

TRANSPORTATION POOLED FUND PROGRAM QUARTERLY PROGRESS REPORT

Lead Agency (FHWA or State DOT): Iowa Department of Transportation

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 of the current status, including accomplishments and problems encountered, if any. List all tasks, even if no work was done during this period.

Transportation Pooled Fund Program Project # TPF-5 (435)		Transportation Pooled Fund Program - Report Period: Quarter 1 (January 1 – March 31, 2022) X Quarter 2 (April 1 – June 30, 2022) Quarter 3 (July 1 – September 30, 2022) Quarter 4 (October 4 – December 31, 2022)	
Project Title: Aurora Program			
Project Manager: Tina Greenfield		Phone: 515-233-7746	E-mail: tina.greenfield@dot.iowa.gov
Project Investigator: Zach Hans		Phone: 515-294-8103	E-mail: zhans@iastate.edu
Lead Agency Project ID:	Other Project ID (i.e., contract #): Addendum 731	Project Start Date: January 1, 2020	
Original Project End Date: December 31, 2021	Current Project End Date: 12/31/2022	Number of Extensions:	

Project schedule status:

X On schedule On revised schedule Ahead of schedule Behind schedule

Overall Project Statistics:

Total Project Budget	Total Cost to Date for Project	Total Percentage of Work Completed
\$850,391	\$507,753	

Quarterly Project Statistics:

Total Project Expenses This Quarter	Total Amount of Funds Expended This Quarter	Percentage of Work Completed This Quarter
\$112,371	N/A	

Project Description:

The Aurora Program is a consortium of public agencies focused on collaborative research, evaluation, and deployment of technologies for detailed road weather monitoring and forecasting. Members seek to implement advanced road weather information systems (RWIS) that fully integrate state-of-the-art roadway and weather forecasting technologies with coordinated, multi-agency weather monitoring infrastructures; ultimately lessening adverse impacts of inclement weather.

Progress this Quarter (includes meetings, work plan status, contract status, significant progress, etc.). These efforts are identified below.

Program Administrative Activities:

- Managed Aurora website.
- Managed Aurora email list. In some cases, states requested multiple individuals be included in Aurora-related correspondence.
- Upon request, provided Aurora information to Arizona DOT for use justification for continued support of Aurora.
- Upon request, provided current Aurora commitment information to Arizona DOT.
- Coordinated on request by former Alaska DOT Board representative to change the pooledfund@iengineering.com list to another individual within the DOT.
- Coordinated on request by former Ohio DOT Board representative to change the pooledfund@iengineering.com list to another individual within the DOT.
- Upon request, addressed questions from Delaware DOT regarding the status of their possible renewed commitment to Aurora.
- Coordinated on request of support of the Aurora nominated project “Economic Impacts of Atmospheric Rivers in the Transportation Sector: Methodology and Case Studies” in the AASHTO Region 3 High Value Research competition.
- Changed email address for Pennsylvania DOT Board representative and coordinated in making the change to the pooledfund@iengineering.com list.
- Updated the Friends of Aurora list to reflect a change in a current member’s affiliation and, upon their request, provided availability for a conference call.
- Upon Friend of Aurora member request, provided availability for a conference call and shared information about Fall 2022 joint meeting.
- Aurora email list was used to distribute information regarding how Pennsylvania DOT This is how our Statewide Traffic Management Center determined the thresholds they would use to setup their RWIS alerts for situational awareness and messaging potential hazards, https://www.penndot.pa.gov/ProjectAndPrograms/operations/Documents/2021-April_TSMO-Performance-Report.pdf
- Continued tracking state commitments, which is pertinent to decisions regarding to the Spring 2022 project selection.
- Prepared Aurora Pooled Fund update for the National SICOP-Maintenance Operations Briefing on June 28, 2022.
- Attended National SICOP-Maintenance Operations Briefing on June 28, 2022.
- Shared information about the Fall 2022 meeting with a Friends of Aurora member and added another contact from their organization.
- Prepared and submitted minutes for the Spring 2022 meeting.
- Responded to a Friends of Aurora inquiry regarding a joint Fall 2022 meeting.
- Coordinated on a Colorado DOT request for an invoice related to their Aurora commitment.
- Requested formal proposals and budgets for top rated ideas submitted for Spring 2022.
- Distributed proposals/budgets for final selection in July 2022.
- Coordinated with Iowa DOT on multiple questions regarding the aforementioned proposals and budgets.

