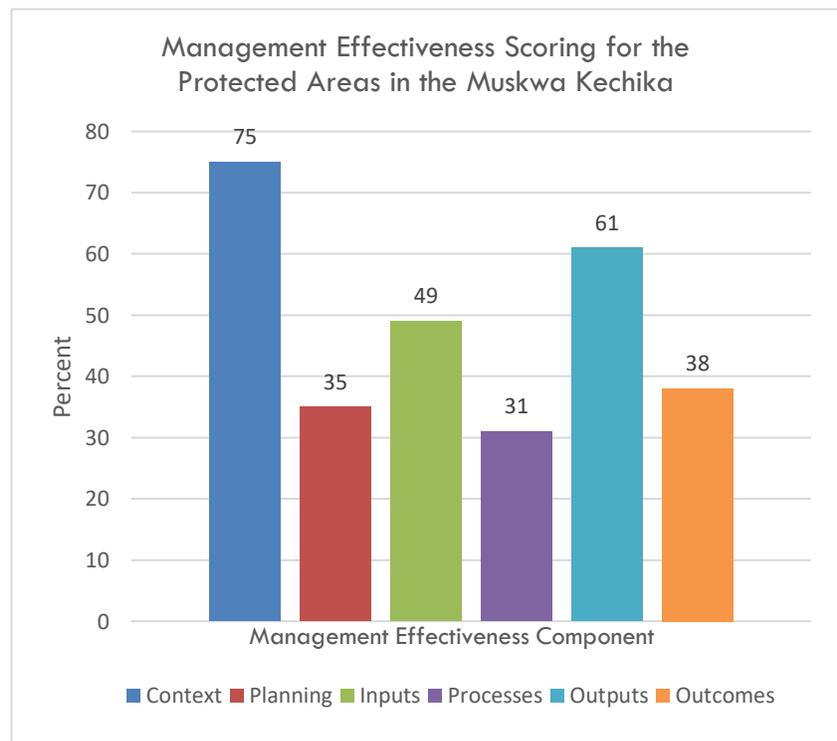


## Muskwa Kechika Park and Protected Area Management Effectiveness Summary

<b>Site Names:</b>	Dune Za Keyih and Northern Rocky Complexes and surrounding protected areas situated in the Muskwa Kechika Management Area (Dall River Old Growth Park, Denetiah PPA, Dune Za Keyih PPA, Finlay-Russel PPA, Graham-Laurier Park, Horneline Creek Park, Muncho Lake Park, Northern Rocky Mountains, Ospika Cones ER, Prophet River Hotsprings Park, Redfern-Keily Park, Scatter River Old Growth Park, Kwadacha Wilderness Park, Liard River Corridor Park and Protected Area, Liard River Hotsprings Park, Sikanni Chief River ER, Stone Mountain Park, Toad River Hotsprings Park)
<b>Evaluators:</b>	BC Parks Omineca and Peace staff, FLNRORD, COS staff, and Confluence Consulting
<b>Date:</b>	February 2021
<b>Evaluation Tool:</b>	Canadian modification of the Management Effectiveness Tracking Tool
<b>Overall Score:</b>	<b>Basic with significant deficiencies</b>

Scoring Level Standard
Sound (67%-100%)
Basic (51%-66%)
Basic with significant deficiencies (34%-50%)
Clearly inadequate (0-33%)



<b>Context: <i>Where are we now?</i></b>		<b>Explanation of Component:</b>  This component evaluates whether the site has relevant background information needed to plan and implement management and to shape and focus an evaluation on the most important aspects of management. <i>Assesses values, threats and legal status.</i>
<b>Score:</b>	Sound	
<b>Summary:</b> Comprehensive conservation values and threats assessments were completed for the protected areas (PPAs) situated within the Muskwa Kechika Management Area (M-KMA). Lack of information on some biodiversity elements such as species at risk is a barrier to fully understanding the current conditions. The protected areas of the M-KMA are set within a matrix of special management that is intended to protect wildlife and wilderness across the larger landscape in perpetuity: an approach that should minimize impact to the protected areas and help integrate them into the larger landscape. Note: The values and threats assessments were completed at a large, landscape scale; some of the values and risks associated with individual sites may have been overlooked.		

<b>Planning: <i>Where do we want to be and how will we get there?</i></b>		<b>Explanation of Component:</b>  This component evaluates the design features of a protected area or system including the physical, legal and institutional factors which determine whether its management will be relatively straightforward or complicated. <i>Assesses regulations, policies, objectives, design, management plan and broader land and water planning objectives.</i>
<b>Score:</b>	Basic with significant deficiencies	
<b>Summary:</b>  Although plan development has been initiated, all 18 PPAs lack formal management plans and eight of the plans have vague purpose statements. As a result, no site-specific objectives exist and much is unknown about key cultural and conservation values. While there is sufficient staff direction and adequate overarching conservation policy, there are disparate resources between the front country and backcountry areas of the M-KMA PPAs. For front country sites such as Liard River Hot Springs Park, there is a consistent on the ground staff presence and regulations and policies can generally be implemented. Staff are unable to enforce regulations and policies from their offices and front country corridors.  <b>How BC Parks is responding:</b> BC Parks is on track to complete the bundled management plan for the M-KMA PPAs by 2024.		

