

Bringing The Forest To The Office:

*How Virtual Tours Can Be Used For Training
And Decision Making In Restoration*



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connecting knowledge to practice

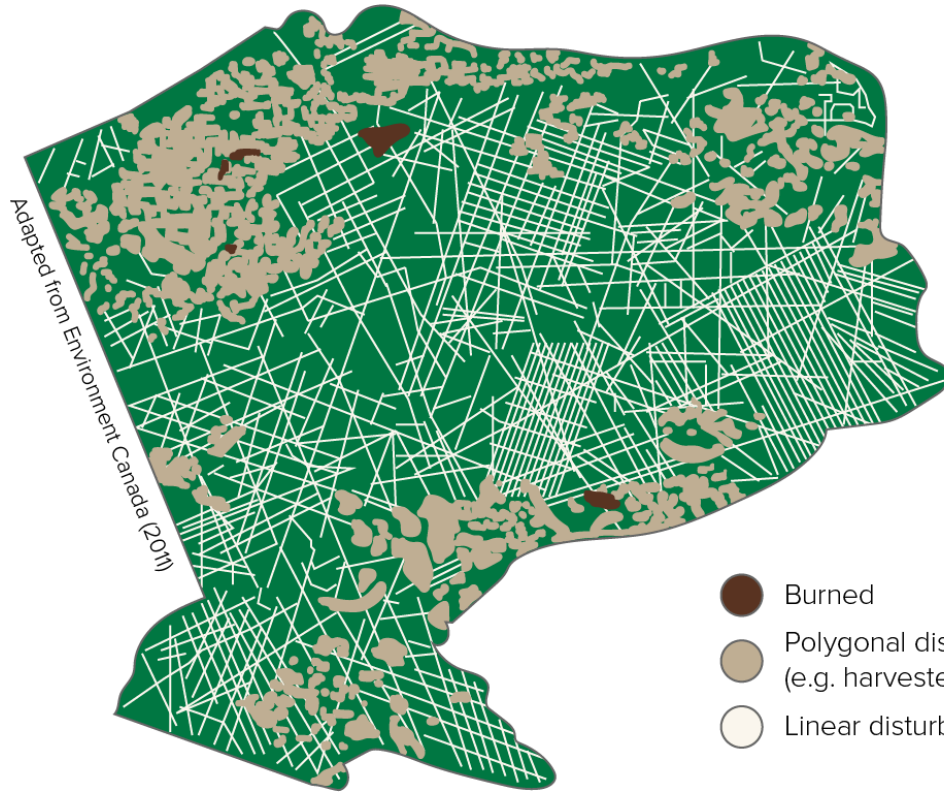
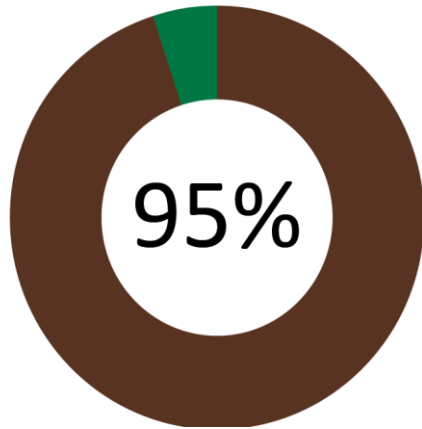




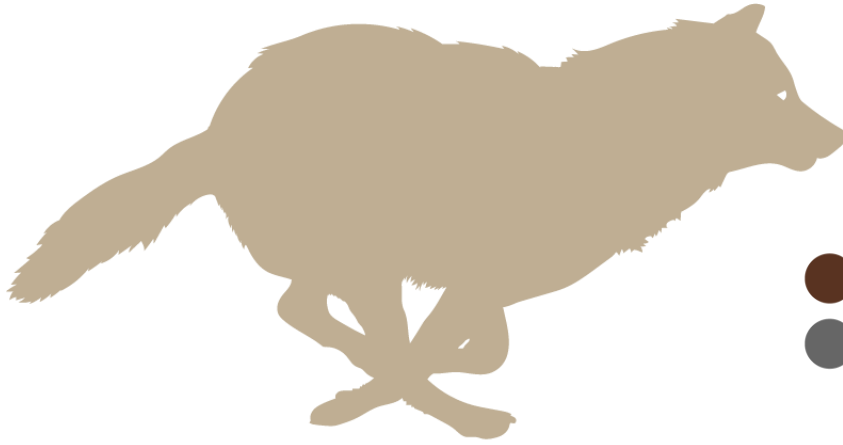
WHY RESTORATION?



