**TRANSPORTATION POOLED FUND PROGRAM**

**QUARTERLY PROGRESS REPORT**

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

**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(454) | **Transportation Pooled Fund Program - Report Period:**□ Quarter 1 (January 1 – March 31) X Quarter 2 (April 1 – June 30)□ Quarter 3 (July 1 – September 30)□ Quarter 4 (October 1 – December 31) |
| **Project Title:**Update Precipitation Frequency Estimates for the Northwest (NOAA Atlas 14, Vol. 12) |
| **Name of Project Manager(s):**Megan Frye | **Phone Number:**(303) 396-9847 | **E-Mail**megan.frye@dot.gov |
| **Lead Agency Project ID:**FHWA | **Other Project ID (i.e., contract #):** | **Project Start Date:**June 3, 2020 |
| **Original Project End Date:**December 2023 | **Current Project** End Date:December 2023 | **Number of Extensions:** |

Project schedule status:

□ On schedule □ On revised schedule □ Ahead of schedule X Behind schedule

Overall Project Statistics:

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| **Total Project Budget** | **Total Cost to Date for Project** |  **Percentage of Work**  **Completed to Date** |
| $640,894 | $256,400 | 40% |

***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** |
| $173,500 | $173,500 | 40% |

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| **Project Description**:The purpose of this study is to determine precipitation frequency estimates for Idaho, Montana and other the Northwest States for durations of 5-minute through 60-day at average recurrence intervals (ARIs) of 1-year through 1,000-year. The estimates and associated bounds of 90% confidence intervals will be provided at 30 arc-sec resolution (approximately 800 x 800 m; varies with latitude). The study results will be published as volumes of NOAA Atlas 14, a wholly web-based publication available at www.nws.noaa.gov/ohd/hdsc. The publication will include the artifacts provided in previous NOAA Atlas 14 Volumes, including access through the Precipitation Frequency Data Server, base grids in standard formats together with error estimates, electronic copies of maps, charts of seasonal distributions and probabilistic temporal distributions of heavy precipitation, and detailed documentation. Updated areal reduction factors, which are needed to calculate analogous areal precipitation frequency estimates, will be developed as a separate appendix to NOAA Atlas 14 for the entire U.S. They include regional frequency analysis based on L-moments including error estimates, a combination of PRISM based techniques and CRAB for spatial interpolation, techniques for the analysis of climatic trend, temporal distribution and seasonality, internal consistency checks and variety of automated processes designed to enhance productivity. Intermediate results in the form of hourly and daily estimates at several ARIs will be distributed for peer review as will the final documentation. |

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| **Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.):**New Interagency Agreement (IAA) between FHWA and NOAA complete April 26, 2022.  |
| **Anticipated work next quarter**:Schedule progress meeting with project partners and continue work gathering data. |

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| **Significant Results:**Continue gathering data.  |
| **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).**Delay in finalizing the IAA with NOAA. Estimated timeline to complete the work still on track for Q4 of 2023. |

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| **Potential Implementation:** N/A |