

Spotted Owl Questions for Qualified Environmental Professionals Major Projects (General)

Resource Management, FLNRO – South Coast Region

June 20, 2017 – Version 4.0

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 Spotted Owls 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 Spotted Owls?		Unknown
Professional			Portion(s) of Development Plan Responsible For
Name	Accreditation	Signature	
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

2.0 Assessment of Northern Spotted Owl Components

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2.1	Habitat	
2.1.1	Is the extent of all potential habitat types understood and described?	Unknown
2.1.1.1	Are habitat types mapped and quantified for the footprint area and a 6 km radius buffer around the foot print area? (Note: Spotted Owls found within this 6 km buffer may utilize suitable habitats within the footprint area.)	Unknown
<i>a</i>	<i>Have nesting, foraging and roosting habitat types been mapped and quantified (Suitable habitat)?</i>	Unknown
<i>b</i>	<i>Have dispersal/movement habitat types been mapped and quantified (Suitable habitat)?</i>	Unknown
<i>c</i>	<i>Has future recruitment habitat been mapped and quantified (Capable habitat)?</i>	Unknown
<i>d</i>	<i>Have non-forested features been excluded or subtracted from habitat assessment?</i>	Unknown
2.1.1.2	Are Provincial Parks, Wildlife Habitat Areas for Spotted Owls and other protected areas mapped and quantified to identify the footprint overlap or proximity of the footprint area to these protected habitats?	Unknown
2.2	Individuals & Populations	
2.2.1	Is the extent of potential Spotted Owl presence understood and described?	Unknown
2.2.1.1	Have the BC Conservation Data Center and the Regional Spotted Owl Biologist been contacted and informed you of any occurrences of Spotted Owls within the footprint or surrounding buffer?	Unknown
2.2.1.2	Has the minimum inventory effort been applied to the full extent of habitat (entire foot print area and 6 km radius buffer) to determine the current status of presence or absence of Spotted Owls (Note: methodology is described in the Inventory Methods for Owl Surveys manual.)	Unknown
2.2.1.3	Has an inventory been conducted because:	Unknown
<i>a</i>	<i>the BC Conservation Data Center has identified a current or historic occurrence of Spotted Owls;</i>	Unknown
<i>b</i>	<i>The footprint area contains Suitable and/or Capable habitat and falls within a provincial park or a Wildlife Habitat Area protected for Spotted Owls; and/or,</i>	Unknown
<i>c</i>	<i>The footprint area falls outside of a provincial park or Wildlife Habitat Area protected for Spotted Owls, but the footprint area contains Suitable habitat and 40% or more of the 6 km radius buffer, including the footprint area, is comprised of Suitable habitat.</i>	Unknown
2.2.1.4	If a Spotted Owl was detected:	
<i>a</i>	<i>Was the Regional Spotted Owl Biologist notified within 24 hrs to provide immediate assistance to help determine the status of the owl and provide advice;</i>	Unknown
<i>b</i>	<i>Has a pair of owls been confirmed, and nesting or juveniles been observed;</i>	Unknown
<i>c</i>	<i>Has a nest and/or critical roost site been located; and/or,</i>	Unknown
<i>d</i>	<i>Is the Spotted Owl banded or have a radio-transmitter attached?</i>	Unknown
2.2.1.5	If absence of Spotted Owls was assessed:	
<i>a</i>	<i>Have two consecutive years of inventory standards been applied to the footprint area and 6 km buffer;</i>	Unknown
<i>b</i>	<i>Have the sample stations been mapped and results summarized, including survey effort, owls (all species) detected, survey conditions (i.e. windy, rain, loud creek noise) for each sampling station; and/or,</i>	Unknown
<i>c</i>	<i>Are sampling results consistent with existing/historic knowledge of the site (based on BC Conservation Data Center search, Regional Spotted Owl Biologist advice or other historical survey records)?</i>	Unknown

