

## EXECUTIVE SUMMARY

The Muskwa-Kechika Management Area Advisory Board (Board) respects and acknowledges that the M-KMA lies within the traditional territories of the Kaska, Tsay Keh Dene and Treaty 8 traditional territories. The advice and recommendations in this document respect the culture of these First Nations that dates back thousands of years.

A fundamental principle of the Board is that all activities in the Muskwa-Kechika Management Area (M-KMA) should recognize, respect and consider First Nation's rights, title, values, and traditional knowledge and be consistent with the United Nations Declaration on the Rights of Indigenous People

The M-KMA was created as a world class management model through legislation enacted by the British Columbia (BC) Provincial Government in 1998 following its conception during the BC Land and Resource Management Planning (LRMP) Process.

Since its inception the Board has commissioned, on its own and in partnership with the University of Northern British Columbia (UNBC), numerous studies, reports and research within the M-KMA. The Board, in collaboration with Government and Industry, also developed Oil and Gas Pre-Tenure Plans which incorporated many of the findings and recommendations from the Board and UNBC's work.

After nearly twenty years the Board has integrated much of its work and plans (including its Oil and Gas Pre-Tenure Plans) its Muskwa-Kechika Management Area Natural Resource Management Framework (framework) which will ensure its vision for the maintenance of wilderness, wildlife and cultural values in perpetuity while allowing for sustainable, responsible and world-class natural resource development is realized.

The M-KMA presents unique challenges and opportunities not found elsewhere in the Province. Whereas wilderness areas outside of the M-KMA normally have prohibitions to industrial development, such is not the case for wilderness areas within specified management zones within the M-KMA. A level of industrial development within the M-KMA is allowed for within its legislative framework but clearly not to the extent nor emphasis evident elsewhere in the Province. It is this unique "balance" between conserving wilderness values while allowing for industrial development that defines the construct of the Board's framework.

While the framework contains traditional planning elements such as Values, Valued Components, Indicators and Thresholds it introduces a new and unique element, "Indicator Quality", to address the near impossibility of assigning numerical Thresholds to difficult to measure Indicators such as "degree of sense of remoteness" or "degree of sense of solitude".

The "Indicator Quality" provides to proponents and Government decision makers a relative ranking of the importance or sensitivity to human activities of an Indicator that cannot readily or reasonably be ascribed a numerical threshold (these are primarily pertinent to Wilderness Value Indicators).

For example, in a management unit rated with a "High" Indicator Quality for a Wilderness Indicator of "degree of sense of remoteness" (the current condition of knowing or sensing that one is a great distance from existing access) a proponent and/or decision maker should understand that any access development may only occur where there is certainty that the access infrastructure will be removed, rehabilitated and restored to pre-activity baseline conditions. Where there is any doubt of achieving this outcome, the development should not be approved.

Across the 6.4 million hectares of the M-KMA the quality of wilderness, wildlife and cultural values varies

considerably. A single threshold for any of the Indicators of any of the three Values is unrealistic and impractical and could lead to industrial footprints that significantly or permanently impact or impair wilderness, wildlife and/or cultural values in the M-KMA.

To address this issue the Board introduces an additional zoning element to the M-KMA through measures and recommendations for grouping of special resource management zones (management units) that share similar wilderness, wildlife and/or cultural values as well as generally exhibiting a similar level of evidence of human activity.

These management units are grouped into four categories with their respective area specific measures and recommendations. The four broad management unity categories are:

- Management Units Generally Exhibiting Higher Evidence of Human Activity;
- Management Units Generally Exhibiting Less Evidence of Human Activity;
- Protected Management Units: No Industrial Access; and
- Protected Management Units: Possible Industrial Access

Finally, the Board employs a cautionary and conservative approach in constructing its framework. The Board has designed its framework as a living document that will evolve over time as findings and lessons are learned.

## 1. Overview

The Muskwa-Kechika Management Area Natural Resource Management Framework (framework) is founded on the Board's respect and acknowledgement that the M-KMA lies within the traditional territories of the Kaska, Tsay Keh Dene and Treaty 8 traditional territories. The advice and recommendations in this document respect the culture of these First Nations that dates back thousands of years. A fundamental principle of the framework is that all activities in the area should recognize, respect and consider First Nation's rights, title, values, and traditional knowledge and are consistent with the United Nations Declaration on the Rights of Indigenous People

The Muskwa-Kechika Management Area (M-KMA) was created as a world class management model through legislation enacted by the British Columbia (BC) Provincial Government in 1998 following its conception during the BC Land and Resource Management Planning (LRMP) Process.

The *Muskwa-Kechika Management Area Act* (Act) is a cornerstone of the M-KMA legislative framework. While the Act primarily describes the management area and plan for the M-KMA and the establishment of a Trust Fund (as well as the creation of a Premier appointed Advisory Board) its Preamble is significant as it describes the management intent for the area (see Appendix 1, Section 2).

The following sections of the Preamble are of particular importance to the M-KMA Advisory Board (Board) because they reflect the vision of the Board for the management of the M-KMA and provide the context for the Board's Natural Resource Management Framework (framework):

"...to maintain in perpetuity the wilderness quality, and the diversity and abundance of wildlife and the ecosystems on which it depends while allowing resource development and use in parts of the Muskwa-Kechika Management Area designated for those purposes including recreation, hunting, trapping, timber harvesting, mineral exploration and mining, oil and gas exploration and development..."

"...the integration of management activities especially related to the planning, development and management of road accesses within the Muskwa-Kechika Management Area is central to achieving this

intent and the long-term objective is to return lands to their natural state as development activities are completed...”

Since its inception the Board has commissioned, on its own and in partnership with the University of Northern British Columbia (UNBC), numerous studies, reports and research within the M-KMA. In collaboration with UNBC, several graduate thesis projects have been undertaken which have assisted with improving insight into, and the understanding of, the complexities, opportunities and challenges of managing such a diverse and special area.

The Board, in collaboration with Government and Industry, also developed Oil and Gas Pre-Tenure Plans which incorporated many of the findings and recommendations from the Board and UNBC’s work and which was an important source of information for the Board’s framework. While the Oil and Gas Pre-Tenure Plans were targeted to that specific industry, the Board is of the opinion that it is applicable and relevant to all industrial activities that could potentially operate in the M-KMA and has migrated many of the recommendations, thresholds and measures into its framework.

This information and data not only serves to inform the Board’s advice to Government but to also assist and guide proponents and Government with achieving the management vision embodied in the Act’s Preamble and is the foundation of its framework. The Board recognizes the benefits of having an overarching management framework that guides its advice rather than the historic approach of providing ad hoc advice when requested by Government or on its own initiative.

After nearly twenty years the Board has integrated much of its work and plans into its framework and believes this will ensure that the vision for the area for the maintenance of wilderness, wildlife and cultural values in perpetuity while allowing for sustainable, responsible and world-class natural resource development will be realized.

The M-KMA presents unique challenges and opportunities not found elsewhere in the Province. Whereas wilderness areas outside of the M-KMA normally have prohibitions to industrial development such is not the case for wilderness areas within specified management zones within the M-KMA. A level of industrial development within the M-KMA is allowed for within its legislative framework but clearly not to the extent nor emphasis evident elsewhere in the Province.

It is this unique “balance” between conserving wilderness values while allowing for industrial development that defined the construct of the framework. Therefore, while the framework reflects several elements of traditional cumulative effects models i.e. Values, Valued Components, Indicators, Thresholds and Additional Measures it also has a unique element to circumvent the near impossibility of assigning numerical Thresholds to a nebulous Indicator such as “degree of sense of remoteness”. This is an important Indicator for the Valued Component of “sense of remoteness” but because it is subject to human perception and the variability of that perception between humans the Board introduced a new framework element called “Indicator Quality”.

The purpose of the “Indicator Quality” is to provide to proponents and Government decision makers a relative ranking of the importance or sensitivity to human activities of a Wilderness Value Indicator that cannot be ascribed a numerical threshold. For example, in a management unit rated with a “High” Indicator Quality for a Wilderness Indicator of “degree of sense of remoteness” (the current condition of knowing or sensing that one is a great distance from existing access) a proponent and/or decision maker understands that any access development may only occur where there is complete certainty that the access infrastructure will be removed, rehabilitated and restored to pre-activity baseline conditions. Where there is any doubt of achieving this outcome, the development will not be approved.

