

A blurred photograph of a multi-lane highway with several cars in motion. In the foreground, there is a field of tall, thin grasses with small orange and yellow flowers. The background shows a clear sky and distant mountains.

Natural Resources Research Updates

CES Research Task Force Members

Kris Gade, Arizona DOT

Jana Ratcliff, Washington State DOT

CES Summer Meeting - August 7, 2019

Stormwater Research

Recently completed

- 25-51- Limitations of the Infiltration Approach to Stormwater Management in the Highway Environment – *Final report available.*
- 25-54 – Field Testing of BMPs Using Granulated Ferric Oxide Media to Remove Dissolved Metals in Roadway Stormwater Runoff – *Final report under review.*
- 25-53 – Approaches for Determining and Complying with TMDL Requirements Related to Roadway Stormwater Runoff – *Final report anticipated late 2019.*
- 15-61 – Applying Climate Change Information to Hydrologic and Hydraulic Design of Transportation Infrastructure – *Final report anticipated late 2019.*

Stormwater Research

Research underway

- 25-25 Tasks 119 and 120 – Enhancing the International Stormwater BMP Database to Serve as a Highway Specific BMP Database and Use of the State Department of Transportation Portal to the International Stormwater BMP Database – *Completion in late 2019.*
- 14-39 – Using Vegetated Compost Blankets to Achieve Highway Runoff Volume and Pollutant Reduction – *Completion in April 2021.*
- 25-60 - Watershed Approach to Mitigating Hydrologic Impacts of Transportation Projects – *Completion in late 2021.*

Stormwater Research

Anticipated research in 2020

- 25-61: Effective On-Bridge Treatment of Stormwater

Current TERI topics in development

- Highway Stormwater Management Training Materials and Electronic Resource Library



L to R: WSDOT bioswale, monitoring equipment at Vegetated Filter Strip and at a roadside embankment study site.

Bat Research (25-25:102)

- 25-25:102 - Artificial Bat Roost Mitigation Designs & Standardized Monitoring Criteria
 - [Final report](#)
 - [BMP manual](#)



Left to Right: Northern long-eared bat; Gray bat; Indiana bat. Photo credits ESI®

Wildlife Crossing Research

- 25-25 Task 113: Highway Passages for Small Terrestrial Wildlife – Summary and Repository of Examples – *completion in 2019*
- 25-25 Task 117: Valuing Wildlife Crossing Enhancements for Mitigation Credits – *completion in late 2019*
- Transportation Pooled Fund Study TPF-5(358): *Wildlife Vehicle Collision (WVC) Reduction and Habitat Connectivity*
 - *selecting tasks*
 - *shared TERI wildlife ideas*

Modified culvert with barriers.
Barbara Beasley, Highway4
Vancouver Island



Pollinator Research

- 20-119: Evaluating the Suitability of Roadway Corridors for Use by Monarch Butterflies - *Completion in late 2019.*
 - Landscape prioritization model
 - Rapid Assessment and Habitat Quality Calculator tools
 - <https://monarchjointventure.org/our-work/projects/roadsides-as-habitat-for-monarch-butterflies>
- 25-59: Pollinator Habitat Conservation Along Roadways – *Starting soon*



Jennifer Hopwood



Kris Gade



Monarch Joint Venture

Other Updates

Rights of Way as Habitat Working Group Meeting

- Sept. 9-10 in Cincinnati
- Green contracting and contract specs for veg management
- Pollinator Habitat Scorecard demo with Ohio DOT

AASHTO CES Workplace

- Link to NR Subcommittee page:

<https://my.workspace.com/groups/357364478223416>