

# Kaska Dena Management Practices: Kaska Dena Land Use Framework





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# **EXECUTIVE SUMMARY**

The Kaska Dena have developed a Kaska Dena Land Use Framework that includes communitybased natural resource development policies, management practices, and land use zoning. It is a framework for the Kaska Dena to use with governments and the natural resource industry sectors in collaborative management of Kaska lands and resources in our traditional territory.

Kaska policies layout the expectations we have on how governments and natural resource sectors will consult, accommodate, and how we will jointly manage our lands and resources.

It is important to understand that given the range of development activities that can occur in our traditional territory, it is not our intention to list every practice, but to provide a guide of management approaches and key landscape and site level management practices. We will provide detailed practices and recommendations as proponents or governments engage us on resource development or planning.

Kaska land use zoning identifies a network of Kaska protected areas, special management areas, and site specific features with specific management approaches. In addition, we apply a general management practice across scales to concentrate human activities while maintaining large areas of undisturbed lands and water.

Finally, we are committed to engagement and monitoring throughout the full life cycle of a development project. We see it as an approach to manage our lands and water and establish long-term relationships with proponents and governments.

# ACKOWLEDGEMENTS

The Dena Kayeh Institute could not have completed this document or the Kaska Land Use Framework without the direction and guidance of Kaska Land Stewards and Kaska Dena Communities. This work is intended to assist the Kaska Dena in reclaiming our role as stewards of our lands and their efforts have made this possible.

In addition, we would like to thank all the Kaska Traditional Knowledge Coordinators who have assisted in collecting and managing our traditional knowledge over time. We would like to thank the efforts of Norman Sterriah and Norm Barichello who have taken the steps to develop a Kaska Traditional Knowledge Manual and have been sharing their knowledge on a number of Kaska traditional knowledge initiatives. Also, the pictures on the cover where taken by Norm Barichello. We would like to thank Brian Ladue and Blandon Donnessey, Kaska GIS Analysts, who have helped map and maintain our digital traditional knowledge data.

The Kaska Land Use Framework and this document could not have been completed without the financial and technical support of the Canadian Boreal Initiative personnel who have worked with the Kaska Dena for years on our endeavour to reclaim our stewardship roles. They are a group who's main interest is First Nations having stewardship of their traditional territories and not hectares of land protected.

Finally, as the Kaska Dena have been involved in a number of land use or resource development planning processes, it was our interest to use or modify management language from those plans that met our requirements to develop the project. To that, we acknowledge the authors including Kaska authors who participated in these processes and we have benefitted from their work in developing the Kaska Land Use Framework.

# INTRODUCTION

# The Kaska Dena

# **Traditional territory**

Our traditional territory is about 24 million hectares (93,000 square miles), about the size of the entire state of Oregon (Map 1). It spans three provinces and territories (BC, the Yukon and the Northwest Territories) and constitutes fully 25% of the Yukon Territory, and 10% of the entire land area of British Columbia.

The majestic northern boreal forest regions of interior British Columbia and the Yukon have some of the continent's most expansive and impressive wilderness areas, with a great diversity of terrestrial and aquatic ecosystems. Extensive mountain ranges and wild rivers frame pristine boreal forest watersheds. Large free ranging populations of woodland caribou, moose, Dall's sheep, Stone sheep, a full suite of large carnivores, and hundreds of thousands of migrating neotropical songbirds and waterfowl make their home in these diverse boreal landscapes. Only a few roads cross this region, one of the wildest landscapes on the North American continent.

The vision of our people is to reclaim our role as stewards of the land and resources within our traditional territory. Towards this end, we need to develop long-term capacity and capability to promote and implement our land ethic. Our land ethic is based upon our philosophy that has been developed through centuries of producing food, shelter, medicine, and clothing from the land while sustaining the resources from which these materials are derived. To balance traditional uses of the resources while providing an economic framework for sustainable Kaska communities will involve working in partnership with Government, other First Nations, industry, local residents and interested third parties.

#### Kaska Communities

The Kaska Dena are located in five Kaska First Nations with the Liard First Nation, and Ross River Dena Council in the Yukon, and Dease River First Nation, Daylu Dena Council, Fireside, Muncho Lake, and Kwadacha First Nation within British Columbia (Map 1).

#### Kaska Land Use Framework

The Kaska Land Use Framework is a community based land use plan, management practices, and policies. It is a framework the Kaska will use to protect Kaska lands from third party dispositions. It is the basis for making Government to Government decisions on land use and development including the protection of Kaska culturally and ecological sensitive areas. In addition, the framework will inform Industry on how Kaska are expecting to be consulted, accommodated and where opportunities could be developed jointly with the Kaska.

Finally, the framework will allow the Kaska Dena over time, to have one land use plan for the traditional territory.

Currently, the Kaska Land Use Framework has been developed with Kaska communities in British Columbia as there was interest in beginning the work in light of the *New Relationship* 

policy of the provincial government where there was a commitment to shared decision making, reconciliation of rights and titles, and promising a new era of collaborative land and resource management between First Nations and British Columbia. As the framework is used to support *New Relationship* outcomes, Kaska Yukon communities may over time look to expand the framework for the entire traditional territory.

#### **Engaging Government and Natural Resource Sectors**

The Kaska Dena as part of our framework have approved community policies for resource development consultation, engagement, and expectations of standards to be met. Examples of mineral development and fish and wildlife policies for Kwadacha are included in Appendix 1 as well as a procedures policy for proponents wanting to operate in the traditional territory.

The Kaska Dena are engaging governments primarily in British Columbia by developing a shared decision making agreement with natural resource ministries that will include a Government to Government governance structure to achieve consensus recommendations for Kaska and Provincial Government decision makers. In addition, we are working with the Province to develop joint interest based land use plans using our framework to guide the plans. Finally, for all governments there remains the legal obligation of the crown to consult and accommodate First Nations, based on current case law, where infringement of rights, title, or interests may occur.

# Kaska Principles, Sacred Laws, and Kaska Land Stewards

# Kaska Principles

These principles are the foundation of a Kaska land ethic, not unlike that expressed by Aldo Leopold (below), who is considered by many to be the "father of science-based wildlife management"

"All ethics so far evolved rest upon a single premise: that the individual is a member of a community of interdependent parts. His instincts prompt him to compete for his place in the community, but his ethics prompt him also to cooperate...The land ethic simply enlarges the boundaries of the community to include soils, waters, plants and animals, or collectively, the land.....A land ethic, then, reflects the existence of an ecological conscience, and this in turn reflects a conviction of individual responsibility for the health of the land."

## Maintain ecological processes, which sustain biological diversity:

The Kaska insist on maintaining biological diversity as a way to meet their needs and their responsibilities as traditional land stewards. They understand that some ecosystem components are especially important and essential in maintaining biological diversity. These include wetlands, water bodies, the alluvial forests around the major waterways, and special fish and wildlife habitats. Water is the key, and the Kaska are decisive that water must be managed carefully.

# **Respect sacred laws – A'IE:**

Kaska way of life and use of the land was founded on our spiritual beliefs which were the basis of sacred laws, known as A'IE. Essentially this was a code of conduct for how the Kaska Dena were to treat the land and interact with their environment and with each other. It is essential our natural resources be developed in compliance with these sacred laws.

## **Respect for fish and wildlife:**

The Kaska hold respect for other living things in their traditional territory, and denounce the disrespectful treatment of these organisms.

## Kaska will retain the intellectual property rights to their TK:

Kaska TK is the foundation of Kaska culture and therefore must be protected and preserved. Establishing Kaska intellectual property rights to their knowledge and policies around its use, is a means to minimize the risk that the knowledge will be exploited or distorted.

TK is broad in scope – it encompasses knowledge about the land, life-skills, personal conduct, and sacred laws. It is the information, wisdom and practices that are necessary to support the culture, based on a deep and inseparable relationship between the land and the people. This includes knowledge about the environment (land, air, water), as well as personal histories, stories and legends, as well as the belief systems that guided and continue to guide the culture. This knowledge was transmitted through legends and stories, according to cultural laws, such as A'IE.

The Kaska have also prepared and endorsed policies around TK, written in a TK Manual. This Manual establishes the rules by which TK projects will be approved, and how the knowledge will be collected, managed and shared. The Manual was supported through a Kaska Tribal Council Band Council Resolution in June 2005.

## Share of Benefits:

The Kaska Dena have shared our land and resources between communities for generations, and continue to do so today. It is a key principle the benefits that accrue to any Kaska community will be shared with other Kaska communities based on a national sharing accord

## **Compensation/reclamation:**

Implicit in the any development agreed by the Kaska and the natural resource development sector, is the commitment to the reclamation of impacted sites. Also, consideration must be given to compensation for impacts incurred. An important issue is how to determine fair compensation and how to pay for and implement a compensation policy. Compensation is expected to go beyond current standards and applications and the Kaska expect compensation plans to be applied to wildlife and wildlife habitat, Kaska Land Stewards and Trappers in addition to resource development or federal regulatory compensation plans.

# First Nation Land Use Planning Principles:

We are partners with the Canadian Boreal Initiative and support the following principles for First Nation Land Use Planning. Government and the natural resource sector will be expected to endorse and implement these principles with the Kaska (http://www.borealcanada.ca/index-e.php):

- Process Agreement: Planning should proceed according to a negotiated agreement setting out key elements of the process, including measures related to the scope of planning, timeframes for plan completion, decision-making re: plan approval, and responsibilities for plan development and plan implementation, including funding. Major land use decisions and approvals should be deferred until plan completion.
- Adequate Resources: Comprehensive planning requires a significant commitment of expertise, time and resources in order to be carried out effectively. Engagement in processes that are inadequately resourced will only lead to frustration and the erosion of goodwill between the parties, community members and other stakeholders.
- Interim Measures: Interim measures, including land withdrawals, should be identified at the outset of the planning process to ensure a level playing field and to avoid prejudice to planning outcomes.
- Clear Vision and Goals: Planning should proceed according to a vision statement and specific goals that respect the rights and reflect the aspirations of the Aboriginal group, as well as the broader interests of government and local residents.
- Planning for Multiple Scales over Time: Land use activities occur at different scales over different period of time. Comprehensive planning requires consideration of values and activities occurring and interacting at different scales. Generally, planning over large areas for longer periods of time is best, as the large scale plans can then be refined at smaller scales and shorter periods in response to decision-making priorities and social demands.
- Priorities for Ecological and Cultural Protection: There should be clear and incontrovertible commitments to the identification and protection of ecological and cultural values prior to allocations for industrial uses. This can be accomplished through a range of mechanisms, including the establishment of legislated protected areas, conservation and special management zoning, or industrial deferrals. Determinations of issues such as the allowable rate of timber harvesting, etc must be outcomes of the process, and must not be preconditions.
- Adequate Information Base: Planning must proceed with each party having access to all necessary data and information. Governments must share information about all existing and potential resource values, existing third-party interests and proposed or probable future

developments. Aboriginal land use and occupancy data is a vital element, but is only to be shared with the prior and informed consent of the relevant Aboriginal group or entity.

