



Eco-Logical Community of Practice

Pollinator Habitat Programs

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July 13, 2016

[\(Learn more about Eco-Logical
at the FHWA website\)](#)



SHRP2 & Its Focus Areas

(Second Strategic Highway Research Program)



Safety: Fostering safer driving through analysis of driver, roadway and vehicle factors in crashes, near crashes, and ordinary driving.



Renewal: Rapid maintenance and repair of the deteriorating infrastructure using already-available resources, innovations, and technologies.



Capacity: Planning and designing a highway system that offers minimum disruption and meets the environmental, and economic needs of the community.



Reliability: Reducing congestion and creating more predictable travel times through better operations.

Implementing Eco-Logical Steps

1. Build collaborative partnerships & vision
2. Characterize resource status
3. Create REF
4. Assess effects on conservation
5. Identify & Prioritize actions
6. Develop crediting strategy
7. Develop agreements
8. Implement agreements
9. Update REF over time



Eco-Logical Community of Practice

Purpose:

- To continue the exchange of information after SHRP2 activities have concluded.

Goals :

- To create a self-sustaining network of practitioners to share knowledge, best practices, ideas, and facilitate technical assistance amongst members.

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Federal Highway Administration Resources for Roadside Pollinator Habitat

Deirdre Remley, Environmental Protection Specialist
Office of Project Development and Environmental Review
Federal Highway Administration

July 2016



Pollinator Laws

Section 1415 of Fixing America's Surface Transportation (FAST) Act, December 2015

Administrative Provisions to Encourage Pollinator Habitat and Forage on Transportation Rights-of-Way

Directs FHWA to:

- Encourage integrated vegetation management practices on ... transportation rights-of-way, including reduced mowing
- encourage the development of habitat and forage for Monarch butterflies, other native pollinators, and honey bees through plantings of native forbs and grasses that can ... facilitate migrations of [butterflies and] other pollinators.

Presidential Memorandum, "Creating a Federal Strategy to Promote the Health of Honey Bees and Other Pollinators," June 2014

Directs USDOT/FHWA to:

- Evaluate current guidance and informational resources
- Identify opportunities to increase pollinator habitat along roadways
- Implement program improvements, as appropriate
- Work with State DOTs and transportation associations to promote pollinator-friendly practices and corridors

Endangered Species Act of 1973

- Dozens of federally listed species, mostly insects <https://www.fws.gov/pollinators/programs/endangered.html>



Improving Roadside Pollinator Habitat: Ways to Make it Work

SOME CHALLENGES	SOME WAYS TO OVERCOME CHALLENGES
Competing priorities for funding	<ul style="list-style-type: none">• Cost savings through reduced mowing• Lower long-term maintenance costs with native vegetation that is adapted to the area• License plate sales• Corporate philanthropy• Grants from non-profits• Partnering with universities and non-profits
Lack of in-house expertise among all staff	Partner with universities and non-profits with expertise
Public perception – Culture change from the idea that roadsides should look manicured	Public education through: <ul style="list-style-type: none">• Signs• Rest stop displays• Partnerships and outreach
Native seed cost and availability	<ul style="list-style-type: none">• Coordinate with local native seed banks – let them know your seed needs – Supply/demand model• Coordinate with land managers with similar needs



FHWA Federal Funding for Vegetation Management

FHWA Funding Eligibilities

23 U.S.C. 319, “Landscaping and scenic enhancement” (FAST Act section 1415 made modifications)

23 U.S.C. 329, “Eligibility for control of noxious weeds and aquatic noxious weeds and establishment of native species” (FAST Act section 1415 made modifications)
Guidance is at: (<http://www.fhwa.dot.gov/hep/guidance/noxweeds.cfm>)

23 U.S.C. 133, “Surface Transportation Block Grant Program,” Transportation Alternatives Set Aside

Guidance is at: <http://www.fhwa.dot.gov/map21/guidance/guidetap.cfm>



Some Ways to Fund Pollinator Activities

Funding Sources

- License Plate Sales
- Native Plant Societies
- Zoos
- Corporate philanthropy
- Non-profit organizations – grants, specialized expertise, etc.
- University programs/cooperative extensions



FHWA Resources: “Pollinators” Web Page

http://www.environment.fhwa.dot.gov/ecosystems/vegmgmt_pollinators.asp

U.S. Department of Transportation
Federal Highway Administration

About Programs Resources Briefing Room Contact Search FHWA

FHWA • IEP • Environment • Tools & Data • Water, Wetlands, and Wildlife

Environmental Review Toolkit

Home	Planning and Environment	NEPA and Project Development	Accelerating Project Delivery	Historic Preservation	Section 4(f)	Water, Wetlands, and Wildlife
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Water, Wetlands, and Wildlife

Program Overview

Agricultural Lands

Environmental Laws and Regulations

Wetlands and Aquatic Ecosystems

Ecosystem and Vegetation Management

- Habitat Management
- Plants and Invasive Species
- Pollinators
- Links
- Training

Wildlife and Habitat

Awards



Wildlife Vehicle Collision Reduction Training

bSA Webtool

Submit Feedback

Ecosystem and Vegetation Management

Pollinators



In June of 2014, the White House issued the Presidential Memorandum (PM), “Creating a Federal Strategy to Promote the Health of Honey Bees and Other Pollinators.” The PM directs Federal agencies to take additional steps to improve habitat for pollinators including honey bees, native bees, birds, bats, and butterflies—critical contributors to our nation’s economy, food system, and environmental health. With millions of acres of highway roadways, State and local transportation agencies own or control land that can create important habitat corridors that link otherwise fragmented pollinator habitat.

