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From: Nixon,Wendy [PYR] [mailto:Wendy.Nixon@ec.gc.ca]

Sent: Thursday, May 06, 2004 9:58 AM

To: 'gary.miltenberger@gov.yk.ca'

Cc: Godin,Benoit [PYR]; 'Cameron.Eckert@gov.yk.ca'

Subject: Northern Goshawk - Interim Wood Supply

Hi Gary

In addition to the 3 references I provided you yesterday, attached is another reference from the Northern Goshawk authorities in Northern B.C. (Frank Doyle and Todd Mahon). Refer to the executive summary as well as page 3 for the most current data on Goshawk Nest area - it is 20 to 24 ha. The Slocan reference (Integrated Resource Management) I provided you yesterday is out of date.

The other key to maintaining Goshawk nest areas is to ensure they do not become islands; they must be connected to contiguous forest cover.

With respect to surveying an area for Goshawk nesting activity, the forest companies that Frank has worked with in B.C. identify sites as the layout is being done. Goshawks are very aggressive and visible near nest areas - so workers doing layout simply make note of birds of prey that display that type of behaviour, and a biologist then confirms the bird identification and nest location. There are biologists within Yukon Government Department of Environment that can do this identification (Cameron Eckert, Syd Cannings) although the timing would have to jive with their busy schedules. This is the fine filter, or site specific approach to managing for Goshawk in an area slated for harvest.

The coarse filter approach - managing at the landscape scales is best done through developing habitat suitability models based on forest cover map data. The landscape scale approach is very important, as Goshawk numbers cycle with hare populations.

A compelling reason for managing the landscape for a top predator like Goshawk is stated in Frank's email below (see underlined paragraph) which I received later yesterday (after I met with you):

Hello Wendy, (this from Frank Doyle)

To follow on from our earlier conversation, I have outlined below and in the attached documents what we have seen as the most appropriate approach to managing for goshawks and often for many other species within harvested landscapes.

The attached report covers most of the main issues as pertaining to goshawk ecology including nest area and foraging area requirements. If

you have GIS or forest cover information for the watershed?
then we can
develop a nest area habitat driven habitat suitability map
for the entire
area and a foraging habitat suitability map. This will
then allow you to
to direct harvesting to habitats and areas that will have a
minimal impact
on goshawk populations in that watershed.

Forest in the Yukon is likely to be unsuitable for
nesting to some
100 - 200 years post harvest, therefore it is appropriate
to leave this
type of habitat of appropriate size across the landscape on
a predicted per
territory basis as a basic management requirement to
maintain the
components of a functioning ecosystem. In addition such
patches of forest,
should indeed be large enough for other target species such
as Marten and
perhaps other species, thereby maximizing their wildlife
value.

As we discussed foraging habitat suitability is
also likely to be
lost for at least 40 years post harvest, and therefore
suitable nest areas
located within higher ranked foraging habitat should be
maintained if the
goal is to ensure the persistence of goshawks in the long
term.

An additional reason to retain nesting habitat at
an appropriate
spacing (3-4km as per the peak in the hare cycle) is that
this habitat will
also be used by Great Horned Owls, Ravens, Red-tailed Hawks
who all nest at
a similar spacing density throughout the forested
landscape. All these
species are integral to the ecosystem and loss of any or
all of these
species leaves the potential that hare population patterns
will change in
the timing or amplitude of their cyclicity as these
predators prey on
hares. Young forest in the Yukon can be severely
restricted from growing
through intense hare browsing pressure (see Kluane
Ecosystem book)
therefore any increase in the peak in hare numbers may
negatively impact
the rate of forest growth post harvesting, either in
planted or naturally

regenerating trees, as all these species depend on but are
also important
hare predators.

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