- Comprehensive Planning: The planning process must account and appropriately zone for a full range of potential land uses, including but not limited to conservation, habitat protection, cultural purposes, subsistence harvesting, mining, forestry, hydroelectricity, transportation, transmission infrastructure. Comprehensive planning does not mean that every land use or decision must be included within the process, but any significant existing or potential land use requiring permits, leases or licenses should be addressed.
- Conformity Requirements: The process must set out clear conditions and requirements for determining what constitutes a conforming land use in particular planning zones. Land uses must meet conformity requirements in order to be permitted. Establishing threshold levels for permitted activities in specific planning units (ie. road density) to effectively manage the pace and scale of development should also be considered.
- Follow-up Actions: The planning process must clearly outline issues that were identified but could not be resolved without additional data or future action by parties responsible for plan implementation.
- Effective Community and Stakeholder Consultation: The planning process must effectively engage with community members and interested stakeholders. Provisions for translation of key meetings and documents into Aboriginal languages should be considered. The process should provide for ongoing opportunities for input and review of draft planning documents. Communication with community members and stakeholders should be undertaken and for communication via electronic and other media.
- Accountability: Responsibilities for plan approval and implementation should be specified at the outset of the planning process, including steps that will be taken to accomplish any necessary changes to legislation or policy to ensure plan implementation.

## **Collaborative Management and Natural Resource Development**

#### Shared Decision Making

The Kaska Dena will collaborate with British Columbia through a shared decision making and governance structure to provide for the stewardship of the land and water in the traditional territory in British Columbia.

Joint development of Kaska Dena Land Use Plans with British Columbia that define Kaska Protected Areas, Special Management Areas, and application of Kaska management practices.

Acknowledgement and respect of Kaska Land Stewards and Kaska Sacred Laws and their application for land use plans, environmental assessments, and permitting of resource development projects.

Develop agreements with industry associations, government, and the Kaska Dena on management practices, monitoring standards, cumulative effects, adaptive management approaches, and enforcement regulations.

Establish collaborative agreements with British Columbia for the management of wildlife, fish, and water. This includes either participation in regional initiatives or specific Kaska Dena agreements for jointly working on initiating, reviewing or amending:

- o fish and wildlife harvest management;
- fish and wildlife regulations;
- o fish and wildlife management planning; and
- fish, wildlife, and water policy and legislation.

Establish collaborative agreements with British Columbia for the management of all natural resources in the traditional territory..

#### Economic Opportunities

Create viable economic opportunities and assist in the improvement of social conditions of Kaska First Nations through economic diversification. This includes but is not limited to:

- revenue sharing including profit sharing;
- shares of equity in the project or company;
- sharing of job and contracts;
- the right of  $1^{st}$  refusal of qualified contract services;
- o commitments to use Kaska Dena businesses where possible; and
- the employment of Kaska Dena monitors.

Provide economic benefits and revenue sharing to the Kaska Dena through tenures or other economic benefits related to mining, oil/gas/energy development, forestry, or tourism received by British Columbia from natural resource development.

Develop Interim Accommodation Agreements with Kaska First Nations.

Develop Impact Benefit Agreements with Kaska First Nations.

Training and Capacity Opportunities

Mentoring for the range of jobs related to the full life cycle of resource development projects (exploration to reclamation/closure).

Establishing scholarships for Kaska Dena for training at trades, technical, and postsecondary institutions. Training of Kaska Dena for natural resource development, environmental monitoring, and enforcement.

Joint ventures with the Kaska Dena to provide services and goods during the full life cycle of resource development projects.

Commitment to employ qualified Kaska Dena trades, technical, and post-secondary graduates.

#### Cumulative Effects

Pace of development- While recognising that development is driven by resource prices, the Kaska Dena through agreements with government and industry associations will want to influence how projects are staged to provide long term stable employment and community benefits without the social and health problems from a boom and bust resource development cycle.

In addition, the Kaska Dena through agreements with government and industry associations will want to assess the status of cumulative effects of all land uses and project into the future potential impacts from incremental development. This will be reassessed periodically and be a tool for environmental assessments and amending Kaska Dena Land Use Plans

#### Monitoring and Enforcement

Ensure the monitoring and enforcement of Kaska Dena management practices, land use plans, approved environmental assessment certificates, and permits using an adaptive management framework.

Acknowledgement and respect of Kaska Land Stewards and Kaska Sacred Laws and their application for monitoring.

A commitment to employ Kaska Land Stewards and qualified Kaska Dena technical personnel for monitoring and enforcement through the full life cycle of the project.

# Kaska Land Stewards

Traditionally, Kaska lands were occupied by families along maternal lineages who held loose tenures to areas within the traditional territory (this became the initial basis for individual trapline concessions across the southern half of their territory). It was here that family groups met many of their traditional needs. Sacred laws also dictated that family heads had responsibility, on behalf of the nation, for land stewardship within these areas that they occupied. The Kaska have redefined these family areas through a "Sa Dena (old peoples') map", that recognises the important role that "land stewards" play in land management. The foundation of Kaska planning and review of development projects are based on the direction of Kaska Land Stewards and community members. The frequency of engaging land stewards throughout the process and applying their direction at all scales will result in successful plans and projects in the traditional territory. It is through the Kaska Land Stewards that the practices are defined and applied.

#### Background

- Kaska are intimately tied to the land, physically and spiritually, and hold respect for the land, as well as a responsibility for stewardship of the land, consistent with traditional laws (A'ie).
- This inseparable relationship with the land requires any Kaska planning or consideration of natural resource development will be based on the input from the Kaska Traditional Land Stewards. The spirit of this approach is directly engaging Kaska land "tenure" holders into planning processes or development reviews to protect their interests, and duly consider their values, traditions, beliefs, and practices.
- It is expected that Kaska Land Stewards will be engaged early in the process and often as plans or projects move to implementation and monitoring.

**Objective:** to ensure the opportunity for Kaska land stewards to directly engage in planning and project development, so that consideration is given to their values, traditions, beliefs and practices, and the necessary steps are taken to protect their land interests.

#### **Management Directions:**

#### Engagement

- Land stewards will have the opportunity to participate throughout the entire process, and at all scales regional, subregional, landscape, and site development.
- Land stewards will have the opportunity to identify the location of important sites and areas, including important hunting, trapping and gathering areas, cabins, trails, caches, etc. Plans and projects must be committed to avoid or mitigate these interests.
- Land stewards will also have the opportunity to reveal current land use activities, and plans and projects must be committed to avoid disrupting these patterns of land use.

Land stewards will have the opportunity to be involved in the development of practices.

Land stewards will have the opportunity to participate in the development of access management plans, which should include the location of, the use of, the maintenance of, and the decommissioning of, primary and secondary roads.

Land stewards will have the opportunity to participate in the development of mitigation plans.

#### Conservation

Land stewards will have the opportunity to identify features to maintain biodiversity and ecosystem function such as key habitats and range, migration corridors, water, and ecologically rich areas (for example wetlands, old forests) at all planning levels and have the opportunity to recommend the protection of the features, or develop practices and mitigations to reduce impacts to the features. Plans and projects must be committed to avoid or mitigate these important features and interests.

#### Protection of land-use assets

- Plans and projects, at all scales, will make best efforts to avoid or mitigate impacts to land stewards' assets, including cabins, trails, caches, camps, etc.
- Plans and projects should seek input from land stewards, as to where the assets are located, and advice on the shape of buffers around trails, cabins, trap sets, etc., when to avoid specific areas of use, and where roads and/or other access corridors should be placed.
- Assets will be maintained or restored/compensated if they are affected by natural resource development.

#### **Protection of cultural interests**

Cultural interests should be avoided, consistent with general guidelines for cultural values.

Development practices should, where appropriate, conform to sacred laws.

#### **Development of Practices**

Land Stewards have the opportunity to develop practices to maintain a range of values and interests. Table 1 is an example of the range values that have practices developed by the Kaska but vary across resource sectors. Information will be provided to each proponent specific to the diversity and abundance of these values in the project or planning area.

KASKA Values	Type <sup>1</sup>	<b>Priority</b> <sup>2</sup>	Practice (protect, avoid, mitigate)
Grave sites			
Other sacred sites			
Places of legends			
Battle grounds			
Villages			
Meeting places			
Trading places			
Trails			
Fishing sites/camps			
Forage gathering sites			
Preferred hunting sites			
Flint gathering sites			
Ochre sites			
Obsidian or blade sites			
Medicinal plant gathering			
Hot springs/therapeutic			
Sacred plants/animal sites			
Archaeological sites			
Important landmarks			
•			
Wildlife migration routes			
Winter ranges			
Big fish lakes			
Fish spawning habitats			
Hot springs			
Important water bodies			
Important wetlands			
Location of rare plants	1	1	
Birthing habitat	1	1	
Warm water bodies (polynyas)	1		
Important foraging habitats	1	1	
Location of rare animals			
Areas of unusual diversity			
Refuges for wildlife			
Mineral licks			
	<u> </u>	+	

Table 1. Kaska values and management priorities, which have management practices by sector.

<sup>1</sup> Type includes (1) area, (2) site, (3) linear feature
 <sup>2</sup> Priority is a very general rating (1-3) of the relative significance of the value

# LANDSCAPE MANAGEMENT PRACTICES

As based on our principles, the Kaska Dena are using a multi-scale approach to the management of our traditional territory. At a territory level, we have identified a network of Kaska protected areas and special management areas based on culturally and environmentally sensitive values in major watersheds. Finally, we have provided some examples of General Management Practices that are expected to be used in our traditional territory. We understand for each type of natural resource development there are specific values that need unique consideration and it is not intended for this report to be inclusive of all practices and values. It is intended to either provide concepts to be applied, or speak to the process on how resource development proponents should engage with the Kaska Dena on resource development.

# Kaska Dena Protected Areas

As part of the Kaska Land Use Framework, protected areas were identified through community direction and were linked to reduce the potential for isolating these values (Map 2). It is our expectation that government and industry will acknowledge these areas and be aware that each area has constraints and allowable activities or practices.

# Kaska Dena Special Management Areas

A number of major watersheds have been identified that contain culturally and environmentally sensitive values within lower order watersheds. It is not intended to show these values to the general public, but as projects are brought forward, we will provide information on the values and management status (protection, avoidance, or mitigation). The major watersheds currently under special management designation include:

- Dease River
- Liard River
- Little Rancheria River
- Finaly River
- Frog River
- 🚸 Gatagga River
- 🚸 Kwadacha River
- Smith River
- 🚸 Coal River
- Beaver-Labiche Rivers

# **General Management Practices**

The Kaska Dena believe in integrated resource management practices applied using all sources of knowledge (science, traditional knowledge, and local knowledge) that concentrates activities on a landscape both across sectors and area. This approach will maintain larger areas of contiguous forests and landscapes that support boreal ecosystems. It is our belief that managing and limiting human activities is the key to preserving the land and water in our traditional territory.

It is a goal to maintain the land, water, and cultural areas over time and across scales. However, it is not possible to manage for each of the native species on the landscape. The approach of

maintaining regional, landscape, and stand level features and ensuring their connectivity across scales is considered a suitable method to maintain Kaska values.

