

## 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.*

<b>Transportation Pooled Fund Program Project #</b> <i>(i.e., SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX))</i>  <b>TPF-5(268)</b>		<b>Transportation Pooled Fund Program - Report Period:</b> <input type="checkbox"/> Quarter 1 (January 1 – March 31) <input type="checkbox"/> Quarter 2 (April 1 – June 30) <input checked="" type="checkbox"/> Quarter 3 (July 1 – September 30) <input type="checkbox"/> Quarter 4 (October 1 – December 31)	
<b>Project Title:</b> <div style="text-align: center;"><b>National Sustainable Pavement Consortium</b></div>			
<b>Name of Project Manager(s):</b> Kevin Kenneth McGhee		<b>Phone Number:</b> (434) 293-1956	
<b>Lead Agency Project ID:</b> VCTIR 103567		<b>Other Project ID (i.e., contract #):</b> 448679	
<b>Original Project End Date:</b> 6/30/2018		<b>Current Project End Date:</b> 6/30/2018	
		<b>E-Mail</b> <a href="mailto:Kevin.McGhee@VDOT.Virginia.gov">Kevin.McGhee@VDOT.Virginia.gov</a>	
		<b>Project Start Date:</b> 7/1/2012	
		<b>Number of Extensions:</b> 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
\$225,036 *	\$128,247	57%

Quarterly Project Statistics:

Total Project Expenses and Percentage This Quarter	Total Amount of Funds Expended This Quarter	Total Percentage of Time Used to Date
\$26,330 (12%)	\$26,330	57%

\* Received; total committed = \$500,000

**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 adaptation 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.):**

- Continued working on the two initial projects.
  - (1) Measuring the Benefits of Emerging Materials and Construction Processes.
    - ✓ Completed the literature review of in situ recycling techniques, reviewing their cost, construction procedures, and expected service life, and summarizing available guidelines for treatment selection.
    - ✓ Summarized the results in a draft paper, “Developing Guidelines for the Selection of In-Situ Pavement Recycling Methods.”
  - (1) Consideration of the Use Phase in the Pavement Life-Cycle Assessment (LCA).
    - ✓ Submitted a paper titled “Probabilistic Lifecycle Assessment as a Network-Level Pavement Evaluation Tool for the Use and Maintenance Phases of Pavements” to the 93<sup>rd</sup> Transportation Research Board Annual Meeting.
    - ✓ Continued preparing a detailed project-level case study regarding the impact of several pavement phases on the results of a lifecycle assessment.
- Revised the problem statement for a third research project on using LCA for pavement type selection and shared the statement with consortium members to gain their feedback.
- Held a meeting of consortium Advisory Technical Committee September 5<sup>th</sup> 2013.
  - ✓ Presented the results of the I-81 case study
  - ✓ Presented the literature review on in situ pavement recycling technologies to the consortium members.
  - ✓ Presented the methodology proposed for incorporating the use phase in pavement LCA.
  - ✓ Reviewed progress and defined activities and goals for the upcoming year.

**Anticipated work next quarter:**

- Complete the detailed project-level lifecycle assessment case study and report on the results.
- Prepare a draft a report documenting the findings to date of the project, Consideration of the Use Phase in the Pavement Life-Cycle Assessment (LCA)
- Revise the problem statement for pavement type selection and share with consortium members for review and comment. Finalize the scope of the project based on the feedback received.

**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:**