INTERIM RECLAMATION:
Doing More

Doing more with soil piles: interim reclamation is a hidden opportunity to get more bang for your restoration buck.

Why grow grass when you can grow trees? With little extra effort, and even on nutrient-poor soils, there is a simple way to boost tree growth on stagnant soil piles compared to standard practices.

The secret is taking advantage of soil salvage piles. These piles are used to store valuable top soil and sub-soils while sites are used for production facilities, camps, or other purposes. Soil salvage piles can sit unattended for as long as **20-50 years** - this is no small amount of time and can be very meaningful for establishing valuable nutrients within these piles. In 20 years, quick-growing species like pine and trembling aspen can actually grow to a substantial height. Over this time period a developing aspen stand can provide important habitat for wildlife and can establish valuable nutrients in the soil for future reclamation.

As it sits now, soil salvage piles are usually left with smooth soil placement and no planted trees. This is a practice that is generally in line with current regulations. Unfortunately, these conditions are not great for seedlings to establish. This means that very little grows on these soil piles other than grass and clover.

A typical soil salvage pile: a smooth slope mainly dominated by grasses.

Because of this practice, soil salvage piles often end up becoming grassy hills that don't have many trees or different types of plants on them. These hills stay this way for several decades and don't provide much value to wildlife or to future reclamation objectives. But what if we could change that?

Recent trials by Cenovus suggest that one key solution may be **surface roughness**. Trees take better to textured surfaces. Instead of creating smooth hillsides, if operators can create hills that have bumps and crevices (a **rough surface**), trees are much more likely to take root and thrive. This is because rough surfaces create a diversity of conditions on a single hillslope: pockets of moisture and small shady spots for shade-loving species, as well as raised sunny spots for species that prefer more heat. These **microsites** can bring a soil stockpile to life, attracting a variety of tree and plant species to set up camp in the spots that work best for them.

So, how can you achieve **surface roughnes**s on your site? Mounding is a technique that has shown great results in field trials. In an experimental trial on a lowland site, this simple step increased tree growth by five times compared to untreated areas.

Check out the difference that mounding can make on soil salvage piles:

It might be hard to believe, but the image on the left is a nutrient-rich topsoil pile, while the image on the right is a nutrient-poor subsoil pile. **Creating surface roughness generates big results with little effort, even on poorer quality soil**.

In the long run, the soil in these piles will be returned to reclaimed leases and camp sites to lay the foundation for a future forest again. In the meantime, why not take advantage of these sites? You could create 20-50 years worth of habitat with one simple step.

Want to see the effects of interim reclamation up close? Check out our virtual tour to walk through sites that show the difference.

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