**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.e, SPR-2(XXX), SPR-3(XXX) or TPF-5(XXX)*  **TPF-5(268)** | | **Transportation Pooled Fund Program - Report Period:**  🞎 Quarter 1 (January 1 – March 31)  🞎 Quarter 2 (April 1 – June 30)  🞎 Quarter 3 (July 1 – September 30)  🗹 Quarter 4 (October 1 – December 31) | |
| **Project Title:**  **National Sustainable Pavement Consortium** | | | |
| **Name of Project Manager(s):**  Ben Bowers | **Phone Number:**  (434) 293-1423 | | **E-Mail**  [Ben.Bowers@vdot.virginia.gov](mailto: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:

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| **Total Project Budget** | **Total Cost to Date for Project** | **Percentage of Work**  **Completed to Date** |
| $450,027 | $359,079 | 80% |

***Quarterly*** Project Statistics:

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| **Total Project Expenses**  **and Percentage This Quarter** | **Total Amount of Funds**  **Expended This Quarter** | **Total Percentage of**  **Time Used to Date** |
| $25,636 (5.7%) | $25,636 | 80% |

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| **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. |

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| **Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):**   * Continued work on incorporating LCA into the pavement-type selection process. * Continued work on integrating life-cycle environmental and cost assessment tools for supporting pavement management. * Initiated the new project to synthesize long-term performance data from states with active in-place recycling programs. * Made a presentation about the consortium at the 10th Meeting of the FHWA Sustainable Pavement Technical Working Group (SPTWG) in Chicago IL, December 9, 2015. * Prepared a collaborative presentation for the Annual Meeting of the Transportation Research Board:   + Fernandez Flores, R., and Flintsch, G.W., “ECOLABEL (now LCE4ROADS) Project (EU) and National Sustainable Pavement Consortium Project (US),” for the invited session *Leveraging Knowledge Through Twinning of Research Projects: Three Twinned Projects from European Commission Horizon 2020 and FHWA*. * Collaborated in the following paper to be presented at the Annual Meeting of the Transportation Research Board:   + Bryce, J., Parry, T., Lo Presti, D. and Flintsch, G.W. “Approaches to Weighting within Transportation Infrastructure,” Paper No. 16-3987*, 95th Annual Meeting of the Transportation Research Board*, Jan 10-14, 2016, Washington, DC. |

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| **Anticipated work next quarter**:   * Continue work on incorporating LCA into the pavement-type selection process. * Continue work on integrating life-cycle environmental and cost assessment tools for supporting pavement management * Continue work on the synthesis of long-term performance data from states with active in-place recycling programs. * Participate in the Annual Meeting of the Transportation Research Board. |

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| **Significant Results:**   * Published the following peer-reviewed paper:   + Qiao, Y., Dawson, A., Parry, T. and Flintsch, G.W., “Evaluating the Effects of Climate Change on Road Maintenance Intervention Strategies and Life-Cycle Costs," *Transportation Research Part D: Transport and Environment*, 2015, vol. 41, pps. 492–503. [doi:10.1016/j.trd.2015.09.019](http://dx.doi.org/10.1016/j.trd.2015.09.019) (enhanced and expanded version of the paper presented at TRB in 2013). |

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| **Circumstance affecting project or budget. (Please describe any challenges encountered or anticipated that might affect 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. |

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| **Potential Implementation:** |