While this is a creative and appropriate component of the Board's framework for determining potential impacts to Wilderness Values there remains the challenge of recommending thresholds (numerical or relative quality ranking) Wilderness, Wildlife and Cultural values for the M-KMA as a whole. Across the 6.4 million hectares of the M-KMA the quality of wilderness, wildlife and cultural values varies considerably as does the evidence of human activity (current and historical). A single threshold for any of the Indicators of any of the three Values is unrealistic and impractical and could lead to industrial footprints that significantly or permanently impact or impair wilderness, wildlife and/or cultural values in the M-KMA.

To address this issue the Board introduces an additional zoning element to the M-KMA through measures and recommendations for grouping of special resource management zones (management units) that share similar wilderness, wildlife and/or cultural values as well as generally exhibiting a similar level of evidence of human activity.

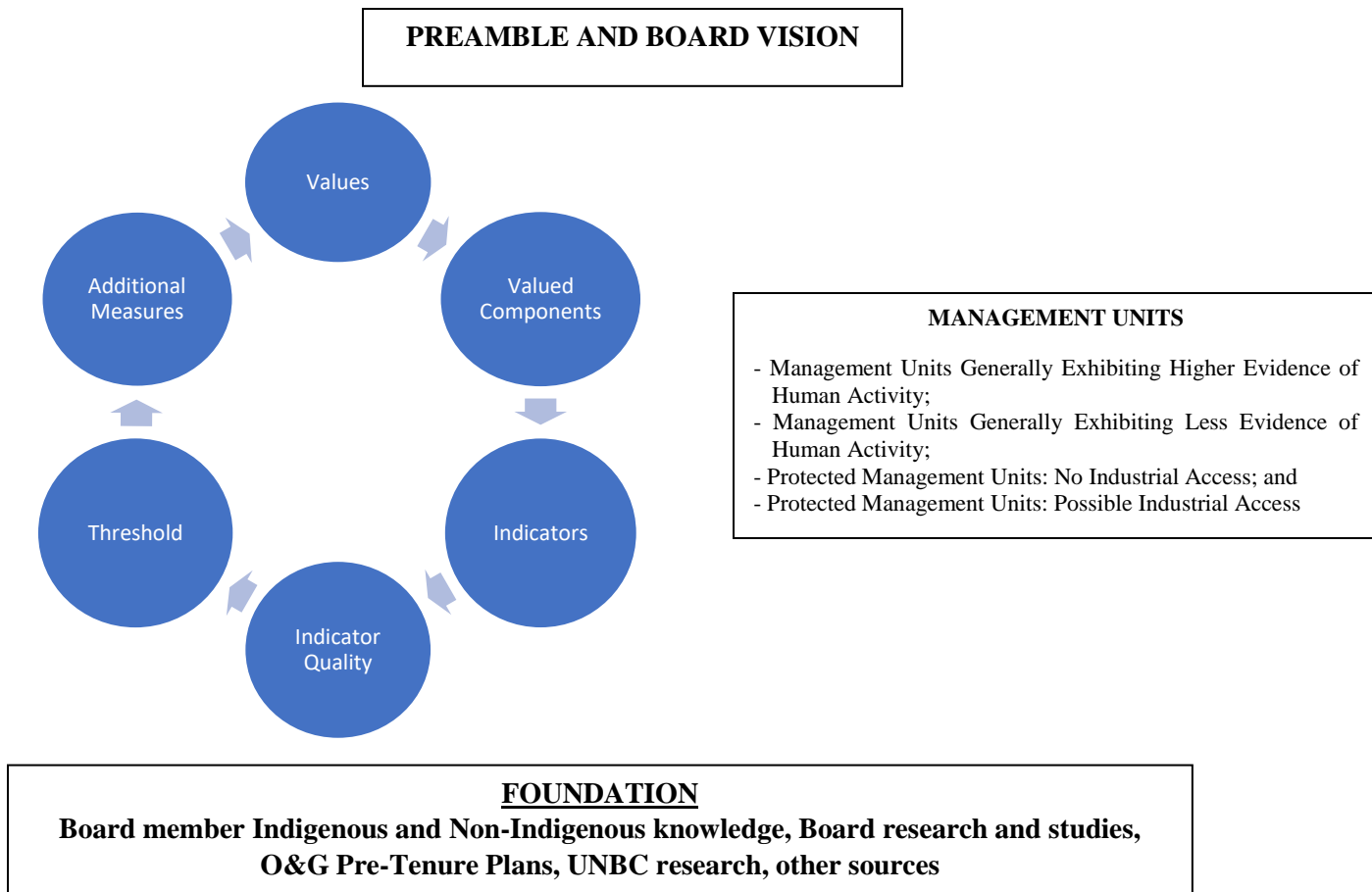
These management units are grouped into four categories with their respective area specific measures and recommendations. The four broad management unity categories are:

- Management Units Generally Exhibiting Higher Evidence of Human Activity;
- Management Units Generally Exhibiting Less Evidence of Human Activity;
- Protected Management Units: No Industrial Access; and
- Protected Management Units: Possible Industrial Access

Finally, the Board has taken a cautionary and conservative approach in constructing its framework. The Board has designed its framework as a living document that will evolve over time as findings and lessons are learned. Therefore, a basic tenet of the Board's framework is that it is based on adaptive management or continuous improvement which relies on baseline condition inventories be undertaken by proponents, that monitoring of outcomes is undertaken by Government to ensure anticipated outcomes are realized and that research targeted to fill critical knowledge gaps is undertaken to ensure the vision for the management of this unique and special area is achieved.

## 2. M-KMA NATURAL RESOURCE MANAGEMENT FRAMEWORK

**Graphic 1: Management Framework**



### 2.1 Preamble and Board Vision

The *Muskwa-Kechika Management Area Act* (Act) is a cornerstone of the M-KMA legislative framework. While the Act primarily describes the management area and plan for the M-KMA and the establishment of a Trust Fund (as well as the creation of a Premier appointed Advisory Board) its Preamble is significant as it describes the management intent for the area (see Appendix 1, Section 2).

One of the outcomes envisioned by the Preamble is:

*“...to maintain in perpetuity the wilderness quality, and the diversity and abundance of wildlife and the ecosystems on which it depends while allowing resource development and use in parts of the Muskwa-Kechika Management Area designated for those purposes including recreation, hunting, trapping, timber harvesting, mineral exploration and mining, oil and gas exploration and development...”*

Another outcome from the Preamble is:

*“...the integration of management activities especially related to the planning, development and management of road accesses within the MuskwaKechika Management Area is central to achieving this intent and the long-term objective is to return lands to their natural state as development activities are completed...”*

As a result, the framework’s construct is directly influenced and reflective of the Board’s vision and the Preamble to the Act.

The Board’s Vision and the Preamble to the Act provide the context of the framework.

See Appendix 1 for a more fulsome discussion of the Preamble and Vision.

## **2.2 Framework Foundation**

The framework respects and acknowledges that the M-KMA lies within the traditional territories of the Kaska, Tsay Keh Dene and Treaty 8 traditional territories. The advice and recommendations in this document respect the culture of these First Nations that dates back thousands of years. A fundamental principle of the framework is that all activities in the area should recognize, respect and consider First Nation’s rights, title, values, and traditional knowledge and are consistent with the United Nations Declaration on the Rights of Indigenous People.

The Board undertook extensive research and discussions with subject experts when designing its framework. This research is the foundation of the framework and includes, but not limited to legislative frameworks (relationship to and between relevant legislation and regulations), Board commissioned research and studies, UNBC research, Board Indigenous member Traditional Knowledge, Board Non-Indigenous member knowledge, principles of adaptive management, O&G Pre-Tenure Plans, etc.).

The Board’s Framework Foundation provides the basis for the structure of the framework.

## **2.3 Values**

Values are broad categories that the Board and the Government of British Columbia care about and are central to assuring the integrity and wellbeing of the M-KMA’s environment, people and communities i.e. ensuring the spirit and intent of the Act, its Preamble and the Board’s Vision is met. These are priorities that must be maintained in perpetuity.

