



New York State Environmental Excellence Awards

New York State Department of Transportation and Seneca Park Zoo

Case Study on Modified Mowing for Pollinator Protection Program

Summary

New York State Department of Transportation (NYSDOT) began the Pollinator Project in 2015 by modifying mowing limits and frequencies in a 6-mile section of Interstate I-390. The modification was to mow a wider area of ROW in late September/early October, after two growing seasons, maintaining an old field succession state while preventing the development of scrub-shrub stage. Because of the mowing modification, approximately 93 acres of naturally regenerating wildflowers are allowed to grow which gives pollinators the ability to complete their life-cycle uninterrupted by mowing.

Rochester area's Seneca Park Zoo Society (SPZS) has a Butterfly Beltway Program specifically for the purpose of mitigating the declines of pollinator species. The common conservation mission led to the collaboration in the Pollinator Project along I-390. In addition to 20'x20' interpretative gardens that were installed at 2 rest areas within the project area on I-390, the SPZS also has an Adopt-a-Highway agreement with NYSDOT for this segment of I-390 that includes standard litter collection work and garden maintenance. The agreement also provides the SPZS the opportunity to harvest milkweed seeds and to translocate Monarch butterfly eggs for a captive rearing program and plant propagation back at their facility. The butterflies and plants are used to supply future Butterfly Beltway programs and butterfly habitat creation throughout the region.

About the Modified Mowing for Pollinator Protection Program

The Pollinator Project, began in 2015 and shows how general concepts can be applied to specific roadsides in a way that doesn't compete with the late season workload of maintenance forces. This project demonstrates that well timed mowing is one of the most cost effective and straightforward management changes that can be made to benefit pollinators.

Key Metrics

- The change in mowing delayed succession and maintains approximately 93 acres in the successional old field state with over 18 species of naturally regenerating wildflowers, including grasses.
- At least 14 species of Lepidoptera have been documented using the modified mowed areas.

About the New York State Environmental Excellence Award

The New York State Environmental Excellence Award is given by the Department of Environmental Conservation in recognition of outstanding innovative and sustainable projects or programs and unique partnerships that are improving and protecting New York State's environmental resources and contributing to a stronger economy.



Benefits

The change in mowing allowed the wildflowers to grow. These wildflowers provide food sources for butterflies and other pollinators. A mix of wildflowers with various blooming times during the growing season provides a constant food source during breeding and migration season for the pollinators. Pollinators are now able to complete their life-cycle uninterrupted by mowing in this section of ROW. This project demonstrates that roadsides can be refuge for pollinators and that there is potential to use roadsides for milkweed seed collections to sustain future restoration efforts by others.

Highlights

NYSDOT has demonstrated leadership in and commitment to environmental excellence for the pollinator project at each level of the organization. Region 4 NYSDOT staff worked actively with personnel from the Seneca Park Zoo Society for their expertise in the following: learning about habitat favored by the Monarch butterflies, scouting the right of way to determine if it would be optimal for Monarchs, and advice about plant selection in the pollinator gardens that were installed at the rest areas.

Funding

Rest Area Signage was created in a joint effort by SPZS's Butterfly Beltway Program. The cost for sign and garden installation was shared between SPZS and NYSDOT. Operational cost of equipment and staff are part of funds allocated for rest area and ROW mowing maintenance. To date, there are no changes in Operational Cost when a comparison was made between the standard mowing practices vs. the modified mowing practices.

A Model of Excellence

- In 2016 the Pollinator Protection Program was recognized internally by NYSDOT's GreenLITES (Green Leadership in Transportation Environmental Sustainability) program for Innovations in Operations. This is the highest level of the program's recognition for NYSDOT's Operations Program Area. Through this program others are encouraged to replicate and expand upon the recognized projects.
- This project has been shared across NYSDOT via two state-wide webinars as well as at two meetings. We found that if the workers who are doing the mowing understand the logic behind the change they are more likely to help preserve the effort.
- NYSDOT has shared lessons learned from this effort regionally, nationally and internationally.
- NYSDOT's modified mowing project was part of a 90 minute panel session dedicated to pollinator roadside conservation efforts. During the session, representatives from New York, Massachusetts, Maine, and Vermont State DOTs as well as a representative from the Federal Highway Administration (FHWA) shared their current work and future ideas on pollinator conservation along highways. Lessons learned at NETWC have the potential to spread throughout the northeastern part of the U.S.



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