

Key Grizzly Bear Questions for Qualified Environmental Professionals Major Projects

Resource Management, FLNRO – South Coast Region
June 19, 2017 – Version 3.0

Date:

South Coast Region Resource Management of the Ministry of Forests, Lands and Natural Resource Operations recommends that the following questions be filled out and submitted by Qualified Environmental Professionals working on behalf of the

project. A completed form will assist in clarifying the information prepared by Qualified Environmental Professionals on behalf of the project proponent and improve the efficiency of the review process.

Please be advised that a Qualified Environmental Professional is an applied scientist or technologist, acting alone or together with another qualified environmental professional. He or she must be registered and in good standing in British Columbia with an appropriate professional organization constituted under an Act, acting under that association’s code of ethics and subject to disciplinary action by that association. To be able to certify that they are qualified to provide an answer to a particular question posed, the individual’s area of expertise must be one that is acceptable for the purpose of providing all or part of a report in respect of the particular development proposal that is being assessed. The individual is considered a Qualified Environmental Professional only for that portion of the assessment that is within their area of expertise. In this case, it is expected that the Qualified Environmental Professional(s) will be experienced in assessing the impacts, mitigation and off-sets/mitigation associated with industrial or recreational activities on grizzly bears and their habitat.

1.0 Professional Accountability			
1.1	Has the submission been signed off by a certified professional experienced in assessing impacts, mitigation, off-sets and monitoring of industrial or recreational activities associated with grizzly bears and their habitat?		Unknown
Professional			Portion(s) of Development Plan Responsible For
Name	Accreditation	Signature	
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

2.0 Assessment of Grizzly Bear Components		
2.1	Habitat	
2.1.1	Is the extent of grizzly bear habitat fully understood and described?	Unknown
2.1.1.1	Have approved or proposed grizzly bear Wildlife Habitat Areas been identified within the regional study area?	Unknown
2.1.1.2	Has grizzly bear suitable habitat within the regional study area been assessed and mapped?	Unknown
a	<i>Has a habitat suitability index (HSI) been used?</i>	Unknown
b	<i>Have Terrestrial Ecosystem Mapping data been used?</i>	Unknown
c	<i>Has habitat been mapped using the 6-habitat class methodology developed by MoE (2007)?</i>	Unknown
2.2	Individuals & Populations	
2.2.1	Have density, distribution and demography of grizzly bears been assessed within the regional study area?	Unknown
2.2.1.1	Have regional FLNR biologists been contacted regarding current knowledge of the presence and status of grizzly bears in the study area?	Unknown
2.2.1.2	Has a grid of DNA hair-snag stations been established within the regional study area?	Unknown
a	<i>Has the grid network been done in coordination with FLNR monitoring activities?</i>	Unknown
2.2.1.3	Have habitat use and mortality been assessed through radio-tracking grizzly bears?	Unknown
3.0 Assessment of Potential/Expected Impacts to Grizzly Bears		
3.1	Project Footprint - Habitat	
3.1.1	Are the direct impacts of the project components identified below that overlap or intersect grizzly bear habitats fully considered, understood, described, and, where possible, quantified:	
a	<i>direct impacts to critical habitat from proposed infrastructure;</i>	Unknown
b	<i>direct impacts to landscape level forage supply; and/or,</i>	Unknown
c	<i>have changes to road density been calculated to assess habitat effectiveness and mortality risk (below 0.40 – 0.42km/km²)?</i>	Unknown
3.2	Project Operation – Habitat, Individuals and Populations	
3.2.1	Are the impacts of project operations that interact with grizzly bears or their habitats fully considered, understood and described?	Unknown
3.2.1.1	Have any activities that can cause grizzly bear displacement from key habitats been fully described?	Unknown
3.2.1.2	Have any of the following activities that can cause stress on animals or increase mortality risks been identified and described:	
a	<i>opening or construction of roads;</i>	Unknown
b	<i>vegetation management;</i>	Unknown
c	<i>increased human activity and vehicle traffic; and/or,</i>	Unknown
d	<i>other ongoing maintenance activities?</i>	Unknown
3.2.1.3	Are the maintenance schedules and activities fully understood and described?	Unknown