Values are classically identified in the literature as social, economic, environmental, or as a combination of each. The Board identified its values to be Wilderness, Wildlife and Culture to be consistent with the Act. An Economic value was not explicitly included in the Board’s Framework as the Board believes this to be the purview of Government and Government decision makers at the time of adjudicating proposals.

### **2.3.1 Wilderness Values**

The M-KMA is widely recognized as having high wilderness values. A great majority of the area is in a primitive, undeveloped state, accessible on the ground only on foot or by horseback. It is recognized, however, that there are degrees of Wilderness Quality in the M-KMA with some areas “wilder” than others (i.e. the sense of remoteness and solitude is higher in some areas than others where some development and/or level of use is higher).

While the Act contemplates for some level and duration of impact from industrial activities it is silent as to their level and duration. While there are references to Wilderness, Wilderness Characteristics and Wilderness Quality in the Act and Preamble, the Board developed their definitions, their meaning and their relationship to each other to assist with determining level and duration of impact of an industrial activity to Wilderness Values.

### **2.3.1(i) Wilderness Definition**

In light of the Board's Vision, the preamble to the *Act* and its stated management intent of the M-KMA, "wilderness" is defined as:

*"a large natural landscape where the integrity of ecological systems is maintained"*

### **2.3.1(ii) Wilderness Characteristics Definition**

Wilderness characteristics are defined to generally include:

*"a natural appearing landscape where evidence of human activity is not readily apparent, a high probability of experiencing human solitude, and ecological integrity"*.

### **2.3.1(iii) Wilderness Quality Definition**

Wilderness quality is defined as:

*"a measure of the degree to which the wilderness characteristics within the MKMA fluctuate over time."*

Unlike the management of wilderness values outside of the M-KMA where industrial activities are normally prohibited, within the M-KMA, the Preamble to the Act affords some level of industrial activity as long as it does not impair the maintenance in perpetuity of wilderness values.

## **2.3.2 Wildlife Values**

Wildlife values are high throughout the M-KMA area and include the highest habitat ratings in the province for Stone's sheep and Rocky Mountain elk as well as some of the highest rated habitat for moose and woodland caribou. Mountain goat, mule deer and white-tailed deer are also found in the area. Of primary importance is the interaction between these and other prey species and the carnivores that prey on them, which together comprise one of the world's great predator-prey systems. Major habitat types within the plan area are the boreal, sub-alpine, (lower and upper) and the alpine.

## **2.3.3 Culture Values**

Cultural values vary across the M-KMA and are further shaped by indigenous and non-indigenous culture.

## **2.4 Valued Components**

Valued Components are the handful of principle constituents, conceptual items or critical elements that are to be monitored to help determine the condition and trend of the Valued Component now and into the future as development occurs (solitude or sense of remoteness, for example). They are the "things" that are important to the Board to help describe or further define a Value and its condition.

### **2.4.1 Wilderness Valued Components**

- Experiencing Solitude
- Sense of Remoteness



- Naturally Appearing Landscapes

#### **2.4.2 Wildlife Valued Components (seven focal species)**

- Grizzly Bear
- Stone's Sheep
- Moose
- Rocky Mountain Elk
- Mountain Caribou
- Mountain Goats
- Wolves
- Species of Management Concern
- Aquatic

#### **2.4.3 Culture Valued Components**

- Indigenous
- Non-Indigenous

### **2.5 Indicators**

Indicators are the specific elements of Valued Components that are to be measured and/or afforded an Indicator Quality.

#### **2.5.1 Indicators for Wilderness Valued Components**

##### **2.5.1(i) Indicator for Experiencing Solitude**

- Existing Degree of Solitude

##### **2.5.1(ii) Indicator for Sense of Remoteness**

- Existing Degree of Remoteness

##### **2.5.1(iii) Indicator for Naturally Appearing Landscapes**

- Existing Degree of Naturalness

#### **2.5.2 Indicators for Wildlife Valued Components**

##### **2.5.2(i) Indicator for Seven Focal Species**

- Habitat Quality

#### **2.5.3 Indicators for Culture Valued Components**

##### **2.5.3(i) Indicator for Indigenous Culture**

- United Nations Declaration of Rights of Indigenous People

##### **2.5.3(ii) Indicator for Non-Indigenous Culture**

- Importance to Recreation Users

### **2.6 Indicator Quality**

Indicator Quality is a relative “ranking” of an Indicator (Low/Medium/High) to convey to a proponent or Government decision maker the relative importance or sensitivity of an indicator to industrial activity. Indicator Quality is used in those circumstances where Thresholds cannot



reasonably be defined because there is either an absence of meaningful data that can be reasonably collected (number of humans encountered on a trail for example) or thresholds cannot be established because the indicator is attributed to personal or individual perceptions (sense of remoteness for example). Indicator Quality is also a reflection of the relative degree of human activity (current and historical) in a management unit.

## 2.7 Thresholds

Thresholds are the standard(s) to which Indicators are held or cannot surpass. They are described through inventories as “current baseline condition” (at the time that development is proposed) and then their condition when an activity ceases. The desired outcome is for post-industrial baseline conditions to return to pre-industrial baseline conditions as quickly and reasonably as possible. Although landscape level thresholds are identified in Section 2.9 “Management Tiers” they are further governed (at the local level) by the thresholds and/or indicator quality requirements identified in this section.

Thresholds may not be available where there is either an absence of meaningful data that can be reasonably collected (number of humans encountered on a trail for example) or thresholds cannot be established because the indicator is attributed to personal or individual perceptions (sense of remoteness for example).

### 2.7.1 Wilderness Value Thresholds

#### 2.7.1(i) Threshold for Existing Degree of Solitude Indicator

- N/A because indicator is based on personal perception which varies between individuals. Use Indicator Quality.

#### 2.7.1(ii) Threshold for Existing Degree of Remoteness Indicator

- N/A because indicator is based on personal perception which varies between individuals. Use Indicator Quality.

#### 2.7.1(iii) Threshold for Existing Degree of Naturalness Indicator

- N/A because indicator is based on personal perception which varies between individuals. Use Indicator Quality.

### 2.7.2 Wildlife Value Thresholds

#### 2.7.2(i) Thresholds for Habitat Quality Indicator

- < 2% area disturbance of Moderate to High Quality Habitat
- < 5% area disturbance of Moderate to Low Quality Habitat

### 2.7.3 Culture Value Thresholds

#### 2.7.3(i) Threshold for United Nations Declaration of Rights of Indigenous People Indicator

- TBD

#### 2.7.3(ii) Threshold for Importance to Recreation Users Indicator

- N/A because indicator is based on personal perception which varies between individuals. Use Indicator Quality.

## 2.8 Measures and Recommendations

Measures and recommendations are management practices, requirements and/or Board Advice that provide further information and guidance to decision makers and industrial development proponents. These measures and recommendations are categorized as follows:

- General Measures and Recommendations apply to all industrial activities regardless of where they may occur within the M-KMA; and
- Additional Area Specific Measures and Recommendations.

## 3. General Measures and Recommendations for All of the M-KMA

General measures and recommendations in this section apply to all industrial activities regardless of where they may occur within the M-KMA.

The M-KMA was created with the vision and intention to establish a world standard for environmental sustainability and economic stability, serving as a model that balances human activities such as resource extraction and tourism with conserving its environmental values and wilderness state over time. The M-KMA consists of approximately 1/4 Park and Protected Areas, and 3/4 Special Management Zones.

Within the M-KMA's Special Management Zones there are different Resource Management Zones (RMZ's) with different management intent. These RMZ's provide guidance to the M-KMA Advisory Board when creating advice to Government and/or industrial development proponents and given the differences of management intent between RMZ's the Board's advice at the precedence and strategic level will vary depending on where a development project is proposed within the M-KMA.

Overarching this, the Board offers the following:

- 3.1** Inside the Parks and Protected Areas of the M-KMA, wilderness will remain free of industrial activities such as, but not limited to, forestry, mining, oil and gas development, hydro or other energy developments.
- 3.2** Within the Management Zones of the M-KMA, where resource development and use is allowed, there may be an impact on wilderness quality and characteristics during the period of operation or activity as well as during the restoration/reclamation period.