This has been done in other northern areas by applying management practices for

- ecosystem and cultural representation;
- ecological and cultural benchmarks;
- connectivity;
- focal species; and
- special elements.

#### **Management Direction:**

#### Ecosystem and Cultural representation, Benchmarks, & Connectivity

At the traditional territory level, the Kaska Dena are maintaining our values by limiting human activities, identifying Kaska Dena Protected Areas, zoning for Large River Corridors, and identifying Kaska Special Management Areas.

At the major watershed level or regional scale, the Kaska Dena approach is identifying cultural values, ecological values, specific features such as wetland complexes, concentrations of winter or breeding habitats, and evaluating the average size and distribution of ecosystems. Where resource development is proposed, the economic footprint is overlaid with Kaska values and if recommended then 70-80% of the watershed should be left undisturbed to support our land, water, and culturally important areas.

At the lower order watershed level or subregional scale, the approach is to define key features at the watershed and sub-watershed level or within several Kaska family areas. This can include but not limited to hunting and collecting areas, sacred areas, trails, concentrations of traditional/medicinal plants, focal species habitats, the diversity of forest types and their age, source and headwater areas, lakes, wetlands, springs, special elements (site specific), and then link them in 70% or more of the area (the percentage will vary by project and diversity and abundance of values) at both watershed levels. Large River Corridors, riparian management areas, and lowland to upland connectivity will provide connectivity at this scale. This is achieved by the following practices:

- Define cultural values, and habitat or ranges at the watershed and subwatershed scale
- Identify where wildlife habitats, cultural values, wetlands, lakes, streams, trails, old forests, hunting areas, and special elements listed in Table 1 are located in each watershed. Develop a connected network among the values
- Establish thresholds for disturbance to limit changes to water quality, flow, storage, and hydrology
- In addition, headwaters and source watersheds should be avoided or a lower level of impact applied.

At the stand level, there are management practices for each sector and they will be applied with current knowledge from all sources for the best suite of practices available today; however, the site specific features listed in Table 1 will be identified on the ground with Kaska Land Stewards and collaboratively the general management practice will be decided to protect, avoid, or mitigate these features.

General Management Practices may vary for each value but generally, they fall into the following categories:

- Avoidance/Protection of key features: resource development will avoid features such as winter range, grave sites, sacred areas, natal range, and site specific features such as mineral licks, medicinal plant collection areas, dens, raptor nest trees, or steep south facing slopes
- Buffers of key features: allows activities outside of a buffered area such as mineral licks, cultural sites, active raptor nests, fish spawning habitat, natal range, or core winter range
- Seasonal windows: it restricts resource development activities for a period usually linked to natal and winter habitats, trapping, fall gathering in cultural areas
- Thresholds: sets a percentage or threshold where if it were breached will result in a significant negative effect on the population, habitat, or ecosystem. It is used as a monitoring tool to ensure the pace of development or the methods of resource development are staying within acceptable limits.
- Monitoring: as part of resource development impact benefit agreements, Kaska Dena will be involved in the pre, operational, and post monitoring of resource development projects through the full life cycle of the project. In addition, as Kaska Dena develop capacity, environmental monitors will independently monitor human activities and resource development in the traditional territory.
- Cumulative Effects Analysis: Cumulative effects analysis will be used by the Kaska Dena to determine the long term residual effects from resource development, and we will set parameters for the magnitude, spatial extent, and duration of the overall pattern of development independent of the resource development proponents and government.
- Compensation Plans: Compensation plans will apply for cultural values, wildlife, and federally required fish compensation plans. Compensation plans are based on Kaska Dena vision and management principles and the simple premise of the smaller the impact (both locally and cumulatively) the lower the compensation. It is expected this premise and our vision will be foremost in the consideration of development in the Kaska traditional territory. Compensation plans will also take into account disruption of traditional activities, and disruption to access cultural areas.
- Compliance and Enforcement: Currently, compliance and enforcement sits with the territorial, provincial, and federal regulatory agencies, but through

collaborative environmental management agreements, capacity development, and tripartite agreements, mechanisms will be in place over time for Kaska Dena members to have a role in the compliance and enforcement of common law, permitting and environmental assessment certificate conditions, and management agreements.

## Kaska Focal Wildlife Species

It is important to note that for the Kaska Dena wildlife includes all mammals, birds, reptiles, amphibians, and non-anadromous fish as well as eggs of birds, reptiles and amphibians, including migratory birds.

The main goal for managing all species is to maintain viable populations across all scales in the traditional territory. Where possible population criteria is provided to meet management goals, but the main approach is to provide methods to maintain large contiguous areas of boreal forest ecosystems to support important habitats at the different levels of management, (traditional territory, major watershed, lower order watersheds, and stand level).

A suite of Kaska wildlife species and their habitats will be the indicators we will use in assessing whether a resource development project is acceptable in the traditional territory and will include, but not limited to large mammals, furbearers, fish, amphibians, specific rodents such as snowshoe hares, marmots, and ground squirrels, waterfowl, raptors, and specific avian species such as grouse. Given the diversity of ecosystems in the traditional territory, the list is quite extensive. It can be provided to proponents upon request.

The practices are specific for each species but generally, they fall into the categories listed in the above section.

As mentioned in the Kaska Land Stewards section, the Kaska Dena will be using compensation planning for wildlife species populations, habitats, or ranges that cannot be avoided or adequately mitigated. Disruptions of Kaska Dena to access, harvest, or collect will be part of the compensation plans.

To assist in the understanding of the Kaska Dena management approaches for focal species, a few examples are provided in Appendix 2.

# **Large River Corridors**

Large rivers are found throughout the traditional territory, and play an important function in supporting boreal ecosystems and cultural values. Large rivers tend to be at lower elevations, with broad floodplains, riparian habitats, mosaic of wetlands, lakes, or oxbows, and with critical habitats for many of the Kaska culturally important animal and plant species. Large rivers are also important for wildlife movements or migrations. Trails, hunting and fishing places, gathering areas, sacred areas, grave sites, and communities are predominantly found adjacent to large rivers.

The Kaska see large rivers as critical elements to protect biodiversity, cultural values, and be a tool to link Kaska values across the traditional territory. We see Large River Corridors as a management practice to maintain and protect the water, land, and traditional practices.

Large River Corridors have been defined as a river generally greater than 20 m in width with the boundaries of the zone based on the historical flooding events, river morphology, alluvial ecosystems, enclosed or adjacent focal species habitats, and enclosed or adjacent Kaska cultural values. Until these boundaries can be set in the final draft, a current management approach of a 1 km buffer or a sixth or higher order watershed is the basis for the zone. It is important when reviewing each zone to modify the boundaries to include adjacent areas of ecological or cultural values. An example is the Dease River, particularly between the mouth of the Eagle River downstream to Ten Mile Lake, the high density and overlap of values in this area has resulted in a larger area zoned than would be based on watersheds or a buffer.

Currently the Kaska Land Use Framework has the following rivers identified as Large River Corridors:

- 🚸 Dease River
- 🚸 Eagle River
- Rapid River
- Four Mile River
- 🚸 Blue River
- Liard River
- Turnagin River
- Major Hart River
- 💠 Kechika River
- 🚸 Hyland River
- 💠 Red River
- 🚸 Coal River
- Smith River
- 🚸 Beaver River
- Labiche River
- Frog River
- Gatagga River
- Finlay River
- Kwadacha River

It is expected as the framework is developed with all the Kaska communities the list will increase.

Each Large River Corridor will be assessed to determine the current level of human disturbance from timber harvesting, mining, oil & gas, or tourism. In addition, the Kaska will review each corridor for consideration of economic interests. It is likely that many corridors will have a combination of special management practices and protection.

Generally, the level of disturbance will be small with the management intent to maintain over 80% of a corridor in a contiguous forested zone.

Access will be reviewed for each zone, and it is possible some areas may be allowed for crossings. However, the current position is not to have permanent access across large rivers.

Timber harvesting may occur for small commercial volume needs (for example building logs) in special management areas but with a management objective to avoid focal species habitats and Kaska cultural values. Other management objectives include giving preference for timber

harvesting and access that is located closer to the zone outer boundaries, applying small openings for timber harvesting, and maintaining forest interior conditions.

Forest interior conditions are patches of forest that provide forest structure and habitats not influenced by edge effects. Large contiguous forest areas can create different conditions within the interior that is beneficial for a suite of wildlife species, and often are important hunting and traditional plant collecting areas. An edge effect is thought to have low effect after 250 m. However, in identifying forest patches that provide forest interior conditions, a core area of at least 250 m is required. Otherwise the forest patch is not providing structure and habitats or the conditions required.

## Lakes

Lakes are important in the boreal landscape, and large lakes are gathering places for the Kaska Dena. Often lakeshores or islands are areas of high spiritual areas or burial grounds. The Kaska Dena have identified key lakes for special management or protection including but not limited to:

- Cry Lake
  Graveyard Lake
  Turnagin Lake
  Aeroplane Lake
- Good Hope Lake
- Weisner Lake
- Succor Lake
- Rainbow Lake
- Meek Lake
- Scoop Lake
- Fish Lake
- 🚸 Niole Lake
- ✤ Additional lakes to be added through community direction

Lake landscape management includes the protection or deferral from resource development for specific lakes, a standard lakeshore setback of 500 m, restricting new access to lakes and their , inlets, and outlets, and restrictions or quotas on sport fishing to protect fish stocks.

# Wetlands

Wetlands, like rivers and lakes are high value to the Kaska and play an important role in the boreal ecosystem. Wetlands provide important habitats for fish and wildlife, purifies the water, and important for waterfowl. Kaska have used wetlands for trapping, hunting, fishing, plant collecting, with camps, cabins and trails nearby.

There are a number of different types of wetlands in the traditional territory and in varying sizes. To assist in setting management practices the following classifications were used:

- The Canadian Wetland Classification, which is based on wetland classes, forms, and types.
- The British Columbia Wetland Classification, which is based on the above and includes linkages to the surrounding ecosystems.
- The British Columbia Riparian Management Guidebook

The National Wetland Working Group (1997) has defined the following five classes of wetlands:

- Bogs: Dense layer of peat; acidic; low nutrient content; water table at or near the surface; usually covered with mosses, shrubs and sedges; trees possibly present.
- Fens: Covered with peat; water table at or near the surface; higher nutrient content than bogs; vegetation usually characterized by sedges and grasses; trees and shrubs may or may not be present
- Swamps: Stagnant or slow-flowing pool; high nutrient content; usually covered with trees or shrubbery.
- Marshes: Periodically or permanently flooded; absence of trees; emergent vegetation; usually high nutrient content.
- Shallow Waters: Include basins, pools and ponds, as well as wetlands found beside rivers, coastlines and shorelines; submerged vegetation; floating leaved plants.

For each class there is a range of forms (based on the surface, water, or underlying mineral associations) and within each form a range of types (the range of vegetation types with each class/form combination).

In addition to the classes of wetlands is the size and complexity of them. A wetland complex is defined as two or more wetlands including vegetation cumulatively greater than 5 ha. Simple wetlands are single wetlands, but wetlands greater than 5 ha should be treated with similar management practices as wetland complexes.