3.0 Assessment of Potential/Expected Impacts to Spotted Owl		
3.1	Project Footprint	
3.1.1	Does the project footprint impact potential Spotted Owl habitat (Suitable and/or Capable)?	Unknown
3.1.1.1	If habitat alterations are expected, has the total area of habitat alterations been quantified and qualified for both Suitable and Capable habitat?	Unknown
3.1.1.2	Has the total area of Suitable and Capable habitat that will be permanently altered and incapable of becoming Suitable habitat in the future been quantified and qualified?	Unknown
3.1.1.3	Has the total area of Suitable and Capable habitat that will be temporarily altered (e.g. cleared forest that will regrow to future habitat conditions) been quantified and qualified?	Unknown
3.1.1.4	Has the extent of alterations, including temporary and permanently altered habitat, within provincial parks, Wildlife Habitat Areas for Spotted Owls, or other protected areas been quantified and qualified?	Unknown
3.1.1.5	Has the extent of habitat fragmentation and isolation that will be created been quantified and qualified?	Unknown
3.1.2	Does the project footprint avoid impacting known Spotted Owls occurrences?	Unknown
3.1.2.1	Has the extent of potential impacts to known Spotted Owl occurrences been fully identified?	Unknown
3.1.2.2	Does the footprint area avoid areas that are currently occupied or likely used by Spotted Owls?	Unknown
3.1.2.3	Does the footprint area avoid affecting Critical Habitat as per the federal Species at Risk Act? The partial definition for Critical Habitat affords full habitat protection to an occupied Spotted Owl territory (a 3,200 ha forested area).	Unknown
3.1.2.4	Does the footprint area avoid areas that overlap a known nest or critical roost reserves?	Unknown
3.1.2.5	Does the project footprint avoid displacing or increasing risk of mortality of Spotted Owls due to resulting fragmentation, habitat isolation or avoidance, and increased exposure to predators and competitors (e.g. by increased edge effects and non-forested openings)?	Unknown
3.2	Project Operation	
3.2.1	Will the project operations avoid impact to Spotted Owls or Spotted Owl habitat?	Unknown
3.2.1.1	Will Project operational activities avoid causing direct mortality, harm, displacement or disturbance of Spotted Owls?:	Unknown
3.2.1.2	Will project operational activities that may impact Spotted Owls including the following, be designed and conducted in a manner to minimize their potential effects:	Unknown
a	<i>Vegetation management, including pruning, felling of trees, and use of pesticides and herbicides;</i>	Unknown
b	<i>Increased human activity and vehicle traffic, particularly between dusk to dawn;</i>	Unknown
c	<i>Increased light (e.g. street lights and facility lights) and excessive noise exposure; and/or.</i>	Unknown
d	<i>Other ongoing maintenance activities?</i>	Unknown
3.3	Project Construction	
3.3.1	Will the project construction avoid impact to Spotted Owls or Spotted Owl habitat?	Unknown
3.3.1.1	Will Project construction activities avoid causing direct mortality, harm, displacement or disturbance of Spotted Owls?	Unknown
3.3.1.2	Will project construction activities, including the following, that may impact Spotted Owls, be designed and conducted in a manner to minimize their potential effects:	Unknown
a	<i>Vegetation and land clearing activities, including felling of trees, road construction and blasting;</i>	Unknown

<i>b</i>	<i>Increased human activity and vehicle traffic, particularly between dusk to dawn;</i>	Unknown
<i>c</i>	<i>Increased light (e.g. street lights and facility lights) and excessive noise exposure; and/or,</i>	Unknown
<i>d</i>	<i>Other ongoing construction activities?</i>	Unknown
3.3.1.2	Will project construction activities avoid causing direct loss of Spotted Owl habitat?	Unknown
3.3.1.3	Will project construction activities, including the following, that may impact Spotted Owl habitat, be designed and conducted in a manner to minimize their potential effects:	Unknown
<i>a</i>	<i>Vegetation and land clearing activities, including felling of trees, road construction and blasting; and/or,</i>	Unknown
<i>b</i>	<i>Other ongoing construction activities?</i>	Unknown

4.0 Mitigation and Off-sets of Impacts to Spotted Owls

If developments are planned within a Spotted Owl Wildlife Habitat Areas, Proponents must submit a WHA Exemption Request to the Regional Director, Resource Management, that demonstrates that there are no other practicable alternatives to avoid negatively impacting the WHA. Where avoidance cannot be achieved, the Proponent should provide a Mitigation Plan as part of their Exemption Request as per the Environmental Mitigation Policy for British Columbia (<http://www.env.gov.bc.ca/emop/>)