Linear feature density

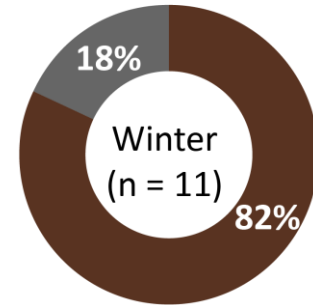
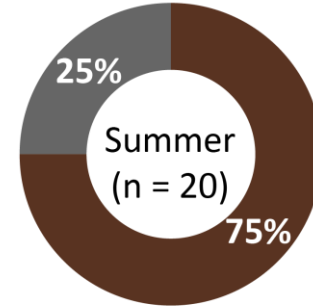


ECOLOGICAL DRIVERS



Wolves travel **2x** faster on conventional seismic lines than in interior forest.

- Selected for
- Neutral

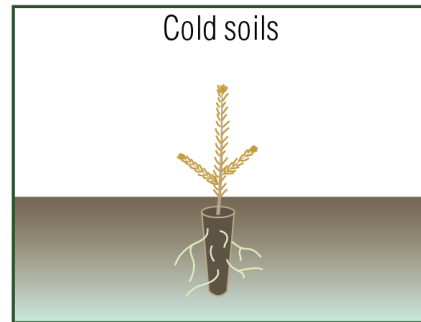
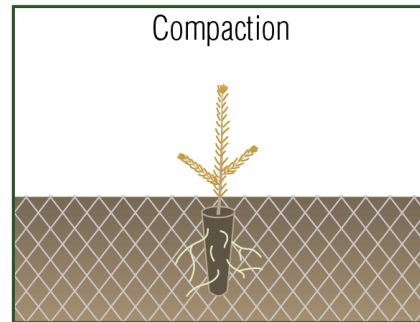
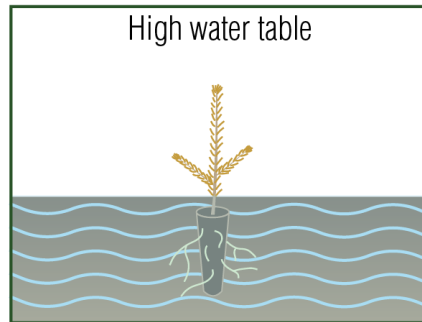
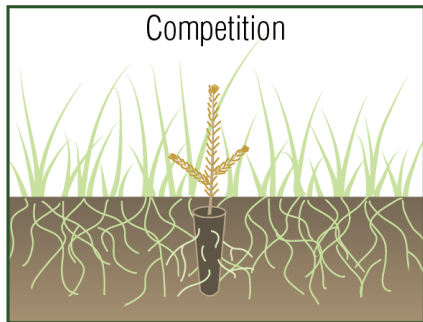




