**TRANSPORTATION POOLED FUND PROGRAM**

**QUARTERLY PROGRESS REPORT**

Lead Agency (FHWA or State DOT): Virginia DOT \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**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 #**  TPF-5(339) | | **Transportation Pooled Fund Program - Report Period:**  XQuarter 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:**  Contaminant Release from Storm Water Culvert Rehabilitation Technologies: Understanding Implications to the Environment and Long-Term Material Integrity | | | |
| **Name of Project Manager(s):**  **Bridget Donaldson** | **Phone Number:**  **434-293-1922** | | **E-Mail**  Bridget.donaldson@vdot.virginia.gov |
| **Lead Agency Project ID:**  108449 | **Other Project ID (i.e., contract #):** | | **Project Start Date:**  3/2/2016 |
| **Original Project End Date:**  2/28/2018 | **Current Project End Date:**  2/28/2018 | | **Number of Extensions:**  0 |

Project schedule status:

X 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** |
| $630,000 | $8,320.18 | <2% |

***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** |
| $8,320.18 and <2% | $8,320.18 | <2% |

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| **Project Description**:   |  | | --- | | Studies by a subset of DOTs have discovered that the installation of advanced polymeric materials such as spray-on coatings and cured-in-place lining (CIPP) processes can release toxic chemicals into the water conveyed by the culverts. Numerous additional anecdotal accounts from the U.S and other countries have been reported regarding adverse effects to the environment and wastewater facilities. DOTs lack information on the degree that chemical leaching affects polymeric material long-term structural performance. Recent studies have shown some of the chemicals released into the environment by culvert rehabilitation polymeric materials are product ingredients intended to promote material strength and durability.  **Objectives:** The primary project objectives are to determine the following:  (1) The scope of the problem across DOTs (i.e., the extent of use of these technologies and the scale of their impacts to water quality);  (2)The effectiveness of existing construction specifications at minimizing contaminant release from rehabilitated culverts; and  (3) The degree to which the structural integrity and longevity of rehabilitated culverts are compromised by chemical leaching.  Results of this project will enable DOTs to make informed decisions with regard to culvert rehabilitation selection and specification development. | |  | |

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| **Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):**  Lead state representative and principle investigator had a pooled fund conference call with all member states (1-7-16)  All participating states were contacted to identify dates to conduct field site visits. Discussions are ongoing.  All participating states were contacted to identify the most popular types of culvert rehabilitation technologies used.  All participating states were sent a list of information requested for each field site/construction project.  Some field environmental sampling supplies were ordered.  One student has begun being paid from the contract. |
| **Anticipated work next quarter**:  Establish analytical methods for characterizing water samples collected from the field.  Setup field site visits with participating states.  Possibly, based on participating state feedback conduct a site visit.  Possibly, based on whether or not a site visit is conducted begin analyzing exhumed materials in the laboratory. |

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| **Significant Results:**  For this quarter, none at this time. |
| **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).**  For this quarter, none at this time. |

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| **Potential Implementation:**  The findings from this study will be used to provide DOTs two forms of guidance:  (1) a final report that will include recommended construction specifications to minimize environmental  impacts and maximize performance, and  (2) a hands-on training workshop about current and emerging culvert rehabilitation technologies,  specification considerations, and factors to consider for environmental and structural performance. |