

Use of natural successional processes to inform vegetation management – a Yukon example.



Cleared roadside – initial successional
stage

8 9 2005

What comes in after clearing?



Cleared roadside – pioneering invaders
- lot's of moose food!

8 9 2005

A photograph of a road in autumn. The road is paved and curves to the left. On the right side of the road, there is a dense thicket of trees with yellow and orange leaves, which blocks the view of a car and a sign in the distance. The sky is blue with some clouds. The text "Blocks sightlines, hides signs (and moose)" is overlaid on the bottom of the image.

Blocks sightlines, hides signs (and
moose)

8 9 2005

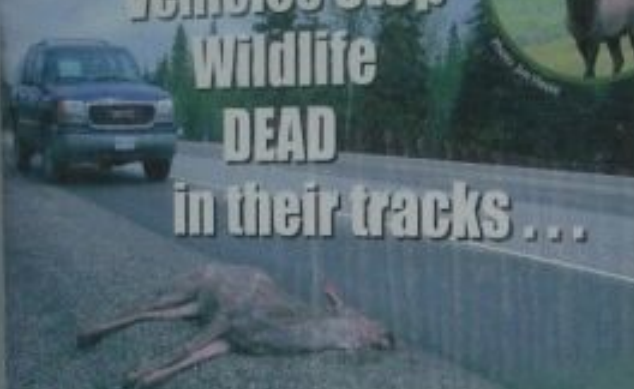


Cleared roadside – grows to dense
thicket, good cover for moose

Wildlife collisions are a major problem,

Drive Wildlife Away

Vehicles Stop Wildlife DEAD in their tracks . . .



There are 4 to 8 large animal-vehicle collisions every hour in Canada.

Past wildlife-vehicle accident records demonstrate that in a typical year in B.C. it is estimated that:

- 3 people are killed
- 247 motorists are injured
- 4,300 animals are recorded as killed
- 13,000 wildlife deaths go unrecorded

The Wildlife Factor

Behaviour

- Some animals may bolt, possibly onto the road.
- Some animals travel in groups. If one animal crosses the road, others may follow.
- All animals are unpredictable – even if one sees you, it still may jump in front of your vehicle.

Time of Day . . . About 40% of collisions occur between 7:00 pm and midnight.

Time of Year

- Spring** . . . Early vegetation green-up near roads attracts animals.
- Summer** . . . Drought, food supply and forest fires all affect animal movement.
- Fall** . . . Tailing, rutting season, many animals are on the move.
- Winter** . . . Road salt attracts animals, snow hinders movement, better forage in valleys attracts wildlife to roads.

Hints For The Highway

- While Driving** . . . Actively watch for wildlife and drive defensively. Watch out between dusk and dawn, when light is low and animals are active.
- Use Your Vehicle** . . . Clean and high-visibility headlights. Use high beams and scan the road ahead.
- Wear Your Seatbelt** . . . Wear your seatbelt at all times.
- Do Not Take Unsafe Evasive Action** . . . Consider using your brakes, not your wheel.

When You See Wildlife . . . Obey wildlife warnings. Do not feed wildlife. Do not leave your vehicle. If you are located in high wildlife areas, do not leave your vehicle.

This Signage is a Warning to Watch for Wildlife

Use Caution

Yes, I Want To Help Save Our Wildlife

18 6 2007

but we do everything we can to provide enticing food for wildlife near the road.

Fresh grass in the spring brings the
deer to the roadside.



Vancouver Island example.

This is a hazard to both the wildlife and the motorists.