The PM directed the U.S. Department of Transportation to evaluate its current guidance and resources, to identify opportunities to increase pollinator habitat along roadways, and to work with State Departments of Transportation (DOTs) and transportation associations to promote pollinator-friendly practices and corridors. FHWA’s approach to implementing this PM is to continue to support native plantings and integrated vegetation management (IVM) practices to reduce pesticide use and mowing, and increase native plantings. Based on FHWA’s guidance, many States already follow an IVM approach that combines multiple forms of control (mechanical, chemical, and biological). An IVM plan can result in reduced long-term cost and increased safety while promoting native plantings that encourage ecological diversity.

FHWA works to provide best management practices (BMPs), support research, and distribute information about pollinator-friendly practices in roadside vegetation management. Below are resources for State DOTs and other transportation agencies and roadside managers.

- Legislation/Policy/Guidance
- FHWA Pollinator Publications
- Resources for Pollinator-Friendly Practices
- FHWA Funding Eligibilities for Vegetation Management
- State DOT Pollinator-Friendly Practices and Information

Questions and feedback should be directed to Deirdre Remley (Deirdre.Remley@dot.gov, 202-368-0524).



U.S. Department of Transportation
Federal Highway Administration

- Legislation/Policy/Guidance
- FHWA Pollinator Publications
- Resources for Pollinator-Friendly Practices**

Roadside Pollinator Habitat Resources

- AASHTO and FHWA Webinar, “Bees, Butterflies, and other Pollinators: Vegetation Management”
- Xerces Society for Invertebrate Conservation, “Roadsides” web page
- Xerces Society for Invertebrate Conservation, “Pollinators and Roadsides”
- Minnesota Department of Agriculture, Pollinator Best Management Practices for Roadsides and Other Rights-Of-Way
- U.S. Forest Service, Pollinator-Friendly Best Management Practices for Federal Lands
- U.S. Forest Service, Pollinators web page
- USDA, Natural Resources Conservation Service, Insects and Pollinators web page
- Xerces Society, “Pollinator Conservation” web page
- Pacific Northwest Extension, How to Reduce Bee Poisoning from Pesticides
- National Agroforestry Center, Inside Agroforestry, “Windbreaks”
- Xerces Society, “Roadsides as Habitat for Pollinators,” Proceedings of the 2013 International Conference on Ecology and Transportation

Pollinator Planting Guides and Supplier Information

- Pollinator Partnership Ecoregional Planting Guides
- Project Milkweed
- Xerces Society Pollinator Conservation Resources Center
- Bee SmartTM Pollinator Gardener smartphone app

Native Vegetation Planting Guides and Supplier Information

- Native Seed Network
- PlantNative web page
- Lady Bird Johnson Wildflower Center web page
- Reforestation, Nurseries, & Genetic Resources web page
- Coordinated Technology Implementation Program, “Roadside Revegetation: An Integrated Approach to Establishing Native Plants”
- U.S. EPA, Level III and IV Ecoregions of the Continental United States

Controlling Invasive and Exotic Plants

- Early Detection and Distribution Mapping System
- Center for Invasive Species Management, “Roadside Weed Management”
- USDA Natural Resources Conservation Service, “Introduced, Invasive, and Noxious Plants” list

Pollinator Certification Programs and Public Education Materials

- Monarch Watch, Monarch Waystation Program
- National Wildlife Federation, “Pollinators in Peril” and “Million Pollinator Garden Challenge”

- FHWA Funding Eligibilities for Vegetation Management
- State DOT Pollinator-Friendly Practices and Information

Questions and feedback should be directed to Deirdre Remley (Deirdre.Remley@dot.gov, 202-368-0524).

State DOT Pollinator-Friendly Information

http://www.environment.fhwa.dot.gov/ecosystems/vegmgmt_pollinators.asp



Legislation/Policy/Guidance



FHWA Pollinator Publications



Resources for Pollinator-Friendly Practices



FHWA Funding Eligibilities and Other Funding Sources



State DOT Pollinator-Friendly Practices and Information

- [University of Florida Institute of Food and Agricultural Sciences Research on Pollinator-Friendly Best Management Practices](#)
- [Florida DOT, "Economic Impact and Ecosystem Services Provided by Ecologically Sustainable Roadside"](#)
- [Indiana DOT Hoosier Roadside Heritage Program](#)
- [Kansas DOT Wildflowers and Native Grasses](#)
- [Kentucky Transportation Cabinet Pollinator Protection Program Modification to Statewide Transportation Improvement Plan](#)
- [Maryland State Highway Administration Pollinators news release](#)
- [North Carolina Pollinator Habitats Program](#)
- [Minnesota Department of Transportation "Native Seed Mix Design for Roadsides" and "Living Snow Fence Partnership"](#)
- [Ohio DOT Bee Pollinator Program](#)
- [Texas DOT "Wildflower Facts" and "Monarch Butterfly Rest Areas Coming to Texas Highways"](#)
- [Vermont Agency of Transportation, "State Highway System Mowing BMPs"](#)
- [Virginia DOT Pollinator Habitat Program and "Protect Pollinator" license plates](#)
- [Washington State DOT "Pollinators and the Roadside" web page](#)



U.S. Department of Transportation
Federal Highway Administration

Questions and feedback should be directed to David Cohen (David.Cohen@dot.gov, 202-366-8531) or Deirdre Remley (Deirdre.Remley@dot.gov, 202-366-0524).