3.4	Project Construction - Individuals and Population	
3.4.1	Will construction be avoided in the following important habitat areas:	
a	<i>critical forage areas;</i>	Unknown
b	<i>approved or proposed Wildlife Habitat Areas;</i>	Unknown
c	<i>key movement corridors; and/or,</i>	Unknown
d	<i>known denning areas?</i>	Unknown
3.4.2	Will actions be taken to avoid increasing mortality risk during the following construction activities:	
a	<i>road building;</i>	Unknown
b	<i>activities at a construction camp; and/or,</i>	Unknown
c	<i>at other construction sites?</i>	Unknown
4.0 Mitigation of and Off-sets to Impacts to Grizzly Bears		
4.1	Impact Avoidance	
4.1.1	Project Footprint - Habitat	
4.1.1.1	Was the Environmental Mitigation Policy (MOE 2014) applied?	Unknown
4.1.1.2	Have project components been designed to avoid impacts to the following grizzly bear habitats:	Unknown
a	<i>critical forage areas;</i>	Unknown
b	<i>approved or proposed Wildlife Habitat Areas;</i>	Unknown
c	<i>key movement corridors; and/or,</i>	Unknown
d	<i>known denning areas?</i>	Unknown
4.2	Mitigation	
4.2.1	Project Footprint and Operation - Habitat	
4.2.1.1	Are project components designed, located or other measures taken to reduce/mitigate impacts to grizzly bear habitat as much as is possible? Does this include consideration of:	
a	<i>critical forage areas;</i>	Unknown
b	<i>approved or proposed Wildlife Habitat Areas;</i>	Unknown
c	<i>key movement corridors;</i>	Unknown
d	<i>known denning areas; and or,</i>	Unknown
a	<i>is road density reduced below 0.40 – 0.42km/km²?</i>	Unknown
4.2.1.2	Will disturbed habitats be adequately restored as much as is possible?	Unknown
4.2.1.3	Will impacts to bear movement/migration corridors be reduced as much as is possible through:	
a	<i>timing restrictions; and/or,</i>	Unknown
b	<i>wildlife crossing structures considered where appropriate?</i>	Unknown

4.2.2	Project Operation - Individuals & Populations	
4.2.2.1	Have proposed operations been designed to reduce potential stress and risk of mortality to local grizzly bears through:	
a	<i>timing of activities;</i>	Unknown
b	<i>speed limits on roads; and/or,</i>	Unknown
c	<i>an access management plan including appropriate road closures?</i>	Unknown
4.2.2.2	Are electrical fences installed where appropriate?	Unknown
4.2.3	Project Construction – Individuals & Populations	
4.2.3.1	Will construction activities be managed to reduce potential stress and risk of mortality to local grizzly bears?	Unknown
4.2.3.2	Will appropriate personnel training be provided?	Unknown
4.2.3.3	Will firearms restrictions be instituted on-site?	Unknown
4.2.3.4	Will there be appropriate management of unnatural attractants (garbage, berry-producing vegetation associated with disturbed habitat) near or at the following:	
a	<i>roads;</i>	Unknown
b	<i>the camp; and/or,</i>	Unknown
c	<i>other construction sites?</i>	Unknown
4.3	Off-setting/Compensation for Residual Impacts	
4.3.1	Project Footprint Impacts	
4.3.1.1	Does the proposed off-set provide ecological equivalency to directly address residual impacts from changes in habitat quantity and quality due to the project footprint?	Unknown
a	<i>Is it like-for-like in terms of function?</i>	Unknown
b	<i>If it is not like-for-like, does it target a limiting life stage or habitat type?</i>	Unknown
c	<i>Is it geographically as close as possible to the area of disturbance?</i>	Unknown
d	<i>Does it adequately address anticipated changes in productive capacity?</i>	Unknown
e	<i>Is there a sufficient compensation ratio applied?</i>	Unknown
4.3.2	Project Operation Impacts	
4.3.2.1	Is proposed off-set adequate to directly address residual impacts from changes in habitat quality due to project operations?	Unknown
a	<i>Is it like-for-like in terms of habitat function (species, life stage etc.)?</i>	Unknown
b	<i>Is it geographically as close as possible to the disturbance?</i>	Unknown
c	<i>Does it adequately address anticipated changes in productive capacity?</i>	Unknown
d	<i>Is there a sufficient compensation ratio applied?</i>	Unknown
5.0 Monitoring and Reporting		
5.1	Mitigation and Restoration Implementation	
5.1.1	Will the implementation of the mitigation and restoration activities be adequately monitored and reported?	Unknown
5.1.2	Will any restored areas be evaluated as to their subsequent use by grizzly bears?	Unknown

5.2	Mitigation and Restoration Effectiveness	
5.2.1	Will ongoing density, distribution and demography of grizzly bears be assessed within the regional study area?	Unknown
5.2.1.1	Will a grid of DNA hair-snag stations continue to be used within the regional study area?	Unknown
5.2.1.2	Will habitat use and mortality continue to be assessed through radio-tracking grizzly bears?	Unknown
5.2.1.3	Are there agreements in place to modify structures or operations based on monitoring results?	Unknown

This questionnaire can be submitted with the development plan when submitting a project proposal through the Front Counter BC.