The following general measures and recommendations are meant to assist government decision makers and proponents in the application of the above definitions of "wilderness", "wilderness characteristics" and "wilderness quality", recognizing the significance of the preamble of the *Muskwa-Kechika Management Area Act* and its stated management intent of the M-KMA.

Note that guidance should also be sought from the Land and Resource Management Plans (LRMP's) that overlap and/or recommended the creation of the M-KMA. These and any other relevant plans, such as First Nations plans, should also be considered in the decision-making process.

### A. Environmental Stewardship

- 3.3** All developments should be designed to avoid or minimize adverse impacts on wilderness quality and characteristics as well as wildlife and cultural values;

- 3.4 Best management practices and best available science should be employed;
- 3.5 Best efforts should be made to assess and mitigate potentially adverse cumulative effects of all developments;
- 3.6 A baseline inventory of wilderness characteristics and quality should be undertaken commensurate with the potential impacts of proposed activities to determine benchmarks for development, restoration and reclamation;
- 3.7 All human caused disturbances, activities and developments should be reclaimed and restored as soon as possible and is able to be done or put into practice successfully;
- 3.8 Reclamation/restoration plans, including financial assurances commensurate with the potential impacts of proposed activities where applicable, must be in place prior to commencement of any development or issuance of a licence or authorization; and
- 3.9 Progressive reclamation must commence as soon as possible and where it is able to be done or put into practice successfully.

#### **B. Socio-economic**

- 3.10 All permitted commercial and industrial activities in the M-KMA must pay a levy to support managing the M-KMA; and
- 3.11 All permitted commercial and industrial activities within the M-KMA should demonstrate a net or positive socio-economic benefit.

#### **C. Management of Access Roads and Motorized Trails**

- 3.12 Access management plans or access planning should be developed or undertaken where there is either a single proponent or where multiple proponents are proposing projects within a common area of the M-KMA to minimize impacts;
- 3.13 The amount of new road in the M-KMA should be minimized;
- 3.14 Linear infrastructure (power lines for example) should only be constructed to facilitate the extraction of natural resources within the M-KMA unless specified otherwise in LRMP's (for example, the Liard River Corridor Park);
- 3.15 Roads, other than for industrial natural resource extraction such as mining and forestry from within the M-KMA, should not be created;
- 3.16 Access roads and motorized trails should only be proposed where and when a potentially feasible project exists;
- 3.17 Unless otherwise specified in an LRMP new roads should be short-term and temporary for the duration of the project;
- 3.18 Access should be designed to standards that meet project and safety needs in a manner which allows

the access to be deactivated, restored or rehabilitated and returned to a natural state in a cost-effective and expeditious manner;

- 3.19 Access should be used for the original intended project or purpose only, except if used for another authorized purpose to minimize impacts. Prolonging the presence of road access should not be driven by cost and/or convenience when other, non-road means of access are available;
- 3.20 To the extent possible, new access and linear infrastructure (power lines for example) should avoid special features (Protected Areas for example) identified in LRMPS or that may arise from consultation with First Nations, communities and others;
- 3.21 In the case of a single industrial and/or commercial proponent proposing a project within the M-KMA, to the extent possible, it should bundle its linear infrastructures to a single access corridor (power lines and primary access for example);
- 3.22 In the case of multiple industrial and/or commercial proponents proposing projects in areas within the M-KMA they should be encouraged to:
  - use existing linear infrastructure to the extent possible, and/or;
  - collaboratively develop shared linear infrastructure within common access corridors wherever possible and where it is able to be done or put into practice successfully;
- 3.23 Winter road access is preferred, if safe, cost-effective and able to be done or put into practice successfully;
- 3.24 Non-road access options such as helicopters and low-impact access options should be utilized where safe and are able to be done or put into practice successfully;
- 3.25 New public or commercial motorized access should not be created; and
- 3.26 New public motorized access to industrial activities should be prevented

#### 4. Additional Area Specific Measures and Recommendations

In addition to the General Measures and Recommendations specified in Section 4, the Board has described areas of the M-KMA (management units) that share similar wilderness, wildlife and/or cultural values as well as generally exhibiting similar degrees of evidence of human activity.

These management units are grouped into two broad categories with their respective area specific measures and recommendations. The two broad management unity categories are:

- *Management Units Generally Exhibiting Higher Evidence of Human Activity;*
- *Management Units Generally Exhibiting Less Evidence of Human Activity;*

##### 4.1 Measures and Recommendations for Management Units Generally Exhibiting Higher Evidence of Human Activity

The management units in this section share similar wilderness, wildlife and/or cultural values and generally exhibiting similar degrees of evidence of human activity. This evidence of human activity ranges from industrial operations to non-indigenous recreation (ATV trails for example).

Management regimes for these management units require that the “footprint” of any new, approved, industrial activity eventually fades from the landscape to the baseline conditions the existed at the time of approval. There is no intent to require the complete fading of existing evidence of human activity.

**4.1.1 Eastern Slopes South of the Prophet (Besa-Chowadi, Halfway and Graham North RMZ’s) Management Unit**



This area is considered to possess the most evidence of historical industrial activity in the M-KMA. It enjoys moderate to high levels of recreational use (primarily via off road vehicles on the established motorized access routes). Although the wilderness values may not be particularly high in an overall M-KMA context, this portion of the eastern slopes is highly important to the recreation community.

Industrial activity may occur in any one of the watersheds within the “special management unit” and industrial activity in the rest of the watersheds is prohibited until the current industrial activity ends and is satisfactorily rehabilitated, reclaimed, and/or restored.

Subsequent industrial activity in remaining watershed may proceed as per the preceding paragraph. In the event that all watersheds in this “special management unit” are impacted by industrial activity, no further industrial activity may occur in the first impacted watershed until baseline conditions have returned.

**Table 1: Eastern Slopes South of the Prophet Management Unit**

Value	Valued Component	Indicator	Measure (L/M/H)	Threshold	Additional Measures
Wilderness	Solitude	Existing Degree of Solitude	Moderate	N/A	See Section 4
	Remoteness	Existing Degree of Remoteness	Low	N/A	
	Ecological Integrity	Habitat Intactness (population #'s)	7 Focal Species plus aquatic plus...? A range of habitats being relatively intact serves as a surrogate for pop #'s?	Refer to a text section that will be written (maintain populations over time)	
	Naturally Appearing Landscapes	Existing Degree of “naturalness”	Low (only in an MK (or other “big	N/A	

			wilderness”) context?)		
<b>Wildlife</b>	7 Focal Species Species of Management Concern including aquatic	Habitat Quality	Mod – High Quality Habitat	< 2 % area disturbance	
			Mod – Nil Quality Habitat	< 5% area disturbance	
<b>Culture</b>	Indigenous				
	Non-Indigenous	Importance to Recreation Users (Regularly Used Important Recreation Areas (RUIRA)	Moderate	Only one watershed may have industrial activity at any one time;  The watersheds in this Management Unit are (from North to South):  - Prophet, - Besa, - Neves, - Sikanni, - Halfway, - Cypress, - Chowade, - Graham.	Threshold can apply again upon acceptable rehabilitation and/or reclamation of current industrial activity;  Minimize visual, aural and olfactory impacts to recreational users.

**4.1.2 Muskwa West Management Unit**

INSERT MAP

WAYNE? Least remote, legacy of seismic etc. Given that industrial access for most of the Muskwa West RMZ would require some means of crossing the Muskwa River, the board felt it prudent to provide direction wrt a crossing.

Only one industrial activity may occur within this Management Unit. Subsequent industrial activity may only be considered when baseline conditions return after an approved industrial activity ends.

Industrial activity within this Management Unit is not governed by industrial activity in other Management Units in the M-KMA.