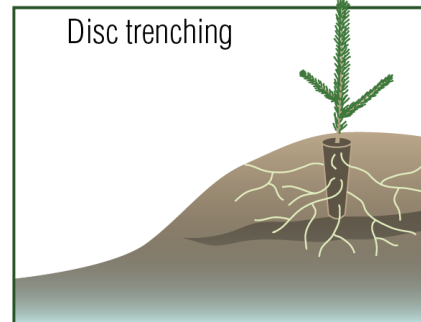
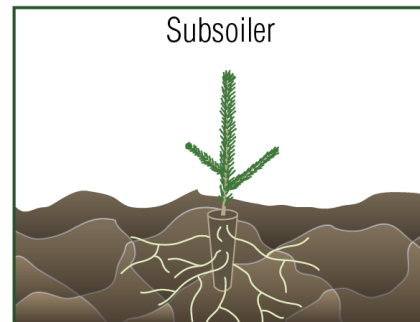
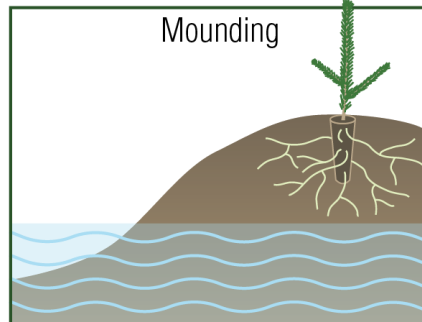
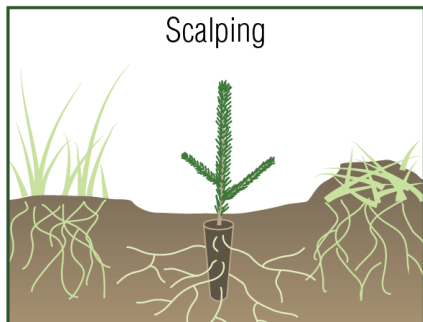
2017/07/12



The Problem



The Solution













Michael
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Dani Degenhardt



Matthew Pyper



Georgina Campos



Storyboarding for success

- Surface Roughness of Lowland Sites
- Planting on OSE Sites
- Linear Restoration
- Interim Reclamation