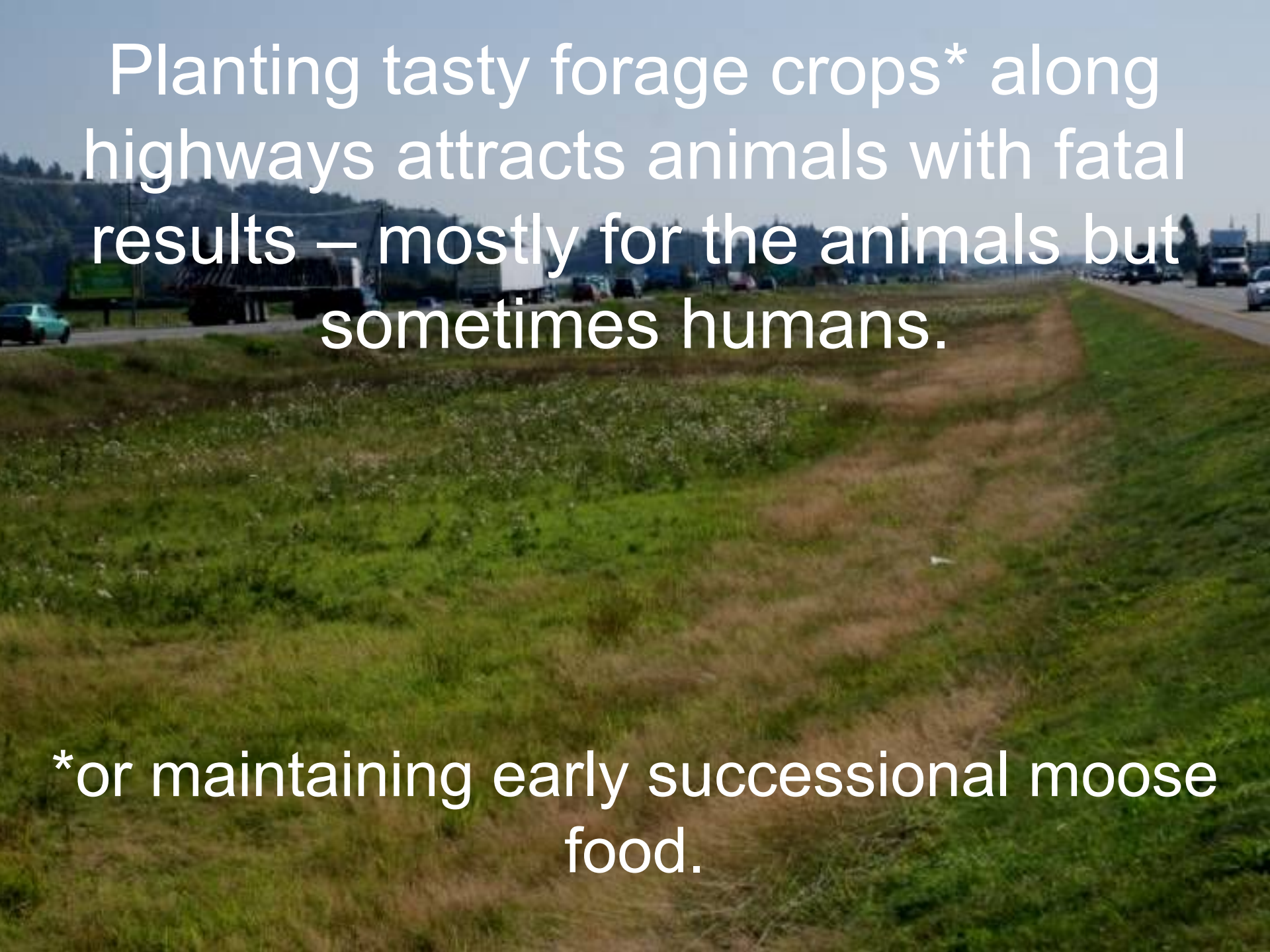


Eventually bad things happen.





This is a vegetation management issue.

A photograph of a grassy roadside area next to a highway. In the background, several vehicles are visible on the road, including a green car, a white truck, and a blue truck. The grass is green and somewhat overgrown, with some brown patches. The sky is clear and blue.

Planting tasty forage crops* along highways attracts animals with fatal results – mostly for the animals but sometimes humans.

*or maintaining early successional moose food.

Send in the brush cutters.



This brings us back to the beginning
with all the moose food growing back.

