

# Preventing Wildlife Injuries From Right-of-Way Brushing

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Wildlife may be sustaining injuries from long, splintered stumps left after brushing the secondary growth of vegetation along highway and power line right-of-ways. Members of the Carcross Tagish First Nation and the Southern Lakes Caribou Steering Committee have found moose and caribou with long splinters of wood imbedded in their lower legs.

Although there is no direct evidence, it is conceivable for example, that during winter, such stumps would be under snow cover and stepped on blindly by these larger animals, while passing through or foraging on the right-of-ways.

Yukon Department of Environment is recommending a pro-active approach to reduce this potential hazard, by brushing in a manner that cleanly cuts vegetation near to or at ground level.

This ten minute slide presentation has been developed to provide further insight and solutions to these concerns.

A photograph of a rural landscape. In the foreground, a tall wooden utility pole stands on the left. The ground is covered with harvested corn stalks and dry grass. In the middle ground, a line of utility poles stretches across the field towards the horizon. The background consists of a line of trees and a clear sky.

Poor Right of Way Brushing Practices  
May Cause Wildlife Injuries

# ***From Splintered Stumps***



**note 13 cm (5") pen for scale purposes**

The growth of vegetation along right-of-ways, if left uncut may cause visual traffic hazards, such as wildlife screening.



Brushing can result in well-groomed and safe right-of-ways, however trees can grow large and difficult to cut if not done on a regular basis.



