



RESTORE THE NATIVE FLORA OF PINELANDS ROAD SHOULDERS

We see the distinctiveness of the Pinelands most readily in its plants. Most of us see the flora of the Pinelands primarily as we drive down the roads. Roadsides also support a surprising number of threatened and endangered plant populations. For aesthetic, educational, and legal reasons, we should preserve the attractive wildflowers and any endangered and threatened plant species that occur on roadsides.

For many decades, though, state, county and local governments have been doing the opposite. A few recent examples:

- The widening of the Garden State Parkway threatens a population of a globally rare plant, the New Jersey Rush.
- Ocean County recently re-surfaced most of Route 539 and, in the process, apparently destroyed native plant populations on the roadsides.
- In Shamong Township, road crews deposited rich topsoil along Atsion Road, which smothered the native plants and produced a roadside full of crabgrass and other weeds.
- On Route 563, which runs through the heart of the Pine Barrens, beautiful wild orchids are regularly mowed down while they are in full flower.

Next time you drive in the Pinelands, look at the road shoulders, and you will see many more examples where native plants have been replaced by non-native, heavily fertilized turf grasses that crowd out Pinelands species.

Pinelands Preservation Alliance (PPA) is working with the Pinelands Commission, the state Department of Transportation (DOT), and the counties to address the threats that have wiped out native roadside plant populations and that are currently putting more of them at risk. ***We need citizens to add their voices to ours.***

Road widening projects may seem like an inevitable



Road shoulder of Hwy. 70 in Burlington County. Non-native weeds have crowded out the Pine Barrens native plant community near the road, where fertilizer and non-native plants have been used.

part of "progress," but, in fact, many of them are unnecessary. For example, several years ago, Burlington County widened a rural section of Route 530, passing through characteristic Pine Barrens plant communities.

Reportedly, the road width was inconsistent with the posted speed limit, so rather than reduce the speed limit, the county widened the road.

In a previous issue of *Inside the Pinelands* (June/July 2007), PPA reported on the proposed widening of the Garden State Parkway. This project adversely impacts the Preservation Area and populations of threatened and endangered plant and animal species. While there is no reason to think that traffic congestion can be resolved by perennially adding lanes to highways, this outmoded strategy apparently still holds sway in the minds of influential local planners and engineers. Even the government admits the widening will not eliminate the traffic jams used to

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justify this massive and massively expensive construction project.

Road maintenance and resurfacing can also present threats to native plants. In some cases, materials used in the projects have been staged right on top of rare plant communities. Heavy equipment operators have been known to drive on them. With just a little extra awareness and care, these kinds of things should be avoidable.

Another problem is that road resurfacing can raise the height of the road surface, creating hazardous conditions for motorists who might pull off the pavement onto the shoulder. The standard solution is to add fill material to raise the grade of the shoulder. Obviously, this can completely smother a population of plants. For legally protected plant species, it is unacceptable, and an engineering solution should be sought such that the re-surfaced road will stay at its original height in that area.

A more insidious problem often accompanies projects that involve adding fill--various types of soil--to roadsides. Any fill material that does not match the pH and nutrient levels of the natural soils of the road shoulder will tend to change the plant community, sometimes dramatically. Low pH and low nutrient soils are the hallmark of the Pine Barrens. If you raise the pH and nutrient in an area, you make that area immediately hospitable to all kinds of plants that, previously, couldn't colonize there. Once they can, they quite predictably displace the natives.

Sometimes deliberate replanting compounds this problem. Whenever roadside soils have been disturbed during roadwork, and whenever fill has been added, state, county, and local road crews typically try to stabilize the exposed soil by replanting. Often, they are required to do so by the various Soil Conservation authorities. Unfortunately, although the CMP, in theory, requires that native plants be used for all such revegetation, this requirement is being routinely ignored.

In what appears to be a routine violation of the Comprehensive Management Plan (CMP), revegetation on road shoulders typically consists of the application of non-characteristic soils, lime, fertilizer, and non-native plants. The non-native plants often consist primarily of cool-season grasses, which is why we see odd, bright green strips of vegetation along many of our roadsides even in the winter.

Road widening, road shoulder work, and revegetation account for much of the negative impacts on roadside vegetation, but mowing practices also take a huge toll.

Obviously, if you keep cutting the flowering tops off of plants, they will not be able to produce seed. For a population of annual plants, this means death to the population.