So now we get serious and in addition
to brush cutting, we grub the RoW

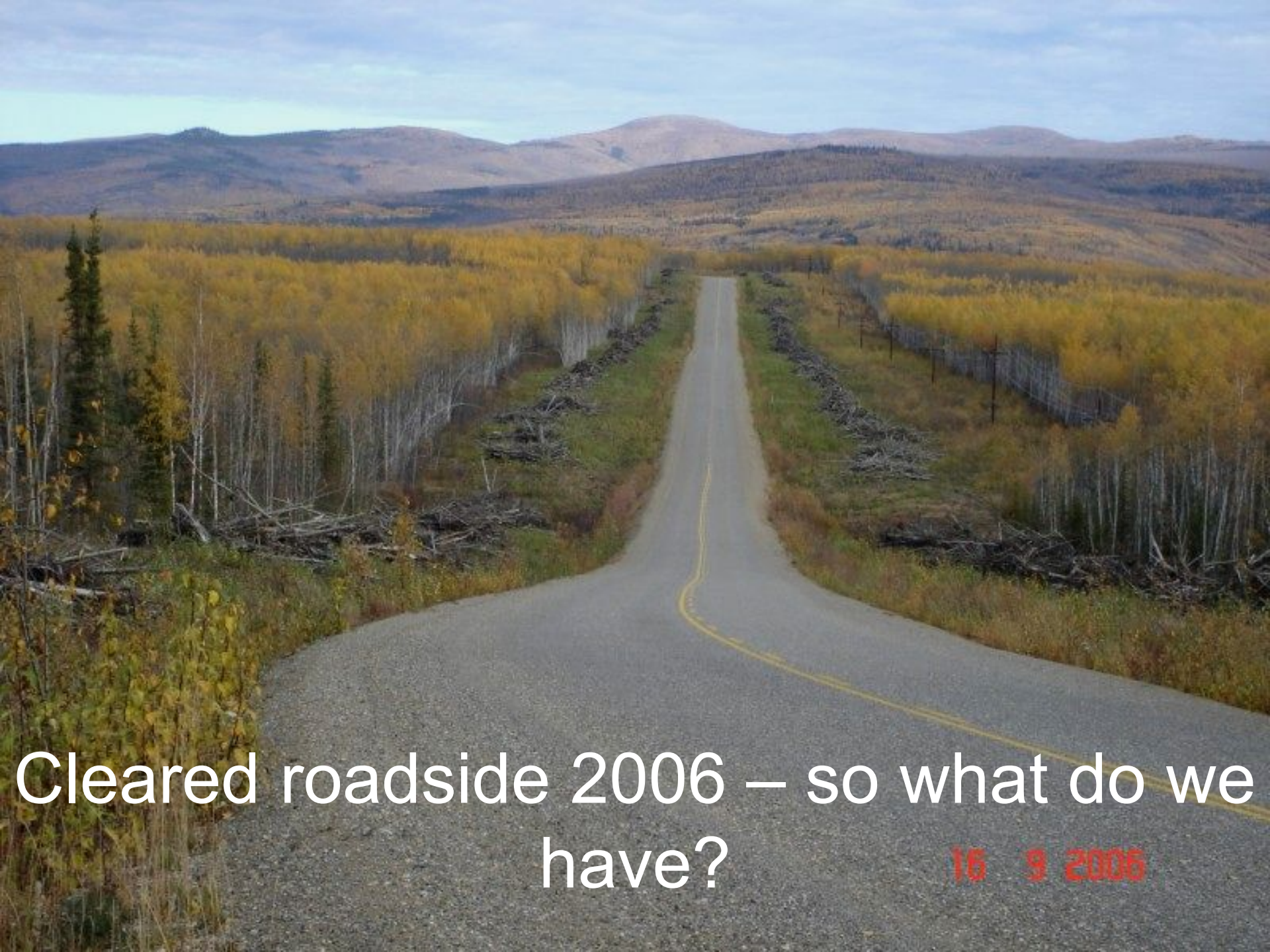


Cleared roadside 2005 – clearing
repeated

8 9 2005

This is not some cheap operation.

Cleared roadside 2005 9 2005



Cleared roadside 2006 – so what do we
have?

15 9 2006



Pioneering vegetation – let's take a closer look (September 16, 2006).



By August 4th, 2014, the pioneering vegetation had grown to the point where it was obstructing sightlines.



Rapidly growing aspen

15 9 2006



Rapidly growing balsam poplar



A variety of rapidly growing pioneers.



Cleared roadside — look to the forest to
get off this early successional treadmill.

8 9 2005

Open aspen forest – limited cover for a moose and no forage.

