



# At the Intersection of Construction and the Environment

**The Center for Environmental Excellence by AASHTO** offers diverse products and programs for technical assistance, training, information exchange, partnership-building opportunities, and quick access to environmental tools. The Center helps practitioners incorporate environmental compliance, sustainability, and stewardship into transportation planning, design, construction, maintenance, operations, project delivery and multimodal systems. For more information, please visit <http://environment.transportation.org>.

**How do Construction and Environmental Issues Intersect?** Transportation agencies work to avoid and minimize a variety of potential environmental impacts related to construction of transportation facilities. Issues include erosion and sedimentation control through stormwater management practices; minimizing impacts to environmentally sensitive areas and habitat; protecting cultural resources; minimizing construction noise and air emissions from equipment; preventing spread of

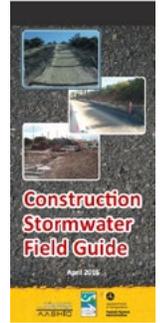


invasive species; and proper disposal of waste. Sustainable construction practices can reduce the environmental footprint, including use of recycled materials, permeable pavement technologies, and methods that shorten construction time and the amount of materials used. (Photo: Alabama DOT manages stormwater on construction projects, profiled in the Center's [Stormwater Webinar Series](#))

**Managing Stormwater:** Agencies develop plans to document how stormwater runoff from a construction site will be controlled. The Center has published a [Construction Stormwater Field Guide](#) explaining best practices for managing construction stormwater; outlining key actions to protect water quality:

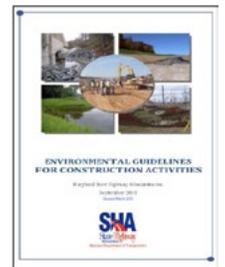
- reduce the time bare soil is exposed to rainfall by

- project sequencing and scheduling,
- use pollution prevention as a more practical and effective means compared to pollution removal,
- use effective combinations of erosion and sediment control measures on the construction site,
- use buffers of natural vegetation when construction sites are next to environmentally sensitive areas or water bodies,
- control the perimeter of the site with appropriate sediment controls,
- reduce the volume of construction site runoff wherever feasible,
- control offsite/onsite runoff during construction to protect slopes and disturbed areas,
- avoid disturbing natural channels, and
- stabilize bare soil areas as soon as possible to eliminate erosion.



Agencies also are implementing training and inspection requirements and have developed software used in the field to ensure compliance with permit conditions and environmental commitments. Examples, highlighted in the Center's [Stormwater Webinar Series](#) and on the [Water Quality](#) topic, include the Nebraska's Inspector

Certification Training program and Environmental Compliance and Oversight Database, and Maryland State Highway Administration's Erosion and Sediment Control Certification Program. (Image: Maryland SHA)



**Limiting Other Impacts:** Highway and transit construction can contribute to environmental impacts through air emissions from heavy duty equipment, dust, and noise from construction activities. Agencies use proper construction staging and design of phasing, such as night-time work and maintaining all lanes of traffic, to help mitigate and mitigate community impacts in construction work zones. Changes in the frequency or intensity of extreme weather also can require changes in construction schedules and use of more durable materials. Resources on such activities are provided in the Center's [Air Quality](#), [Infrastructure Resilience](#), and [Noise](#) topics.





# Resources for Construction Practitioners

The Center web site at <http://environment.transportation.org> offers access to a range of products and services for practitioners. The following resources are relevant to Construction Practitioners.

**The Center website includes 21 separate environmental topics pertinent to transportation.** Information can be sorted by discipline, mode, or state. **Topics of interest include:**

- Air Quality
- Context Sensitive Solutions
- Energy/Greenhouse Gas Emissions
- Environmental Justice
- Environmental Management Systems
- Geographic Information Systems
- Health & Human Environment
- Historic Preservation/Cultural Resources
- Indirect Effects/Cumulative Impacts
- Infrastructure Resilience
- Invasive Species/Vegetation Management
- MAP-21
- NEPA Process
- Noise
- Planning & Environment Linkages
- Project Delivery/Streamlining
- Section 4(f)/Section 6(f)
- Sustainability
- Waste Management/Recycling
- Water Quality/Wetlands
- Wildlife & Ecosystems

- **Construction Stormwater Field Guide:** This guide produced by the Center provides practical advice on best management practices in stormwater management for construction practitioners to use in the field.
- **Practitioner's Handbooks:** These handbooks provide practical advice on a range of environmental issues that arise during the design, construction, planning, development, maintenance, and operation of transportation projects and programs.
- **The Compendium of Environmental Stewardship Practices in Construction and Maintenance:** This comprehensive report includes thousands of effective practices used by DOTs across the country.
- **Transportation and Environmental Research Ideas (TERI) database:** TERI is a storehouse for tracking and sharing transportation and environment research ideas in over 20 topic areas.
- **Conference & Workshop Materials and Webinars:** The Center hosts a number of conferences, webinars, and workshops for technical assistance, training, information exchange, partnership-building opportunities. Materials are provided from peer exchanges on topics including transportation and health, noise, and effects of extreme weather events on highway construction.
- **Communities of Practice:** The Center facilitates an on-going dialogue with transportation practitioners in the topic areas of air quality, storm water management, and historic bridges.
- **Roadmap for Developing and Implementing Programmatic Agreements and the Programmatic Agreement Tracking Tool:** The Roadmap is a user-friendly web-based tool that guides practitioners through the process to develop and implement a programmatic agreement. The Tracking Tool provides a web-based template for state DOTs to track the benefits of programmatic agreements.

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## Center for Environmental Excellence by AASHTO Contact Information

How can we assist you? If you have a particular need for environmental information, technical assistance, partnership-building, or training, please contact us at [environment@transportation.org](mailto:environment@transportation.org).