Wetlands or wetland complexes greater than 500 ha will be managed using protection and special management with a 500m buffer to restrict access and forest cover removal, and wetlands less than 500 ha will be managed through site management practices.

# Water Quality and Quantity

# Watersheds

Headwater and source watersheds are important to maintain water quality and support the flow, storage, and hydrology of the adjacent watersheds. In addition, these watersheds tend to have a higher density of Kaska sites, hunting areas, traditional uses, and Kaska values. The watersheds also generally have high ecological values.

The main management practices at the landscape scale are identifying these watersheds for protection or special management. Protected watersheds will be reviewed to determine the level of protection being considered and the potential range of acceptable activities allowed in the watersheds.

Special management will include setting access densities, levels of timber harvesting (Equivalent Clear Cut Areas), and number or density of mineral development areas. In addition, Watershed Assessments to assess the level of disturbance to the flow, storage, and hydrology of the watershed and the level of impacts to fish habitat are a Kaska management practice. The McDame watershed is a high priority watershed for an assessment. Watershed assessments

should be completed for proposed projects in Kaska culturally or environmentally sensitive watersheds.

A watershed assessment will include but is not limited to the:

- distribution, abundance, and status of cultural values;
- distribution, abundance, and status of terrestrial/wildlife environmental values;
- distribution, and density of roads (including non-status roads), permanent loss of forest cover (mine sites, housing), orphan mine sites, current mining projects (including placer), other industrial activities, and reclamated sites;
- percentage of forest cover removal and seral classes;
- distribution and density of fish-bearing streams, fish critical habitats, wetland complexes, or high quality lakes; and
- degree of protection or the potential impact on the drainage and flow of source or headwater watersheds as well as the overall hydrology of the watershed(s).

### Access

Access management is one of the key issues in the traditional territory. Most of the area is currently unroaded and this section provides some general management direction to be applied for access related to resource development. It is expected Kaska Land Stewards will be engaged early and often on access development to avoid Kaska values across all management scales.

**Objective**(s): Minimize the impact of road development in previously undeveloped areas.

Indicators: Road density, pattern of resource related road and linear development network footprint, loss of trails, ability for Kaska to access cultural areas or harvesting areas

#### **Management Direction:**

Development of coordinated access plans with the Kaska should include:

- Using existing access first before constructing new access
- Coordinating construction and planning of access to use the same right-of-way, and limit main trunk roads to one side of a watershed
- Firm deactivation schedules
- Restoration planning for access corridors will be restored using boreal species best suited ecologically for the site.
- Developing winter or temporary roads but avoiding core winter ranges for caribou and moose.
- Evaluating the use of low-impact vehicles to reduce overall environmental impacts (e.g. lower ground pressure vehicles).
- Not creating circle routes that connect two or more main road networks.
- Locating roads to avoid the features listed in Table 1 and the following generally site specific identified habitats:
  - Avalanche chutes
  - Dry, steep, south facing slopes
  - Flood plains of rivers

- o Critical riparian habitats e.g., instream upwellings, alluvial fans
- Mountain ungulate escape terrain
- Rare grass/shrub habitats
- Wetlands/wetland complexes
- Eskers/esker complexes
- Adjacent to streams and wetlands
- o Denning areas for wolves and bears
- Lake outlets
- o Rare, moist, productive sites
- o Unique features (licks, dens)

If road development cannot avoid the habitats listed in above, implement steps to minimize damage. This could include:

- Visual screening of swamps and openings along highways, secondary roads, and main forestry/mining roads
- o Access restrictions by road tenure holders (e.g. gates on private/mining roads)
- o Road layouts to reduce habitat fragmentation
- Road deactivation
- o Temporary roads
- o Bridges and culverts appropriate for high value fish habitat

Overall air access is preferred for resource development activities, but it needs to be coordinated to reduce disturbance to mountain ungulates and if repeated overflights are required over mountain ungulate habitats aircraft need to fly at least 1.5 km away or above them during birthing and winter periods.

# SITE AND SPECIAL FEATURE MANAGEMENT PRACTICES

# Water Site Management Practices

For operational planning, identify with Kaska Land Stewards hot/warm springs, important lakes, wetlands, inlets, outlets, fish spawning habitats, Kaska cultural values, camps, grave sites, sacred areas, trail networks, and unique or rare water features

Determine appropriate general management practice outside of buffers for specific features to:

- avoid or protect the feature;
- restrict use of the features (e.g. spawning habitats, fishing camps) (year round or seasonally) at least 300 m 500 m;
- ✤ Move access or linear corridors at least 300-500 m from critical features; and
- ✤ apply standards to maintain water flow, storage, and hydrology at the operational scale

Apply riparian management buffers for rivers, streams, lakes and wetlands and consider increasing the management and reserve zones to include Kaska cultural values and wildlife habitats features identified by Kaska Land Stewards or Kaska Compensation Plans.

#### Streams and small rivers

Stream Class	Stream Width (m)	Reserve Zone (m)	Management Zone (m)	Riparian Management Area Width (m)
1	> 20	200	120	320
2	5 to 20	150	100	250
3	1.5 to 5	100	100	200
4	< 1.5	50	100	150
	all			
5	streams	20	30	50

#### Lakes

Lake Class	Size (ha)	Reserve Zone (m)	Management Zone (m)	Riparian Management Area Width (m)
1	1 to 5	200	100	300
2	>5	500	0	500

### Wetlands

Wetland Class	Size (ha)	Reserve Zone (m)	Management Zone (m)	Riparian Management Area Width (m)
1	< 1	100	60	160
2*	1 to 5	200	100	300
	5 to			
3*	100	300	200	500
4*	>100	500	0	500

\*includes wetland complexes

On a site specific basis and where ecologically appropriate, increase the riparian reserve or management areas to maintain the structure and function of riparian habitat, including:

- maintaining riparian vegetation and microclimate;
- maintaining stream temperature ;
- providing adequate canopy closure to provide shading and leaf litter input to the stream;
- allowing for natural channel morphology and ensuring stream bank stability;
- providing sources of large woody debris in streams; and

• including adjacent important habitat attributes such s wildlife trees, snags, coarse woody debris, and nesting/rearing sites.

Other examples where riparian management might be increased include:

- areas of sensitive fish habitat such as streams at lake inlets and outlets and spawning and rearing areas;
- providing connectivity to adjacent wetland complexes;
- including adjacent high value habitat areas such as moose winter range, marten habitat, avian habitats, and major stream confluences;
- including adjacent Kaska cultural values, trails, hunting or fishing areas, and traditional sites;
- unique riparian habitats and creeks such as the warm creeks in the Plan area (such as Albert and Tom Creek); and
- maintaining stand habitats for culturally important, sensitive, rare, or endangered species e.g., fisher.

Fish populations in the traditional territory are sensitive to over harvest from access and access should be planned well away from lakes and streams that are known to contain abundant and vulnerable fish populations. Access to new areas should be kept to short periods and permanently de-commissioned wherever practical.

Stream crossings for fish bearing streams needs to have fish passage considered in any designed and installed structure. Strategies to control erosion and point source sediment discharges at stream crossings area also required. Stream crossing also have to be designed to not create fish barriers, constrict stream flows, and accommodate peak flows.

Minimize impacts of in-stream work by:

- applying principles of fish habitat mitigation or compensation to those activities that may directly impact fish habitat;
- applying all relevant guidelines and regulations for water quality and safety during instream work; and
- apply best timing windows to minimize impacts on fish species present.

Monitor effectiveness of standards or practices and ensure adequate enforcement occurs.

## Water Quality and Quantity

Water and all that is associated with it (riparian forest ecosystems, Kaska traditional uses, fish habitats, and aquatic ecosystems) is a key value and water quality is a critical component of assessing current conditions and monitoring change into the future with development. Currently, most drainages and watersheds in the plan area are not influenced by human uses and water quality and flow are within the range of natural variability.

The general management direction is intended to maintain the current water quality and aquatic and riparian ecosystems within their natural range into the future.

## **Objective(s):**

Manage human activities to maintain water quality. Manage access to maintain water quality.

### **Management Direction:**

- Where resource development is planned, conduct basic watershed inventories based on current standards.
- Develop monitoring programs for water quality and quantity for development areas. In particular, set thresholds after baseline watershed inventories are completed to maintain stream flow, and set measures to maintain forest cover as ways to mitigate increases in stream flow effects by watershed. Stream flow effects are incremental and increase with reduced forest cover and human disturbance.
- Reduce impacts by roads by managing road density and placement. Lower road densities translate to fewer stream crossings and limits access to some portions of a watershed. Also by placing roads away from rivers, lakes, and wetlands can prevent erosion and sedimentation.
- Apply appropriate stream crossings to control erosion and point source sediment discharges at stream crossings and locating roads on watershed divides can reduce stream crossings and maintain riparian habitat.

# Land Site Management Practices

For operational planning, identify with Kaska Land Stewards important features such as but not limited to gravesites and sacred areas, unique or rare cultural features, birthing habitats, important foraging habitats, mineral licks, trails, camp sites, areas of unusual diversity or refugia, medicinal and traditional plant concentrations,

Determine appropriate general management practices outside of buffers for specific features to:

- avoid or protect the feature;
- restrict use of the features (e.g. birthing habitats, hunting camps) (year round or seasonally) at least 300 m 500 m; and
- apply standards to move access or linear corridors at least 300 500 m from critical areas.

It is important to be able to modify operational conditions of permits to avoid Kaska site specific areas without having to indicate their location and still be able to route access or restrict activities in certain areas. The concern of having buffers on site specific areas is the proponent will know something is within the area and may still want to investigate the area when the Kaska monitors are not around.

When it is necessary to apply and show buffers when identifying land site specific features for operational planning, the buffers should not be shown as bubbles around the values with feature

the center of the buffer. It is recommended to use unequal buffers or polygons with the feature(s) not centered in the shape.

Similar to the water site specific features strategies, where it is possible to capture a concentration of values/features then it is suggested to modify the buffers widths to capture them, or capture a larger area to be avoided by resource activities.

# SOCIO-ECONOMIC MANAGEMENT PRACTICES

Socio-economic management requires the Kaska Dena to ensure resource development activities are done in an acceptable manner and includes the Kaska Dena as collaborative managers of resource development. The Kaska have policies specific to each resource sector that speak to government and industry engagement. A few examples of Kwadacha policies have been included in Appendix 1 as an example. Each Kaska community have similar approved policies for natural resource sectors. Natural resource development proponents should contact Kaska First Nations for their respective policies.

# ADAPTIVE MANAGEMENT AND MONITORING

The Kaska Dena see adaptive management as learning what maintains Kaska values as intended through planning, what changes are required to better the practice in the future, what practices should be stopped being used, and incorporating new practices based on all sources of knowledge. The key is monitoring and setting the pace of development in the traditional territory. If Kaska Land Stewards and communities are involved jointly through the full life cycle of a project, monitoring can be achieved that is community based, develops capacity at several levels, and long term communications are achieved to work collaboratively on the project.

