

# Support diverse and native roadside trees and plants

Stressed by vehicular traffic, snowplows, mowers, road maintenance equipment, pedestrians, bicyclists, and litter, vegetation in the right-of-way is in a state of perpetual disturbance.

Additionally, roadside ecology is generally altered from the original condition of the landscape, resulting in engineered topography and nonstandard plant communities. Restoring roadsides to their most natural state, particularly after construction, promotes greater longevity of native plant species and resilience during typical disturbances.

Establishing sustainable, multiage, and diverse roadside vegetation takes thoughtful planning, appropriate expertise, and patience. Consider that

most forest management plans span decades — roadside forestry practices, although more intensely scrutinized and frequently disturbed, must also adopt long-term goals and extended monitoring plans. Many Vermont backroads are forested and will revegetate themselves with common tree species (a process called “forest regeneration”). However, some right-of-ways that border wetlands, fields, or agricultural areas may benefit from bush and native grass planting to prevent erosion or from tree planting to create roadside canopy.



## Recommendations

**Be intentional about vegetation clearing.** Understand that any vegetation regrowth will be all the same age (called “even-age”) and, at least initially, will lack the structural diversity that keeps roadsides forests healthy.

**Plan for safety of wildlife and people utilizing the right-of-way.** Roadsides can provide strips of habitat for some species, although generally as temporary cover or food sources rather than as breeding or nesting sites. Some species continue to thrive in the edge habitat created by roadside vegetation, but large mammals that browse on some roadside trees like birch (*Betula* spp.), poplar (*Populus* spp.) or willow (*Salix* spp.) may generate risk for both road users and themselves.

**Establish a pruning<sup>1</sup> and maintenance schedule for existing trees.** When done correctly, roadside pruning reduces the number of branches that could fall, reduce sight lines along roads, or grow into

1. “Pruning,” Vermont Urban & Community Forestry, [bit.ly/VTUCF\\_Pruning](https://bit.ly/VTUCF_Pruning).

utility lines, while maintaining or even improving tree health. Do not prune trees with a flail mower or boom arm mower – this will cause long-term damage to trees.

**Establish a systematic annual planting schedule.** Start small to monitor progress and understand that planting efforts require site preparation, material purchases, monitoring, and possibly replacement of species that die. Ensure that planting efforts do not conflict with planned road construction.

**Take note of existing native plants common in your region.** Ask your town’s active citizen scientists to record their tree and plant observations on [iNaturalist](https://www.inaturalist.org).<sup>2</sup> This will help other town residents and road crews recognize changes in the roadside landscape and provide information about species that may revegetate disturbed sites.

**Cover and stabilize bare and disturbed soil with seed, mulch, hydroseeding, or stone lining.** The [Municipal Roads General Permit](#)<sup>3</sup> requires soil stabilization within five days of the completion of a project.

**Establish native vegetation where possible, including where invasive plants have been removed.**

**Consult with neighboring towns to find out if planting or seeding initiatives can be shared.** By combining resources, towns may achieve an economy of scale that makes costs and logistics more palatable.

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2. iNaturalist, [inaturalist.org](https://www.inaturalist.org).

3. Vermont Department of Environmental Conservation, *Vermont Pollutant Discharge Elimination System General Permit 3-9040 for Stormwater Discharges from Municipal Roads*, [bit.ly/VT\\_MRGP](https://bit.ly/VT_MRGP).

## Roadside grasses



Roadside grasses play an important role in stabilizing banks that do not require hardscaping. Road crews look for grasses that germinate quickly, are tolerant of salt and other disturbances, and do not require frequent mowing. The Vermont Agency of Transportation recommends several seed mixtures for roadside planting, many of which can be applied with a hydroseeder. Low-grow and fine fescue mixes often work well next to the road; however, many contain no native species.

As preliminary guidance, towns may consider using the Sand and Gravel Sites Conservation Mix or the Wet Area Mix suited to these conditions and described in the [Vermont](#)

[Agency of Transportation Technical Landscape Manual](#),<sup>1</sup> both of which contain some native species. Pay close attention to the amount of fertilizer and tackifier a site may need for seeds to successfully germinate, particularly on steep slopes. Seed mixes can be purchased through Vermont-based companies such as Lawes Agricultural Service, L.D. Oliver Seed Company, or Northeast Agriculture Sales. Seed mix labels should include the percentage of pure live seed (PLS) to inform consumers of the wide variety of germination rates and

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1. Vermont Agency of Transportation, “Seed Mixes,” in *Technical Landscape Manual*, page 2-47, [bit.ly/VTransLandscape](https://bit.ly/VTransLandscape).

percentage of seed by weight among the many native grass mixes.

Alternatively, towns may consider native seed mixes with no fescue. These native grasses may thrive beyond the immediate cleared zone beside the road. Native seed mixes are sold by companies such as Vermont Wetland Plants or New England Wetland Plants, or by national companies with northeast-specific seed varieties such as Roundstone Native Seed or Ernst Seeds. The Vermont Agency of Transportation is currently developing pollinator-friendly seed mixes for steep slopes and ditches prone to both flash floods and dry soils.