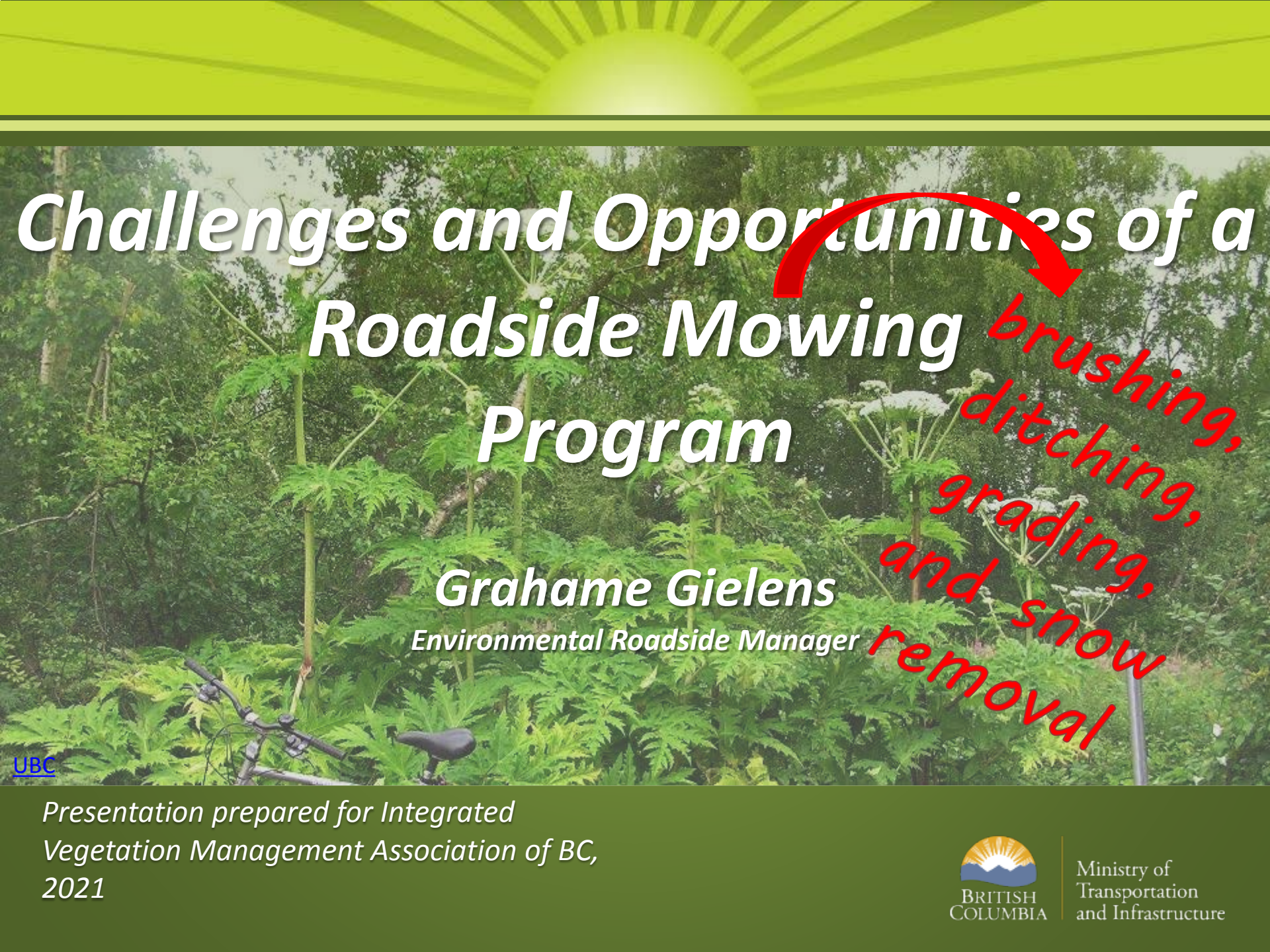




Challenges and Opportunities of a Roadside Mowing Program

Grahame Gielens
Environmental Roadside Manager

*brushing,
ditching,
grading,
and snow
removal*

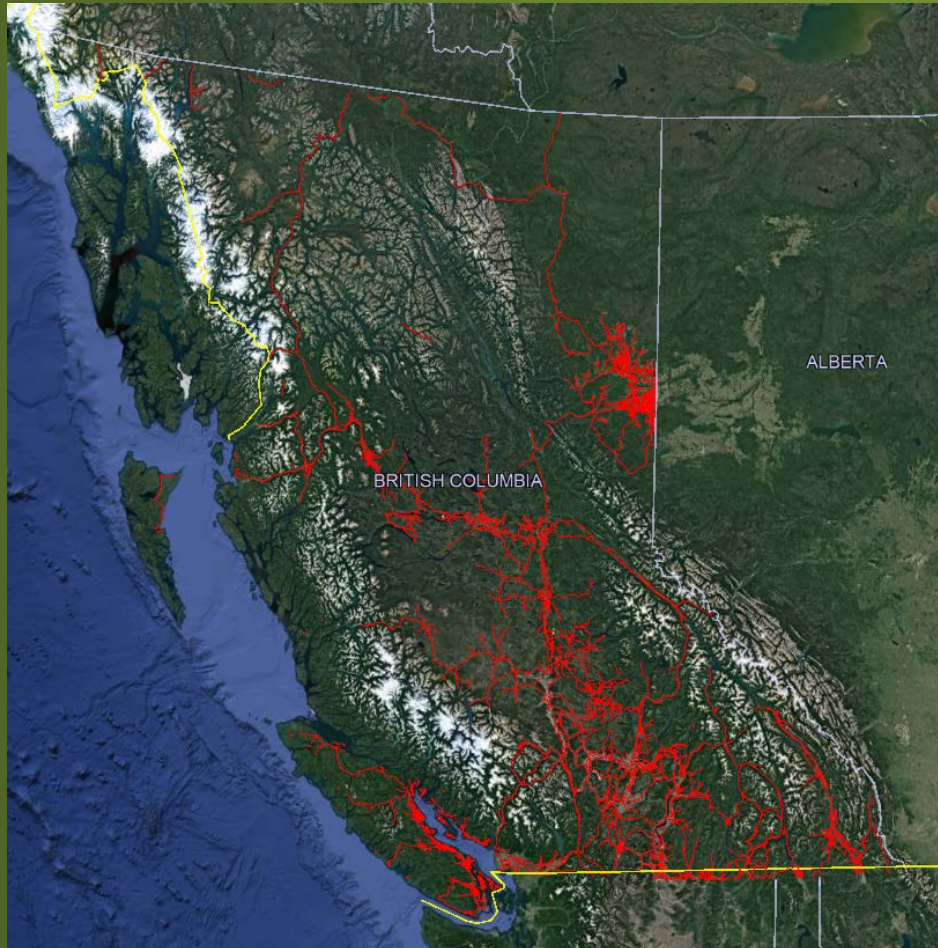
[UBC](#)

*Presentation prepared for Integrated
Vegetation Management Association of BC,
2021*



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Background



- MOTI manages ~50000 km of road in BC