For More Information

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http://www.environment.fhwa.dot.gov/ecosystems/vegmgmt_pollinators.asp





Tina Markeson
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We all have a stake in **A to B**







Engineering Needs

Native Plant Characteristics

Soil Stabilization

- Deep roots and diverse root zone to better hold soil

Water Infiltration

- Interception and infiltration of more water than low diversity single species turf grass

Minimum Long-term Maintenance

- Legume provide nitrogen fixation to improve soil fertility
- Diverse, established prairie better resist invasion of undesirable plants

Blowing Snow Control

- Tall grass prairie mixes, trees, and shrubs can capture snow prior to blowing onto road

View enhancement/protection

- Native trees and shrubs can disperse headlight glare, provide screening from unwanted views,



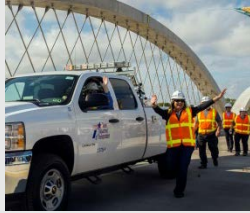
For More Information

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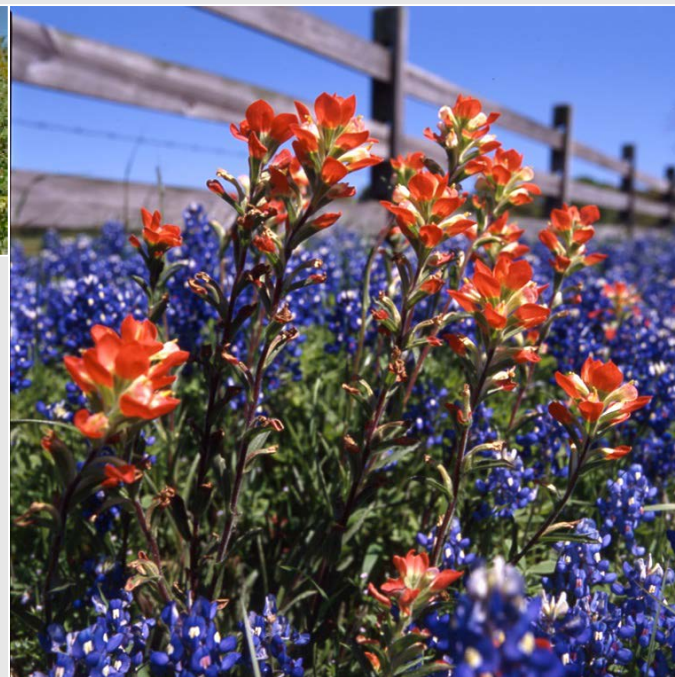


TEXAS DEPARTMENT OF TRANSPORTATION



TxDOT MONARCH ACTIVITIES





HABITAT CONSERVATION

TxDOT Wildflower Program

- TxDOT Maintenance Division
 - Safe and efficient travel
 - 1,100,000 acres roadway/ROW
 - 800,000 acres vegetation
- TxDOT Wildflower Program
 - Began in 1930's
 - Reduce cost, aesthetically pleasing, blends with local surroundings
 - “Don't mow until the wildflowers have gone to seed” – properly timed mowing twice a year after spring and fall blooms.
 - Preservation leads to propagation



Mowing

- Mowing is critical
- Wait until wildflowers set seed
- This reduces the cool season component to allow warm season grass establishment
- This also helps spread wildflower seed for the following year
- 7 inch minimum height allows perennial to flourish with the reduction of shade component
- 7 inch minimum will not harm some of the later blooming pollinator plants
- Non-mow areas are established for fall pollinator habitat and reduction of maintenance costs

- Challenges
 - Conflicting public expectations
 - wildflowers = weeds
 - milkweed = toxic to livestock
 - TxDOT continues to respond to agricultural concerns
 - Varies across state
- National Pollutant Discharge Elimination System (NPDES)
 - Storm water runoff/soil erosion prevention.
 - 70% perennial vegetative cover
 - Need to combine efforts- grass and pollinator mix



Cooperative efforts with Resource Agencies:

