> ◦ Recreation is being marginalized • LRMP objectives are not legally binding on FSP – and even if legal the objectives are subject to conflicting interpretations
ISSUE	There has been a subsequent reduction in wildland and wilderness experience due to the level of harvest.
Can the “strategic intent” of the value still be met in the short and long term?	
	<ul style="list-style-type: none"> • Remoteness is disappearing • Heritage and cultural trails need recognition due to proximity of harvesting and road networks
Are there related priorities for implementation?	
ISSUE	VQO's
	<ul style="list-style-type: none"> • VQO's need to be followed and there needs to be a process to update and improve on the current VQO's • Access management needs to be reassessed and updated with recognition of wilderness recreation opportunities and impacts to other values
ISSUE	Landscape level retention strategy in conjunction with the LRMP table to ensure their input.
	<ul style="list-style-type: none"> • Keep the table apprised of the progress of the landscape level retention strategy process and all for the table to provide direct input once the process moves forward
ISSUE	Upper Nechako Wilderness Council is putting together their own Wilderness Resource Management Plan.
	<ul style="list-style-type: none"> • A group of concerned stakeholders have formed their own group and are developing their own set of wilderness quality strategies and objectives • The group is struggling with the process needed to proceed with implementing or getting recognition of this plan • Suggestion that these processes not take place in isolation of the LRMP monitoring committee

What needs to be changed or added?

- Cost benefit analysis for all industries – identify the trade-offs
- Ability to affect the locations of leave patches
 - Wilderness quality strategies and objectives need to be developed – what areas are suitable for MPB salvage and what areas are not
- VQO's need to be reassessed to reflect the MPB landscape and improved from generalizations to specific viewscapes
- Lakeshore classifications need to be finalized (legalized)
- Recreation trails need to be classified to provide direction to forest planners
- LRMP direction needs to be binding for FSP's and there needs to be a balance between sustainable ecosystem management needs and sustainable timber extraction.

What process is required that best addresses the need of this specific value ~ how do we move forward?

- VQO's need to be re-evaluated by a sub-committee
- Revise General Management Direction

4.3 Access

This value's General Management Direction is outlined in the Vanderhoof LRMP (1997) in Section 2.1, page 36 - 38.

Table 4 Discussion of the General Management Direction for Access

How has the Mountain Pine Beetle affected the value?	
ISSUE	There is an inflated level of road building and due to the harvest pressure there are not a lot of those roads being deactivated.
	<ul style="list-style-type: none"> • This is a value that can (and should) be managed! • The level of harvest during “suppression” created huge problems with openings and trail / road networks <ul style="list-style-type: none"> ◦ lots of temporary roads and branch roads that will be deactivated (reclaimed?) but are currently needed • People follow roads, and it is not just roads – 4-wheelers are an access issue as well • Concerns regarding both the impact of leaving roads open and the impact of deactivating / reactivating / deactivating... • Cattle drift has become a problem due to level of openings and the grass licensees use to seed roads / landings
ISSUE	Increased use of roads has resulted in safety issues for residents and recreationists as well as industry workers.
	<ul style="list-style-type: none"> • The level of logging truck traffic • Increased access by recreationists, hunters, industry workers • Road maintenance when not deactivated
ISSUE	Access management has been poorly addressed and the remoteness within the district is disappearing and the resultant pressures on wildlife are of great concern.
	<ul style="list-style-type: none"> • Predators have the ability to “run the line” where temporary roads or snip and skid trails exist, not just on roads

	<ul style="list-style-type: none"> • Originally a number of access management strategies were meant to address the issue of wildlife protection
ISSUE	The ability to control access has been ‘lost’ in many cases (loop roads or multiple access points) and there is an issue regarding enforceability. <ul style="list-style-type: none"> • The method of control at access restriction points can be problematic for other users • Forest industry needing to re-enter an area for planting • Ranchers needing access to range
Can the “strategic intent” of the value still be met in the short and long term?	
	<ul style="list-style-type: none"> • The values access was set to protect have been compromised. • Short term: comprehensive planning is needed • Long term: planning needs to address those areas that might need access in future and need to be deactivated as soon as possible.
Are there related priorities for implementation?	
ISSUE	Wildlife values at risk need to be addressed by WLAP through wildlife closures. <ul style="list-style-type: none"> • WLAP needs to start exercising their legislative abilities <ul style="list-style-type: none"> ◦ There is little appetite or capacity to enact or enforce such legislative authority • UWR does, although limited, have some objectives for access
ISSUE	If there is a strategy related to increased harvest and leave areas, then there needs to be employment of a similar strategy related to access issues. <ul style="list-style-type: none"> • Access issues are a direct result of harvest in response to MPB • Special means or ways for dealing with the harvesting large numbers of trees should include equal emphasis to deal with the reclamation and deactivation of the structures put in place to access those trees
ISSUE	Timing is of the essence and at the very least there needs to be implementation of the current (although irrelevant) plan and its intent. <ul style="list-style-type: none"> • there is little relevancy to the current access management plan due to the level and speed at which new roads are built • MOF is anxious to begin the update of the plan <ul style="list-style-type: none"> ◦ The access survey mailed out is the first component of this process
ISSUE	Shifting from the suppression to salvage mode means that all objectives currently in place will no longer be relaxed and should be met. <ul style="list-style-type: none"> • Exemptions granted under the suppression action should be removed • The emergency has subsided and this should mean the opportunity to give the time and consideration needed to properly address this issue
What needs to be changed or added?	
	<ul style="list-style-type: none"> • The plan needs to be updated and made relevant • There needs to be strategic direction for deactivation and reclamation not just access control.