Defining our audience

- Executives and Managers
- Operators and Contractors

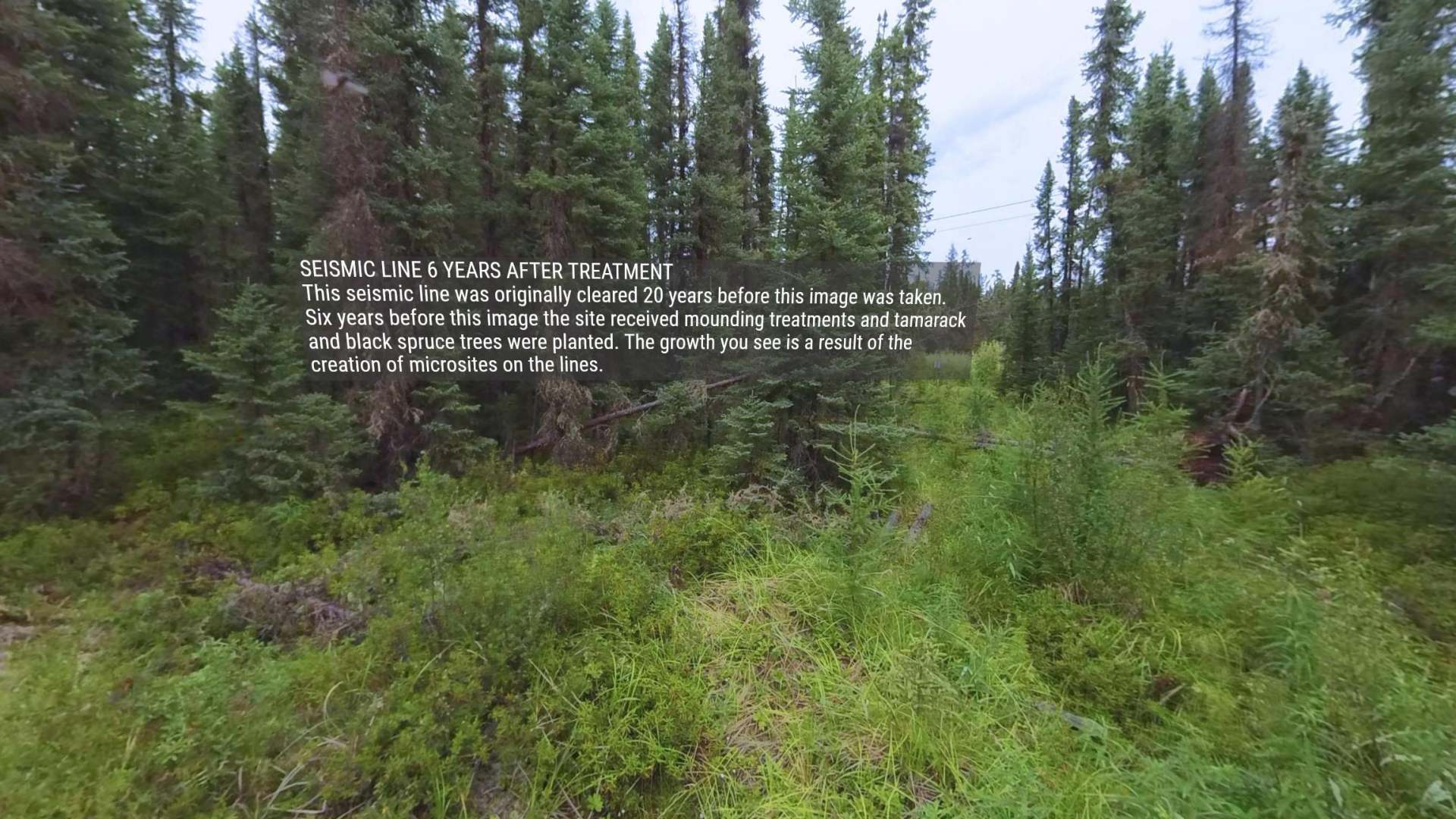


GO TO PINE UPLAND SEISMIC LINE



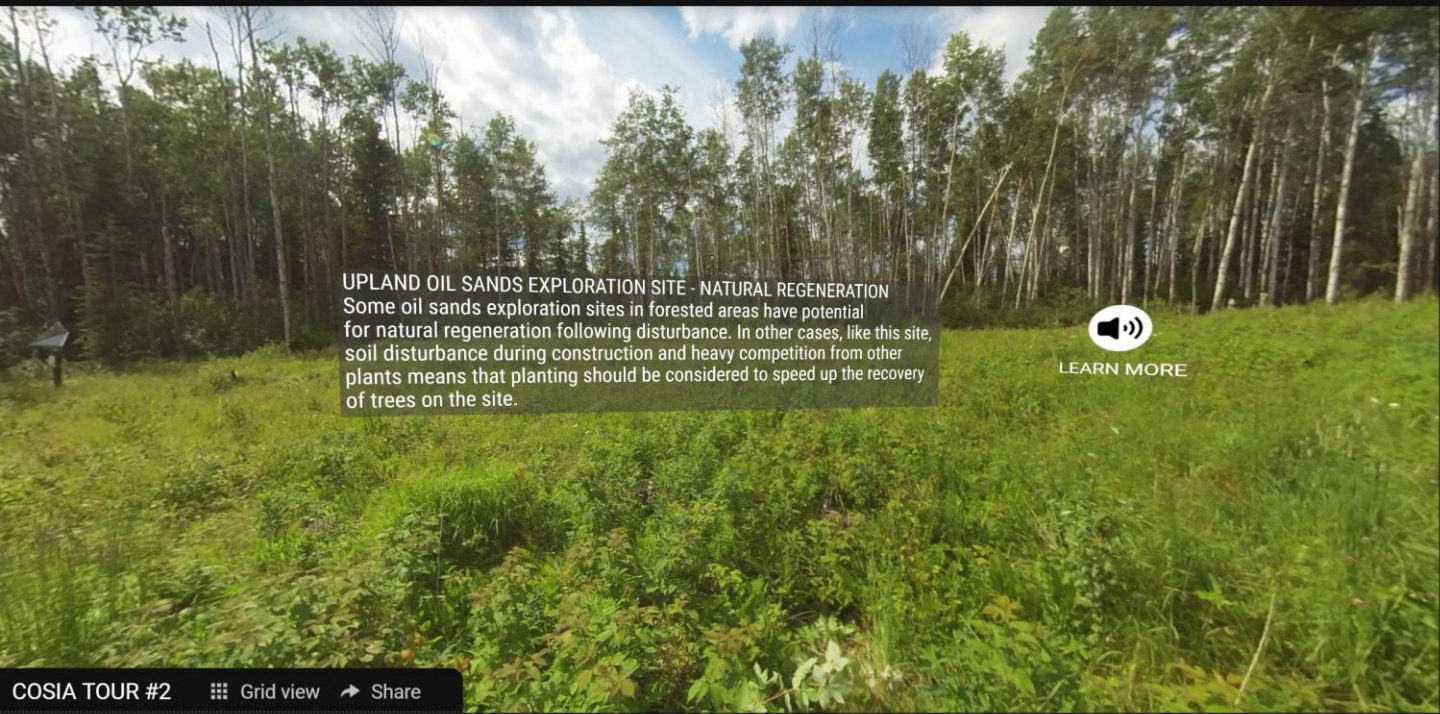
GO TO UPLAND SEISMIC LINE 6 YEARS AFTER TREATMENT