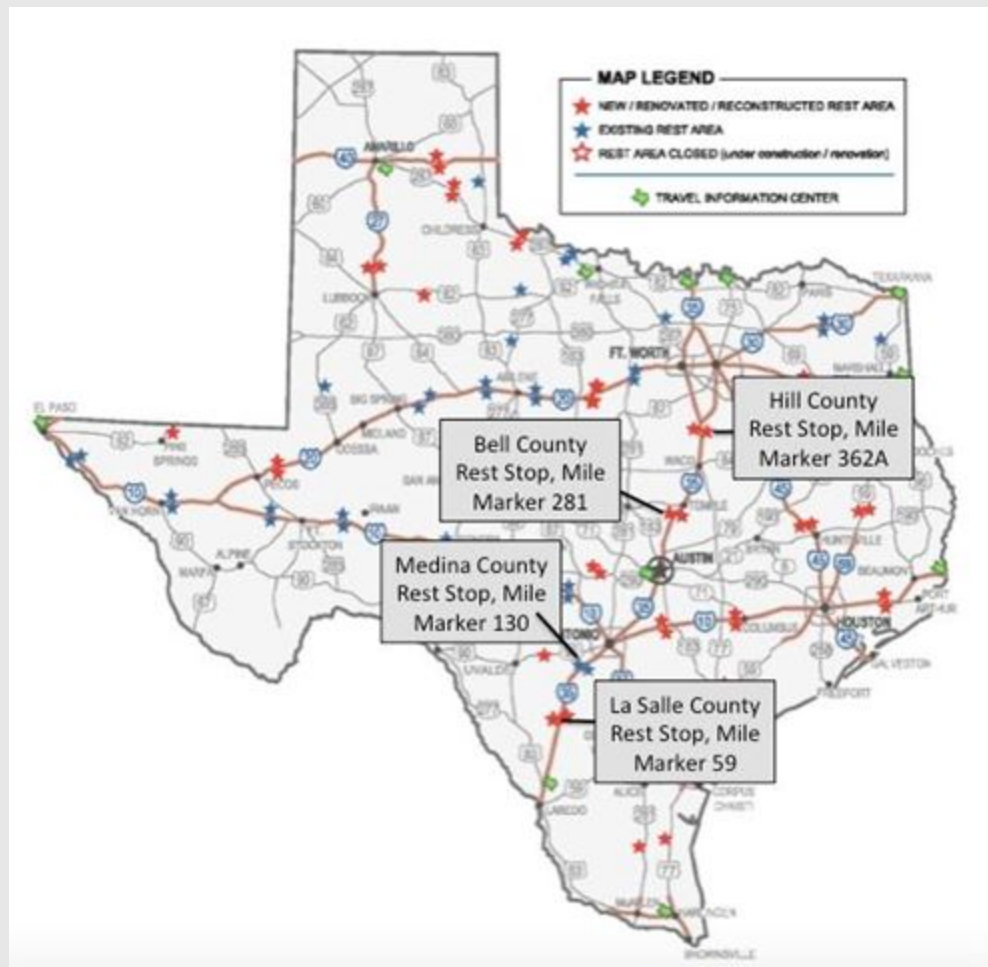
- Texas Monarch and Native Pollinator Conservation Plan
- Guadalupe-Blanco River Trust
- Texas Parks and Wildlife
- Lady Bird Johnson Wildflower Center
- Lower Colorado River Authority
- National Wildlife Federation
- Texas Comptroller of Public Accounts
- Texas Department of Transportation
- USDA Natural Resources Conservation Services
- U.S. Fish and Wildlife Service
- University of Texas at San Antonio



EDUCATION AND OUTREACH

Monarch Waystations at TxDOT Safety
Rest Areas





- Safety Rest Areas
 - 12 Travel Information Centers
 - 80 Safety Rest Areas
 - 21 major highways

Monarch Waystations

- Cooperative agreement between USFWS and Native Plant Society of Texas
- Will include native nectar- and host-plants and interpretive signage
- 4 underway
 - Hill County Safety Rest Area (paired) on IH 35 near Hillsboro
 - Bell County Safety Rest Area (paired) on IH 35 near Salado
 - Others in future
 - Developing promos to be broadcast at the rest areas
 - Developing pamphlets to be distributed at the rest areas



- Train TxDOT licensed Herbicide Applicators (1300 licensed employees) during Pesticide Recertification Courses
 - Vegetation & Wildflower Identification
 - Proper Herbicide Timing and Applications
 - Mandatory, Annual Trainings
- Train Directors of Maintenance (DOM)
 - Importance of Pollinator Plants, their Placement, Propagation and Maintenance
 - Seed Mix Recommendations
 - Biennial Meetings
- Information Pamphlet Development & Wildflower Guides



RESEARCH AND MONITORING

- Milkweed Propagation Project - 2015
 - Mid-Coast Chapter Master Naturalists
 - 1,094 plants of Green antelope horn milkweed (*Asclepias viridis*) on US 77 in Victoria County.
 - Appropriate for collection and research.
- South Texas Natives and Texas Native Seeds Projects – 2001-present
 - Caesar Kleberg Wildlife Research Institute at TAMU-Kingsville, Texas AgriLife, Tarleton State University, Sul Ross State University
 - 30 varieties to add to TxDOT seed mixes.
 - 15 of 25 districts amended
 - Project to bring locally grown seed to the commercial market.

