Dear Senator Kennedy and Fellow Connecticut Senators,

I am a graduate student studying ecological restoration at the University of Connecticut in the Department of Plant Science, working with Professor Julia Kuzovkina on a project commissioned by the New England Transportation Consortium (NETC) - a research cooperative funded by all six New England state Departments of Transportation - the goal of which is to find the most affordable, reliable, and expeditious methods for establishing native plant communities along New England roadsides. The end product of our research is a manual that will help guide DOTs in the practice of roadside revegetation using native plants.

These installations would replace a large portion of the non-native cool-season turf grasses commonly used along highways, which require greater resource inputs and frequent mowing. While the initial establishment of native plant communities requires funds for retraining of DOT workers, money will be saved over time by the decrease in maintenance costs. Unlike turf grass that requires mowing three to six times a year, native plant communities can be mowed as few as once a year or once every other year.

State DOTs hope that, by transitioning to these more sustainable management practices, they can save on fuel costs and emissions, prevent invasive species encroachment, adapt to changing climates, increase carbon sequestration, reduce erosion, improve storm water infiltration, and restore native ecological system functions.

One of the most valuable ecosystem services native plant communities provide is restoration of pollinator habitats. Roadsides are particularly beneficial for pollinator habitats because they provide corridors by which pollinators can migrate, thus solving one of the most serious problems that has contributed to pollinator habitat collapse - landscape fragmentation.

Working with the New England Wildflower Society, we have followed rigorous protocols in developing the palette of plants we recommend for inclusion in revegetation. These strict guidelines will insure that roadside plantings, which over time will constitute some of the largest amounts of acreage ever to be restored ecologically in our region, will not become overwhelmed by non-native, invasive species.

In addition, the use of strictly native plant material could potentially increase specialist native pollinator populations that have co-evolved with our region's native plant species but have declined precipitously as a result of encroachment from invasive plant species. Native pollinators tend to more effectively pollinate because a majority of these species tend to have greater amounts of body hair than do non-native honey and bumble bees. These hairs trap greater amounts of pollen grains, which pollinators then carry to other plants. As a result, increasing native pollinator populations on such a large scale could potentially increase the crop yield of local farmers.

Sections 319 and 329 of the recently passed federal FIXING AMERICA'S SURFACE TRANSPORTATION ACT (FAST) bill (which I have attached to this email) provide states funds for establishing pollinator habitats as part of new construction projects. However, few people in state DOTs realize this money is available and few realize they need an advocate to receive these funds. I am asking that this committee become such an advocate. Only if our state's DOT knows that the desire exists for increased pollinator habitats along roadsides do I believe they would be willing to tap into these funds.

As part of my research, I conducted focus groups with DOT managers from five of the six New England states to determine the barriers that exist to transitioning to these new roadside revegetation practices. The greatest resistance I found came in two forms:

1) uncertainty managers feel to successfully conduct what is a more complex establishment process than that required to establish cool-season turf grass; and

2) the belief that they do not have sufficient funds to properly install such habitats.

However, they stated that, if the law was changed and required that they make this transition, they would find a way to change to these new practices. Other states, such as Iowa, Minnesota, and Wisconsin, have been using native plants to revegetate their roadsides for more than two decades. However, they did so only after they received the support and funding from their state governments.

Having read a draft of the bill, I did not notice mention of the use of roadsides to increase habitats as part of the plan to improve pollinator health. I also did not see any mention of using energy right-of-ways, which would provide excellent corridors for pollinator migration. Requiring energy companies currently building natural gas pipelines to revegetate using native plants would go a long way to help improve regional pollinator health.

Pollinator health depends on increasing pollinator habitats that provide interconnected year-long forage and plant material and space for nesting and hibernation. I ask that this committee incorporate such details into this bill.

One last point: I believe that funding is the one of the biggest impediments to making this transition to these more sustainable practices. One solution we have considered is the creation of public-private partnerships to pay for the conversion of existing roadside vegetation. One such partnership could be in the form of an adaptation of the Adopt-a-Highway program. Businesses and organization could contribute money for such projects and a sign could be posted on the site that educates the public about the establishment of roadside pollinator habitats and credits the benefactors for helping to restore pollinator health.

I appreciate your allowing me to testify before your committee and I hope you take my suggestions into consideration.

Best regards,

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