Research assists DOTs in green stewardship

In constantly striving to better deliver their core services, state transportation agencies have become champions of environmental research. It turns out that being a good steward of the environment is good for business.

Environmental research not only enables state DOTs to comply with standards quickly and efficiently but also to conserve resources and become better corporate citizens. AASHTO’s Standing Committee on the Environment helps state DOTs identify concerns related to natural, cultural, and social aspects of the environment, and NCHRP’s Project 25-25 series addresses states’ needs with quick-turnaround research.

**Fast answers to pressing questions**

Mia Waters of Washington State DOT relied on series 25-25 research results as the agency’s former manager for air, noise, and energy: “Series 25-25 research allows us on an annual basis to look at dynamic and emerging issues with confidence that we’ll get information we can act upon quickly.”

Waters points to U.S. DOT’s online Transportation and Climate Change Clearinghouse (climate.dot.gov), a product of NCHRP Project 25-25, as a prime example. “This research effectively addressed the pressing need for immediate access to climate change policies and practices at the state and federal level. This one-stop resource helps guide decisions on climate change throughout our entire agency.”

**An evolutionary process**

Bill Hauser, administrator of the Office of Stewardship and Compliance at New Hampshire DOT, notes that the quick-turnaround nature of series 25-25 research allows it to be evolutionary: “Critical questions raised in one study can be addressed in another.” Hauser cites the report from task 4, Environmental Stewardship Practices, Policies, and Procedures for Road Construction and Maintenance. “The report provided practical, hands-on examples of effective programs, solutions, and best practices,” says Hauser. “It also suggested the need to compile effective and economical practices for environmental stewardship at transportation maintenance facilities. Series 25-25 research made creating that valuable follow-up tool feasible.” The subsequent report is from task 46, Compendium of Best Practices for Environmental Compliance and Stewardship at Transportation Maintenance Facilities.

**State needs, national products**

Tim Hill, administrator for Ohio DOT’s Office of Environmental Services, agrees that series 25-25 research provides results critical to many states. “This program affords individual agencies the opportunity to raise local environmental issues and have them assessed impartially on a national level.”

Hill calls out series 25-25 research on historic bridges, tasks 15 and 19, which helped Ohio DOT preserve those aspects of bridges that made them historically significant while upgrading other elements. “While this addressed a specific need in our state, the end result was a product of national value: AASHTO’s Guidelines for Historic Bridge Rehabilitation and Replacement.” Hill says these guidelines help states make environmentally conscious and cost-effective decisions.

Project 25-25 similarly delivered value nationwide in task 10, Alternative Mitigation Strategies/Early Mitigation: Streamlining and Achieving Net Benefits for the Natural Environment. Says Frannie Brindle, Geo-Environmental Natural Resource Unit manager for Oregon DOT, “By developing an integrated and programmatic approach to mitigation, this research helps states do more with limited financial resources.”


**Selected Series 25-25 Topics**

- Air and Water Quality
- Alternative and Early Mitigation Strategies
- Climate Change
- Community Impacts
- Construction and Maintenance
- Design-Build Issues
- Emissions and Greenhouse Gases
- Environmental Project Costs
- EPA Assessments and Impact Statements
- Geophysical Remote Sensing
- Historic Bridges and Places
- Land Development Impacts
- Noise Barriers
- Performance Measures
- Pollutant Discharge Elimination
- Road Construction and Maintenance
- Secondary Impacts and Cumulative Effects
- "Smart Growth" Initiatives
- Solar and Wind Power
- Stormwater Treatment
- Stream Restoration and Dam Removal

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