same area  
after brushing

ten year growth



## Close-up of last slide

**Good results, but such thick growth could be prevented by more frequent brushing**

note 13 cm (5") pen



# Regular Right-of-Way Brushing Prevents Excessive Growth Causing Hard-to-Cut Stems



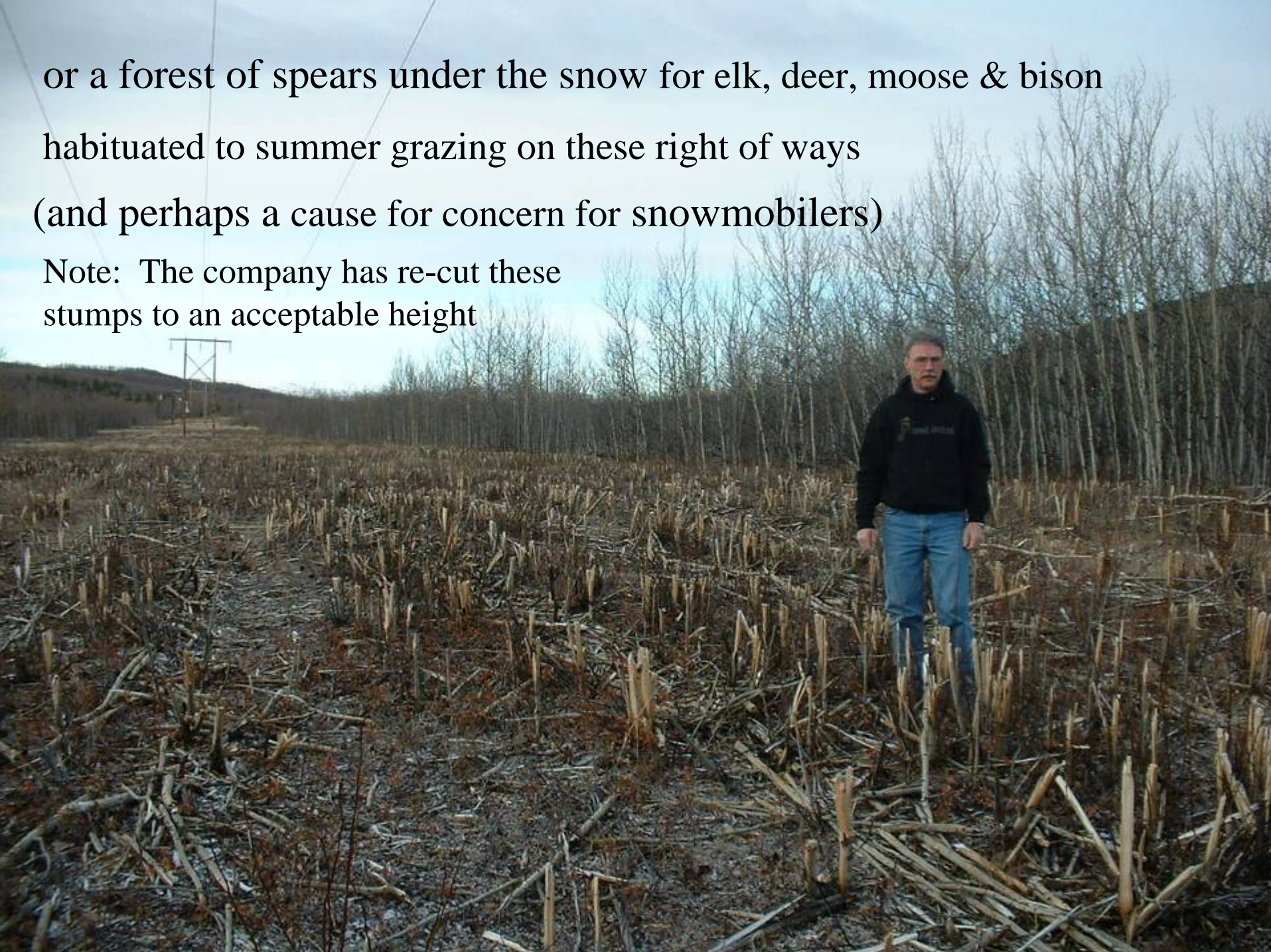
**which can leave ragged stubs...**





or a forest of spears under the snow for elk, deer, moose & bison  
habituated to summer grazing on these right of ways  
(and perhaps a cause for concern for snowmobilers)

Note: The company has re-cut these  
stumps to an acceptable height



Elk on the Alaska Highway west of Whitehorse.  
These animals roam and graze along the highway  
and on the Aishihik power transmission line

They have thin skin on their lower legs which  
could be punctured by ragged stumps



*Ouch!!*



# Best Practices for Brushing Right-of-Ways

## 1. Stumps and stubs kept low to ground and mulched

- Ideal height: 5 cm (2 inches) or less

## 2. Brushing At Frequent Intervals

- to reduce large diameter stems

## 3. Ideal Ground Conditions. . .

- Free of snow to expose hazards and ensure low stump height
- Contoured to simplify brushing operations
- Clear of large rocks and debris...



**...that could damage machinery  
or cause machinery to be elevated, leaving unacceptable results**



# An Approach to Economics - Budgets!

- long term costs could be reduced by designing 'clean' right-of-ways
  - contoured and free of debris such as rocks and logs
- 'clean' right-of-ways
  - may enable the use of wider mower type units
  - could reduce equipment operating time and wear and tear
- an ultimate savings here could be transferred into more frequent brushing
  - equates to cutting smaller diameter stems, thus reducing ragged stubs from large stems
  - reduces the potential for wildlife injuries



## *Frequent Brushing*

- ***Eliminates larger second growth***  
*(Less wear on machinery and faster cutting time could mean cheaper long term costs)*
- ***Allows for easier cutting***
- ***And leaves harmless 'stubble'***



# How You Can Help and Prevent these Injuries to Wildlife

- **Concentrate on brushing results**
  - stems cut low to ground without long splinters
  - **Not by what method**
    - machine or hand power tools?





