

INTRO:

Bringing the Forest to the Office



Bringing the forest to the office: an introduction to the COSIA 360 tours project.

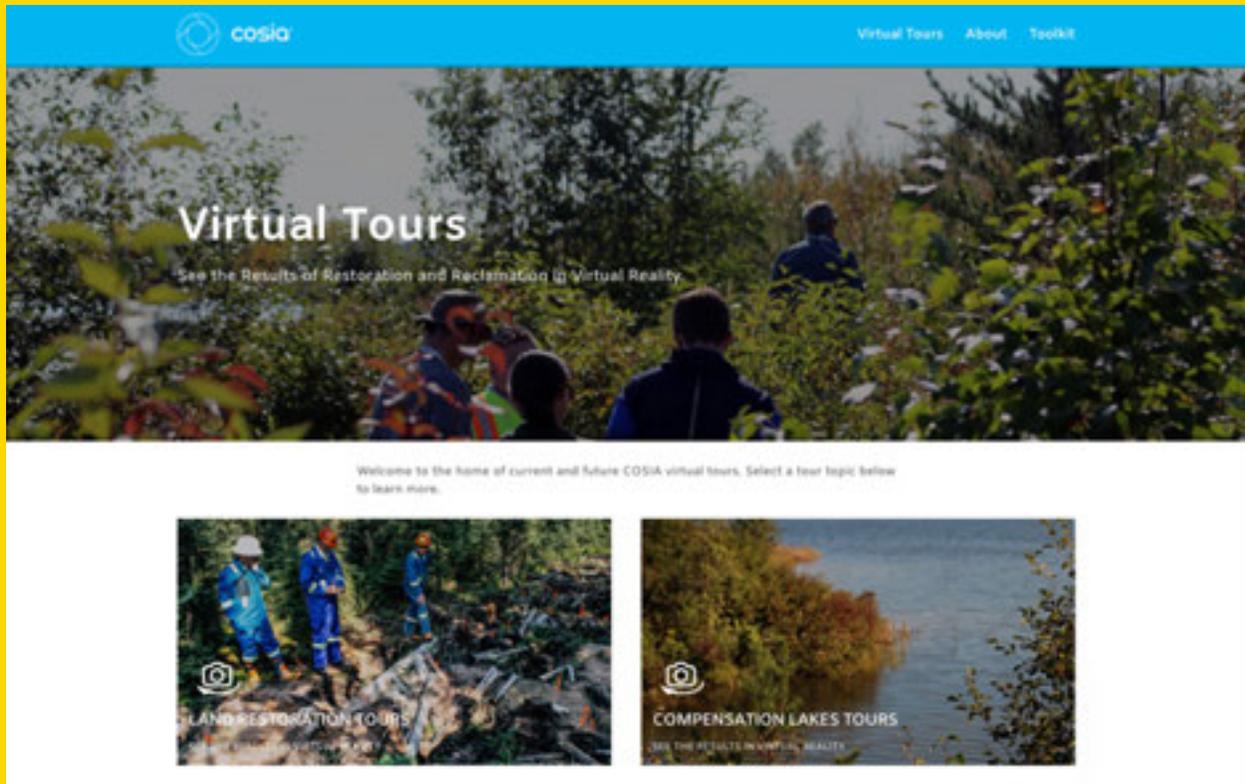
When you think about learning a new restoration technique, what comes to mind as a necessary first step? For many, the answer is likely planning a trip to the field to see what restoration looks like and deciphering how you could apply the same techniques.

For COSIA member companies, this is exactly the scenario they run into. Companies wanted to make restoration techniques more broadly accessible to improve restoration performance and reduce costs, but they recognized that bringing everyone to the field wasn't always possible.

Enter virtual reality. This emerging technology isn't just for video games anymore. In fact, it's a game changer for teaching equipment operators and restoration planners. By bringing the forest to the office, individual cell phones, and tablets, COSIA member companies hope to make restoration knowledge more accessible. The goal is to encourage the adoption of new, more innovative restoration techniques throughout in-situ oil sands operations.

While the final images make you feel like you are right there in the field, a lot of work goes into getting those nice pictures. Here, we take a look at just how these virtual tours came to be.

Linear Restoration Tour



Laying the Foundation Through Collaboration

Creating the virtual tours started with two key individuals: Katalijn MacAfee, the project coordinator with Natural Resources Canada, and Michael Cody, Land and Biodiversity Specialist with Cenovus Energy. Their motivation was to make sure that current knowledge from forestry could be applied to restoration sites within the in-situ oil sands region.

“We hope to broaden the basic knowledge and awareness of forest restoration techniques,” said Cody.

MacAfee hopes the virtual tours will demonstrate the broad potential of silviculture techniques – the practice of creating ideal conditions for trees and other desired vegetation to grow.

“When looking at the virtual field tour, it can really show that when treatments are applied successfully, they can be very effective,” said MacAfee.

Dani Degenhardt with Natural Resources Canada also brought expertise in reclamation, while Kate Broadley and Matthew Pyper, both from Fuse Consulting Ltd, rounded out the team by bringing expertise in science communication.



***The 360 Tours team:
from left, Matthew Pyper,
Michael Cody,
Dani Degenhardt,
Katalijn MacAfee, and
Kate Broadley***

Using Virtual Reality to See Restoration in Action

To capture the content for the 360 tours, the team travelled to North-eastern Alberta and visited a wide range of sites near Conklin and within the Cold Lake Air Weapons Range. The aim was to capture the outcome of different techniques in different forest types to provide the best educational value to planners and operators.



***Katalijn MacAfee and
Dani Degenhardt inspect
a mounding trial near
Conklin. This site would
become a key stop in one
of the [virtual tours](#).***

Leveraging Diverse Expertise to Cater the Content

Capturing the photos involved many bugs, some wet feet, and the careful set up of the camera among logs and peat mounds. However, both Cody and MacAfee agree that the most challenging part of the project took place back in the office – trying to condense so much complex information into a useful, accessible format.



Kate Broadley from Fuse operated the 360° camera, which we nicknamed “Orby.”

“The most difficult part was translating the complexity and variability that we see in the forest into simple, clear messages for a diverse audience,” explained Cody.

The team benefited by leveraging the diverse expertise of the collaborators. Staying focused on operators and managers also helped drive the content.

In the end, all the hard work was worth it. On this site you will find [four virtual tours](#) which demonstrate the potential outcomes of different restoration techniques in a range of operational sites. Those interested in restoration can now jump from an untreated linear feature, to a treated lowland site, to a sub-soil storage pile, all from their office chair or their cell phones. The [silviculture toolkit](#), developed in collaboration with Natural Resources Canada, also allows you to see how to apply these treatments in your own work.

We encourage you to explore the resources, share them with your colleagues, and find new ways to apply these restoration techniques within your own operations.

This blog series was created in collaboration with Natural Resources Canada and Fuse Consulting Ltd.