266RISING ECOREGION MYTHS IN FEDERAL REVEGETATION POLICY¹

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Abstract. A new revegetation goal, to maintain genetic diversity within the same species, may threaten future reclamation success. Advocates of "ecoregion" seed origins, restrictive seed transfer zones, and localized seed production are strongly influencing federal policy. The creation of generalized rules without scientific validation politicizes and undermines efforts to improve revegetation results. Local ecotype preferences are often based upon faulty assumptions about evolution, genetics, modeling and seed production realities. Federal contracting to grow locally collected seed in local seed production fields, without testing the fitness of selections, is flawed because local ecotypes are not inherently superior to broadly adapted cultivars. This program underestimates the difficulty of developing new species for seed production and by-passes research facilities which are designed to scientifically evaluate native species and to select improved cultivars. By creating an expensive and failure prone seed production system, we face the prospect of rising seed costs, limited supplies and diminished revegetation success. Imposition of such federal requirements on the mining industry will jeopardize our ability to chose the best seed. The war against weeds is being lost because local native species cannot repel many invasive species. By using our funding to protect local ecotypes, we risk losing entire ecosystems for lack of natives able to successfully compete with weeds. Research into improving native seed has decreased while the need for improved cultivars has increased. We cannot afford to waste money on an inadequate model of ecoregion seed production. We must accelerate research on improving key natives.

Keys words: ecoregion, seed transfer zones, ecotype, cultivar

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