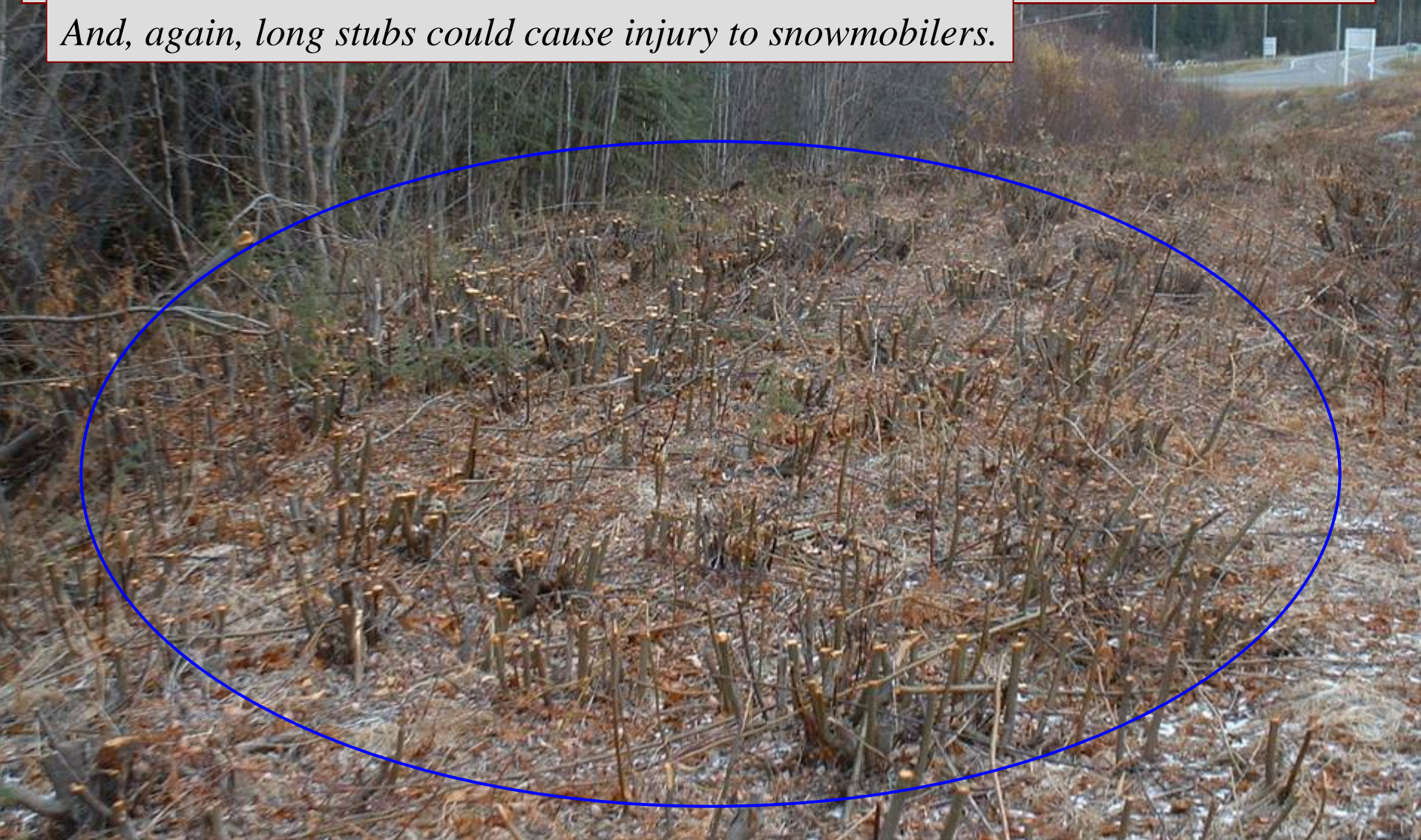
Brush cutters must also cut close to ground level



Cutting with power hand brushers and chain saws can also produce poor results if done improperly.

It is conceivable that these long, dense stubs, covering a large area, could cause a leg injury to moose or caribou, if stepped on blindly during snow cover.

*And, again, long stubs could cause injury to snowmobilers.*



- Obtain acceptable results by specifying a maximum allowable stump/stub height during contract tendering (5 cm / 2" or less).
- Consider a follow up compliance inspection before the final contract payment.
- Hand brushing could be required adjacent to watercourses.



note 10 cm (5") long pen for scale purposes

these stems could have been cut shorter - whether by hand or machine

# Best Practices for Hand Clearing

- cut at or near ground level
- mulch the debris



# Examples of Machines



side boom on a skidder



Cutter head on a 'Bobcat'

'drop down' cutter blades  
allow cutting close to ground



keep blades sharp to cut & not tear

similar cutting disks  
front mounted to skidder



# Effective Mulching on Large Stems



## A Closer Look



## In Review....

*Frequent brushing at or near ground level will assist in preventing injuries to wildlife from splintered stumps.*

*Similar injuries may occur naturally and are unavoidable  
however  
hazards caused by human intervention can be reduced.*



*Accomplish this...*

*low 'stubble' & mulched stems*



*Not This*



*And you will help in preventing injuries to wildlife!*

*Thank You!*



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