Seed Mix Recommendations

■ Developing Regional Pollinator Seed Mixes

■ Current Mix Includes:

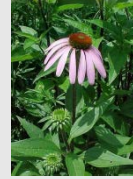
- Lance Leaf Coreopsis (*Coreopsis lanceolata*)

- ½ lb/A



- Purple Coneflower (*Echinacea pupurea*)

- ½ lb/A



- Blanket Flower (*Gaillardia aristata*)

- ½ lb/A



- Butterfly Milkweed (*Asclepias tuberosa*)

- ¼ lb/A



- Showy Evening Primrose (*Oenothera speciosa*)

- ¼ lb/A



- Black-eyed Susan (*Rudbeckia hirta*)

- ½ lb/A



* Photos obtained from Missouri Botanical Gardens; <http://www.missouribotanicalgarden.org>

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Vegetation Management Pollinator Habitat Program



Managing for Pollinators is Consistent with Transportation Priorities

- **Safety**
 - Wildflower perennials & grasses are not favored by deer
 - Mowing only the shoulder allows line of sight, space for motorists to pull-off, prevents encroachment of shrubs/trees
- **Protection of roadway/roadside assets**
 - Native vegetation stabilizes slopes & reduces erosion; increases stormwater/nutrients retention due to deep roots; fit for our climate/less maintenance
 - Native plants can be the best defense against invasives & provide a smooth transition to adjacent properties
- **Efficient management of woody vegetation**
 - Reduced mowing saves money
 - Maintenance of problem vegetation reduced
- **Collateral benefit:**
 - Excellent PR in helping bring back pollinator species & Monarchs, one of America's iconic species
 - Reduction in use of herbicides

How does this Project fit into VDOT?

- VDOT Vegetation Management Program has initiated a renewed effort to develop & implement an Integrated vegetation management strategy that applies statewide.
 - Basis of IVMP include:
 - Mechanical
 - Chemical
 - Biological
 - Cultural
- The Pollinator Habitat Program is a part of VDOT's IVM Program.





What is IRVM?

Integrated roadside vegetation management is an approach to right-of-way maintenance that combines a variety of management techniques with sound ecological principles to establish and maintain safe, healthy, functional roadsides.

IRVM can include judicious use of herbicides, spot mowing, habitat management & development, prescribed burning, mechanical tree and brush removal and the prevention and treatment of erosion and other disturbances to the right-of-way.

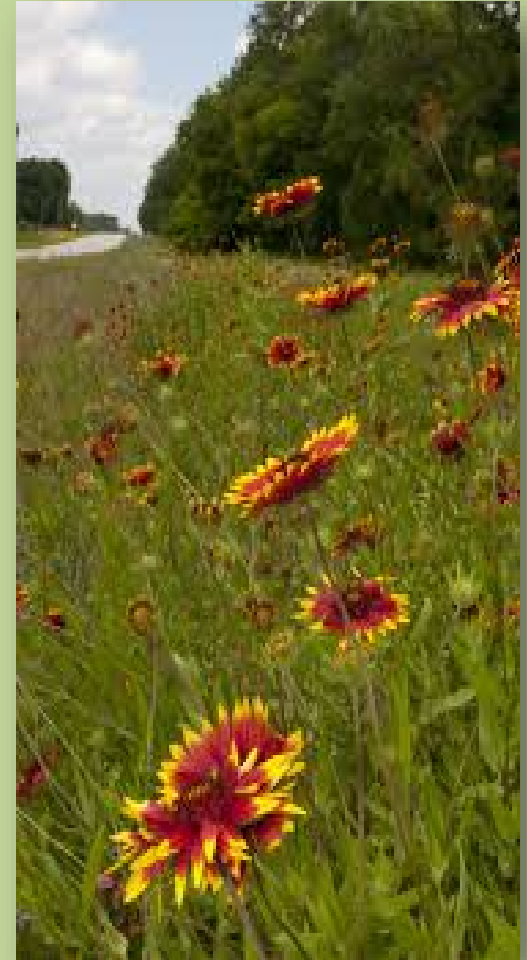
Benefits of an Effective IRVM Program

- Safety
- Economic
- Flexibility
- Environmental
- Appearance
- Positive Public Relations/Education



Importance of Native Roadside Vegetation

- 🌸 Improves water quality
- 🌸 Increases soil retention
- 🌸 Improves aesthetics
- 🌸 Encourages tourism/economy
- 🌸 Offers habitat
- 🌸 Saves maintenance \$\$
(less mowing, pesticide/herbicide use, sustainable)
- 🌸 Reduces driver fatigue/hypnotics
- 🌸 Discourages invasive take over





Support From the TOP

For Immediate Release

June 20, 2014

Presidential Memorandum -- Creating a Federal Strategy to Promote the Health of Honey Bees and Other Pollinators

"... Pollinator losses have been severe. The number of migrating Monarch butterflies sank to the lowest recorded population level in 2013-14, and there is an imminent risk of failed migration. The continued loss of commercial honey bee colonies poses a threat to the economic stability of commercial beekeeping and pollination operations in the United States, which could have profound implications for agriculture and food. Severe yearly declines create concern that bee colony losses could reach a point from which the commercial pollination industry would not be able to adequately recover. The loss of native bees, which also play a key role in pollination of crops, is much less studied, but many native bee species are believed to be in decline. Scientists believe that bee losses are likely caused by a combination of stressors, including poor bee nutrition, loss of forage lands, parasites, pathogens, lack of genetic diversity, and exposure to pesticides..."

A close-up photograph of two black butterflies with white markings on their wings, perched on a vibrant red, brush-like flower. The background is a soft-focus green.