By adjusting our understandings of Kaska criteria and indicators through monitoring should be beneficial to all parties and if the pace of development can be controlled to allow sustainable economic growth and allow us to focus on a limited suite of projects. It will be beneficial to all parties. As with all monitoring programs, they are based on cultural, ecological, economic criteria and indicators specific to resource development sector. It is not our intention to provide a list of all of them but to inform proponents the expectations of long term monitoring, and adaptive management approaches based on monitoring for each sector.

Another element of the Kaska adaptive management approach is cumulative effects assessment on the current pace of development, potential pace of development, and deriving thresholds to maintain Kaska values in our traditional territory. We are expecting governments and proponents to support this approach as a method to collaboratively manage the lands and water in our traditional territory. These approaches are important to us and we have included them in our resource sector policies as well (Appendix 1).



Map 1. The Kaska Dena traditional territory



Map 2. The Kaska Land Use Framework: Kaska Protected Areas.

## Appendix 1. Kaska Dena Land Use Framework Policies and Procedures

# KWADACHA FIRST NATION PRINCIPLES AND POLICY FOR MINERAL EXPLORATION AND MINE DEVELOPMENT

# **Principles and Policy**

## **RECOGNITION OF RIGHTS**

- 1. The Kwadacha First Nation has unextinguished Aboriginal rights, titles and interests in the Kaska Traditional Territory in northern British Columbia. These rights have been accepted by Canada and the British Columbia Government, and are protected under the *Constitution Act (1982)*. These rights include priority rights to lands and resources.
- 2. The Kwadacha First Nation has inherent rights that derive from their political, economic and social structures and from their cultures, spiritual traditions, histories and philosophies, especially their rights to their lands, territories and resources.
- **3.** The Kwadacha First Nation has the right to practice and revitalize their customs, practices and traditions. This includes the right to maintain, protect, and develop the past, present, and future manifestations of their cultures, such as archaeological and historical sites, artifacts, designs, ceremonies, technologies, and visual and performing arts and literature. In addition, Kwadacha First Nation have the right to manifest, practice, develop, and teach their spiritual and religious traditions, custom and ceremonies; the right to maintain, protect, and have access in privacy to their religious and cultural sites; the right to use and control of their ceremonial objects and the right to the repatriation of human remains.
- 4. The Kwadacha First Nation has the right to maintain, control, protect, and develop their cultural heritage, traditional knowledge, and traditional cultural expressions, as well as the manifestations of their sciences, technologies, and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports, and traditional games and visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions.

- 5. The Kwadacha First Nation has the right to determine and develop priorities and strategies for the development or use of their lands or territories, and other resources. This includes the right to the conservation and protection of the environment and the productive capacity of their lands or territories, and other resources.
- 6. The Kwadacha First Nation has control over developments affecting them and their lands, territories and resources will enable them to maintain and strengthen their institutions, cultures and traditions, and to promote their development in accordance with their aspirations and needs.
- 7. The Kwadacha First Nation continues to depend on the land for their foods, medicines, and their physical and spiritual well-being. Therefore, the Parties agree that Kaska traditional activities (hunting, fishing, or gathering practices) must be afforded first consideration in planning exploration or mine development activities.

## PARTICIPATORY RIGHTS

- **8.** Consultation and accommodation principles with the Kwadacha First Nation are based on current case law.
- **9.** Shared decision making and participation by the Kwadacha First Nation is fundamental in planning and decision-making within the Kaska traditional territory to avoid or mitigate impacts to Kaska rights and interests with respect to land and resource dispositions (including water-use) related to mining exploration and development.
- **10.** The Kwadacha First Nation has participatory rights in decision-making through representatives and all parties must be respectful of the Kwadacha First Nation right to choose such representatives in accordance with Kaska internal procedures to ensure the maintenance and development of their own decision-making institutions.
- 11. There are multiple and often competing land and resource interests in the Kaska traditional territory and all parties must commit to supporting mechanisms for comprehensive land and resource planning that includes full participation of the Kwadacha First Nation. This commitment includes going beyond the current two-zone management system for mining and allows for special management of lands based on Kwadacha cultural values and traditional knowledge.
- 12. The Kwadacha First Nation has not had meaningful participation in historic land and resource planning. All parties must commit to support Kwadacha First Nation initiatives to protect identified Kaska protected areas due to their cultural and ecological importance or sensitivity.
- **13.** The protection of Kwadacha First Nation values contribute to cultural integrity, environmental health, biological diversity, and ecological processes. All parties will respect these limitations on exploration and mine development activities.
- 14. The importance of traditional knowledge, cultural values, and sacred laws are core components of Kwadacha governance and management systems. Government and Industry will respect these components related to exploration and mine development activities.

## KWADACHA PARTICIPATION IN DOCUMENT REVIEW SUBMISSION

- **15.** The Kwadacha First Nation is committed on working with all parties through the full life cycle of a project including the development of pre-application documentation, application documentation, mitigation/compensation plans, permitting, and reclamation/closure plans. The commitment is based on the Kwadacha First Nation and the Mineral Exploration and Development Industry (Industry) agreeing to participation agreements that provide resources for community involvement through the project approval process and an Impact Benefit Agreement prior to commencement of mine construction. Kwadacha First Nation participation in these processes would include incorporation of Traditional Knowledge (TK), participation in fish and wildlife field studies, participation in archaeological studies, integration of TK into the plans, and the identification of mitigation and compensation measures related to environmental assessments or screenings of mining developments.
- **16.** The Kwadacha First Nation should be given the opportunity to review development plans prior to their release to government or submission to the environmental assessment/screening processes.
- **17.** Where there is insufficient data regarding potential impacts, exploration activities should not be initiated until the Kaska are satisfied that there is adequate data or commitment to ascertain the nature and severity of the impact.
- **18.** The Kwadacha First Nation expects the Industry to commit to provide information on their activities at all stages of exploration to ensure the Kwadacha First Nation's ability to determine possible detrimental effects to rights and interests. It also provides a forum to seek information, and recommendations and discuss economic opportunities through all stages of exploration.

## TRADITIONAL KNOWLEDGE

- **19.** Once a Protocol has been agreed, the application of Kwadacha traditional knowledge is required throughout the full life cycle of a project including planning, and mine exploration and development decisions in a manner consistent with Kaska policies and acceptable to the Kaska. All parties must agree that the Kwadacha First Nation has constitutionally protected Aboriginal rights to ownership, protection and custody of their knowledge.
- **20.** The Kwadacha First Nation commits to negotiate in good faith with the Industry or Associations, a Traditional Knowledge Protocol that will allow the sharing of information or provide recommendations to ongoing activities. The Traditional Knowledge Protocol will protect the Kaska intellectual property rights of their knowledge, and set out how information will be shared based on an agreed workplan and budget.
- **21.** The Kwadacha First Nation must be involved in any archaeological survey of any areas that may be affected by exploration or mine development activities within the Kaska traditional territory. In the event a burial or archeological site is identified during exploration, companies must suspend operations and contact the Kwadacha First Nation to determine what action is required.

## WATER AND LAND PROTECTION

- 22. The Kwadacha First Nation and the Kaska Dena have as stewards of our traditional territory, the protection of water quality and quantity as a paramount requirement for any mining exploration and mine development. It is expected Industry will not move forward on activities until there is agreement on the standards and monitoring (including the employment of Kaska environmental monitors) for water quality and quantity. This includes the monitoring in Kaska culturally and environmentally sensitive watersheds downstream of the mine development and for the complete life cycle of the project.
- **23.** The Kwadacha First Nation expects Industry and/or Government as part of any agreements related to mineral exploration and mineral development to assist in the reclamation of orphan mine sites particularly as it relates to protecting water quality.
- 24. The Kwadacha First Nation and the Kaska Dena have as stewards of our traditional territory, the protection of culturally important fish, wildlife and plant species as a paramount requirement for any mining exploration and mine development. It is expected Industry will not move forward on activities until there is agreement on the list of culturally important species to be conserved, the information collection standards, baseline studies, Traditional Knowledge collection, management practices/standards, and monitoring (including the employment of Kaska environmental monitors) for the complete life cycle of the project.
- **25.** The Kwadacha First Nation expects Industry and/or Government as part of any agreements related to mineral exploration and mineral development to recognize the cumulative effects to the species and be prepared to jointly agree to the scope of cumulative effects studies, the joint information collection and analysis for the complete life cycle of the project. This includes reassessing the cumulative effects as new mines are developed in the traditional territory over the complete life cycle of the project.

## **IMPACT-BENEFIT AGREEMENTS**

- 26. Impact Benefit Agreements with the Kwadacha First Nation are required to provide economic benefits to the Kaska Dena through economic benefits related to mining exploration and mine development.
- 27. The Impact-Benefit Agreements will identify the creation of viable economic opportunities and assist in the improvement of socio-economic conditions of the Kwadacha First Nation through economic diversification. Terms that will be included are as follows:
  - a. revenue sharing including profit sharing;
  - b. share of equity in the project or company;
  - c. share of job and contracts;
  - d. right of first refusal of qualified contract services;

- e. commitment to use Kwadacha First Nation and Kaska businesses, where possible; and,
- f. employment of Kwadacha First Nation monitors.
- **28.** The Kwadacha First Nation agree to develop with the Industry:
  - a. joint ventures with the Kwadacha First Nation to provide services and goods during the full life cycle of resource development projects;
  - b. mentoring for the range of jobs related to the full life cycle of resource development projects (exploration to reclamation/closure);
  - c. scholarships for Kwadacha First Nation members seeking qualification at trades, technical, and post-secondary institutions;
  - d. training of Kwadacha First Nation members for natural resource development, environmental monitoring, and enforcement; and,
  - e. commitment to employ qualified Kwadacha First Nation members trades, technical, and post-secondary graduates.

### **REVISIONS TO ENVIRONMENTAL PROCESSES**

- **29.** The Kwadacha First Nation acknowledges that the current environmental assessment process in British Columbia for evaluating mine projects is insufficient to address Kaska rights and interests, particularly the range of social impacts, as well as environmental and cultural impacts. It also does not address the cumulative impacts in a substantial and meaningful manner to adequately address the Kwadacha First Nation interests.
- **30.** Taking into consideration the New Relationship agreement between the First Nations Leadership Council and the Province of British Columbia, the Kwadacha First Nation commits supporting or developing recommendations to improve the environmental assessment process.

#### **ONLINE MINERAL CLAIM STAKING**

**31.** Online Mineral Claim Staking Program is a serious concern of the Kwadacha First Nation, as the Province disposes land and resources without any consultation or accommodation. The Kwadacha First Nation commits to work with the Kaska Dena Council and other First Nations on the end of the program by the Province.

### MISCELLANEOUS

**32.** The Kwadacha First Nation expects the Industry to commit to comply, to the extent possible, with land and resource planning completed or underway in the traditional territory.