<b>Inputs: What do we need?</b>		<b>Explanation of Component:</b>  Assessments of protected area effectiveness repeatedly suggest that the level of resources available for management often has a major impact on effectiveness. This component attempts to evaluate inputs by developing a clear and unbiased picture of the inputs available and to identify gaps and shortfalls. <i>Assesses law enforcement, resources, staff numbers and training, budget, management equipment and facilities and fees.</i>
<b>Score:</b>	Basic with significant deficiencies	
<b>Summary:</b>  Front country PPAs are managed by a contracted park operator and have adequate staffing to operate campground facilities. Back country areas are largely unstaffed due to lack of easy access and low staff numbers who need to spend their time at higher use protected areas. Access to back country areas (~75% of the M-KMA PPAs) is limited by an inadequate flight budget and limited staff capacity. Currently there is one area supervisor but no full-time planner or a dedicated senior ranger for the M-KMA PPAs. The conservation specialist's time is split over all of the PPAs in the Peace and the Omineca and there is no secure budget for conservation-related spending. In recent years, the provincial Licence Plate Program has generated funds for conservation projects in the MKMA. Equipment is adequate however training to allow staff to use the equipment is lacking.  <b>How BC Parks is responding:</b> Since the PAME evaluation was completed, new staffing positions were secured. BC Parks shifted resources and was able to fund an additional senior park ranger for the M-KMA PPAs. Funds were also reallocated to increase flight dollars to access M-KMA PPAs, and a jet boat was purchased to improve park and protected area access.		

<b>Processes: How do we go about it?</b>		<b>Explanation of Component:</b>  Managers deal with a range of issues and sound management practices are needed to ensure protected areas are managed effectively. This component evaluates the processes that are in place to guide management. <i>Assesses the protection system, research and monitoring, resource management, and education.</i>
<b>Score:</b>	Clearly inadequate	
<b>Summary:</b>  The lack of formal management plans for the M-KMA PPAs means that there is little research or monitoring occurring. The Long-Term Ecological Monitoring plot that exists in Stone Mountain is producing long term trend data and is unable to inform management decisions at this time. This hands-off approach to biodiversity management applies to all PPAs with the exception of Liard River Hot Springs Park which has relatively up to date conservation signage and a boardwalk system to support appropriate access. Signage and web		

<p>communications are out of date, uncoordinated and do not reflect the current rules and regulations. Conservation values are expected to be intact due to the vast size of the majority of the MK PPAs and their remoteness however a lack of on-the-ground presence means this cannot be confirmed. Significant portions of the Complexes are managed as wilderness zones, and the limited public access to those areas currently aids in protecting the ecological values of the area.</p> <p><b>How BC Parks is responding:</b> BC Parks is on track to complete the bundled management plan for the M-KMA PPAs by 2024. This completed plan will identify new research and monitoring needs. In addition, web updates have been initiated and opportunities for new signage are being explored. BC Parks is seeking funding from sources such as the BC Parks Licence Plate Program and the BC Parks Foundation to resource future conservation inventories.</p>	
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<b>Outputs: <i>What were the results?</i></b>		<b>Explanation of Component:</b>
<b>Score:</b>	Basic	This component evaluates whether protected area managers achieved what they set out to do. <i>Assesses work planning and visitor facilities.</i>
<p><b>Summary:</b></p> <p>Annual work planning is conducted regularly but implementation is limited due to a lack of staff and resources. The exception is Liard River Hot Springs Park where management planning and implementation routinely occurs. The lack of on the ground presence results in staff not knowing where conservation actions are required. At other times, staff are unable to pursue conservation actions because of overwhelming demands on their time for basic patrol/park functions. Permitting and licensing systems are adequate but there is a limited ability to enforce or monitor these activities. Facilities at Liard River Hot Springs Park are up to date and in good condition; facilities in other M-KMA PPAs are old and not monitored or staffed. For example, cabins and fire rings exist but there is no access to buy firewood leading to the illegal harvesting of trees and removal of woody debris to burn.</p>		

