

# Successful Revegetation Techniques for Legacy and Active Mine Sites<sup>1</sup>

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**Abstract:** Historic and active mining activities have disturbed large areas throughout the U.S. which now require site reclamation and revegetation. Frequently onsite or imported topsoil is unavailable, present in very limited quantities, or heavily impacted by pH, salts, metals or other materials that make native plant establishment and growth difficult to achieve. Stockpiling soils degrades the natural biological life, destroys soil structure, decreases organic matter and commonly mixes subsoils with surface soils. All these factors make revegetation challenging and when combined with short growing seasons and arid climates pushes us to maximize our effectiveness. Today's technology in spray applied amendments and stabilization products, counteract these negative physical and chemical impacts. They also assist Mother Nature in speeding up the process of soil building, nutrient cycling, and stockpiling of organic matter using natural, biological, and manmade additives. This presentation will address several of the field techniques, design approaches, and soil amendments that have proved successful at different capping and closure sites across the arid west and mountain states. We will provide examples of lessons learned from both successes and failures on projects at multiple site installations and results from field testing sites. Attendees will be given knowledge and approaches that will help extend reclamation budgets through cost and time savings in the field<sup>3</sup>.

Additional Key Words: Erosion control, reclamation, soil amendments, plant establishment

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  3. Work reported here was conducted near 42° 39' 15" N; 111° 36' 16" W.