- **33.** The Kwadacha First Nation expects the Industry to commit to implementing strict environmental protection practices that are acceptable to the Kaska Nation, and including those "best practices" advanced by the Kwadacha First Nation.
- **34.** The Kwadacha First Nation expects the reclamation and remediation of a mine will be planned and agreed by the Kwadacha First Nation prior to any construction commencing, and Impact Benefits Agreements will include compensation for disruption or loss of Kwadacha landbase activities.
- **35.** The Kwadacha First Nation commits to inform exploration companies of the expectations of the Kwadacha First Nation for companies considering mineral exploration including expectations for consultation, acceptance of management rules for Kaska special and protected areas, application of Kaska practices, and providing economic/capacity opportunities.
- **36.** While recognizing that development is driven by resource prices, the Kwadacha First Nation will work to establish agreements with government and industry to ensure that projects are staged to provide long-term stable and sustainable employment and community benefits and minimize any social and health problems from a boom and bust resource development cycle. In addition, the Kwadacha First Nation will want to assess the status of cumulative effects of all land uses and project into the future potential impacts from incremental development. This will be reassessed periodically and be a tool for environmental assessments and amending Kwadacha Land Use Plans.
- **37.** The Kwadacha First Nation expects the Industry and Government will agree to:
  - i. ensure the monitoring and enforcement of Kaska management practices, land use plans, approved environmental assessment certificates, and permits using an adaptive management framework
  - ii. acknowledge and respect the Land Stewards and Sacred Laws with a commitment of their application for monitoring
  - **iii.** employ Land Stewards and qualified Kwadacha First Nation technical personnel for monitoring and enforcement through the full life cycle of a project
# KWADACHA FIRST NATION PRINCIPLES AND POLICY FOR FISH AND WILDLIFE MANAGEMENT

# **Principles and Policy**

# **RECOGNITION OF RIGHTS**

- 1. The Kwadacha First Nation has unextinguished Aboriginal rights, titles and interests in the Kaska Traditional Territory in northern British Columbia. These rights have been accepted by Canada and the British Columbia Government, and are protected under the *Constitution Act (1982)*. These rights include priority rights to lands and resources.
- **2.** The Kwadacha First Nation members have Aboriginal rights for the harvesting of fish and wildlife in their traditional territory.
- **3.** The Kwadacha First Nation has inherent rights that derive from their political, economic and social structures and from their cultures, spiritual traditions, histories and philosophies, especially their rights to their lands, territories and resources.
- 4. The Kwadacha First Nation has the right to practice and revitalize their customs, practices and traditions. This includes the right to maintain, protect, and develop the past, present, and future manifestations of their cultures, such as archaeological and historical sites, artifacts, designs, ceremonies, technologies, and visual and performing arts and literature. In addition, Kwadacha First Nation have the right to manifest, practice, develop, and teach their spiritual and religious traditions, custom and ceremonies; the right to maintain, protect, and have access in privacy to their religious and cultural sites; the right to use and control of their ceremonial objects and the right to the repatriation of human remains.
- 5. The Kwadacha First Nation has the right to maintain, control, protect, and develop their cultural heritage, traditional knowledge, and traditional cultural expressions, as well as the manifestations of their sciences, technologies, and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs, sports, and traditional games and visual and performing arts. They also have the right to maintain, control, protect and develop their intellectual property over such cultural heritage, traditional knowledge, and traditional cultural expressions.
- 6. The Kwadacha First Nation has the right to determine and develop priorities and strategies for the development or use of their lands or territories, and other resources. This includes the right to the conservation and protection of the environment and the productive capacity of their lands or territories, and other resources.

- 7. The Kwadacha First Nation has control over developments affecting them and their lands, territories and resources will enable them to maintain and strengthen their institutions, cultures and traditions, and to promote their development in accordance with their aspirations and needs.
- 8. The Kwadacha First Nation continues to depend on the land for their foods, medicines, and their physical and spiritual well-being. Therefore, all parties (includes the Province of British Columbia, Canada, industrial development, and commercial recreation tenures) agree that Kaska traditional activities (hunting, fishing, or gathering practices) must be afforded first consideration in planning of fish and wildlife management and development activities (including commercial recreation tenures).
- **9.** Conservation for the Kwadacha First Nation means the management of human activities to maintain, protect or recover fish, wildlife, plants, and habitat since all are connected, to foster the maintenance of natural populations, biodiversity and ecological processes capable of sustainable harvesting. Conservation may include preservation, protection, augmentation and controlled utilization of populations and habitats.
- **10.** The Kwadacha First Nation expects all parties will recognize and respect the importance that traditional knowledge, cultural values, sacred laws, and traditional practices play in the Kaska Dena system of fish and wildlife management.
- **11.** The Kwadacha First Nation believes in a Precautionary Approach to fish and wildlife management that will allow joint management decisions to be made based on community knowledge and Traditional Knowledge without having to wait for results from western science studies to be completed and confirmed.

# PARTICIPATORY RIGHTS

- **12.** Consultation and accommodation principles with the Kwadacha First Nation are based on current case law.
- 13. Shared decision-making and participation by the Kwadacha First Nation is fundamental in the management, planning and decision-making within the Kaska traditional territory to avoid or mitigate impacts to Kaska rights and interests with respect to fish and wildlife management including economic activities such as industrial development, guide outfitting, guided angling, or commercial tourism.
- 14. The Kwadacha First Nation has participatory rights in decision-making through representatives and all parties must be respectful of the Kwadacha First Nation right to choose such representatives in accordance with Kaska internal procedures to ensure the maintenance and development of their own decision-making institutions.
- **15.** There are multiple and often competing land and resource interests in the Kaska traditional territory and all parties must commit to supporting mechanisms for comprehensive land and resource planning that includes full participation of the Kwadacha First Nation. This commitment includes going beyond the current management system for fish and wildlife management, and allows for the protection

or special management of fish and wildlife populations and their habitats & historic range based on Kaska Dena cultural values and traditional knowledge.

- 16. The Kwadacha First Nation has not had meaningful participation in the management of fish and wildlife in the Kaska Dena traditional territory. All parties must commit to support Kwadacha First Nation initiatives to manage, protect, or restore fish and wildlife populations to a status, which they are healthy, productive, and occupying habitats within their natural distribution. This includes the application of identified Kaska protected areas or special management lands for fish and wildlife populations.
- 17. The protection of Kwadacha First Nation fish and wildlife values contribute to the cultural integrity, environmental health, biological diversity, and ecological processes. All parties will respect these values and Kwadacha First Nation fish and wildlife management systems when shared fish and wildlife management decisions are being considered.
- **18.** The importance of traditional knowledge, cultural values, practices, and sacred laws are core components of Kaska Dena governance and management systems. All parties will respect these components related to fish and wildlife management activities.

# KWADACHA FIRST NATION PARTICIPATION IN FISH AND WILDLIFE MANAGEMENT

- **19.** The Kwadacha First Nation is committed on working with all parties through shared decisions mechanisms that respect the Kwadacha First Nation as co-managers for fish, wildlife and all their habitats and range in the traditional territory.
- **20.** The Kwadacha First Nation is agreeable to meaningful participation on a government to government basis with the Province of British Columbia for fish and wildlife management. An agreement would include shared decision making, joint participation in the development, review, and implementation relating to legislation policy, regulations, management planning, inventories, monitoring, and enforcement. It would also include the incorporation of Traditional Knowledge (TK), participation in developing and conducting fish and wildlife studies, integration of Kaska values and TK into fish and wildlife management plans and decisions, the ability for joint management recommendations, development of capacity for monitoring and enforcement, the identification of mitigation and compensation measures, and revenue sharing based on economic activities related to fish and wildlife or from impacts from industrial developments in the traditional territory.
- **21.** The Kwadacha First Nation is agreeable to participating as a member of the Kaska Nation and with neighbouring nations to work collectively on advancing fish and wildlife management matters with provincial and federal governments.
- 22. The Kwadacha First Nation is committed to working with parties interested in guide outfitting, guide angling, or commercial tourism economic activities through agreements that would provide for capacity, employment, training, and economic development opportunities for Kwadacha First Nation members.

- **23.** The Kwadacha First Nation through community recommendations will identify areas in the traditional territory for the reduction of fishing and hunting. It will be developed through community regulations and endorsed through Chief and Council. The Kwadacha First Nation will inform all parties of the regulation(s) and will work to have the deferral and or reduction apply to all licensed fishing and hunting.
- 24. The Kwadacha First Nation through community recommendations will identify areas in the traditional territory for establishment of Fish and Wildlife Habitat Areas. These areas would be deferred from forestry, mining, or road development. The Fish and Wildlife Habitat Areas will be developed through community regulations and endorsed through Chief and Council. The Kwadacha First Nation will inform all parties of the Fish and Wildlife Habitat Areas and will work to have the areas protected through federal or provincial designations such as but not limited to Ungulate Winter Range, Wildlife Habitat Areas, Wildlife Management Areas, and Conservancy Areas.
- **25.** Where there is insufficient data regarding potential impacts from industrial development, guide outfitting, guided angling, or commercial tourism economic activities, the activities should not be initiated until the Kwadacha First Nation is satisfied that there is adequate data or commitment to ascertain the nature and severity of the impact(s).
- 26. The Kwadacha First Nation expects all parties to commit to provide information on their activities, which can impact fish, and wildlife populations or their habitat at all stages to ensure the Kwadacha First Nation's ability to determine possible detrimental effects to their rights and interests. It also provides a forum to seek information, provide recommendations for the protection and management of fish and wildlife populations and habitat, and to discuss economic opportunities through all stages of activities.
- 27. The Kwadacha First Nation expects all parties to commit to the principles of habitat compensation beyond fish habitat to wetlands and wildlife habitat. Compensation would include similar approaches as fish habitat compensation.
- **28.** The Kwadacha First Nation must be involved in any fish and wildlife survey or study in the traditional territory. The Kwadacha First Nation expects all parties to commit to providing the opportunities for participation in surveys and studies and commit to providing the information once the study is completed. This may include presenting the community with results of the survey/study.

# TRADITIONAL KNOWLEDGE

- **29.** Once a Protocol has been agreed, the application of Kwadacha First Nation traditional knowledge is required in a manner consistent with Kaska policies and acceptable to the Kaska. All parties must agree that the Kwadacha First Nation has constitutionally protected Aboriginal rights to ownership, protection and custody of their knowledge.
- **30.** The Kwadacha First Nation commits to negotiate in good faith with all parties, a Traditional Knowledge Protocol that will allow the sharing of information or provide recommendations to ongoing fish and wildlife management activities. The

Traditional Knowledge Protocol will protect the Kaska intellectual property rights of their knowledge, and set out how information will be shared based on an agreed workplan and budget.

# WATER AND LAND PROTECTION

- **31.** The Kwadacha First Nation and the Kaska Dena have as stewards of our traditional territory, the protection of water quality and quantity as a paramount requirement for any fish and wildlife related activities. It is expected all parties will not move forward on activities until there is agreement on the standards and monitoring (including the employment of Kaska environmental monitors) for water quality and quantity. This includes the monitoring in Kaska culturally and environmentally sensitive watersheds downstream of fish and wildlife or tourism development.
- **32.** The Kwadacha First Nation and the Kaska Dena have as stewards of our traditional territory, the protection of culturally important fish, wildlife and plant species as a paramount requirement for any fish and wildlife related activities. It is expected all parties will not move forward on activities until there is agreement on the list of culturally important species to be conserved, the information collection standards, baseline studies, Traditional Knowledge collection, management practices/standards, and monitoring (including the employment of Kaska environmental monitors) for the complete life cycle of the project.
- **33.** The Kwadacha First Nation expects all parties as part of any agreements related to development to recognize the cumulative effects to the species and be prepared to jointly agree to the scope of cumulative effects studies, the joint information collection and analysis for the complete life cycle of the project. This includes reassessing the cumulative effects as new projects are developed in the traditional territory over the complete life cycle of the project.