What IS a Pollinator?

A **pollinator** is an animal that causes plants to make fruit or seeds. They do this by moving pollen from one part of the flower of a plant to another part, or from one plant to another, to fertilize the plant. Only fertilized plants can make fruit and/or seeds. Without fruit and/or seed plants cannot reproduce.



Why do we care?

- *Pollinators contribute substantially to the economy of the United States and are vital to keeping fruits, nuts, and vegetables in our diets. Over the past few decades, there has been a significant loss of pollinators—including honey bees, native bees, birds, bats, and butterflies—from the environment. The problem is serious and poses a significant challenge that needs to be addressed to ensure the sustainability of our food production systems, avoid additional economic impacts on the agricultural sector, and protect the health of the environment.*
- Pollinators contribute more than **24 billion dollars** to the United States economy, of which honey bees account for more than **15 billion dollars** through their vital role in keeping fruits, nuts, and vegetables in our diets.
- Native wild pollinators, such as bumble bees and alfalfa leafcutter bees, also contribute substantially to the domestic economy. In 2009, the crop benefits from native insect pollination in the United States were valued at more than **9 billion dollars**.
- The Monarch butterfly migration, an iconic natural phenomenon that has an estimated economic value in the **billions of dollars**, sank to the lowest recorded levels this winter, with an imminent risk of failure.



PHP Funding

Support the Program With a License Plate Purchase.

The Pollinator Habitat program is currently funded through the purchase of the Wildflower license plate.



Through newly passed legislation, the purchase of the new pollinator license plate will now (after July 1, 2016) yield money specifically for VDOT's PHP.



Thank you!

Legislative language

WILDFLOWER PLATE.

§ 46.2-749.29. Special license plates; supporters of Operation Wildflower; fees.

A. On receipt of an application and payment of the fee prescribed by this section, the Commissioner shall issue special license plates to supporters of Operation Wildflower.

B. The annual fee for plates issued pursuant to this section shall be twenty-five dollars in addition to the prescribed fee for state license plates. For each such twenty-five-dollar fee collected in excess of 1,000 registrations pursuant to this section, fifteen dollars shall be paid into the state treasury and credited to a special non-reverting fund known as the Operation Wildflower Fund, established within the Department of Accounts. These funds shall be paid annually to the Virginia Department of Transportation and used to support its Operation Wildflower program. 1999, c. [883](#).

PROTECT POLLINATORS PLATE.

SENATE BILL NO. 434; Offered January 13, 2016; Prefiled January 12, 2016

A BILL to amend and reenact Chapter 690 of the Acts of Assembly of 2014, relating to special license plates for supporters of pollinator conservation bearing the legend: PROTECT POLLINATORS.

Patrons—Barker and Deeds; Referred to Committee on Transportation

§ 1. Special license plates for supporters of pollinator conservation bearing the legend: PROTECT POLLINATORS.

A. On receipt of an application *and payment of the fee prescribed by this section* and following the provisions of § 46.2-275 of the Code of Virginia, the Commissioner of the Department of Motor Vehicles shall issue to the applicant special license plates for supporters of pollinator conservation bearing the legend: PROTECT POLLINATORS.

B. The annual fee for plates issued pursuant to this section shall be \$25 in addition to the prescribed fee for state license plates. For each such \$25 fee collected in excess of 1,000 registrations pursuant to this section, \$15 shall be paid into the state treasury and credited to a special non-reverting fund known as the Pollinator Habitat Program Fund established within the Department of Accounts. These funds shall be paid annually to the Virginia Department of Transportation and used to support its Pollinator Habitat Program in Virginia. All other fees imposed under the provisions of this section shall be paid to, and received by, the Commissioner of the Department of Motor Vehicles and paid by him into the state treasury and set aside as a special fund to be used to meet the necessary expenses incurred by the Department of Motor Vehicles.

Sites We Chose & Why

- **Park & Rides/Safety Rest Areas**
 - Safety
 - Education
 - Promotes tourism through improved aesthetics
 - Easily Maintained by volunteers
- **Undeveloped Rest Areas**
 - Reduced maintenance needs
 - Sustainable
- **Overlooks/VDOT Memorial**
 - PR Opportunities
 - Shows respect for fallen comrades





2014 Pilot Program Timeline



July 2014 – Central Office Vegetation Management staff (COVMS) meets with citizen group (CG) regarding mowing practices pertaining to milkweed plants and Monarch butterflies

August 2014 – COVMS & CG begin searching for funding for alternative, safe pollinator plantings

September 2014 – CG receives grant from Dominion Trust/ VA Dominion Power indicates interest in providing volunteers for project

October 29 2014 – Four pilot pollinator plots are planted



Partners & their Parts

VDOT Central Office Vegetation Management

- Overall project management
- Locate sites/Mark/Spray
- Initiate permit process
- Coordinate with NoVA AHQs/Residencies/P&R/SRA staff
- Technical support
- Public Relations/Communication