- Roadside mowing and other maintenance delivered through contracts
- Contracts last 10 years
- Annual value about \$400M

1.4%

Chemical

10000

0

Mechanical

Chemical

Background

- Managing roadsides important for maintaining:
 - Safety
 - Sightlines
 - Access
 - Invasive plants
 - Wildlife



Wildlife

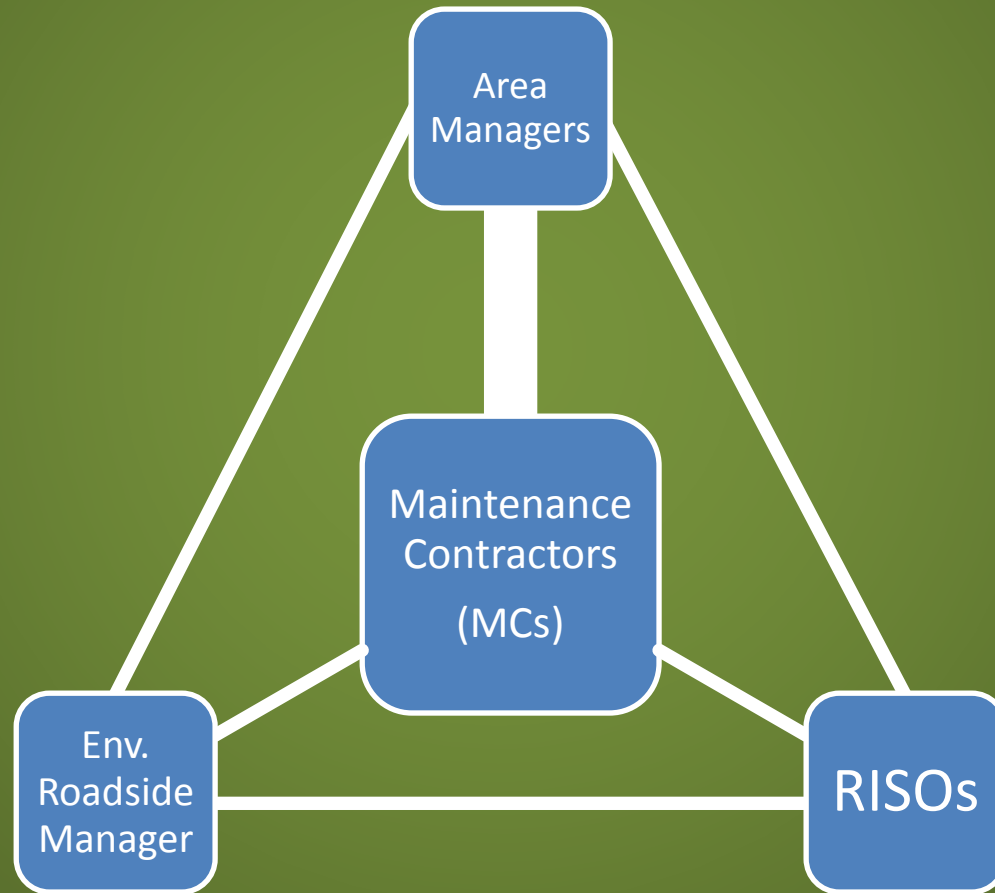
- Vegetation attracts wildlife to roadsides, increasing the risk of collisions
- Motorists should be alert for wildlife, especially when visibility is poor