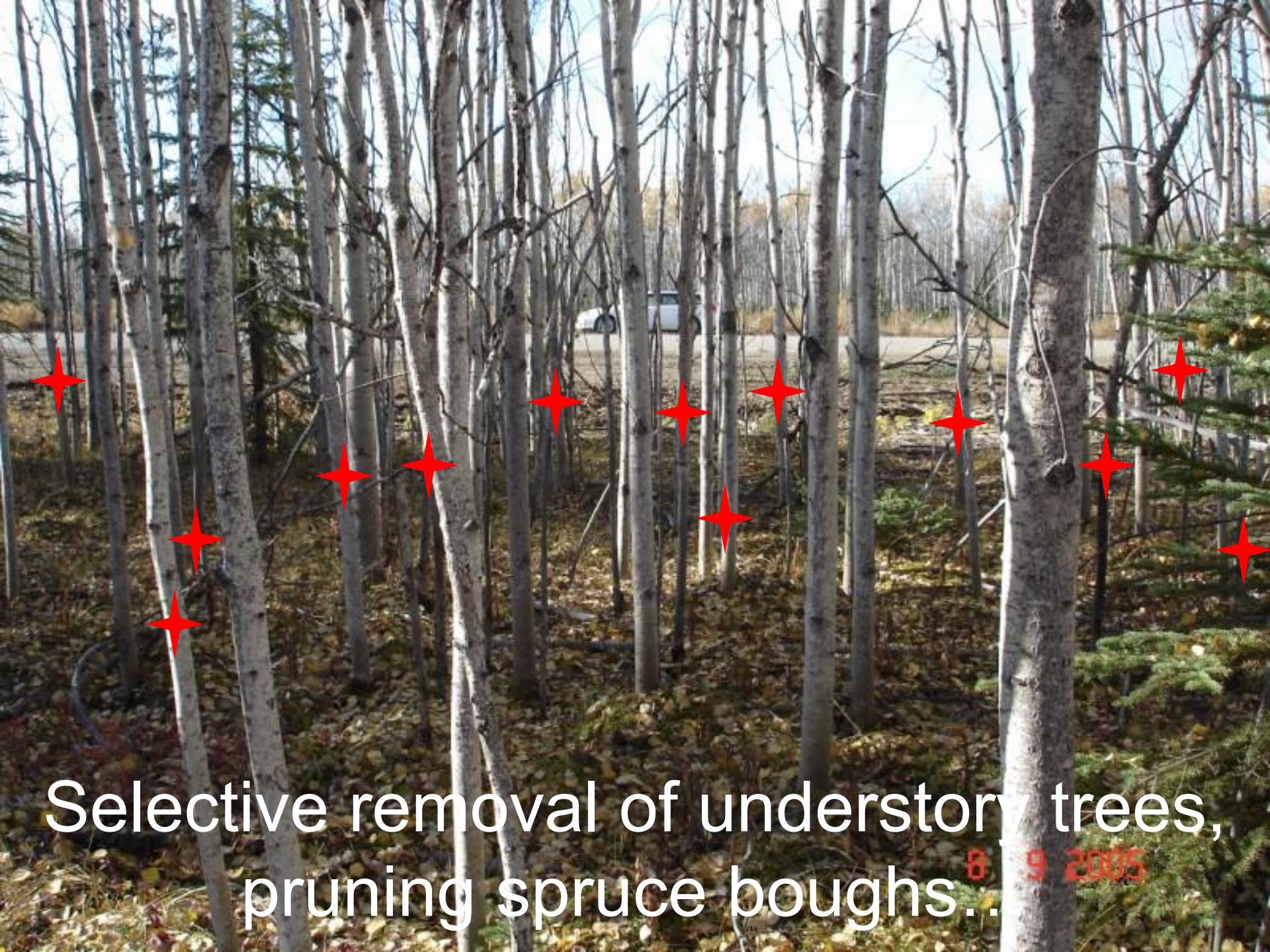
So how do we get here?

8 9 2005



Selective removal of understory stems
to speed opening up of forest.

8 9 2005



Selective removal of understory trees,
pruning spruce boughs...

8/9/2005



What about the spruce? 9 2005



Prune branches, remove young trees.

A photograph of a forest with aspen and willow trees. The aspen trees have white bark and green needles, while the willow trees have brown bark and yellowing leaves. The text "Prune branches" is overlaid in white at the top. A red star is placed on an aspen tree trunk, and a red circle is placed on a willow branch. At the bottom, a text block explains the consequences of brush cutting.

Prune branches

If we brush cut this forest the aspen★
and willow● will just sucker up, creating
a dense stand of pioneering species.

8 9 2005



With branches pruned, no need to
touch this site for decades.

6-9-2005

Understanding vegetation successional
patterns allows cost effective
management



8 9 2005



Used on forestry intersections, North
Island Highway

27 7 2005

Intersection site in Whitehorse during clearing



Notice blocked sightlines





Following trimming, 2007 8 2007



Sight lines remain opened August 17th,
2014

Just getting started, 2:12 PM

Another Whitehorse road.