What process is required that best addresses the need of this specific value ~ how do we move forward?

- Have a report of the results of the survey
- Formation of a sub-committee to move forward both the short and long term development – ensure that all groups are equally represented.

4.4 Fisheries & Lakeshore Management

This value's General Management Direction is outlined in the Vanderhoof LRMP (1997) in Section 2.1, page 25 - 27.

Table 5 Discussion of the General Management Direction for Fisheries & Lakeshore Management

How has the Mountain Pine Beetle affected the value?	
ISSUE	Harvesting has impacted lakes both directly – logging to the lakeshore – and indirectly – increased accessibility to lakes previously only accessible by plane or hiking. <ul style="list-style-type: none"> • suggestion that it is necessary to allow for flexible management to take into account site specific issues, i.e. wind firmness, sedimentation issues • successive harvesting around a lake, not just leaving a ‘ring’ of trees, suggested as management strategy
ISSUE	Water quality and temperature issues due to access structures, reduced water uptake by trees, increased solar exposure, and surface water flow and sedimentation (to name a few). <ul style="list-style-type: none"> • not just harvesting, the dead standing trees will not utilize the ground water increasing the risk for surface water flow - runoff and sedimentation • ice build-ups from shore into or onto ice surface of lakes poses risk of sedimentation • access structures such as culverts and roads along waterbodies pose significant concern for water quality
ISSUE	Cumulative impacts due to all activities, the lack of groundwater uptake and changes in snow pack will affect hydrology. <ul style="list-style-type: none"> • There isn't a lot of information and it would be good to have a hydrologist explain some of the issues • It only makes sense that the accelerated harvest and access, along with changes in hydrology and temperature are going to affect water quality and perhaps quantity in the future • Observations have proven that there is some impact it is just that the extent is unknown <ul style="list-style-type: none"> ○ Example of ice formations along lakeshores ○ Example of lake not freezing in same pattern as before
Can the “strategic intent” of the value still be met in the short and long term?	
<ul style="list-style-type: none"> • Depends on the practices on the ground 	
Are there related priorities for implementation?	

ISSUE	Final Lakeshore Classification objectives need to be finalized – not necessarily legal but some strategy to address these issues needs to be put in place.
	<ul style="list-style-type: none"> • need the flexibility to meet site specific concerns • small salvage in sensitive areas was suggested
What needs to be changed or added?	
	<ul style="list-style-type: none"> • Concerns for sedimentation due to successive access to areas that have been deactivated – in ACCESS MANAGEMENT PLAN consider wording to “minimize the amount of disturbance due to road crossings and re-entry sites”. • Scientific literature review on the impacts and potential outcomes from the standing dead and link to Landscape Level Retention Strategy Monitoring.
What process is required that best addresses the need of this specific value ~ how do we move forward?	
	<ul style="list-style-type: none"> • Revisit issue at a future meeting where information will be available for review (Dave Maloney / John Rex with MOF – individuals looking at hydrological effects). • Formation of a sub-committee to address lake classification at site specific levels and gather information for informed decisions.

4.5 Biodiversity

This value's General Management Direction is outlined in the Vanderhoof LRMP (1997) in Section 2.1, page 22 - 25.

Table 6 Discussion of the General Management Direction for Biodiversity

How has the Mountain Pine Beetle affected the value?	
ISSUE	Harvesting has impacted ecosystem diversity.
	<ul style="list-style-type: none"> • MPB response means increase in roads which are detrimental to ecosystem diversity • Erosion and sedimentation effect water quality and is in turn effected by the ground vegetation disturbance.
ISSUE	Movement towards larger harvest areas may be considered ‘good’.
	<ul style="list-style-type: none"> • Large scale disturbance is more reminiscent of fire behaviour of historic note in this area • There should be consideration given to providing the opportunity for “natural regeneration”
ISSUE	Larger patch sizes for harvest should also include larger leave patches for wildlife – i.e. 10% is current but Delong science suggests 25% in patches greater than 1000 ha.
	<ul style="list-style-type: none"> • Increased resource extraction should be countered with an equal increase in leave patches to ensure representation and biodiversity maintenance • Worry expressed over the introduction of non-native species and species shifts due to the disturbance <ul style="list-style-type: none"> ◦ Licensee seeding programs ◦ Increased access and “exploration” of areas
Can the “strategic intent” of the value still be met in the short and long term?	
	Depends on the practices on the ground