Dominion Virginia Power

- Volunteers (community service hours)
- Equipment

Loudoun Wildlife Conservancy

- Grant administration
- Order plants/Mulch/Topsoil
- Technical Expertise



Initial Native Species Planted

- Common milkweed (*asclepias syriaca*)
- Swamp milkweed (*asclepias incarnata*)
- New England Aster (*Aster nova-angliae*)
- Purple Coneflower (*Echinacea purpurea*)
- Joe Pye (*Eupatorium maculatum*)
- Bee balm/Oswego Tea (*Monarda didyma*)
- Bergamot (*Monarda fistulosa*)
- Wrinkle-leaved Goldenrod (*Solidago rugosa*)
- Blue-stem Goldenrod (*Solidago caesia*)
- New York Ironweed (*Vernonia noveboracensis*)
- Stiff Goldenrod (*Solidago rigida*)
- Hoary Mountain Mint (*Pycnanthemum incanum*)
- Black-eyed Susan (*Rudbeckia fulgida* 'Goldsturm')

The plants will attract a multitude of pollinators including native and honey bees, monarchs and other butterfly species, hummingbirds and beetles. Additional natives have been added. The most recent plantings contain about 23 different species plus several native shrubs beneficial to pollinators.

2014 It All Comes Together!





2015 Program Timeline



December 2014 & before – Initial site for 2015 determined. Partners contacted. VA Dominion Power indicates interest in providing volunteers and small amount of funding for project. Needs assessment.

July 2015 – Monies from wildflower license plates centralized (\$180K) Begin development of 5 year plan for SRA installations/education.

August 2015 – Gather information for web site. Kiosks commandeered for education displays. Line up vendors, partners, procure contractor to prep 15,000 sq. ft. site.

Early September 2015 – Site prep conducted. Diseased trees & stumps removed, area de-turfed, tilled & mulched in preparation. Plants start arriving (23 species, including milkweeds).

September 29, 2015 – First large scale pollinator habitat site planted. PBS films it, White House interested. Over 50 volunteers.

Large Scale 2015



2015 MEADOW PLANTING



Planted fall 2014



OUR TEAM



- **Other 2015 Activity.**

- Statewide revision of mowing practices to encourage native populations along roadways.
 - **From BMP Manual: Pollinator Habitat Program**-Every effort should be made to preserve native pollinator plant species including but not limited to milkweed. Many of these plants are located within “Additional Mow Areas” and it is recommended that mowing of these areas occur in March and/or after October 31st. If there are large areas of pollinator species within the parameters of “Mow Areas” and there is no safety issue, delineate the areas and mow in March and/or after October 31st. Please contact the State Roadside Manager or District Roadside Manager for guidance regarding the pollinator habitat program.
- Pilot seeding projects in Bristol District to determine what native seeds perform best/best planting methods.

- **Going Forward.**

- **Education signs** installed summer/fall 2016 to explain program/differences in maintenance practices.
- Gardens & Interpretive signage in most State Rest Areas.
 - Goal is 5-7 sites per year.
 - 5 sites contracted for 2016/2017.
- Native seed mixes used on roadsides and in select medians statewide.
- Statewide education campaign/website/signage.

- **Partnerships created.**

- | | |
|--|---|
| – Virginia Dominion Power/Dominion Trust | -- PBS Films |
| – Valley Land | -- White House Office of Science & Technology |
| – Loudoun Wildlife Conservancy | -- Virginia Native Plant Society |
| – Virginia Tourism Corporation | |
| – MonarchWATCH | |