Facilitate Meetings and Conference Calls:

- Upon request, had meeting with [Particle Flux Analytics](#) regarding their current research efforts, including Sow Pixel and DEID.
- Finalized Spring 2022 meeting agenda, venue and activities. Agenda included Spring2022 project idea voting results and next steps, Aurora business, Fall 2022 meeting planning, round robin discussions, project kick-off “Optimal RWIS Sensor Density and Location – Phase IV”, other current project discussions and presentations from Particle Flux Analytics, Oregon DOT, FHWA, SICOP and Castle Rock Associates.
- Held Spring 2022 meeting in Portland, Oregon on May 17 – 19, 2022
- Sent a “When Is Good” request to the Aurora Board regarding the Fall 2022. The date previously selected during the Spring 2022 was no longer going to work for some members. Tentative meeting dates are now October 18 to 20, 2022.
- Held meeting with Aurora Board chair to discuss the Aurora Pooled Fund update for the National SICOP-Maintenance Operations Briefing on June 28, 2022.
- Facilitated or participated in all project-related meetings, including two meetings for 2020-03 Roadway Friction Modeling.
- Hosted Board member 60-Minute monthly conference calls on the following dates.
 - April 14, 2022
 - Spring meeting
 - Project idea solicitation
 - State reports
 - Other action items
 - May 12, 2022
 - Spring meeting
 - Project idea voting
 - Virginia DOT
 - Delaware DOT
 - Other action items
 - June 9, 2022
 - Spring meeting feedback
 - Project idea update
 - Fall meeting
 - Multi-awards for RWIS contracts
 - Other action items

Processing Travel Requests, Travel Reimbursements, and Meeting Expenses:

- Arranged travel for Board members attending the Spring 2022 meeting in-person, including utilizing flight credits from the Spring 2020, if possible.
- Processed Board reimbursement requests for Spring 2022 meeting travel-related expenses.

Project-Specific Activities:

- Tracked project status and prepared a summary for recently completed and active projects.
- Distributed quarterly reports and invoices for project team approval.
- Upon approval, submitted invoices to the Iowa DOT for payment.
- 2020-02 “Roadway Ice/snow Detection using a Novel Infrared Thermography Technology”.
 - Distributed quarterly report to project team and invoices, for approval, to project team.
 - Confirmed nine month no cost project extension.
- 2020-03 Roadway Friction Modeling
 - Distributed invoices and quarterly report to project team for review and approval.
 - Participated in a follow up meeting with the research team.

- Participated in project meetings (April 28 and May 9, 2022) with the research team and project team regarding progress to-date and possible scope change.
- Shared revised scope of work with Iowa DOT on June 24, 2022.
- Coordinated among WTI and pertinent Board members about return of loaned non-invasive sensors.
- Addressed NCAR invoicing/payment inquiry.
- 2021-06 Automated Extraction of Weather Variables from Imagery
 - Distributed quarterly reports and invoices for project team approval.
- 2021-05 Optimal RWIS Sensor Density and Location Ph IV
 - Held the project kick-off meeting during the Spring 2022 meeting.
 - Requested clarification regarding kick-off meeting presentation material.

Anticipated work next quarter:

Program Administrative Activities:

- Continue Aurora website updates.
- Manage budget.
- Track new solicitation contributions.
- Update the Aurora Charter, Work Plan and Associate Members, as needed.

Facilitate Meetings and Conference Calls:

- Continue monthly Board meeting calls to generate research ideas, discuss important issues and have vendor presentations.
- Identify venue for Fall 2022 meeting.
- Prepare draft agenda for Fall 2022 meeting.
- Distribute invitation to Fall 2022 meeting to Friends of Aurora.

Processing Travel Requests, Travel Reimbursements, and Meeting Expenses:

- Begin processing travel requests, as needed, for the Fall 2022 meeting.

Project-Specific Activities:

- Track project status and timelines.
- Request quarterly reports from research teams.
- Distribute project materials/updates and invoices (for approval) to project teams.
- Schedule and host project meetings.
- Maintain list of project champions and team members.
- Begin contracting of new projects (anticipated to be selected in July)
- 2020-02 "Roadway Ice/snow Detection using a Novel Infrared Thermography Technology".
 - Facilitate project activities as needed.
 - Continue to receive and distribute project updates and invoices.
 - Coordinate updates, if necessary.
- 2020-03 Roadway Friction Modeling
 - Facilitate project activities as needed.
 - Continue to receive and distribute project updates and invoices.
 - Coordinate receipt, project team review, editing and publication of final report.
- 2021-06 Automated Extraction of Weather Variables from Imagery

TPF Program Standard Quarterly Reporting Format

- Facilitate project activities as needed.
- Coordinate receipt, project team review, editing and publication of final report.
- 2021-05 Optimal RWIS Sensor Density and Location Ph IV
 - Continue to receive and distribute project updates and invoices.
 - Facilitate project activities as needed.
 - Coordinate updates, if necessary.

Significant Results:

- Held the Spring 2022 meeting, scheduled travel and addressed travel-related reimbursements.
- Requested formal proposals and budgets for top rated ideas submitted for Spring 2022. Distributed proposals/budgets for final selection in July 2022.
- Continued monthly Board meeting calls.
- Communicated with new Aurora representatives.
- Held project-related meetings and tracked projects.

Circumstance affecting project or budget: