

# APPALACHIAN REGIONAL REFORESTATION INITIATIVE AND THE FORESTRY RECLAMATION APPROACH<sup>1</sup>

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**Abstract:** The Appalachian Regional Reforestation Initiative (ARRI) is a broad-based citizen/industry/government program working to encourage the planting of productive trees on active coal mine lands and abandoned coal mine lands. Using a combination of private and governmental resources, the program will facilitate and coordinate citizen groups, university researchers, the coal industry, corporations, the environmental community, and local, state, and federal government agencies that have and interest in creating productive forestland on reclaimed mined lands.

Forestry research conducted by various academic institutions has confirmed that highly productive forestland can be created on reclaimed mine land by using a Forestry Reclamation Approach. The Office of Surface Mining Reclamation and Enforcement (OSM) has determined that this technology can be implemented under the current federal regulations. The Forestry Reclamation Approach has five fundamental parts:

- Create a suitable rooting medium for good tree growth that is no less than four to six feet deep and comprised of topsoil, weathered sandstone, and/or the best available material.
- Loosely grade the topsoil or topsoil substitutes to create a noncompacted soil growth medium.
- Use native and noncompetitive ground covers that are compatible with growing trees.
- Plant two types of trees – early succession species for wildlife and mine soil improvement and commercially valuable crop trees.
- Use proper tree planting techniques.

Tree planting is documented throughout Appalachia in the regulatory programs in Ohio, Pennsylvania, Maryland, Kentucky, Virginia, Tennessee, and West Virginia. Although trees are being planted, the reclamation plans generally do not reflect the current technology. The mission of ARRI is to promote and encourage the use the Forestry Reclamation Approach technology in both Title IV and Title V programs of the Surface Mining Control and Reclamation Act. Part of our effort will be to provide Forestry Reclamation Approach training and to explain the multiple benefits of creating productive forestland. These multiple benefits include restoration of clean water and air resources, carbon sequestration, soil conservation, wildlife and endangered species habitat, recreational opportunities, and timber production.

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