Are there related priorities for implementation?	
ISSUE	Patch sizes need to be greater than 60 ha and MOF is currently looking at increasing leave areas.
	<ul style="list-style-type: none"> Recognizing the importance of increased leave areas is critical and the LRMP needs to have input to provide direction for landscape level retention strategy
ISSUE	Control areas left to natural regeneration should be considered to explore natural fall down and regeneration processes.
	<ul style="list-style-type: none"> Leave areas are important to provide representation of this natural process and insight to the phenomenon
ISSUE	The Douglas fir strategy although not legal is a regional strategy that is important for implementation.
	<ul style="list-style-type: none"> Targeting of non-pine species is a contentious issue <ul style="list-style-type: none"> Licensees (mills) have a profile that makes it necessary to utilize other species of wood Need recognition that non-pine species are going to be critical in the mid-term for maintaining harvest and are currently critical for providing habitat
ISSUE	Deciduous forest strategies to ensure that shifting focus does not endanger these rarer and important ecosystems.
	<ul style="list-style-type: none"> Increasing importance to wildlife and relatively small representation
What needs to be changed or added?	
	<ul style="list-style-type: none"> Prescribed broadcast burning to emulate the more natural regeneration process – the areas subject to fire in the 2003 fire season may be good candidates for study of this. <ul style="list-style-type: none"> Licensees are currently salvaging these areas and rehabilitating them Minimize the amount of lands converted to roads or other non-productive structures, rehabilitation of these disturbed areas and avoid construction within riparian or critical habitat areas (definition of ‘critical’?)
What process is required that best addresses the need of this specific value ~ how do we move forward?	
	<ul style="list-style-type: none"> Amend the GMD to clarify what the new order is working to Provide clear targets and define what the objectives are for a trend over time.

4.6 Wildlife

This value's General Management Direction is outlined in the Vanderhoof LRMP (1997) in Section 2.1, page 31 - 32.

Table 7 Discussion of the General Management Direction for Wildlife

How has the Mountain Pine Beetle affected the value?	
ISSUE	Bear populations seem to be healthy and doing well with the amount of increased forage.
	<ul style="list-style-type: none"> Increasing numbers of black bear and a perception that Grizzly bear are doing fine
ISSUE	Although moose forage is not considered an issue there is great concern regarding moose populations in management areas 7-11 and 7-12 due to increased access to hunters.
	<ul style="list-style-type: none"> Population surveys are outdated and have historically been extrapolated from flights done in the southern PG region Harvest levels have been maintained and this implies that populations are doing well but it doesn't take into account the increased access to populations or habitat previously inaccessible
ISSUE	There are only two conservation officers for the entire area and with the increased level of access there is concern regarding both the previously inaccessible habitat and the ability for enforcement.
	<ul style="list-style-type: none"> Enforcement is necessary when areas are open to "slaughter" during the hunting season <ul style="list-style-type: none"> There are areas where the evidence of the number of moose kills is appalling and clearly outlines that there is a problem
ISSUE	Increased mortality due to roads, hunting and predation.
	<ul style="list-style-type: none"> Safety issue raised for access management extends to the wildlife <ul style="list-style-type: none"> Increased traffic and hunter access Increased predator access with "highways" to travel on The use of mature stands for rearing young is an important component that is also at risk due to the level of access and harvest
Can the "strategic intent" of the value still be met in the short and long term?	
	<ul style="list-style-type: none"> Depends on the practices on the ground
Are there related priorities for implementation?	
ISSUE	Moose inventories conducted within the district.
	<ul style="list-style-type: none"> Extrapolating data from another area is no longer adequate <ul style="list-style-type: none"> The level of harvest has increased openings and access to such a degree that there is a warranted need for local area inventories
ISSUE	Needs for standing timber for calving and "nursery" areas for moose.
	<ul style="list-style-type: none"> This needs to be a consideration when deciding where the leave areas should be and perhaps when deciding what areas need to be restricted access
ISSUE	Map important and high suitability habitat areas.
	<ul style="list-style-type: none"> These areas need to be identified for consideration where access is to be restricted and/or road deactivation or reclamation is needed

	<ul style="list-style-type: none"> • There is a 30% increase in mortality for every new road
ISSUE	Priority for inventory due to level of access.
	<ul style="list-style-type: none"> • Species other than moose should also be a priority for inventory – access and increased openings will affect many different animals in different ways • Other species identified in the LRMP have been affected by the MPB epidemic and it is important to understand the extent of that impact if negative
	What needs to be changed or added?
	<ul style="list-style-type: none"> • Predator control issues • Consideration of elk in LRMP • Fisher be added to identified species • Population study on the effect of MPB and access on wildlife
	What process is required that best addresses the need of this specific value ~ how do we move forward?
	<ul style="list-style-type: none"> • Address specific strategies and objectives based on the High Risk Zones identified in the draft action plan.