“Wildlife”

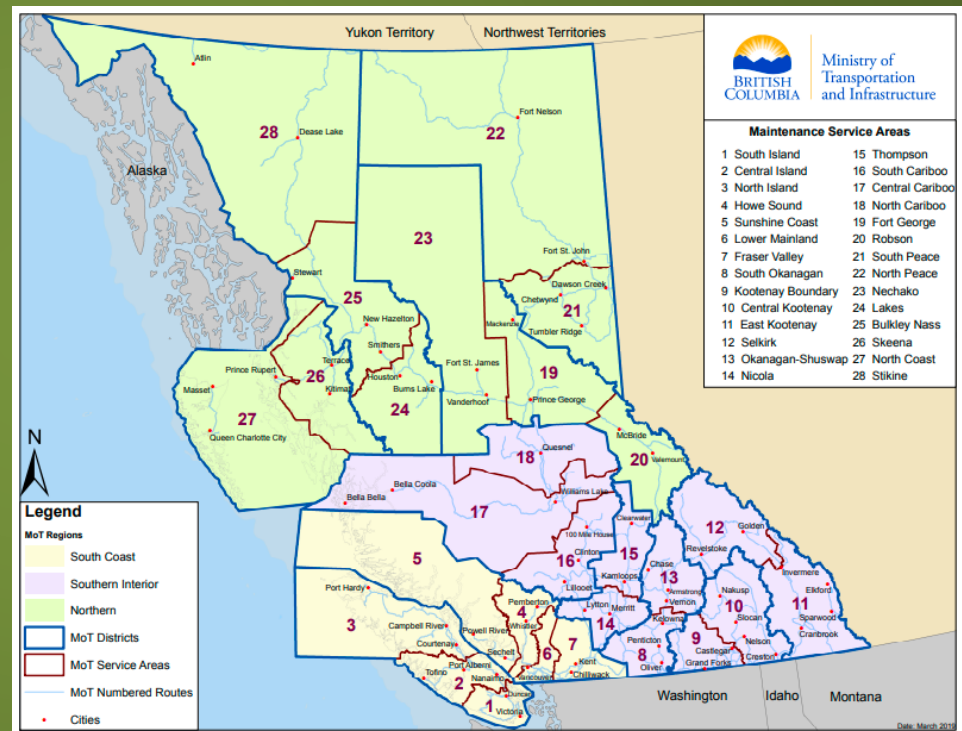


Program Coordination



Program Coordination

- MCs must meet annually to coordinate with RISOs
- Ensure mowing does not impact invasive plant management
- Pretreatment and monitoring for projects
- Roadside workers are important eyes on the ground