Even for most perennials, if a population cannot produce seed, it tends to decline or eventually die out. So, given the constant mowing that goes on during the growing season, it's no wonder that Pine Barrens naturalists bemoan the loss of wildflowers on the roadsides.

In fact, the mowing of the roadsides is currently done in a bizarre, robotic fashion. Sparse vegetation that you can hardly see, thinly distributed on sugar-sand, gets the blade. All colorful patches of native wildflowers bite the dust. In areas of sparse vegetation, some of the mowing actually causes erosion, because the mowers destroy or inhibit native plants that are trying to colonize the bare spots.



***Pine Barrens Gentian plant near Evans Bridge on Hwy 563.
Mowers cut off the flower.***

Mowing is necessary in order to prevent the intrusion of shrubs. But one mowing per year or every other year would accomplish this in most areas. Also, for safety purposes, authorities have to make sure that sight lines are open. But, considering that the typical native roadside plants of the Pinelands are thinly distributed and only get to be about knee high, it is hard to imagine how this concern comes into play.

Over the last few years, in consultation with plant experts and ecologists, PPA has come up with a set of common-sense recommendations aimed at protecting the roadside wildflowers and other important vegetation:

- **Do not widen any roads unless there is a genuine compelling need.**

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- Survey for protected plants before engaging in any roadwork, and make sure they get adequate protection.
- Use local material for fill on roadsides - something that matches the pH and nutrient level of the location.
- Do not amend the soil with fertilizer or lime.
- Plant only Pine Barrens native species in revegetation projects.
- Mow once a year or less. Ideally, wherever possible, let the roadside vegetation go through its entire life cycle, and mow the previous year's growth in the spring, at the beginning of the regular mowing season.

If government will implement these practices, we can see a return of our native wildflowers to the roadsides of the Pinelands, and we can better protect important populations of threatened and endangered plant species. It is also bound to save money!

We are already seeing some progress along these lines. The State DOT has been implementing a program to reduce mowing in many areas. The GEMZ (Grass Eco-Mow Zones) program deserves public support, and should be expanded. Also, the Burlington County Road Department implements a delayed mowing program on certain roads passing through the Pinelands. The county has indicated to PPA that it is interested in expanding the areas of delayed mowing.

Ultimately, for the best possible results, we need higher levels of communication and cooperation between the Pinelands Commission and DOT, the counties, the Soil Conservation Districts, the State Forest superintendents, the municipalities, and, in some cases, private landowners.

You can help. Let the Pinelands Commission and the other authorities know that the characteristic Pinelands plants on roadsides are important to you. **Write, e-mail, phone, and attend public meetings so you can give public testimony.**

Contact Information for the Pinelands Commission:

Pinelands Commission
PO Box 7
15 Springfield Road
New Lisbon, New Jersey 08064
Phone: (609) 894-7300 Fax: (609) 894-7330
E-mail: info@njpines.state.nj.us
Meeting schedule posted at:
<http://www.state.nj.us/pinelands/>

Contact your Municipal governing body or public works director. All governing bodies meet once a month time and dates can be found on your township's web site.

What Is PPA Doing For Roadside Vegetation?

- Ongoing field and other botanical and ecological research to understand the problems and potential solutions.
- Working with Ecological Solutions, a local consulting firm, to develop a Best Management Practices (BMP) for roadsides.
- Ongoing advocacy efforts to try to persuade the Pinelands Commission to apply applicable rules that would help protect native plant populations.
- Coordinating with the state DOT, the county road departments, and the Soil Conservation Districts to develop better revegetation practices and mowing schedules.
- Working with Pinelands Nursery, Rare Find Nursery, Mount Cuba Center, and New Jersey Conservation Foundation to develop a Pinelands native seed mix for revegetation of disturbed roadsides.



Reinstate New Jersey's Adopt-A-Highway!

Beautiful wildflowers in the Pinelands are best viewed along litter-free roadsides. But now, after seventeen years, New Jersey's Adopt-A-Highway program has been disbanded. According to the NY Times, "At its peak, about half of the state's 2,000 highway miles had been adopted by more than 600 groups with an estimated 4,000 volunteers." Call NJDOT and your state representatives if you would like to see this program return. Meanwhile, remember that counties and municipalities can run similar programs. Call your county and local authorities to see what can be done in your area.

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