A photograph showing a forest clearing. The foreground is filled with dense, vibrant green vegetation, including tall grasses and various shrubs. In the background, a dense stand of tall, dark green evergreen trees, likely spruce or fir, rises against a pale, overcast sky. A few power lines are visible in the distance. The overall scene depicts a natural recovery process in a forested area.

SEISMIC LINE 6 YEARS AFTER TREATMENT

This seismic line was originally cleared 20 years before this image was taken. Six years before this image the site received mounding treatments and tamarack and black spruce trees were planted. The growth you see is a result of the creation of microsities on the lines.



UPLAND OIL SANDS EXPLORATION SITE - NATURAL REGENERATION
Some oil sands exploration sites in forested areas have potential for natural regeneration following disturbance. In other cases, like this site, soil disturbance during construction and heavy competition from other plants means that planting should be considered to speed up the recovery of trees on the site.

 [LEARN MORE](#)




 **COSIA** PRO

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Location 1: Upland Oil Sands Exploration Site with Natural Regeneration

0 comments

 Add comment

COSIA TOUR #2  Grid view  Share



Try it for Yourself: tinyurl.com/COSIAVR

Toolkit

Your go-to place for the best techniques

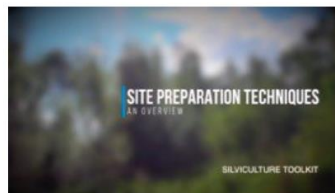
VIDEOS

See how restoration approaches are applied and things you need to keep in mind to have success.



Site Assessment: An Overview

Restoration works better with a solid plan. This video outlines factors to consider before you start restoration, empowering you to choose the right techniques for your site.



Site Preparation Techniques: An Overview

During resource traction sites can be disturbed in a way that limits the re-growth of plants afterwards. Learn what mechanical techniques are available to help counteract these effects.



Site Preparation Techniques: Mixing and Scalping

Is your site nutrient-poor? If you need to increase the availability of nutrients at the surface of the soil, mixing or scalping can be helpful techniques.



Site Preparation Techniques: Soil Decomposition

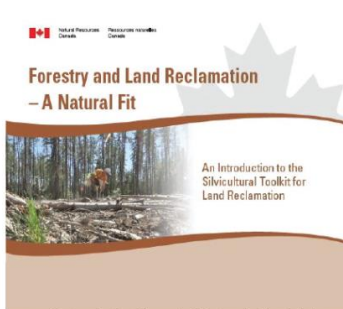
Heavy equipment can compress soils, making it difficult for plants to establish roots. Learn about three techniques to address this problem and how to choose among them.

Toolkit

Your go-to place for the best techniques

FACTSHEETS

Use these simple factsheets to explore new approaches and train your operators.



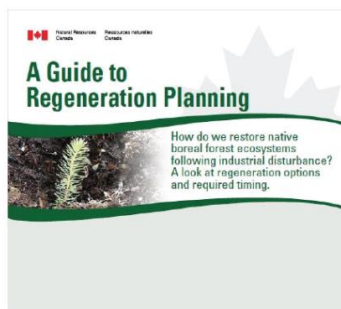
Forestry & Land Reclamation: A Natural Fit

Forestry practices are a valuable



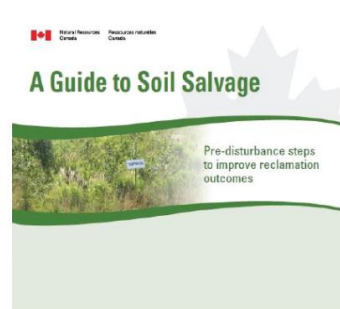
A Guide to Site Preparation

The footprint left by infrastructure and equipment can create different challenges for establishing vegetation.