# FISH AND WILDLIFE MANAGEMENT COMPONENTS

The following components must be included in government to government agreements that speak to fish, wildlife, or biodiversity, and be included in Impact Benefits Agreements with resource development projects (including commercial tourism)

- **34.** Conservation is management to recover or maintain the abundance and diversity of indigenous populations or species and their habitats based on the biological capacity of the ecosystems; conservation may include preservation, protection, augmentation and controlled utilization of populations and habitats.
- **35.** Precautionary principle refers to the principle that a lack of full scientific certainty is not used as a reason for postponing measures that could be implemented to reduce impacts to fish or wildlife species. Other knowledge can be used with available scientific knowledge to support implementing the measures to reduce or stop the impacts to the fish and wildlife species.
- **36.** Advancing ecosystem-based and traditional knowledge approaches to maintain or preserve habitat, ecosystem health, structure, functions, composition and biodiversity.

- **37.** Kwadacha First Nation community expertise and traditional knowledge of fish, wildlife and plants is independent but equivalent information to be considered with local and scientific knowledge in relation to fish, wildlife, and habitat management.
- **38.** Subject to conservation, all parties recognize that the priority of harvest opportunities is to Kwadacha First Nation members exercising their Aboriginal rights, followed by opportunities by licensed B.C. resident and non-resident hunters.
- **39.** All parties agree there are Kwadacha First Nation fish and wildlife management areas identified for the protection of critical ranges, habitats, and special features of culturally important fish and wildlife species. These areas will be included as part of the Kwadacha First Nation Protected Areas Network and Special Management Areas.
- **40.** All decisions made in relation to the joint management of fish and wildlife will be made through a community-based forum and approval.
- **41.** The Kwadacha First Nation will through agreements with government and industry will develop capacity for the shared management of fish and wildlife. This will include but is not limited to:
  - b. developing environmental management priorities;
  - c. designing and conducting inventories;
  - d. developing and implementing management plans;
  - e. monitoring; and
  - f. enforcement and compliance.

# MISCELLANEOUS

- **42.** The Kwadacha First Nation expects the all parties to commit to comply, to the extent possible, with Kaska Dena or Kwadacha First Nation land and resource planning completed or underway in the traditional territory.
- **43.** The Kwadacha First Nation expects all parties to commit to implementing strict environmental protection practices that are acceptable to the Kaska Dena, and including those "best practices" advanced by the Kwadacha First Nation.
- 44. The Kwadacha First Nation expects any Impact Benefits Agreements will include compensation for the disruption or loss of landbase activities by Kwadacha First Nation members.
- **45.** The Kwadacha First Nation commits to inform all parties of the expectations of the Kwadacha First Nation for all parties considering industrial development, guide outfitting, guided angling, or commercial tourism activities including expectations for consultation, acceptance of management rules for Kaska special and protected areas, application of Kaska practices, and providing economic/capacity opportunities.

- **46.** The Kwadacha First Nation expects all parties will agree to:
  - i. ensure the monitoring and enforcement of Kaska management practices, land use plans, approved environmental assessment certificates, and permits using an adaptive management framework
  - ii. acknowledge and respect the Land Stewards and Sacred Laws with a commitment of their application for monitoring
  - iii. employ Land Stewards and qualified Kwadacha First Nation technical personnel including monitoring and enforcement through the full life cycle of an activity or project

# KWADACHA FIRST NATION POLICY PROCEDURES FOR COMMUNITY-BASED DECISIONS

# Procedures

## Engagement

- 1. The Kwadacha First Nation requires a written request from the proponent for Kaska Dena consent and support to a project or when a Crown agency refers a project for consultation purposes to begin engagement and to trigger policy direction.
- 2. The Kwadacha First Nation will identify authorized representative(s) to respond in writing within a reasonable time to any request or referral. In addition the authorized representative(s) will provide Kwadacha First Nation and where available Kaska policies and management approach to the proponent. This will inform both the proponent and Crown agency of Kwadacha First Nation's expectations.
- **3.** The Kwadacha First Nation authorized representative(s) will be the main contact point for communications to formally begin the process to obtain consent and support for a project.

# Evaluation

- **4.** The Kwadacha First Nation authorized representative(s) will obtain the following information:
  - a) details about the type of activity proposed;
  - b) proposed date of entry and duration of occupation;
  - c) general location of proposed activity demarcated on an appropriately scaled topographic map;
  - d) proposed mode of access to the Kaska Dena Traditional Territory;
  - e) proposed number of people who will be on the Kaska Dena Traditional Territory;
  - f) types of impacts anticipated;
  - g) regulatory approvals required;
  - h) status of proposal in regulatory process;
  - i) any proposal for hiring or contracting of Kaska Dena Businesses and local people;
  - j) plans for terminating activity, site restoration, and exiting the traditional territory;
  - k) identification of proponent contact person; and

- 1) other project-related information that would be relevant to a decision by the Kwadacha First Nation and community whether to support the project.
- **5.** The Kwadacha First Nation authorized representative(s) will prepare an Evaluation Report which will include the following:
  - a) sufficient information from the proponent and/or Crown agency to properly understand the project and its potential impacts to the land and water;
  - b) location of the project site or activity area on Kaska Land Use Framework maps;
  - c) a preliminary determination on the likelihood the project will either on its own or cumulatively, have impacts on Kaska Dena cultural, ecological, economic, social, and traditional values;
  - d) a preliminary determination on the likelihood the project will either on its own or cumulatively, have impacts to individual Kaska Land Steward Areas;
  - e) a preliminary determination on whether the project is consistent with Kaska Dena policies, management direction, or Land Use Framework, and if it is found lacking, what are the potential impacts and violations of above.
- 6. The Kwadacha First Nation authorized representative(s) will as part of the preparation of the Evaluation Report will make best efforts meeting with potentially affected Kaska Elders, Land Stewards, and families to inform and seek input to the report.
- 7. The Kwadacha First Nation authorized representative(s) will as part of the preparation of the Evaluation Report seek technical advice when necessary.
- 8. Once the Evaluation Report is completed the Kwadacha First Nation will be informed and if necessary a community meeting will be held to discuss the report and the project's benefits and potential impacts. Once a recommendation on the report has been provided the authorized representative(s) will provide a written response to the proponent and/or Crown agency.
- **9.** The written response will recommend support, rejection, or changes to the project. Projects that do not involve creating new road access, require significant site disturbance, the use of aircraft access, and generates benefits to Kaska Businesses or Kwadacha First Nation members have a greater potential for support. The written response may also include terms and conditions to protect Kaska interests and requiring the proponent to agree to the terms and conditions before any work can begin on the project. The terms and conditions could include further studies to be completed prior to work commencing.
- **10.** If terms and conditions are provided to the proponent or if further information is required the authorized representatives may:
  - a) request more information from the proponent;
  - b) obtain technical advice;
  - c) meet with the proponent to obtain information or discuss the terms and conditions.

# Multiple Phase Projects

- 11. Where projects are proposed that are developed through multi-phase processes such as mineral exploration to mine development. It is possible the Kwadacha First Nation will enter into agreements or reject projects as they move through the process. For example, a mineral exploration project may be supported initially, but as the project is further defined and evaluated through the British Columbia Environmental Assessment process, the Kwadacha First Nation may reject the project. Agreement at one phase does not mean agreement throughout the full life cycle of the project.
- 12. As projects move through multi-phase evaluation processes, the proponent and Crown agency will be required to provide funds and resources for the Kwadacha First Nation to independently assess the project and where necessary develop terms and conditions with the proponent. Shared decision making and participation by the Kwadacha First Nation is fundamental in planning, evaluation, and decision-making within the Kaska traditional territory to avoid or mitigate impacts to Kaska rights and interests with respect to land, water, and resource dispositions.
- **13.** For projects that meet the thresholds for environmental assessment reviews, the Kwadacha First Nation expects the Crown agency to provide resources to negotiate the environmental assessment process and the terms and conditions for Kwadacha First Nation participation through each phase of the process with its authorized representative(s) prior to the process commencing. In addition the Crown agency agrees a process will be negotiated to harmonize environmental assessment process with the Crown's duty to consult and accommodate the interests of the Kaska Dena in respect of the project.
- 14. For projects that meet the thresholds for environmental assessment reviews, the Kwadacha First Nation expects the proponent to provide resources to negotiate the terms and conditions for Kwadacha First Nation participation through each phase of the process with its authorized representative(s) prior to the process commencing. This will include participation in the design of the study area, baseline studies, review and approval of materials prior to submission to the Crown agency, and activities will be consistent with existing policies for resource development.

#### Accommodation Agreement

**15.** It is expected for Accommodation Agreements agreed by the Kwadacha First Nation and provincial and/or federal governments will be consistent with Kaska Dena policies, management direction, or Land Use Framework and current case law.

#### **Resource Development Agreement**

16. It is expected for agreements such as Impact Benefits Agreements or SEPA's agreed by the Kwadacha First Nation and proponents will be consistent with Kaska Dena policies, management direction, or Land Use Framework and current case law.

# Appendix 2. Kaska Focal Species Management Practices

The following management practices for a subset of Kaska Focal Species are focused at practices at the subbasins of major watersheds and at the site/stand level. The Kaska protected area network and steps taken at the major watershed level to address regional development will support the maintenance of habitats and range at these higher broader scales.

### Marten

Generally, marten are most common in older coniferous forests, but use all forested habitats in the traditional territory and can do well in some younger forests, such as burns. Specific habitat requirements include forests with moderate to dense crown closures ( $\geq=30\%$ ), riparian forests, snags and root wads provide for dens, and forests with blowdown or leaning trees provide access to prey under the snow.

Marten are the most important fur-bearer for Kaska trappers and marten are culturally important to the Kaska. Marten are found in good numbers throughout all forested areas of the traditional territory but marten densities do appear to go through wide fluctuations over time but a 'cycle' is not well understood. Marten's main prey is microtines such as red backed voles, and snowshoe hares, but grouse, and berries are eaten by the furbearer.

Marten have been identified in management planning throughout Canada not only as an important cultural and economic species but as an indicator for other forest wildlife. The key assumption is that by maintaining marten habitat at all scales will provide for a wide range of other species using similar habitats.

In regards to resource development such as forestry, Marten tolerate some cut-blocks in their range, and use their edges but do not use the interiors of openings that do not include any retention or corridors linking the retention to the adjacent forest. There is a concern that marten populations respond more negatively at higher degrees of forest cover removal.

#### Criteria for Management

As mentioned, marten are found in most coniferous leading forests, habitat use outside of root wads and snags for reproduction and denning, is linked to its prey primarily voles and hares. Generally, voles are found in medium-wet to wet spruce leading coniferous stands with high coarse woody debris and blow down, limited shrub layer, and dense forest crown closures. Hares are found in similar medium to wet, dense crown closure forests, but with a higher shrub layer with increased openings of willow thickets.