**Table 2: Muskwa West Management Unit**

<b>Value</b>	<b>Valued Component</b>	<b>Indicator</b>	<b>Measure (L/M/H)</b>	<b>Threshold</b>	<b>Additional Measures</b>
<b>Wilderness</b>	Solitude	Existing Degree of Solitude	Moderate	N/A	
	Remoteness	Existing Degree of Remoteness	Low	N/A	
	Ecological Integrity	Habitat Intactness (population #'s)	7 Focal Species plus aquatic plus...? A range of habitats being relatively intact serves as a surrogate for pop #'s?	Refer to a text section that will be written (maintain populations over time)	
	Naturally Appearing Landscapes	Existing Degree of "naturalness"	Low	N/A	
<b>Wildlife</b>	7 Focal Species Species of Management Concern including aquatic	Habitat Quality	Mod – High Quality Habitat	< 2 % area disturbance	
			Mod – Nil Quality Habitat	< 5% area disturbance	
<b>Culture</b>	Indigenous				
	Non-Indigenous	Importance to Recreation Users (Regularly Used Important Recreation Areas (RUIRA))	Moderate	N/A	Restrict industrial activities to winter operations and that no permanent bridges be constructed across the Muskwa River (see Section 6.38)



**4.1.3 Racing River and Upper Toad portions of the Churchill RMZ Management Unit**

INSERT MAP

This area was impacted by mining and mineral exploration activity in the ... 1970's?????. The approved motorized access corridors here are part of that development legacy. Wildlife values (particularly sheep in the Racing and moose in the Toad) are high(?). Accordingly, the board recommends that any future development limit its geographic footprint and maintain undiminished opportunities for recreation in one value

Only one industrial activity may occur within this Management Unit. Subsequent industrial activity may only be considered when baseline conditions return after an approved industrial activity ends.

Industrial activity within this Management Unit is not governed by industrial activity in other Management Units in the M-KMA.

**Table 3: Racing River and Upper Toad portions of Churchill RMZ Management Unit**

Value	Valued Component	Indicator	Measure (L/M/H)	Threshold	Additional Measures
<b>Wilderness</b>	Solitude	Existing Degree of Solitude	Moderate	N/A	
	Remoteness	Existing Degree of Remoteness	Low	N/A	
	Ecological Integrity	Suite of indicator species (biodiversity)	7 Focal Species plus aquatic plus...? Act as umbrella species?	Refer to a text section that will be written (species are not extirpated)	
		Habitat Intactness (population #'s)	7 Focal Species plus aquatic plus...? A range of habitats being relatively intact serves as a surrogate for pop #'s?	Refer to a text section that will be written (maintain populations over time)	
	Naturally Appearing Landscapes	Existing Degree of "naturalness"	Low or is it moderate?	N/A	

<b>Wildlife</b>	7 Focal Species Species of Management Concern including aquatic	Habitat Quality	Mod – High Quality Habitat	< 2 % area disturbance	
			Mod – Nil Quality Habitat	< 5% area disturbance	
<b>Culture</b>	Indigenous				
	Non-Indigenous	Importance to Recreation Users (Regularly Used Important Recreation Areas (RUIRA))	Moderate	Only one industrial open road in either the Racing River portion or the Upper Toad Portion of the Churchill RMZ.	

**4.1.4 Kechika River Corridor and Turnagain/Dall River Corridors Management Unit**

INSERT MAP

These two narrow river corridor RMZs are very important to wilderness recreation in the northwestern portion of the M-KMA. (and being low elevation, likely for biodiversity as well?). In consideration of this the board recommends the placement of any roads and other industrial infrastructure away from the Kechika, Turnagain and Dall Rivers and, in order to access resources in the adjacent RMZs, restrict crossings of these rivers to one location for all industrial infrastructure. (eg if a project requires a road and a powerline, these would cross the river at the same location).

Only one industrial activity may occur within this Management Unit. Subsequent industrial activity may only be considered when baseline conditions return after an approved industrial activity end.

Industrial activity within this Management Unit is not governed by industrial activity in other “Special Management Units” in the M-KMA.

**Table 4: Kechika and Turnagain/Dall River Corridors RMZs Management Unit**

Value	Valued Component	Indicator	Measure (L/M/H)	Threshold	Additional Measures
<b>Wilderness</b>	Solitude	Existing Degree of Solitude	Moderate	N/A	
	Remoteness	Existing Degree of Remoteness	Moderate	N/A	
	Ecological Integrity	Habitat Intactness (population #'s)	7 Focal Species plus aquatic plus...?	Refer to a text section that will be written (maintain populations over time)	
	Naturally Appearing Landscapes	Existing Degree of "naturalness"	High	N/A	
<b>Wildlife</b>	7 Focal Species	Habitat Quality	Mod – High Quality Habitat	< 2 % area disturbance	
	Species of Management Concern including aquatic		Mod – Nil Quality Habitat	< 5% area disturbance	
<b>Culture</b>	Indigenous				
	Non-Indigenous	Importance to Recreation Users (Regularly Used Important Recreation Areas (RUIRA))	High	Only one location for industrial infrastructure crossing of either corridor.  Situating any roads, powerlines or other infrastructure away from the Kechika, Turnagain and Dall Rivers in a manner that protects the wilderness, cultural (and wildlife?) values.	

**4.1.5 West Portion of Sulphur 8 Mile RMZ Management Unit**

INSERT MAP

The Sulphur 8 Mile Stone Sheep Study (correct name) recommended X, Y Z. Given these recommendations and the very high importance of the western portion of the RMZ, the board recommends A, B, C.

Only one industrial activity may occur within this “Special Management Unit”. Subsequent industrial activity may only be considered when baseline conditions return after an approved industrial activity ends.

Industrial activity within this Management Unit is not governed by industrial activity in other Management Units in the M-KMA.

**Table 5: West Portion of Sulphur 8 Mile Management Unit Framework**

Value	Valued Component	Indicator	Measure (L/M/H)	Threshold	Additional Measures
<b>Wilderness</b>	Solitude	Existing Degree of Solitude	Moderate	N/A	
	Remoteness	Existing Degree of Remoteness	Moderate	N/A	
	Ecological Integrity	Habitat Intactness (population #'s)	7 Focal Species plus aquatic plus...?	Refer to a text section that will be written (maintain populations over time)	
	Naturally Appearing Landscapes	Existing Degree of “naturalness”	High	N/A	
<b>Wildlife</b>	7 Focal Species	Habitat Quality	Mod – High Quality Habitat	< 2 % area disturbance	
	Species of Management Concern including aquatic		Mod – Nil Quality Habitat	< 5% area disturbance	
<b>Culture</b>	Indigenous				

	Non-Indigenous	Importance to Recreation Users (Regularly Used Important Recreation Areas (RUIRA))	High	Oil and gas is restricted from here. What do we say about other industries?	
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**PLACE HOLDER:**

*Toad River Corridor Management Zone is an RUIRA (needs more thought about potential thresholds or something like “no bridge across this management zone except nearer to Alaska Highway”????)  
 Need work on “point sources” and management direction around them (Moodie Lakes, Colt Lake, Obo Lake (???));  
 Netson Lake and Creek and Rabbit River RUIRA (more work to be done)*

**4.2 Measures and Recommendations for Management Units Generally Exhibiting Less Evidence of Human Activity**

These management units generally exhibit less evidence of human activity than the management units identified in Section 5.1. There is no evidence of industrial activity in these management units and many exhibit extremely high wilderness, wildlife and/or cultural values and are, therefore, extremely sensitive to industrial activity.

The nature of human activity in these management units ranges from jet boating and hunting for limited times of the years to virtually no evidence of industrial activity (access for example).

While the measures and recommendations for these areas do not preclude industrial development, proponents and statutory decision makers are cautioned to consider only those activities and practices that guarantee return of pre-activity baseline conditions.

**4.2.1 Prophet Management Unit**



This management unit is deemed by the Board as one of the most vulnerable sectors to disturbance from industrial activities because it possesses extremely high wilderness values (spectacular scenery), non-indigenous culture (world class hunting (Chadwick the top Stone Sheep ram was taken in this area (#1 North American Trophy)), presence of hot springs, etc.) and wildlife values (exceptional even within the context of the MKMA because of high ungulate populations (all seven of the Board’s focal species are present)), highly productive grizzly habitat, etc.).

There is mining and oil and gas potential in this sector but accessing these resources would have significant environmental impacts because of difficult terrain. For example, rock blasting to construct access through “pinch points” in the valley significantly decreases the likelihood of permanent deactivation and rehabilitation of access infrastructure.

