

ACHIEVING RECLAMATION DIVERSITY¹

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Abstract. Monsanto Company operates an elemental phosphorous plant on the north edge of the city of Soda Springs in southeast Idaho, and their phosphate mines are presently located about 19 miles northeast of the plant. Monsanto's phosphate mine employees take great pride in their land stewardship ethic, and they take exceptional care in trying to restore critical habitat on reclaimed mineland. The reclamation is done concurrently with the mining. The out-of-pit overburden areas are constructed from the toe up, in order to keep disturbed acres to a minimum. The overburden areas and pit backfill are recontoured to mimic nature as closely as possible. The areas are dressed with about 2 feet of topsoil, then a dozer track is pulled across the contour to make the surface more uniform and to cover the equipment tracks left by the scrapers and dozers that spread the topsoil. This is referred to as dragging on the contour. The next process involves fertilizing and then seeding, both of which are also done on the contour. Though the land management agencies only require about eight species in the seed mix, Monsanto uses 15-19 different species of grasses and forbs at over 35 pounds per acre to achieve more vegetative diversity. A key element, typically missing from reclaimed land, is habitat and cover for small mammals and birds. Brush and rock piles are constructed onto reclaimed areas. These are simple, cost effective ways to provide important habitat and cover on the reclaimed lands. Constructing and erecting nest boxes for birds also provides habitat for various bird species. Another important component of diverse reclamation is the planting of native trees and shrubs. Monsanto has been working with Bitterroot Restoration, a native plant nursery near Hamilton, Montana, who specialize in custom growing native plants, as well as installing those plants. Aspen seed is collected from the site in the springtime and sent to Bitterroot, so the seeds can be germinated in their greenhouses. Later in the fall, the plants are brought back to the mine site to be planted into the reclaimed areas. By using native seed stock, there is a better chance for success. Erosion control is also vital to reclaiming land. With well thought out planning and the use of straw wattles, rock-check dams, and rock-lined waterways, erosion is kept to a minimum and helps to enhance the diversity of the landscape. Monsanto's ethics are unsurpassed by any others in the industry, and their work with the agencies and environmental groups is what will keep mining a viable business with continued goals of environmental success. Going above and beyond the regulatory requirements not only improves the overall health and condition of the environment, but more importantly it is the right thing to do.

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