Marten do show a degree of sensitivity to disturbance from resource development such as timber harvesting and management approach should maintain contiguous patches of forests as part of planning resource development. There have been studies that show marten populations being negatively impacted as forest cover is removed. Studies have reported that as more than 30-40% of forest cover is removed results in negative impacts to marten. However, the studies occurred on marten populations in intensively managed forests, with a high level of timber harvesting and were outside of the traditional territory. Further work is required on this threshold but should be considered until new information is available.

**Objective:** To maintain marten habitat at the watershed and stand level

#### **Management Direction:**

- Assess watersheds to maintain the natural range of forested ecosystems over time and space, and identify contiguous patches of marten habitat. Place resource development outside of these areas or ensure forested linkages between high value habitat are maintained.
- Include Kaska Land Stewards early in the process to identify areas of marten habitat and better define marten habitat in a watershed and work collaboratively to maintain marten habitat while identifying areas for operational planning.
- A concentrated approach to resource development with large leave areas in an operational area is of more benefit to marten that a small openings throughout the area. The result is more contiguous forest and marten habitat is left undisturbed.
- Improve information about marten distribution prior to harvesting using simple methods such as working with the trappers, the Kaska, and consider conducting a snow track surveys or using soot plates to record marten presence/absence.

At the stand level, the following practices should be applied for marten:

- Retain a diversity of snags (includes tall wide snags and recruitment snags) and incorporate them into retention patches
- Use retention patches, riparian corridors, and snags to link the interior of openings to the surrounding forest
- Retain coarse woody debris throughout the opening, with a higher density along corridors or edges. This will increase prey in the block and in areas where marten will use

#### **Recommendation:**

Within watersheds identified for resource development consider developing marten habitat mapping with Land Stewards and trappers based on traditional knowledge and over time develop mapping for the traditional territory.

There is a range of thresholds related to marten and resource development with most of the work occurring outside of the traditional territory. It is recommended the Kaska develop a process to test the range of thresholds with an initial range of 25-30% limits to forest cover removal be considered in a subbasins of major watershed; however where possible remove forest cover outside of high value marten habitats.

#### Woodland Caribou

Woodland caribou are culturally important species to the Kaska, are a high profile species of the north, and the herds (Northern Mountain Woodland Caribou) in the traditional territory are considered a Special Concern under the Federal Species at Risk program. The herds are of such significance that all herd winter ranges have been designated by the Kaska as Kaska protected areas called Gu Cha Duga (For the Grandchildren) areas.

#### Criteria for Management

Woodland caribou use a variety of ranges throughout the year. Calving, summer and rutting range are generally in alpine habitats, and as snow levels increase after the rut, caribou will migrate through forested habitats to lower elevation forested winter ranges. Each range is separated by elevation or distance. While maintaining all the ranges are important for survival of the herds, the forested winter range, migration corridors, and calving range are specifically considered for management practices.

Winter ranges are distinct areas with lower snow fall than the surrounding area, have repeated use by the herd, and core use within a range can change to snow conditions, fires, overgrazing, or changes in population. Woodland caribou movements and winter range use are a complex relationship related to snow cover, lichen abundance, moose, predation, direct and indirect disturbances, and forest succession.

Woodland caribou are limited by predation, and the relationship with wolves and moose is not well understood. It is thought that wolves will focus on moose but will prey on caribou opportunistically. It is thought that caribou will use large patches of forest in the winter that provide sufficient lichen abundance for food, but are spatially separated from moose winter habitat. This approach along with staying in small groups could reduce predation. The concern with forestry is the increase in logging in a winter range could increase moose forage and increase the number of wolves in the area. Another factor in this relationship is the impact of deep snow fall years. It is believed that wolf predation is higher on moose and caribou in those years. However, if it could also have a beneficial effect to caribou by reducing wolf numbers if the moose population crashes.

Human effects on caribou are considered both direct and indirect. The direct way is through hunting and reduction in numbers, or loss of range through human activities. In regards to winter habitat or range loss, it is the degree and pattern of habitat loss that is the concern. Indirect ways include roads in winter ranges, aircraft overflights, or snowmobile/ATV use. Roads in winter range are a main concern because of animals being sedentary, limited by snow, attracted to the road salt and then vulnerable to be hit, by traffic, or potentially hunted.

In regards to resource development, the following should be considered to be avoided:

- Key winter habitats such as
  - Open canopy pine lichen stands on glaciofluvial soils, black spruce fens with arboreal lichen, and lakes with mineral overflow (Little Rancheria)
  - Open canopy spruce lichen stands, black spruce wetlands or muskegs with arboreal lichen, and lakes with mineral overflow (Finlayson)
- Permanent road building in winter range, if required do not cross the core winter ranges but build along the boundary of the range.

Other consideration is using a management approach that provides the most protection to the core winter range, and has the most flexibility and opportunity for development the farther away from the core it is located. Seasonal restrictions windows for migration and the winter period should be used for several types of resource development such as forestry.

Calving ranges in the traditional territory are well known and are usually large areas of upper elevation forests and alpine habitats. It is how the caribou use the range that is important to understand as female caribou with calves are usually found at high elevations in alpine habitats with some use in coniferous islands at treeline, and females without calves and males are usually found at lower elevations of alpine and upper slope forests during the peak of calving (May 15 to June 15).

Other forms of resource development can cause impacts to woodland caribou during the alpine range seasons where caribou may be displaced from ranges from mineral exploration activities, seismic line activities, and even commercial tourism, especially when repeated aircraft overflights are occurring. Activities should be limited during the calving season (May 15 – June 30) in known core calving ranges of herds.

#### **Management Direction:**

Many winter ranges already have access in the core winter range but to minimize impacts maintain at least 70 - 90 % of the core winter range as a contiguous zone, design a network of high-quality winter caribou habitat, and reserve it from consideration for development in the extended winter range. The maximum development footprint in non-reserve parts of the extended range should not at any time exceed 30%, and should not exceed 25% in the migration corridors.

Access should be avoided in the core winter range of woodland caribou herds.

- Future access into winter ranges needs to be evaluated through a joint Kaska Government process to determine the justification for the access, but if allowed then access corridors should be planned to minimize disturbance to the area by no roads bisecting the core winter range and the access should be planned along the winter range boundaries.
- Establish a monitoring program of composition surveys, census-surveys and, where possible, assessment of changing habitat use patterns over time.
- Seasonal windows to restrict activities for calving and possibly rut ranges should be considered on a project by project basis especially where core areas of us are known.
- Restrict access or linear corridors within 1km of known core calving range and consider restrictions of ground activities such as advanced exploration during the calving period (May 15 to June 30).
- Seasonal restrictions on aircraft use on known core areas for calving should occur by establishing flight corridors for repeated overflights and establish a distance above calving range such as 1.5 km for aircraft from May 15 and June 30.

#### Moose

Moose are one of the most widespread and commonly encountered large mammal species in the traditional territory. They are culturally important to the Kaska, and an integral component of large predator-prey systems. Moose populations in the plan area are generally at a higher density that other regions in the north.

Moose occupy most of the plan area in one season or another, but most of the winter range occurs in the valley bottoms or on large river floodplains. Moose are associated with riparian habitats, especially floodplains and large wetlands. Generally, areas with a mosaic of habitat types are best for moose, including adequate openings for browse, forested cover for thermal, security and snow interception, and mineral licks. The most critical habitats are winter and calving ranges, since the challenges of winter survival and calf survival are greatly increased when important habitat elements are removed or reduced in quality.

There are large areas of winter range that are regionally important and support a large number of wintering moose such as the Liard Basin, Kechika River, and forested land north of Kwadacha. There are also smaller landscape level concentrations of winter habitat throughout the traditional territory.

#### Criteria for Management

Moose habitat in the traditional territory can include the following:

- Winter range for moose is a combination of:
  - Open canopied mixed coniferous, pine or spruce leading forest stands
  - A mixture of early and mature seral forest classes
  - Willow shrubs generally within 200 m of riparian coniferous stands
  - Lakes, wetlands, and riparian features
  - o 10-15 year old burns
  - Primarily at low elevations
- Calving habitats for moose is a combination of:
  - Open to medium canopied cottonwood-coniferous, pine or spruce leading forest stands
  - o A mixture of early and mature seral forest classes
  - Coniferous stands with high blowdown and structure
  - o Islands on lakes, wetlands, or rivers
  - o Lakes, wetlands, and riparian features
  - o 10-15 year old burns
  - Primarily at lower elevations

Some of the key factors that affect moose populations to consider are:

- Decreases in forest cover and habitat fragmentation at the watershed level which can result in loss of snow interception or security cover and increases in the energy required to move through winter snows
- Increases in roads, which can increase direct mortality from vehicular collisions, concentrated hunting efforts, increased predator access, and poaching

Management strategies to minimize impacts to moose include:

- Managing forest cover removal to provide important attributes of moose winter range and calving habitat (forage, snow interception cover, visual screening)
- Access management to minimize mortality risk to moose
- Managing the amount of early seral and mature old seral forest across the landbase
- Aggregating forest cover removal in time and space
- Seasonal restriction of activities in identified winter or calving range
- Winter or calving range in lowland areas or Large River Corridors should be avoided

**Objective:** To maintain moose habitat at the watershed and stand level in within subbasins of major watersheds

#### **Management Direction:**

- Assess areas to maintain the natural range of forested ecosystems over time and space, identify contiguous patches of moose habitat and develop linkages between high value habitats to maintain large areas of moose habitats.
- Include Kaska Land Stewards early in the process to identify areas of winter and calving habitat in and work collaboratively to maintain the habitat while identifying areas for operational planning.
- Jointly identify concentrations of winter and calving habitats and determine the area of lowland and upland forests and the area of Large River Corridors within the winter and calving range. Determine the areas to avoid and the potential range of development in a winter range or calving range area.
- A concentrated approach to forest cover removal with large leave areas in an operational area is of more benefit to moose than small openings throughout the area. The result is more contiguous forest and moose habitat is left undisturbed. Resource development should be planned to reduce moose habitat fragmentation at a watershed scale.
- Develop access that avoids permanent access in winter and calving range. If that is not feasible plan the access so it is does not bisect the range but is located along the edge of the range.

Develop seasonal windows to avoid natural resource activities in calving range

At the stand level, apply the following practices, which are best suited for the habitat:

- Retain a diversity of snags and incorporate them into retention patches
- Use retention patches, riparian corridors, and non merchantable trees to try and link the interior of the block to the surrounding forest
- Providing openings of 10-15 years in age over time
- Applying variable stocking to achieve patchiness
- Reducing conifer stocking or promoting the minimum conifer density
- Maintaining similar species distribution to natural stands

- Giving preference to manual treatments for vegetation control while enhancing moose winter forage
- Using prescribed burning, where appropriate

Access related to forestry development should avoid permanent access in winter and calving range and provide screening to wetlands, south-facing slopes, rivers or openings along highways, secondary roads, and main forestry roads.

#### **Recommendation:**

Within watersheds identified for resource development, consider developing moose habitat mapping with Land Stewards based on traditional knowledge and over time develop mapping for the traditional territory.