

TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Virginia DOT (VDOT)

INSTRUCTIONS:

Project Managers and/or research project investigators should complete a quarterly progress report for each calendar quarter during which the projects are active. Please provide a project schedule status of the research activities tied to each task that is defined in the proposal; a percentage completion of each task; a concise discussion (2 or 3 sentences) of the current status, including accomplishments and problems encountered, if any. List all tasks, even if no work was done during this period.

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|---|---|--|--|
| Transportation Pooled Fund Program Project # <i>(i.e, SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX))</i> TPF-5(268) National Sustainable Pavement Consortium | | Transportation Pooled Fund Program - Report Period: <input type="checkbox"/> Quarter 1 (January 1 – March 31) <input type="checkbox"/> Quarter 2 (April 1 – June 30) <input type="checkbox"/> Quarter 3 (July 1 – September 30) <input checked="" type="checkbox"/> Quarter 4 (October 1 – December 31) | |
| Project Title: <div style="text-align: center;">National Sustainable Pavement Consortium</div> | | | |
| Name of Project Manager(s): Ben Bowers | Phone Number: (434) 293-1423 | E-Mail Ben.Bowers@vdot.virginia.gov | |
| Lead Agency Project ID: VCTIR 103567 | Other Project ID (i.e., contract #): 448679 | Project Start Date: 7/1/2012 | |
| Original Project End Date: 6/30/2018 | Current Project End Date: 6/30/2018 | Number of Extensions: 0 | |

Project schedule status:

On schedule
 On revised schedule
 Ahead of schedule
 Behind schedule

Overall Project Statistics:

| Total Project Budget | Total Cost to Date for Project | Percentage of Work Completed to Date |
|------------------------|--------------------------------|--------------------------------------|
| \$558,944 ¹ | \$472,528 | 85% |

Quarterly Project Statistics:

| Total Project Expenses and Percentage This Quarter | Total Amount of Funds Expended This Quarter | Total Percentage of Time Used to Date |
|--|---|---------------------------------------|
| \$9,277 (1.6%) | \$9,277 | 85% |

¹ Contracted; total commitment \$665,000

Project Description:

Through a regional pooled fund, this program of research focuses on enhancing pavement sustainability. The initial project scope covers:

- ✓ Examine emerging sustainable materials, technologies, products and pavement systems, how to facilitate their adoption, and what testing approaches and methods are needed to implement these technological improvements.
- ✓ Identify an appropriate set of metrics that comprises all aspects of pavement sustainability and the adaption or development of tools designed to assess pavement sustainability on qualitative and quantitative scales.
- ✓ Examine how sustainability considerations will affect all aspects of pavement engineering and management such as planning, design, construction, maintenance, management, and reclamation and develop guidelines for integration of these tools into pavement/ asset management business processes.
- ✓ Investigate the effect of climatic change on regional pavement engineering in terms of design, construction, maintenance, and management.

Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):

- Presented the paper “Consideration of life cycle greenhouse gas emissions in a multi-objective optimization approach for sustainable pavement maintenance and rehabilitation programming” at the *Fifth International Symposium on Life-Cycle Civil Engineering*, Oct 16-19, Delft, the Netherlands.
- Participated in the final twinning meeting with LCE4Roads and delivered a presentation about the work of the consortium for the *1st European Road Infrastructure Congress*, Leeds, UK, Oct 18-20, 2016.
- Continued work on synthesizing long-term performance data from states with active in-place recycling programs.
- Planned the Fourth Technical Oversight Workshop in Blacksburg, VA.

Anticipated work next quarter:

- Present the paper “Non-Destructive In Situ Characterization of Elastic Moduli of Full-Depth Reclamation Base Mixtures” at the *2017 Annual Meeting of the Transportation Research Board*, Washington, DC and prepare the final version for publication.
- Continue work on the synthesis of long-term performance data from states with active in-place recycling programs.
- Design the experimental plan for the project on influence of additives on mix design of in-place recycled materials.

Significant Results:

Circumstance affecting project or budget. (Please describe any challenges encountered or anticipated that might the completion of the project within the time, scope and fiscal constraints set forth in the agreement, along with recommended solutions to those problems).

No problems were encountered in this quarter.

Potential Implementation: