

Reclamation Practices and Procedures for Carbon Sequestration

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How can current reclamation practices be modified to enhance carbon storage and other collateral benefits?

↪ Mine soil compaction and grading

- Minimize compaction and grading of top layer of mine soil to maximize tree growth**
- Reduce operator expenses by requiring less grading**

↪ Management of organic residue and amendments

- Harvest or sequester site carbon prior to mining**
- Require topsoil recovery and spoil selection to maximize tree growth**
- When feasible, amend mine soils with organic wastes and coal-combustion by-products**
- Develop better and faster methods to measure and monitor on-site carbon**

↪ Regulating reclamation practice

- Redefine the concept of “good” regulation**
- Clarify the differences between forest and grassland reclamation**
- Recognize/reward regulators for good reclamation**

What are the economic impediments to carbon sequestration in mined lands?

↳ Cost

- Topsoil recovery and placement is costly
- Ripping compacted soils is expensive
- Planting trees costs more than sowing grass

↳ Bond release issues

- Bond release requirements are greater with trees
- Performance bond requirements for trees and ground cover are incompatible

↳ Landowner/operator values and perceptions

- Reforestation is riskier, more costly, and prone to failure
- Landowners expect flat, usable land for development
- There is no short-term economic potential from trees

What changes could make alternative practices more economically attractive?

↪ Carbon credits

- Make carbon a viable commodity in the marketplace
- Use carbon credits to offset costs for preparing the land for forests
- Utilities should receive carbon credits for reforesting mined land

↪ Regulatory flexibility

- Develop incentives for mine operators to plant trees
- Encourage, fund, and develop demonstration and research projects like the Powell River Project and Starfire Project
- Assign reforestation responsibility to utilities
- Develop incentives: coal tax, “green” coal program, landowner assistance, NGO participation, etc.

↪ Change/enforce existing regulations

- Require replacement of forestland
- Require topsoil, compatible ground cover, and site preparation conducive to reforestation