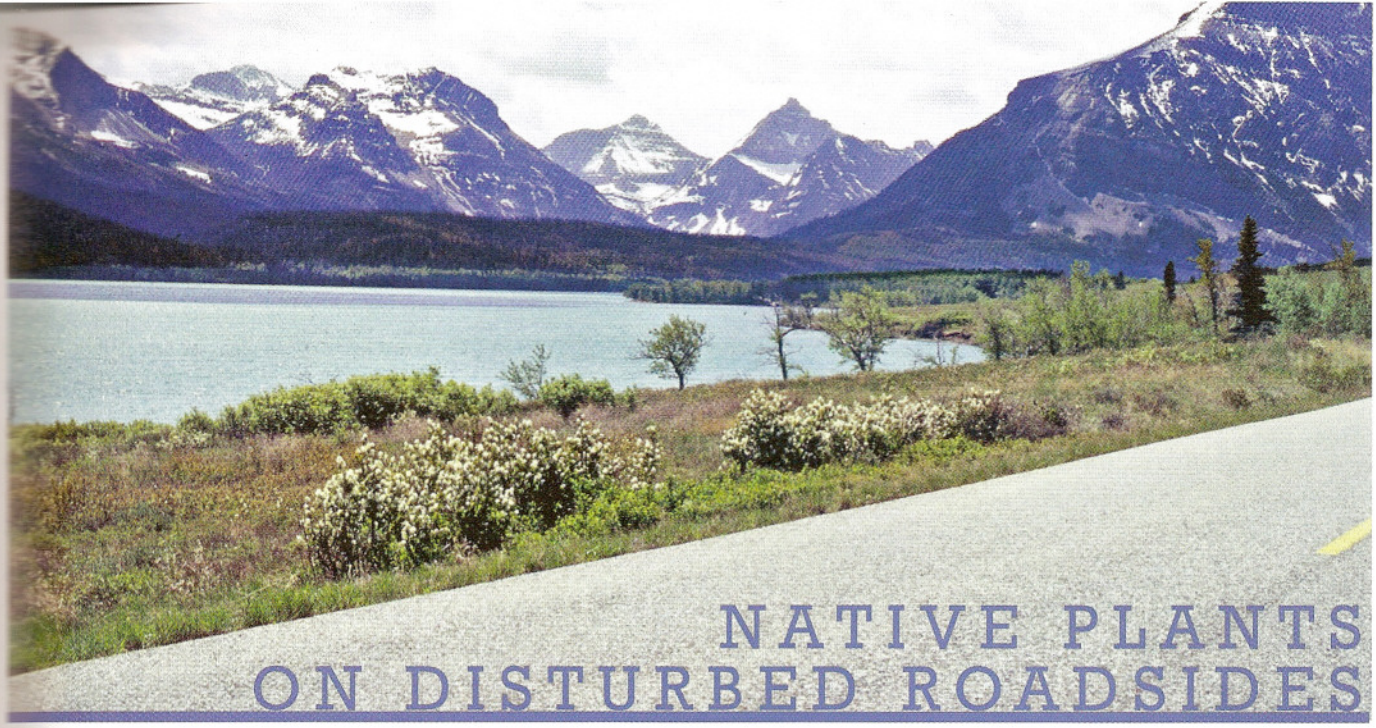
From Forest Nursery Notes, Winter 2009

32. © Native plants on disturbed roadsides: introduction to a new integrated approach. Wilkinson, K. M., Riley, S. A., Steinfeld, D. E., and Landis, T. D. Native Plants Journal 9(3):267-277. 2008.



NATIVE PLANTS ON DISTURBED ROADSIDES

Introduction to a new integrated approach

| Kim M Wilkinson,
Scott A Riley,
David E Steinfeld,
Thomas D Landis

ABSTRACT

The ecological effects of roads impact about 15% of the land area of the US—an area equivalent in size to all the protected areas of the country combined. The ecological health of roadsides and road-impacted areas has not been adequately addressed. Most road projects today involve modifications to existing roads rather than new construction. As roads are modified section by section, a tremendous opportunity arises to remedy the oversights of the past, improving conditions for healthier ecosystems. The challenge is to move beyond regulation-driven mitigation approaches and into proactive environmental stewardship. Native plants are a foundation of ecological health and function. Revegetating with native plants is a key practice for managing environmental impacts. To be successful, native vegetation issues cannot be considered as an afterthought to larger road planning and construction processes. Instead, they must be an integral part of the process of designing and constructing roads. A partnership between the Federal Highway Administration and the USDA Forest Service has developed an approach to revegetation that is goal-oriented, context-sensitive, and collaborative. This is an interdisciplinary, interagency team approach with early (3-y minimum) collaboration, shared objectives, and clear guidelines. Cooperation allows time and funding for growers to produce the quality and quantity of native plant materials required. Two new publications, *Roadside Revegetation: An Integrated Approach to Establishing Native Plants* and *A Manager's Guide to Roadside Revegetation Using Native Plants* are available.

Wilkinson KM, Riley SA, Steinfeld DE, Landis TD. 2008. Native Plants on disturbed roadsides: introduction to a new integrated approach. Native Plants Journal 9(3):267–277.

KEY WORDS

DFCs, roadside ecosystems, roadside management, revegetating, restoration ecology

Roadsides and road-related disturbances often represent an "extreme" restoration ecology challenge. Steep slopes, little or no topsoil, high erosion by wind and water, lack of beneficial microorganisms, rapid invasion by weeds, high exposure to winds, and constant visibility to the driving public are some of the factors that add to the challenge. Many of the lessons to be learned in these harsh conditions are applicable to restoration efforts on other drastically disturbed sites. At the same time, one unique factor is involved in revegetating roadsides and other disturbance areas associated with

Figure 1. The benefits of establishing desirable roadside vegetation are more than ecological. Native plants on roadsides can improve the safety, efficiency, and effectiveness of roads and associated management.
(Glacier National Park, photo by Tara Luna)