



1.0 General

Roadsides are an integral part of the highway. The roadside consists of the area from the outside edge of the shoulder to the right of way line. It also includes the median between the edges of the shoulders of the two opposing roadways. There are an estimated 150,000 acres of roadsides on Wisconsin's state trunk highway system.

The main functions of roadsides are to protect the highway facility by providing good drainage and to provide a safe recovery area for errant vehicles. Roadsides are primarily covered with vegetation, although some paved surfaces and riprap will occur.

2.0 Background

In 1931, the state assumed full responsibility for maintenance of state roads, including the roadsides. At that time, seed specifications for roadsides were composed primarily of agricultural crop seeds. Maintenance directives specified roadsides are maintained by mowing, burning or harvesting. Seeding specifications for roadsides and the corresponding maintenance procedures evolved through the years to include seed mixes composed of Eurasian lawn-type grasses and maintenance procedures consisting mostly of mowing and herbicide use. Roadside seed mixes continue to evolve with the trend being toward more native species. Currently, the Wisconsin Department of Transportation (WisDOT) has nine standard seed mixes, four of which contain native grass and forb (wildflower) seed.

The department's vegetation management policy has been heavily influenced by economics. Prior to the advent of the Interstate Highway system in the state in the late 1950s and early 1960s, highway right of way was primarily mowed full-width. However, the department reduced the mowing width of the wider rights of way associated with the Interstate highways in order to reduce costs. In 1962, the American Association of State Highway and Transportation Officials (AASHTO) revised maintenance guidelines to reduce mowing. Since then, the cost of fuel, decreased fuel tax revenues, and other factors have led to further decreases in mowing activities.

Though fuel cost and supply still influence roadside vegetation management, preservation of the environment has also been a primary concern. The limited mowing policy has allowed Wisconsin's native plant species to flourish on our roadsides. In addition, the department instituted a "no mow" window for mowing (except for safety mowing) in 1990 to protect habitat for Wisconsin's wildlife, especially the thousands of ground-nesting birds that inhabit grassy roadside rights of way. Minor modifications were made to this window in 1999 to protect the Karner Blue butterfly, which is on the federal endangered species list.

In recent years, invasive plant species have been proliferating at an alarming rate, both in terms of the number of species and the number of occurrences of each species. In 2001, the state legislature established the Wisconsin Invasive Species Council (WISC). The Council and other experts recognize highway rights of way are one of the primary avenues for the spread of invasive plant species. Wildlife managers agree that, if the populations of invasive plants continue to escalate, wildlife habitat found along WisDOT roadsides will be negatively impacted. The department recognizes its stewardship responsibility to take reasonable measures to combat these invasions. Therefore, in 2007 a further modification of the window for non-safety mowing was instituted which allows for mowing earlier in the season, before the weeds have set seed.

3.0 Natural Roadsides

The term 'Natural Roadsides' refers to roadsides actively or passively managed for a natural appearance and, wherever possible, contain remnant or restored native plants in natural communities (Figure 1).



Figure 1: Native Seeding

The Natural Roadside philosophy involves protecting, restoring, and maintaining native plants and native plant communities along highway right of way in order to: (a) preserve our native Wisconsin landscape, (b) efficiently manage vegetation on highway right of way, and (c) increase travelers' enjoyment of Wisconsin highways.

The department has traditionally emphasized the use of native plants when trees and shrubs are planted as part of construction or maintenance projects. In 1975, the department began implementing pilot roadside projects to reintroduce native grasses and forbs under the federal Operation Wildflower program. Greater understanding of native plants and native plant communities has developed over time as the department, along with the Wisconsin DNR and native seed producers, gains more experience with growing and maintaining native plants and restoring native plant communities (Figure 2).



Figure 2: Native Seeding