A Guide to Regeneration Planning

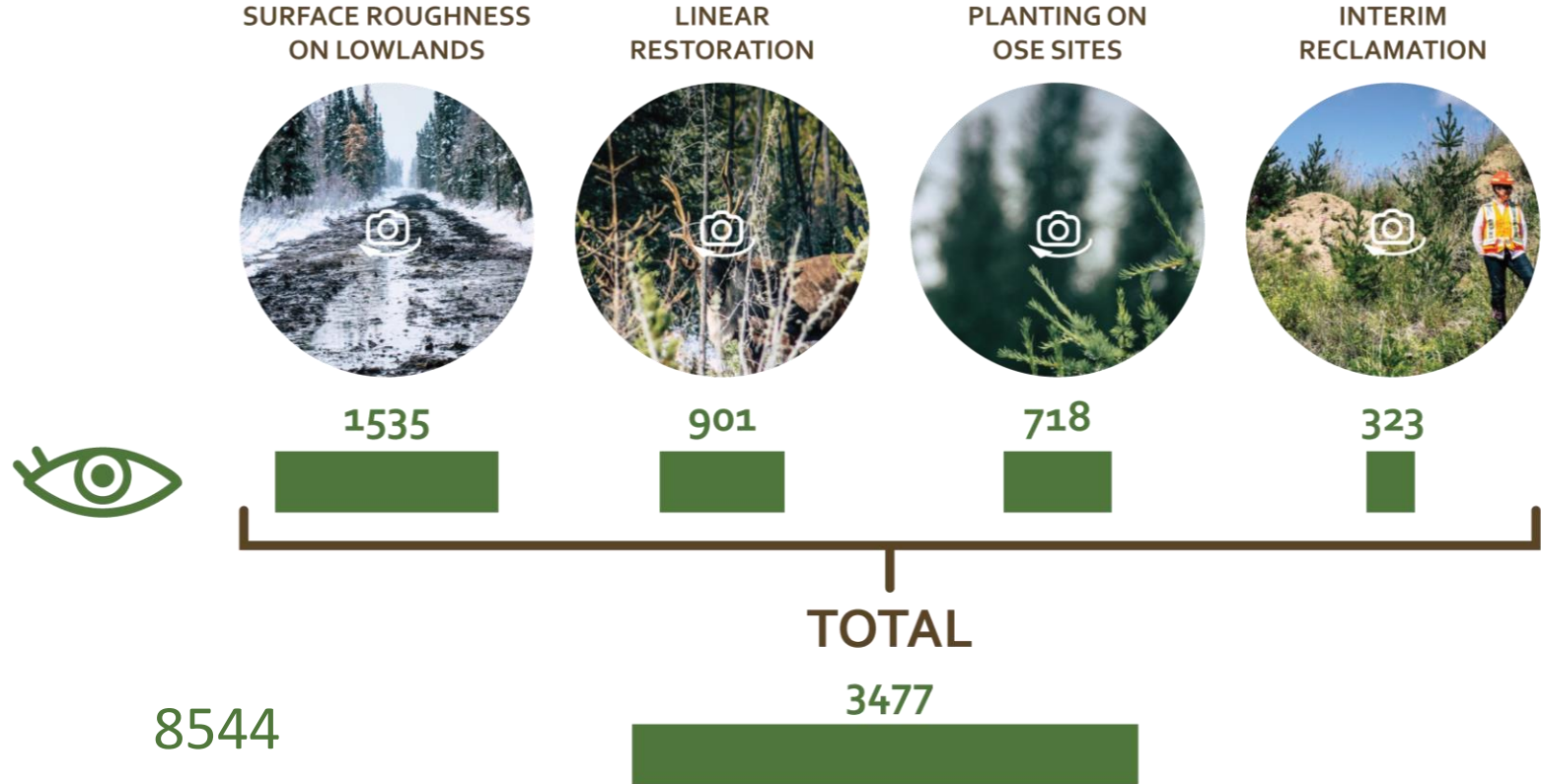
Regeneration planning is key to ensuring the establishment of target vegetation rather than undesired