Contract Specifications

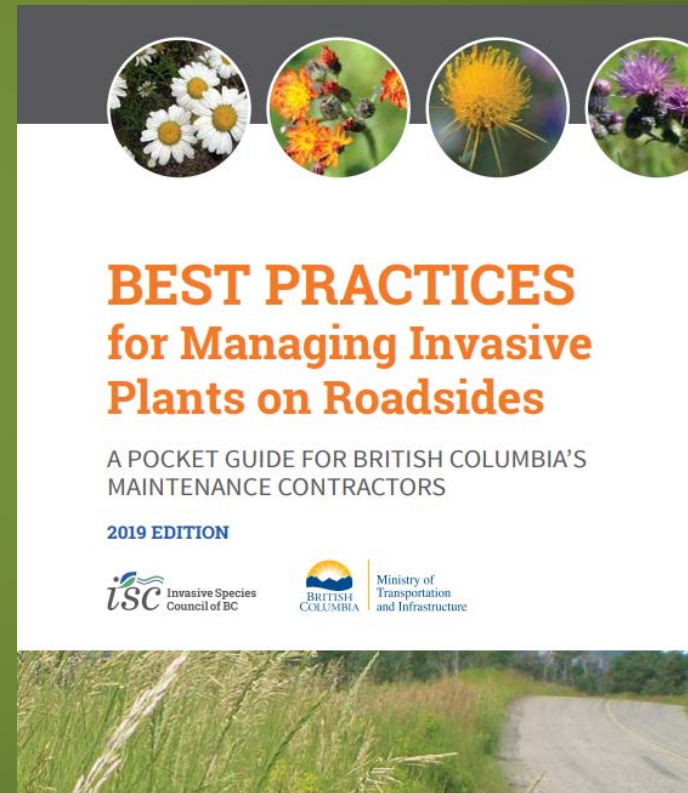


- Vegetation height specs
 - Mowing: 15-25 cm, 1.8 m from road edge
 - Brushing: 2-4 m high, 5-15 m from SHOULDER (interchanges have lowest and widest specs, down to secondary roads)
 - Overhanging vegetation: 2-3 m from shoulder



BMPs

- BMP guidebook
- Do not mow plants after they set seed
 - But mowing at the right time can actually help reduce seed production
- Keep equipment clean



[Best Practices](#)

BMPs



- Don't scalp or cut too low, limit soil exposure

Mowing and Fires

- Mowing is a fire risk due to sparks from machinery
 - Often restricted during hot, dry conditions
- However, mowing vegetation BEFORE fire risk reduces fuel load
 - Can also help roads act as fire breaks



oliver Daily news

Serving the Southern Okanagan

Local fire chiefs have a concern on rural roads

AUGUST 7, 2021, 6:51 PM

I had meant to reply to this discussion last week – but it is important to the South Okanagan Similkameen Fire Chiefs Association that I comment as their President and ask that we continue with this topic over the winter.



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North Africa Grass

- High silica content
 - Stems difficult to cut
 - Stems wrap around blades and foul mowers, decreasing efficiency
- Annual – pushes fire season earlier into year



Brushing



- Cutting of taller, generally woody vegetation
- May be accomplished through mowers or using hand equipment
- May be mulched or chipped on site

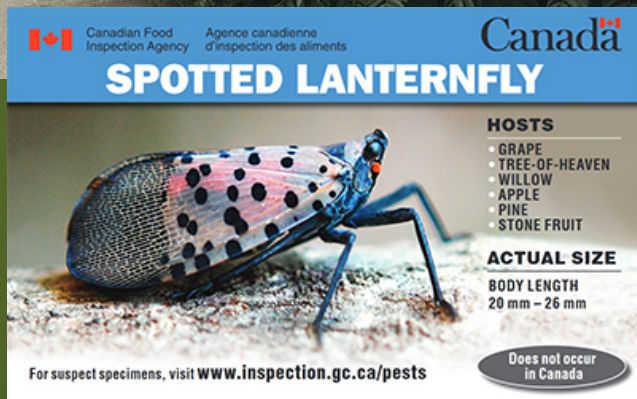
Brushing



- Invasive trees tend to sucker (olive, elm, tree of heaven)
- MCs can apply to use herbicide instead

Brushing

- Some invasive trees also host invasive insects (BMSB, SLF)



Ditching

- Regular ditching helps keep ditches clear of debris and thick vegetation
- If disposed at another location, this can spread invasive plants
- However side-casting material reduces chance of spread and hauling costs



Shoulder Grading

- Grading is a major disturbance
- Leads to bare ground perfect for invasive plants
- Reseeding these areas prevents invasive plants
 - Can also reseed with appropriate species



Snow Removal and Management

- Clearing of snow containing road salt can impact roadside vegetation
- Browning on the road side, increased susceptibility to disease, reduced vigor
- Piled snow melts slowly and can push back the growing season



Snow Removal and Management

- Snow loading: build up of snow on vegetation
- Managing shrubs and trees prevents failure during winter
- When suckering, wood tends to grow back more quickly and weaker, making it more likely to fail



Do Not Mow Areas



- Knotweed and other high priority species
 - Prevents spread
 - Maintains surface area to use herbicide
 - Indicated with large yellow signs easily visible to equipment operators

Do Not Mow Areas



- Biocontrol release locations
 - Especially where we are trying to establish new biocontrols

Do Not Mow Areas



- Roadsides can host important native species
- E.g. milkweed is important habitat for monarch butterflies
 - Working with MCs to prevent mowing at known monarch and Western bumblebee sites

QUESTIONS?



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