<b>Outcomes: <i>What did we achieve?</i></b>		<b>Explanation of Component:</b>  This component evaluates whether management is maintaining the core values for which the protected area was established. <i>Assesses benefit to local community, condition of identified values and management actions to achieve identified values.</i>
<b>Score:</b>	Basic with significant deficiencies	
<b>Summary:</b>  Overall, there is a lack of data regarding the M-KMA protected areas, however it is possible that the remoteness, size and lack of authorized human footprint have kept the M-KMA PPAs relatively intact. Biodiversity outcomes may be consistent with those at the time of PPA establishment but there are no current data or routine visits to most of these sites to support this assumption. The lack of on-the-ground staff presence makes it difficult to validate conservation outcomes. Anecdotal reports by knowledgeable M-KMA users indicate predator and prey decline across the area. Additional resources are required to ground truth outcomes and enable staff to complete monitoring, management and enforcement duties. Recreational values are maintained especially for the front country areas. Location and presence of cultural values are not well known, and management of cultural values is often reactive versus proactive in nature.  <b>How BC Parks is responding:</b> Additional conservation management was initiated in the M-KMA. Surveys of thinhorn (Stone's) sheep occurred with cooperation from FLRNRORD in Kwadacha Wilderness Park and Northern Rocky Mountains parks to better inform management of this blue-listed species. In addition, the BC Parks iNaturalist Project has been steadily increasing our biodiversity data across the provincial park system thanks to citizen scientists and researchers alike. BC Parks is taking advantage of existing budgets and third-party projects to address these deficiencies.		

## Appendix A – Key values in the M-KMA PPAs

VARIABLES	Standardized Conservation Value	State of Value
Terrestrial Ecosystems (Representation)	100	Excellent
<b>Species of Concern</b>		
Rare/Tracked Species (Species of Conservation Concern)	100	Excellent
Diversity of Rare/Tracked Species	100	Excellent
Degree of Endemism (Uniqueness)	75	Moderately high
Range Extension Species	Unknown	Unknown
Remnant Species or Communities	75	Moderately high
Species Loss	100	Excellent
Keystone Species	100	Excellent
Apex Predators	100	Excellent
<b>Special or Unique Habitats</b>		
Rare Habitats/Ecological Communities	Unknown	Unknown
<b>Legal or Policy Defined Critical Habitats</b>		
Legally Defined Critical ('Essential') Habitat	0	Unknown
Wildlife Habitat Features/Focal Habitats	100	Excellent
<b>Special Features</b>		
Special Landforms/Features	100	Excellent
<b>Ecological Function</b>		
Number of Movement Corridors	100	Excellent
Significance of Movement Corridors	100	Excellent
Source/Sink	100	Excellent
<b>Hydrologic Function</b>		
Watershed Completeness	100	Excellent
Lotic Connectivity	100	Excellent

## Appendix B - Staffing

Twenty years ago the IUCN World Conservation Monitoring Centre conducted a global review of protected areas budgets and staffing.<sup>1</sup> At that time, the average number of staff per 1000 km<sup>2</sup> for developing countries was 27 and just slightly below that (26.9) for developed countries. Comparing 2020 staff numbers for the MK-MA PPAs, the ratio of staff is 0.3/1000 km<sup>2</sup> (or ~1/1000km<sup>2</sup> when Park Operator staff are included).<sup>2</sup> These staff ratios are below IUCN averages from twenty years ago. Within the broader protected area system, Canada under-resources staffing for protected areas. Nationwide 1991 figures showed Canadian protected areas had on average 13 staff/1000km<sup>2</sup>. These numbers, while half of the international ratios are still significantly higher than the staff ratios for the parks and protected areas in the MK-MA.

### Staffing estimates for MK-MA PPAs

Protected Area	BC Parks FTE	Planner	Conservation Specialist	Area Supervisor	RSO	Sr. Ranger (Full time)	Park Ranger (Seasonal, 5 month term)	Section Head	Total
	FTE	0.5	.5	1	1	0	3	1	
Liard River Hot Springs	%	6	15	30	5	0	65	35	
	Actual FTE	.03	.08	.3	.05	0	1.95	.35	<b>2.83</b>
Muncho	%	4	3	25	5	0	15	5	
	Actual FTE	.02	.015	.25	.05	0	.45	.05	<b>.85</b>
Stone Mountain	%	4	0.5	25	5	0	10	5	
	Actual FTE	.02	.025	.25	.05	0	.3	.05	<b>.72</b>
All other PPAs in the MK-MA	%	4	.01	25	0	0	10	20	
	Actual FTE	.02	.00005	.25	0	0	.3	.2	<b>.771</b>

Note: FTE = Full time equivalent. In addition, seasonal Park Operator staff support the maintenance of front country sites as follows: 1) Muncho Lake has 1.5 FTE from May 1 – Sept 1, 2) Stone Mountain – Summit Lake has 1.5 FTE from May 1 – Sept 1, and 3) Liard River Hot Springs has 8 FTE from May 1st to October 31<sup>st</sup>.

<sup>1</sup> James, A., Green, M. & Paine, J. A global review of protected area budgets and staff. World conservation Monitoring Centre, 1999. <https://www.cbd.int/financial/expenditure/g-spendingglobal-wcmc.pdf>

<sup>2</sup> The total area of the MK-MA PPAs is 17,538 square kilometres.