With the goal of returning wilderness, wildlife and cultural values to pre-industrial activity conditions proponents and decision makers must consider whether or not practices can be utilized that can achieve this vision within a reasonable period of time when developing or adjudicating an industrial proposal for the area.

If an industrial activity in this management unit is approved, no other industrial activity in the remaining Section 4.2 management units may occur until baseline conditions return after the approved industrial activity ends.

**Table 6: Prophet Management Unit**

Value	Valued Component	Indicator	Indicator Quality (L/M/H)	Threshold	Additional Measures
<b>Wilderness</b>	Solitude	Existing Degree of Solitude	High	N/A	No tolerance to persistence of industrial activity legacies (roads, open pits, etc.)
	Remoteness	Existing Degree of Remoteness	Moderate?	N/A	No tolerance to persistence of industrial activity legacies (roads, open pits, etc.)
	Ecological Integrity	Habitat Intactness (population #'s)	High	Refer to a text section that will be written (maintain populations over time)	
	Naturally Appearing Landscapes	Existing Degree of "naturalness"	High	N/A	
<b>Wildlife</b>	7 Focal Species Species of Management Concern including aquatic	Mod- High Habitat Quality	High	< 1 % area disturbance	
		Mod- Nil Quality Habitat	High	< 3% area disturbance	
<b>Culture</b>	Indigenous				
	Non-Indigenous	Non-commercial recreation	High	N/A	No tolerance to persistence of industrial activity

					legacies (roads, open pits, etc.)

**4.2.2 Upper Gataga Management Unit**

INSERT MAP

This management unit is deemed by the Board as one of the most sensitive to disturbance from industrial activities because it possesses extremely high wilderness values surrounded by spectacular scenery and a largely open Alpine environment and is one of the “wildest of the wild” areas in the M-KMA with a very high likelihood of extreme solitude while recreating there.

The intent of this Management Unit is that ecological conservation is a priority. As this Management Unit is adjacent to a “Protected Management Unit: No Industrial Activity”, resource development should be sensitive to the in the intended objectives of that Protected Management Unit.”

Timber harvesting is a precluded industrial activity in tis Management Unit.

Six of the seven focal species are routinely present in this zone; with elk occasionally being present (the 7th focal species).

The Kwadacha First Nation recommended in the Year 2000 that this area become part of a larger protected area in upper reaches of the broader Kechika watershed.

While there have been mineral claims in the area, currently none are present. As well, the area is designated as a Special Wildland Zone meaning forestry activities are precluded.

Access construction to the area would likely travers either the Churchill or Fox RMZs leading to additional cumulative impacts over and above for those within the Upper Gataga.

Because of the difficulty of access construction to the area, including additional construction impacts to adjoining RMZs, there is a significant decrease in the likelihood of adequate rehabilitation of any access constructed to the area meaning a significant decrease in the likelihood of permanent deactivation and rehabilitation of that infrastructure.

With the goal of returning wilderness, wildlife and culture values to pre-industrial activity conditions proponents and decision makers must consider whetherthere are practices that can achieve this vision within a reasonable period of time when developing or adjudicating an industrial proposal for the area.

If an industrial activity in this management unit is approved, no other industrial activity in the remaining Section 4.2 management units may occur until baseline conditions return after the approved industrial activity ends.



**Table 7: Upper Gataga Management Unit Framework**

Value	Valued Component	Indicator	Measure (L/M/H)	Threshold	Additional Measures
<b>Wilderness</b>	Solitude	Existing Degree of Solitude	High	N/A	
	Remoteness	Existing Degree of Remoteness	Moderate	N/A	
	Ecological Integrity	Habitat Intactness (population #'s)	7 Focal Species plus aquatic plus...?	Refer to a text section that will be written (maintain populations over time)	
	Naturally Appearing Landscapes	Existing Degree of "naturalness"	High	N/A	
<b>Wildlife</b>	7 Focal Species Species of Management Concern including aquatic	Habitat Quality	Mod – High Quality Habitat	< 1 % area disturbance	
			Mod – Nil Quality Habitat	< 3 % area disturbance	
<b>Culture</b>	Indigenous		High		
	Non-Indigenous	Non-commercial recreation	High	N/A	Manage for visual quality in identified visually sensitive areas;  Consider establishment of the view from the water of the Gataga River as a "known" scenic area.

### 4.2.3 Braid Management Unit

INSERT MAP

This management unit is deemed by the Board as one of the most vulnerable to disturbance from industrial activities because it possesses extremely high wilderness values including spectacular scenery and is another of the “wildest of the wild” areas in the M-KMA because of its remoteness.

The intent of this Management Unit is that ecological conservation is a priority. As this Management Unit is adjacent to a “Protected Management Unit: No Industrial Activity”, resource development should be sensitive to the in the intended objectives of that Protected Management Unit.”

Timber harvesting is a precluded industrial activity in tis Management Unit.

With respect to remoteness, the Braid is among one of the most remote areas in the province in terms of distance from permanent roads.

The “Davie Trail” traverses the Braid which is an important cultural feature for the Kaska First Nation.

Relative to other units in the M-KMA the Braid possess moderate wildlife values, but, as noted earlier, within the context of the province, the wildlife values in the Braid are very high.

The Kwadacha First Nation recommended in the Year 2000 that this area become part of a larger protected area in the upper reaches of the broader Kechika watershed.

Currently the Eastern portion of the Braid sector supports several mineral claims (lead/zinc). It is possible that the eastern portion of the Braid sector may contain some of the highest value mineral deposit(s) in the M-KMA. As well, the area is designated as a Special Wildland Zone meaning forestry activities are precluded.

Because of the difficulty of access construction to the area around the lead/zinc tenures in the eastern portion of the Braid sector there is a significant decrease in the likelihood of adequate rehabilitation of any access constructed to the area meaning a significant decrease in the likelihood of permanent deactivation and rehabilitation of that infrastructure.

Any road access to mining tenures in the Driftpile area should utilize corridors located outside of the Dune Za Keyih Park, as identified in the “Ecstall Tenures Access Corridor Study”.

If an industrial activity in this management unit is approved, no other industrial activity in the remaining Section 4.2 management units may occur until baseline conditions return after the approved industrial activity ends.

**Table 8: Braid Management Unit Framework**

Value	Valued Component	Indicator	Measure (L/M/H)	Threshold	Additional Measures
<b>Wilderness</b>	Solitude	Existing Degree of Solitude	High	N/A	
	Remoteness	Existing Degree of Remoteness	High	N/A	
	Ecological Integrity	Suite of indicator species (biodiversity)	7 Focal Species plus aquatic plus...?	Refer to a text section that will be written (species are not extirpated)	
		Habitat Intactness (population #'s)	7 Focal Species plus aquatic plus...?	Refer to a text section that will be written (maintain populations over time)	
	Naturally Appearing Landscapes	Existing Degree of "naturalness"	High	N/A	
<b>Wildlife</b>	7 Focal Species Species of Management Concern including aquatic	Habitat Quality	Mod – High Quality Habitat	< 2 % area disturbance	Numerous specifics in Access and Transportation and Utility Corridor sections of LRMP document
			Mod – Nil Quality Habitat	< 5 % area disturbance	
<b>Culture</b>	Indigenous				
	Non-Indigenous	Non-commercial recreation	Moderate Wilderness Recreation with potential for High	N/A	Maintain the historic integrity of the Davie Trail... while allowing other uses;  Manage for visual quality in identified visually sensitive areas.

					Goes on to talk about establishment of known scenic areas and visual objectives for the Kechika River and Davie Trail.
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**4.2.4 Frog Management Unit**

INSERT MAP

This management unit is deemed by the Board as one of the most vulnerable to disturbance from industrial activities because it is among one of the most remote areas in BC in terms of distance from permanent roads leading to a high sense of remoteness and solitude (Note: the sense of remoteness is deemed by the Board to be not quite as high as in the Braid or Upper Gataga management units).

The intent of this Management Unit is that ecological conservation is a priority. As this Management Unit is adjacent to a “Protected Management Unit: No Industrial Activity”, resource development should be sensitive to the in the intended objectives of that Protected Management Unit.”

