

DRAFT

Stad's Kun

Management

Strategy

(Northern Goshawk)



From the Land and Spirit of the Aaida

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Introduction

Approaches to Management

Many of the Higher-Level plans associated with Goshawk protection and recovery strategy focus on a reactive approach to management. A reactive approach generally focuses on preservation and the establishment of set reserve and management area without evaluation and determining the Goshawk's actual needs.

The Taan Management Strategy focuses on a proactive approach to goshawk management within Taan tenures to manage for Goshawk habitat and forage needs based on past and current conditions of individual known and potential Goshawk territories. The strategy follows current legislated requirements but at an individual territory level of forage use, habitat enhancement techniques and prey management

Higher Level Plans

The Haida Gwaii Land Use Objective Order requires the establishment of a minimum 200ha core nesting reserve area around all known nest sites and requires the establishment of a minimum 200 ha reserve core nesting area immediately on newly discovered nest sites. This legal requirement is a reactive approach and currently more protection of Goshawk than anywhere in BC. Evaluation of the 200ha is required to type out the "core" nest area, generally making the core nesting area larger than 200ha. While a legal avenue of creating a reserve to protect a goshawk nest, continued monitoring and adaptive management is required to determine utilization.

The current Federal Goshawk Recovery Strategy, while not a legal order to date, is another reactive approach to managing goshawk and considered by many coastal Registered Professional Biologists (RPBio) to be a very low risk scenario. While the potential order has sections specific to Haida Gwaii the management of the HG goshawk is based on Interior BC strategies and utilizes attributes of Goshawk behavior and habitat that are generalization of habitat characteristics throughout the entire range of coastal goshawks and does not consider the unique habitat characteristics found in the North Coast, South East Alaska and Haida Gwaii. The outcome of this strategy creates a cookie cutter management approach to each nest site with unrealistic targets and assumptions of goshawk needs that are not necessarily available. The outcome of this order, should it come into effect, will be management of attributes the Goshawk may not utilize while encumbering realistic recovery initiatives.

The Provincial Implementation Strategy is a legal strategy that is proactive and provides management at the Breeding Area level. The management prescribed in the Provincial Implementation Strategy at the Breeding Area is described as being low risk in McClaren et al 2015¹. It focuses on monitoring and recording of known and new nest sites but no management action at the Foraging Territory level. . The utilization of the Provincial Strategy while utilizing proactive management actions on the ground could be very effective. The Taan Management Strategy does not focus on monitoring, but monitoring is an integral part of measuring the success of the strategy. Monitoring of sites for the Taan strategy is assumed to be completed by Provincial and the Council of the Haida Nation staff under the Provincial legislation.

¹ McClaren, E.L., T. Mahon, F.I. Doyle, and W.L. Harrower. 2015. Science-Based Guidelines for Managing Northern Goshawk Breeding areas in Coastal British Columbia. *Journal of Ecosystems and Management* 15(2):1–91. Published by the Journal of Ecosystems and Management: <http://jem-online.org/index.php/jem/article/viewFile/576/506>

Taan Strategy

Landscape Level Planning

Monitoring and observation results of Goshawk on Haida Gwaii have given us the following information

- Nests are not occupied annually
- New nests are frequently constructed
- New nest sites have been found near water ways such as lakes, larger rivers and ocean. This is likely due to access to a variety of forage species including waterfowl
- Concentrations of population have been recorded on the East side of Graham Island. Likely due to hobby chicken farmers and goshawk preying on chickens, but also because of observations by the general human population as majority of activities by humans are on the east side of Graham Island
- Off the record sightings reported in newly harvested areas with small openings and lots of edge influence
- Prey consists of songbirds, wood peckers, red squirrels, sooty grouse, water fowl, mice, voles
- As a predator they monitor their prey and attack with agility. They utilize an ambush behavior for hunting (perch-hunting style).
- As agile fliers they are particularly good at flying under the canopy of mature stands of timber however utilize all stand types including swamps and non-productive natural areas provided there is prey and the ability to watch and listen for prey, i.e., a perch
- Males generally dominate and stay within a territory during a courtship season, calling females in to their area
- Breeding pairs are not monogamous. The male will generally stay in or near the same territory year after year. Breeding will occur if the male can attract a female during the courtship period
- During breeding and nesting, adults can fly up to 5.0 km away from nest when foraging. Most feeding is within 3km of nest site. Larger prey is ripped apart and flown in pieces back to the nest
- Outside of breeding and nesting, Goshawk will travel to hunt, particularly females, and not have a designated territory
- Timbered corridors along waterways are utilized for hunting and traveling to hunt. These corridors generally have a higher prey density