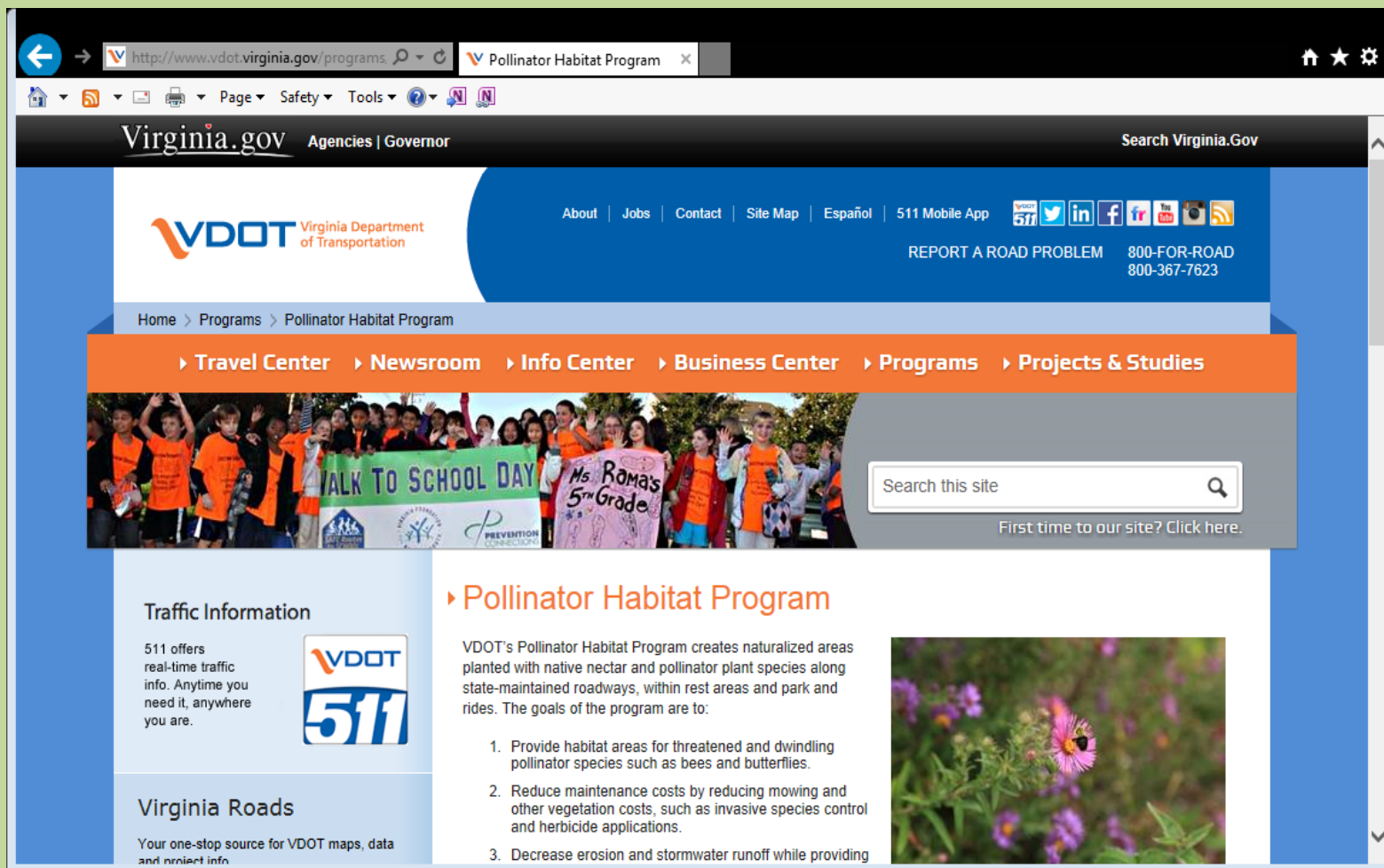
Pollinator Habitat Program Recognition

- The White House Office of Science & Technology invited VDOT to speak at a nationwide DOT forum in November 2015.
- AASHTO is featuring the VDOT PHP as a Case Study on the AASHTO Center for Environmental Excellence webpage.
http://www.environment.transportation.org/environmental_topics/invasive_species/case_studies.aspx#bookmarksubVDOTProgramAidsPollinatorsWhileSupportingTransportationGoals
- The program was blogged about on the National Geographic “The Plate” blog with the title *“Are Highway Rest Stops Pollinators’ Last Hope?”*
- PBS Films was present at the September meadow planting & will be including information in a film to be released in 2017.
- The PHP received a Virginia Green Travel Star Innovation Award for its commitment to green tourism practices.
- VDOT TV has produced at least 2 videos regarding the Pollinator Habitat Program.



New Webpage

A webpage for the program has been added to the VDOT website.



The screenshot shows the Virginia.gov website with the Pollinator Habitat Program page. The browser address bar displays <http://www.vdot.virginia.gov/programs>. The page header includes the Virginia.gov logo, navigation links for Agencies and Governor, and a search bar. The VDOT logo and Virginia Department of Transportation text are prominently displayed. A navigation menu lists various sections: Home, Programs, Pollinator Habitat Program, Travel Center, Newsroom, Info Center, Business Center, Programs, and Projects & Studies. A large banner image shows a group of children participating in a 'WALK TO SCHOOL DAY' event, holding a sign that reads 'Ms. Roma's 5th Grade'. A search bar is located on the right side of the banner. Below the banner, the 'Pollinator Habitat Program' section is highlighted. It includes a description of the program's goals and a list of three objectives. A small image of a bee on a flower is also present.

Virginia.gov Agencies | Governor Search Virginia.Gov

VDOT Virginia Department of Transportation

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REPORT A ROAD PROBLEM 800-FOR-ROAD 800-367-7623

Home > Programs > Pollinator Habitat Program

Travel Center Newsroom Info Center Business Center Programs Projects & Studies

WALK TO SCHOOL DAY Ms. Roma's 5th Grade

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511 offers real-time traffic info. Anytime you need it, anywhere you are.

Virginia Roads

Your one-stop source for VDOT maps, data and project info.

Pollinator Habitat Program

VDOT's Pollinator Habitat Program creates naturalized areas planted with native nectar and pollinator plant species along state-maintained roadways, within rest areas and park and rides. The goals of the program are to:

1. Provide habitat areas for threatened and dwindling pollinator species such as bees and butterflies.
2. Reduce maintenance costs by reducing mowing and other vegetation costs, such as invasive species control and herbicide applications.
3. Decrease erosion and stormwater runoff while providing

http://www.virginiadot.org/programs/pollinator_habitat_program.asp

Other IVMP Initiatives

- Review Mowing Practices
- Use of Native Seed mixes vs. high maintenance turf varieties in construction and other projects
- Landscape plans conducive to site
 - Right tree/right place
 - Proper care & maintenance to minimize safety concerns & removal & replacement costs
- Education in respect to mowing practices & IVMP practices
 - /public/legislative/operators/ management



How to Contact Us

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Questions?



Please remember to type in
your questions to the chat
prompt.

Thank you for participating!

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