Timber harvesting is a precluded industrial activity in tis Management Unit.

Within the context of the M-KMA the area possesses moderate wildlife values, but, as noted earlier, within the context of the province, the wildlife values in the Frog are very high.

Currently, access into the area is primarily to lakes by float plane or by boat via the Frog River. The Frog is among one of the most remote areas in the province in terms of distance from permanent roads.

The Kwadacha First Nation recommended in the Year 2000 that this area become part of a larger protected area in the upper reaches of the Kechika watershed.

This area is designated as a Special Wildland Zone which precludes Forestry.

If an industrial activity in this management unit is approved, no other industrial activity in the remaining Section 4.2 management units may occur until baseline conditions return after the approved industrial activity ends.

**Table 9: Frog Management Unit Framework**

Value	Valued Component	Indicator	Measure (L/M/H)	Threshold	Additional Measures
<b>Wilderness</b>	Solitude	Existing Degree of Solitude	High	N/A	
	Remoteness	Existing Degree of Remoteness	High	N/A	
	Ecological Integrity	Habitat Intactness (population #'s)	7 Focal Species plus aquatic plus...?	Refer to a text section that will be written (maintain populations over time)	
	Naturally Appearing Landscapes	Existing Degree of "naturalness"	High	N/A	
<b>Wildlife</b>	7 Focal Species Species of Management Concern including aquatic	Habitat Quality	Mod – High Quality Habitat	< 2 % area disturbance	Numerous specifics in Access and Transportation and Utility Corridor sections of LRMP  LRMP talks about using access management strategies to maintain a percentage of semi-primitive non-motorized and primitive recreation opportunity spectrum.
			Mod – Nil Quality Habitat	< 5 % area disturbance	
<b>Culture</b>	Indigenous		High		

	Non-Indigenous	Non-Commercial Recreation	High	N/A	<p>Manage for visual quality in identified visually sensitive areas.”</p> <p>LRMP goes on to talk about establishment of known scenic areas and visual objectives for the Frog River Johiah Lake and some lakes in the upper Obo. also establishing VQOs for some upper Obo lakes.</p>
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**4.2.5 Bluff Creek Management Unit**

INSERT MAP

The intent of this Management Unit is that ecological conservation is a priority. As this Management Unit is adjacent to a “Protected Management Unit: No Industrial Activity”, resource development should be sensitive to the in the intended objectives of that Protected Management Unit.”

Timber harvesting is a precluded industrial activity in tis Management Unit.

**Table 10: Bluff Creek Management Unit Framework**

Value	Valued Component	Indicator	Measure (L/M/H)	Threshold	Additional Measures
Wilderness	Solitude	Existing Degree of Solitude	High	N/A	
	Remoteness	Existing Degree of Remoteness	High	N/A	
	Ecological Integrity	Habitat Intactness (population #'s)	7 Focal Species plus aquatic plus...?	Refer to a text section that will be written (maintain populations over time)	

	Naturally Appearing Landscapes	Existing Degree of “naturalness”	High	N/A	
<b>Wildlife</b>	7 Focal Species Species of Management Concern including aquatic	Habitat Quality	Mod – High Quality Habitat	< 2 % area disturbance	Numerous specifics in Access and Transportation and Utility Corridor sections of LRMP  LRMP talks about using access management strategies to maintain a percentage of semi-primitive non-motorized and primitive recreation opportunity spectrum.
			Mod – Nil Quality Habitat	< 5 % area disturbance	
<b>Culture</b>	Indigenous				
	Non-Indigenous	Non-Commercial Recreation	High	N/A	Manage access to maintain the wilderness character and qualities of the remote natural environment.  Access for resource extraction in allowable to the north and east of this Management Unit, and not through the Dune Za Keyih



					<p>(Frog-Gataga)          “Protected Management Unit: No Industrial Activity”.</p> <p>Manage for visual quality in identified visually sensitive areas.”</p> <p>“The western boundary of Management Unit follows the height of land and coincides with the Dune Za Keyih (Frog-Gataga)          “Protected Management Unit: No Industrial Activity” boundary in order that the view-scape from the river inside this Protected Management Unit is in protected.</p>
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**5. Protected Management Units: No Industrial Access**

“Protected Management Units: No Industrial Access” within the M-KMA encompass protected areas versus legally designated Protected Areas under Section 7 of the *Environment and Land Use Act*.

The term protected area is a broader term to describe areas of the M-KMA that are protected from industrial resource development. Currently these areas include Provincial Parks, Ecological Reserves, Conservancies, National Parks, etc. This list commonly includes the legally designated “Protected Areas” as well, although in this document these “Protected Areas” are treated separately in Section 7.0.

Currently in the M-KMA these Protected Management Units contain numerous Provincial Parks, two Ecological Reserves, and the very southernmost tip of the Ne’ah’ Conservancy.

The overarching management guidance for these Protected Management Units is the on-going maintenance of their integrity. **WE SHOULD HAVE A LIST OF THE MANAGEMENT UNITS SIMILAR TO THE LIST IN SECTION 6.0**

Note that designations that do not protect from a full range of industrial development are not included in these Protected Management Units. Examples of the designations not included in these Protected Management Units are Wildland Resource Management Zones, Wildlife Habitat Areas, and Ungulate Winter Ranges. It is possible that First Nations may add to these designations such as the “Conserved” part of Indigenous Protected and Conserved Areas.

It is reasonable to expect that First Nations’ engagement with the provincial government will result in more parts of the M-KMA being fully and/or partly protected, potentially through new designations such as Indigenous Protected Areas, Tribal Parks etc. All new fully protected areas, regardless of how they are initiated or by whom, should be treated the same way as described above if/when they are established and included in these Management Units.

## 6. Protected Management Units: Possible Industrial Access

As noted in Section 5.0, Protected Areas are legally designated areas under Section 7 of the *Environment and Land Use Act*.

These Protected Areas are often commonly referred to as “ELUC corridors” or “ELU Act Corridors”. The typical intent of these Protected Areas is to conserve natural values in a given area by proscribing resource extraction but allowing a use (or uses) which would not be compatible in a designation such as provincial park, while still allowing access through an otherwise protected area.

Conservancies in Schedule F of the Protected Areas of British Columbia Act have a relationship to Conservancies in Schedule E that is similar to Protected Areas and Provincial Parks.

Future forms of land designations (possibly including Indigenous Protected Areas, Tribal Parks etc) may create additional, new similar areas for access or other activity that does not conform to protected area stipulations. These should be treated the same way as the previous examples if/when they are established and included in this Protected Management Unit regardless of how they are initiated or by whom.

The most common reason for the establishment of Protected Areas in the M-KMA is to allow the construction of access for resource extraction and other linear infrastructure to provide access to resources beyond the protected area – in other words, a protected area such as a provincial park could not block access to resources beyond the park.

In the M-KMA, at times, Protected Area access corridors were also established to provide shorter, easier and/or cheaper access than other already existing routes wholly outside of the protected area system. Portions of Dune Za Keyih and Finlay Russel Protected Areas are examples of this.

“Protected Management Units: Possible Industrial Access” encompass these Protected Areas versus the protected areas of Section 6.0 Protected Management Units.

The “Protected Management Units: Possible Industrial Access” in the M-KMA are:

- Dune Za Keyih Protected Area
- Finlay Russel Protected Area (>1 section)
- Denetiah Protected Area

- Liard River Corridor Protected Area (>1 section)
- Northern Rocky Mountains Protected Area (>1 section?)
- An additional Protected Area was identified through Graham Laurier Park in \_\_\_\_ (year?) but never finalized????