10-8-2007



Sight lines opened, 2:30 PM

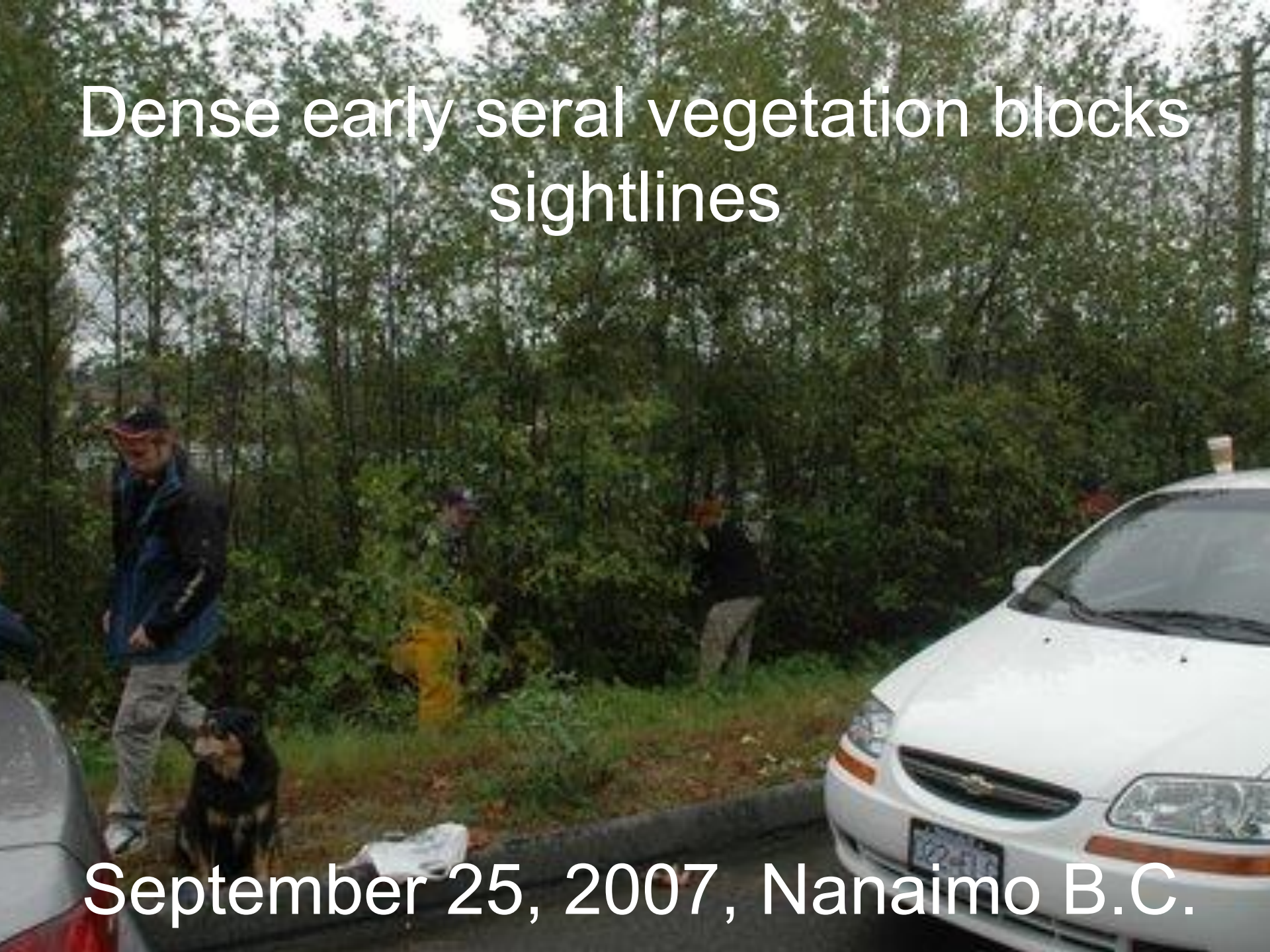
10 8 2007



Sight lines remain opened August 17th,
2014

Dense early seral vegetation blocks
sightlines

September 25, 2007, Nanaimo B.C.



A bit of selective pruning

September 25, 2007





And we can go from here (September
25, 2007),

25 9 2007



to here.

September 25, 2007²⁵ 9 2007



May 21, 2008



May 15, 2009



June 18, 2011



May 10, 2013