From these many observations and work on Haida Gwaii and other coastal areas of BC, at a landscape level a Registered Professional Biologist specializing in habitat management will spatially identify

- Areas of High Value Habitat requiring little or no management
 - Sufficient High Value nesting and forage habitat available
- Areas of High value habitat requiring management
 - High Value Habitat available but forage and/or nesting habitat dimensioning
- Areas of Lower value habitat requiring management
 - Area being used by goshawk for nesting and/ or foraging but little high value habitat available

From the landscape level assessment, areas of potential nesting sites and foraging areas can be

identified for observation and monitoring of goshawk use. This will help in finding additional nesting sites not already identified.

Individual Territory Management

Within the Haida Tenures TFL 60 and FLTC A87661 there are currently 21 identified territories. Territories may be fully within the licence areas, shared with other tenure areas or partially within protected areas.

A territory can be defined as the:

- core nesting area plus
- fledgling area plus
- foraging area during the nesting and fledgling stages. This will include the 200 ha breeding area as well an area outside the breeding area that will be categorized as foraging habitat

Each territory within the Haida Tenures are evaluated by a biologist to determine what the Goshawk are utilizing and extent of forage utilization within the territory and surrounding areas.

Depending on forage availability and stand types, the territory will vary in shape and size, not circles that have been used in the Federal Recovery Strategy.

To assist in the forage utilization evaluation, stands within individual territories are broken down into forage utilization categories:

Very High (VH) –

- Large spruce and hemlock dominated (75%+), Mature or Old Growth stands, usually Nesting and fledgling potential, generally core nest areas or stands that are in close proximity (900m) of nest and along Riparian areas.

High (H)

- Old growth of spruce/hemlock (<75%) outside the core nesting areas or riparian areas.
- Mature (50 years +) stands that have been commercially thinned with a basal area reduction of <40m²/ha target density of 600 sph
- Mature (50 years +) stands with a stand density of <850 sph
- Unnatural Openings <15 years old and <200m between significant forested retention (i.e. >1.0ha)

Moderate (M)

- Mature (50 – 70 years) stands of spruce/hemlock dominant stands of high density >850sph.
- Old Growth cedar stands, wetlands, swamps and natural openings
- Spaced and/or pruned stands >15 years to 50 years with <850 sph
- Stands >15 years old to 50 years with natural spacing of <850 sph
- Over dense conifer stands >15 years old with <200m between significantly forested retention

Low (L)

- Mature stands dominated by red and or yellow cedar of any density
- Over dense Immature stands >15 – 50 that are less than 25m in height with >200m between significantly forested retention and >850 sph
- New openings that are >200m between significant forested patches (>1.0h)

Based on the outcome of the evaluation an individual territory management plan will be developed

with an RPBio. A set number or a percent of forage area to maintain is not the objective, but to ensure at each territory:

- An appropriate amount of Very High utilization stands are available and can be maintained for the territory. This may require recruitment of younger stands to design the territory for future natural habitat loss from windfall, slides and stand mortality
- Sufficient forage area is maintained, including connectivity to high use forage areas

The territory management plan will include:

- The legal core nesting area (approximately 200 ha)
- Identified areas/ stands for enhancement silviculture to increase habitat value for:
 - Prey management
 - Raptor access to prey
 - Eventual nesting habitat
- Spatial identification of very high and high habitat stands or planned stands where habitat must be developed for increasing habitat or maintaining habitat
- Spatial connectivity from core to high value foraging, or planned connectivity
- Proposed harvesting limits, locations and sizes

Operational Implementation

Discovery of New nests

As per Taan's 2018 FSP sec 6.131 during development area planning or anytime during block development a potential Goshawk nest that is outside the HGLUOO schedule 12 reserves is discovered:

- Cease harvesting and/ or road building activities within 800m
- Report the potential finding to the Council of the Haida Nation and Province of BC
- Where an RPBio determines the nest to be of a Northern Goshawk a breeding area of a minimum size of 200ha will be established. The breeding area will be established in conjunction with an RPBio, the Council of the Haida Nation and the Province of BC.
- A restricted activity zone of 800m will be maintained around the nest during breeding season. This includes Road building and harvesting operations.

Identified nests

Timing Restrictions

Around all identified nests the following restrictions apply

During breeding season maintain the following from the nest site

- 100m no truck hauling or road maintenance
- 500m no road construction or tree falling
- 1000m no blasting or repeated air craft noise at altitudes <350m

Planning and Development

Within 4000m of nest during block planning/ engineering:

- Avoid placement of development areas within Very High Nesting and Forage potential

- Create small harvest openings not exceeding 200m between forested edges (>20 years old)
- Maintain a distance of >200 m between the nest and hard edges
 - Forested edges must be >1.0ha in size
- Avoid block development immediately adjacent young (<20 years) over dense conifer stands
- Where possible utilize anchor points for internal retention (forested edge) such as wildlife trees, stream junctions, cultural forest features
- Consider commercial thinning in 2nd growth dense forested stands – unlimited size
- Design openings with no straight edges to allow for hunting along the edge of stands <20 years old
- Where safe to do so retain wildlife trees, snags and habitat trees within the opening area between forested edges.
 - Heavily diseased trees, such as hemlock infected with hemlock dwarf mistletoe that would not have economic value should be left standing and girdled to create a wildlife snag while reducing potentially infecting the regenerating stand
- Minimize road development
- Consider increasing the size of reserve on Type I and II fish habitat or feather a buffer zone beyond the reserve zone of Type I and Type II fish habitat where species composition has Very High to High Goshawk nesting and/ or forage potential such as productive Spruce/ Hemlock Stands

Habitat Enhancement

Where there has been a history of logging within 4000m of the nest and there is further planned development, target Habitat Enhancement strategies in over dense conifer stands between 15 and 60 years old. Enhancement techniques include but not limited to:

- Spacing between 600 to 900 sph
- Pruning
- Fencing/ caging areas for understory development
- Creating snags for insect and wildlife activity
- Fertilizing for increased growth development
- Stands near Type I and II Fish Habitat should be targeted for treatment

Habitat Enhancement objectives are to

- create Old Growth attributes in a shorter time frame than what is naturally occurring.
- provide prey habitat
- provide hunting opportunity for Goshawk and other birds of prey

Training

Taan planning staff and planning contractors will be trained to:

- Identify goshawk and potential nesting sites
- Identify migratory birds including nesting areas

Tools

The following tools will be utilized to assist in implementing Taan Management Strategy:

Best Management Practices for Raptor Conservation (BC)

Migratory Bird, large Intact Forests and ecological connectivity information collected by Laurie Kremsater, RPF RPBio Senior Biologist at Madrone Environmental

Migratory Bird operational procedures and management strategy created by Sally Leigh-Spencer, RPBio

Riparian Restoration Procedures created by Vince Poulin, RPBio

The knowledge and experience of Wayne Wall, RPBio, Senior Biologists at Graham/Wall Consulting Ltd specializing in Wildlife Habitat Inventory and Species at Risk. Wayne will be lead Biologist assisting Taan create the individual territory management plans

LiDAR and stand height inventory collected by Taan Forest in 2015

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