**Table 11: Protected Management Units: Possible Industrial Access” Framework**

Value	Valued Component	Indicator	Measure (L/M/H)	Threshold	Additional Measures
Wilderness	Solitude	Existing Degree of Solitude	High	N/A	Access (or other non-conforming use) through/in a Protected Area, Schedule F conservancy, or similar future designation should be avoided whenever possible.
	Remoteness	Existing Degree of Remoteness	High	N/A	Re existing Protected Areas and Parks: Should a “Protected Management Unit: Possible Industrial Access” change to a “Protected Management Unit: No Industrial Access” that now precludes industrial development, then, as the industrial access is no longer required, the “Protected Management Unit: Possible Industrial Access” should change to become part of the “Protected Management Unit: No Industrial Access” it is adjacent to and assume the name of that Protected Management Unit. For example, The Finlay Russel “Protected Management Unit: Possible Industrial Access” would become part of the Finlay Russel

					“Protected Management Unit: No Industrial Access” (i.e. the Finlay Russell Park).
	Ecological Integrity	Habitat Intactness (population #'s)	7 Focal Species plus aquatic plus...?	Refer to a text section that will be written (maintain populations over time)	Re future access corridors and future protected areas: Should designation of an area of the M-KMA for which a Schedule F conservancy or similar future designation was intended to potentially provide access change to a “Protected Management Unit: No Industrial Access” (i.e. some form of protected area status that precludes industrial development), then, as the industrial access is no longer required, the Schedule F Conservancy or other “access corridor” area’s designation should change to some form of “Protected Management Unit: No Industrial Access”
	Naturally Appearing Landscapes	Existing Degree of “naturalness”	High	N/A	
<b>Wildlife</b>	7 Focal Species Species of Management Concern including aquatic	Habitat Quality	Mod – High Quality Habitat	< 2 % area disturbance	

			Mod – Nil Quality Habitat	< 5 % area disturbance	
<b>Culture</b>	Indigenous		High		<p>Do we agree with the intent of what Section 6.11.1 of the Mackenzie LRMP direction of “Where there is a proven necessity for the use of an ELU Act corridor, approvals should be subject to:</p> <ul style="list-style-type: none"> <li>• detailed assessment to verify that alternative routes do not exist;</li> <li>• assessment that there is a bona fide need to consider a proposal;</li> <li>• public and stakeholder involvement in the decision-making process;</li> <li>• analysis of a proposal with respect to environmental impacts, costs and distances; and</li> <li>• consistency with LRMP objectives and strategies.”</li> </ul>
	Non-Indigenous	Non-Commercial Recreation	High	N/A	

**6.1 Denetiah Protected Management Unit: Possible Industrial Access**

This management unit encompasses the Denetiah Protected Area that was created by the Ft. Nelson LRMP and pre-dates the Mackenzie LRMP. The Mackenzie LRMP subsequently created Dune Za Keyih Provincial Park which eliminated the need for Denetiah Protected Area to bisect Denetiah Provincial Park to provide access to the abutting area that is now Dune Za Keyih Provincial Park.

Further, any road, pipeline, powerline or similar infrastructure bisecting the middle of the M-KMA from south to north (for example, through the Denetiah Protected Area) would have a massive and permanent negative impact to the M-KMA's wilderness, wildlife and cultural values. Consideration should be given to whether there is still a need for the Denetiah Protected Management Unit: Possible Industrial Access and whether it should become part of the Denetiah Protected Management Unit: No Industrial Access (i.e. the Denetiah Provincial Park).

## **6.2 Dune Za Keyih Protected Management Unit: Possible Industrial Access**

In October 2001 Kilborn Engineering Pacific Ltd. completed a study (Ecstall Tenures Access Corridor Study) for government on access options to mineral tenures in the zinc belt in the Braid Management Unit (Section 5.2.3). Given that the configuration of Dune Za Keyih Protected Management Unit: Possible Industrial Access provides more access options than the (recommended?) option, consideration should be given to amending the size and shape of Dune Za Keyih Protected Management Unit: Possible Industrial Access to reflect the Kilborn recommendation and input from the Kaska. Any surplus portions of the Dune Za Keyih Protected Management Unit: Possible Industrial Access should become part of Dune Za Protected Management Unit: No Industrial Access (i.e. the Dune Za Keyih Park).

## **6.3 Finaly Russel Protected Management Unit: Possible Industrial Access**

If Kaska are successful in protecting the Obo RMZ it would seem that the northern of the two pieces of Finlay Russel Protected Management Unit: Possible Industrial Access would no longer be necessary. Therefore, as noted in Section 7.2, consideration should be given to including it as part of Finlay Russel Protected Management Unit: No Industrial Access (i.e. the Finlay Russel Park) if the Obo is protected.

## **6.4 Liard River Corridor Protected Management Unit: Possible Industrial Access**

Section 22.2.5.3 of the Ft. Nelson LRMP states: "There is a reserve in place for the Alaska Highway Pipeline which runs across the proposed protected area. The pipeline will be allowed if there is no practical or feasible alternative."

# APPENDIX 1

## BOARD DEFINITIONS

For the purposes of this document, the following definitions are provided for clarity and understanding:

- **Access Deactivation** - Measures taken to stabilize roads and trails so that the area over which the road was constructed will be stable and will not adversely impact other resources and/or values. These measures include, but are not limited to, the control of drainage, the removal of side-cast where necessary, and the reestablishment of vegetation on permanently deactivated areas;
- **Access Rehabilitation** - Measures taken on a road, trail or other access related structure that return the area over which the road, trail or other access related structure to its former state. The range of rehabilitation measures include, but are not limited to, returning an access structure to a safe and useable condition for which it was originally designed to restoring soil productivity, preventing surface soil erosion and minimizing negative impacts to fisheries, aquatic habitats, wildlife, wilderness quality and characteristics, etc. Rehabilitation measures may include, but not be limited to, erosion control, slope stabilization, roadway surface and subgrade stabilization, road surface and subsurface drainage control and mitigating stream and wet area crossings;
- **Access Related Structure** – Means a temporary or permanent structure related to access construction and use such as forestry landings, bridges, culverts, fords, gravel pits, etc.;
- **Access Restoration** – Measures taken on a road, trail or other access related structure that do not allow uses for which it was designed (for example, use by industrial traffic) or any other industrial, commercial or public uses and will return the area over which the road, trail or other access related structure to an earlier or original natural condition. Access restoration measures may include, but are not limited to, erosion control, slope stabilization, roadway surface and subgrade stabilization, road surface and subsurface drainage control and mitigating stream and wet area crossings;
- **Bridge** - Means a temporary or permanent structure carrying a road above a stream or other opening;
- **Commercial Activities** – Primarily individuals or groups of individuals who have an emphasis on sales, profit or success;
- **Culvert** - means a transverse drain pipe or log structure covered with soil and lying below the road surface;
- **Ecological integrity** - a state or condition where structures and functions of the ecological system (or ecosystem) remain unimpaired by human-caused disturbances, where all native species are present at viable population levels and where, within successional limits, the ecosystem is likely to persist and evolve naturally. Ecosystems have integrity when their components (plants, animals and other organisms) and processes (such as growth, reproduction, predator-prey relationships, and disturbance regimes) are functioning within a natural range of variation over long periods of time. The term ‘unimpaired’ is used here within the ecological context that while all use causes an impact an impaired ecosystem is one that does not recover from the use;



- **Ecological System (ecosystem)** - a self-sustaining community of plant and animal species, the non-living components of the environment on which that community depends, and the interrelationships between all of these.
- **Ford** - Means a dip in a road constructed to facilitate crossing a stream;
- **Industrial Activities** – Activities that are of, or, related to the natural resource sector such as, but not limited to, mineral, energy (wind, oil and gas, etc.), forestry and trapping resource activities;
- **Large Area** - The M-KMA is 6.4 million hectares in size and the management intent is to maintain wilderness quality across the area. Recognizing that while resource development and use is allowed in the Management Zones with the long-term objective of returning lands to their natural state, sufficiently large areas are requisite for human wilderness experiences and the maintenance of ecological integrity;
- **License/Authorization** – These can take the form of an agreement, licence or permit issued by the government. Each is a legally binding contract that provides the contract holder with specific rights to use crown resources over a specific period of time, in exchange for meeting government objectives;
- **Natural** – An area perceived as unaffected by humans or human activities, particularly industrial activities, where ecological integrity is maintained;
- **Net Positive Socio-Economic Benefit** - An assessment of the impacts of a course of action on the social, environmental and economic well-being of a community, region, or the province as a whole that predicts the course of action will result in an overall net positive benefit to society (community, region, or province);