4.1	Impact Avoidance	
4.1.1	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 important Spotted Owl habitats?	Unknown
4.1.1.3	Does the design of those components to avoid impacts to important Spotted Owl habitat include avoidance of:	
<i>a</i>	<i>Spotted Owl WHAs and Protected Areas that are designated for Spotted Owl recovery;</i>	Unknown
<i>b</i>	<i>Critical Habitats as defined by the federal Species at Risk Act;</i>	Unknown
<i>c</i>	<i>impacts within an 80 ha reserves zone (no harvest) around known Spotted owl nest or critical roost sites; and/or,?</i>	Unknown
<i>d</i>	<i>impacts to suitable and capable Spotted Owl habitat?</i>	Unknown
4.1.2	Individuals and Populations	
4.1.2.1	Have project components, construction and operational activities been designed to avoid mortality, harm, displacement or disturbance to Spotted Owls?	Unknown
<i>a</i>	<i>Has presence of Spotted Owls been confirmed and risk of negative impact avoided?</i>	Unknown
<i>b</i>	<i>Have project construction and operational activities been restricted during the nesting Season (March 1 to July 31)?</i>	Unknown
<i>c</i>	<i>Have project construction and operational activities been restricted in and adjacent to important habitats to avoid accidental mortality by vehicular traffic?</i>	Unknown
<i>d</i>	<i>Will serious penalties, and/or stop-work orders be issued to ensure that clearing, construction and operational activities are temporarily stopped to protect Spotted Owls if their presence is detected near the activity?</i>	Unknown

4.2	Minimizing Habitat Loss	
4.2.1	Are project components designed, located or are other measures taken to reduce/mitigate impacts to Spotted Owl habitat as much as is possible?	Unknown
4.2.1.1	Has the distribution of habitat and its associated values to Spotted Owls been used to spatially avoid high valued habitats, minimize habitat loss, protect Spotted Owls and maintain movement corridors?	Unknown
4.2.1.2	Has the creation of forest fragmentation, large openings, and increasing the amount of forest edge been minimized or avoided to minimize exposure of Spotted Owls to predators and competitors?	Unknown
4.2.1.3	Have continuous patches of Spotted Owl habitat that are a minimum of 500 ha in size been maintained, where present, to provide breeding habitats?	Unknown
4.2.1.4	Have movement corridors of suitable habitat that are wider than 1 km been maintained, where present, to reduce Spotted Owl exposure to predators and competitors?	Unknown
4.2.1.5	Has the development been placed, where possible, within existing clear-cuts or other forest openings to reduce or avoid loss of suitable habitat?	Unknown
4.2.1.6	Have infrastructures that require smaller land clearing (e.g. a Delta tower which reduces clearing requirements up to 25%) been used?	Unknown
4.2.1.7	Have Rights-of-Way (ROW) widths been reduced (e.g. on the down-slope side where tree contact with the conductors is not expected) to reduce exposure of Spotted Owls to predators and competitors, and to maintain movement corridors by minimizing the inter-tree distance across the ROW?	Unknown
4.2.1.8	Has the topography been used to clear span transmission lines above Spotted Owl habitats, rather than cut underneath, to maintain habitat continuity and movement corridors?	Unknown
4.2.1.9	Will the removal of Danger Trees that possess wildlife tree attributes and found adjacent to the development be minimized as these may provide nesting structures for both Spotted Owls and their prey?	Unknown
4.2.1.10	Will a soft, or feathered, edge along the perimeter of the cleared area be created (e.g. use BC Hydro's Edge Tree Program)?	Unknown
4.2.1.11	Will wildlife trees adjacent to the cleared area be created (e.g. creation of snags by topping and killing trees, where they do not pose a risk)?	Unknown
4.2.1.12	Will serious penalties, and/or stop-work orders be imposed to ensure that clearing is confined to the identified areas?	Unknown
4.2.1.13	Will a Spotted Owl specialist be retained during construction to ensure mitigation and management protocols are followed correctly and to provide on-site advice to minimize impacts?	Unknown
4.2.1.14	Have other mitigation measures to minimize habitat loss been applied?	Unknown
4.3	Habitat Replacement (Ecological Equivalence)	
4.3.1	Is habitat replacement avoided while achieving a no loss of Spotted Owl habitat (capable and suitable)? (Note: a minimum ratio of 1:1 is applied where for every hectare of Spotted Owl habitat altered, a hectare of ecologically equivalent habitat is protected.) (If answered "No", complete the remainder of Section 4.3 following.)	Unknown
4.3.1.1	Does the replacement habitat consist of Spotted Owl habitat values with equal or better quantity and quality (e.g. tree species, age, height, canopy closure, biogeoclimatic zones, etc.) than the altered habitat?	Unknown
4.3.1.2	Does the replacement habitat provide an equal or better distribution of habitat to sustain Spotted Owls than the altered habitat?	Unknown