A Guide to Soil Salvage

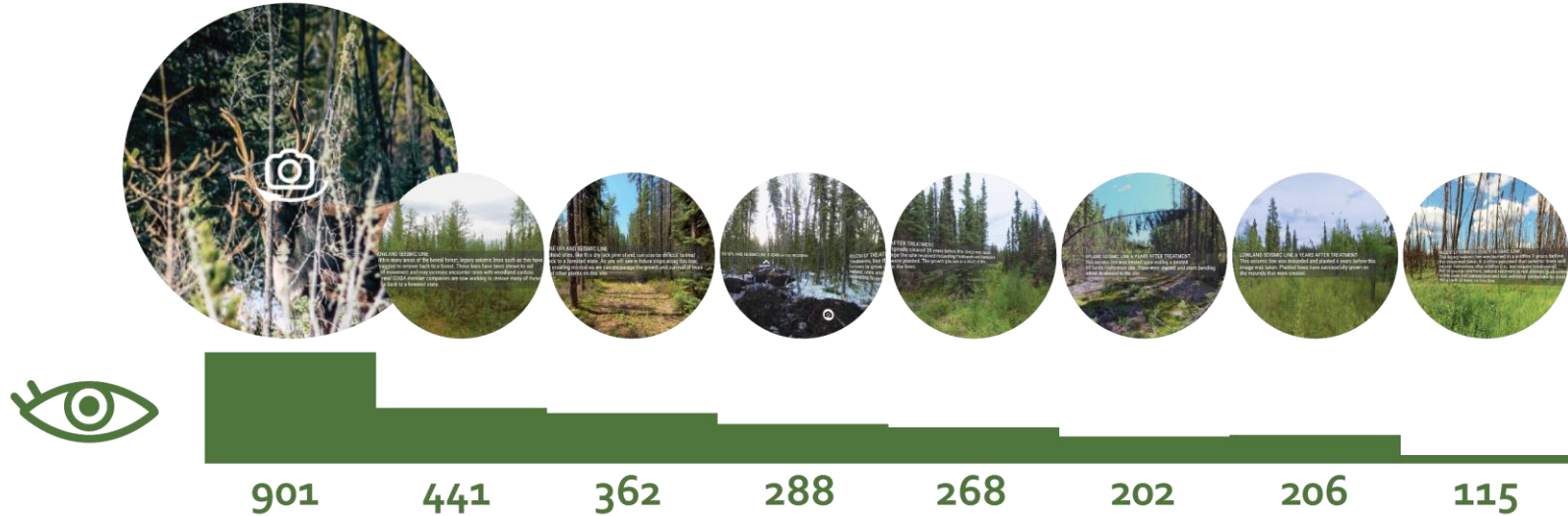
Healthy soil is essential to forest productivity. Soil salvage, the stockpiling of a site's topsoil for later use, can aid later reclamation if done

How are the Tours Performing?

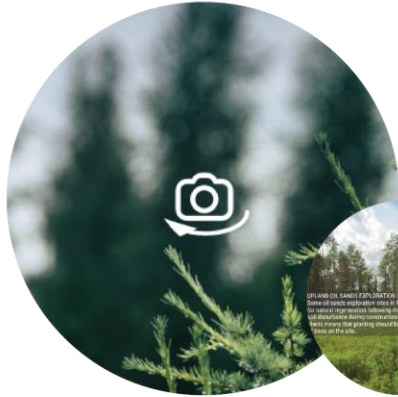


How are the Tours Performing?

LINEAR RESTORATION



PLANTING ON OSE SITES



718

341

278

171

155

156





HOW DO WE CAPITALIZE ON THIS TOOL?







QUESTIONS/DISCUSSION

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