4.3.1.3	Is the replacement habitat fully protected against future habitat alterations by others?	Unknown
4.3.1.4	Does the replacement habitat provide additional habitat to other existing habitats protected for the Spotted Owl (e.g. Adjacent to Spotted Owl WHA-LTOHA or protected areas)?	Unknown
4.4	Habitat Enhancement to replace Spotted Owl Habitat (Ecological Equivalency)	
4.4.1	Is habitat enhancement avoided while achieving a no loss of Spotted Owl Habitat (capable and suitable)? If answered "No", complete the remainder of Section 4.4 following.)	Unknown
4.4.1.1	For suitable Spotted Owl habitat that will be temporarily lost (i.e. suitable habitat is cleared, but immediately replanted to grow back to suitable habitat conditions), has a ratio of 2:1 been applied where for every hectare of habitat altered, a minimum of 2 ha of habitat will be enhanced elsewhere to create roosting and foraging habitat within a 20 year time frame?	Unknown
4.4.1.2	For capable Spotted Owl habitat that will be permanently lost (i.e. capable habitat that is cleared and will not grow back to suitable habitat conditions), has a ratio of 2:1 been applied where for every hectare of habitat altered, a minimum of 2 ha of habitat will be enhanced elsewhere to create roosting and foraging habitat within a 20 year time frame?	Unknown
4.4.1.3	For suitable Spotted Owl habitat that will be permanently lost (i.e. suitable habitat is cleared and will not grow back to suitable habitat conditions), has a ratio of 4:1 been applied where for every hectare of habitat altered, a minimum of 4 ha of habitat will be enhanced elsewhere to create roosting and foraging habitat within a 20 year time frame?	Unknown
4.4.1.4	Will the enhanced habitat provide an equal or better quantity and quality (e.g. tree species, age, height, canopy closure, biogeoclimatic zones, etc.) within a 20 year time-frame than the altered habitat?	Unknown
4.4.1.5	Will the enhanced habitat provide an equal or better distribution of habitat to sustain Spotted Owls than the altered habitat?	Unknown
4.4.1.6	Is the habitat to be enhanced fully protected against future habitat alterations by others?	Unknown
4.4.1.7	Will the enhanced habitat provide additional habitat within other existing habitats protected for the Spotted Owl (e.g. Within Spotted Owl WHA-LTOHA or protected areas)?	Unknown
4.5	Off-setting/Compensation for Residual Impacts	
4.5.1	Is off-setting avoided in achieving mitigation of impacts to Spotted Owls and their habitat? (If answered "No", complete the remainder of Section 4.5 below).	Unknown
4.5.2	Loss of Spotted Owl Habitat	
4.5.2.1	Does the proposed offset provide an ecologically equivalent compensation when compared to the cost of implementing and monitoring habitat enhancements, and/or, the cost to purchase/replace and protect Spotted Owl habitat?	Unknown
4.5.2.2	Does the proposed use of the offset provide an equal or better ecological benefit to Spotted Owls (e.g. support for the captive breeding and release program, barred owl management, and inventory, monitoring, and research)?	Unknown
4.5.3	Loss of Spotted Owls	
4.5.3.1	Does the proposed offset provide an ecologically equivalent compensation to provide an equal or better ecological benefit to Spotted Owls (e.g. support for the captive breeding and release program, barred owl management, and inventory, monitoring, and research)?	Unknown

5.0 Monitoring and Reporting		
5.1	Pre-Construction and Construction Phase	
5.1.1	Will the minimum inventory effort be applied to the footprint area and 6 km radius buffer on an annual basis to determine presence of Spotted Owls prior to and during the construction phase of the project?	Unknown
5.1.2	If a Spotted Owl is detected, was the Regional Spotted Owl Biologist notified within 24 hrs to provide immediate assistance to help determine the status of the owl and provide advice;	Unknown
5.1.3	If Spotted Owls are known to reside within the 6 km radius buffer, will monitoring, including telemetry relocations where possible, be regularly conducted to identify important habitats, critical roosts and nest locations to avoid, as well as to determine if Spotted Owls are in proximity of construction activities?	Unknown
5.1.4	Will information collected be made available to ministry staff and be used to minimum further impacts to Spotted Owls and their habitat?	Unknown
5.2	Post-Construction Phase	
5.2.1	Will the implementation of the restoration activities and offsets be adequately monitored and reported?	Unknown
5.2.2	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