

External Quarterly Report

Date of Report: 3rd Quarterly Report -June 30th, 2024

Contract Number: 693JK32310012POTA

Prepared for: DOT PHMSA

Project Title: A Framework for Improving Geohazard Monitoring, Data Integration, and Information Fusion at Scale

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For quarterly period ending: June 30th, 2024.

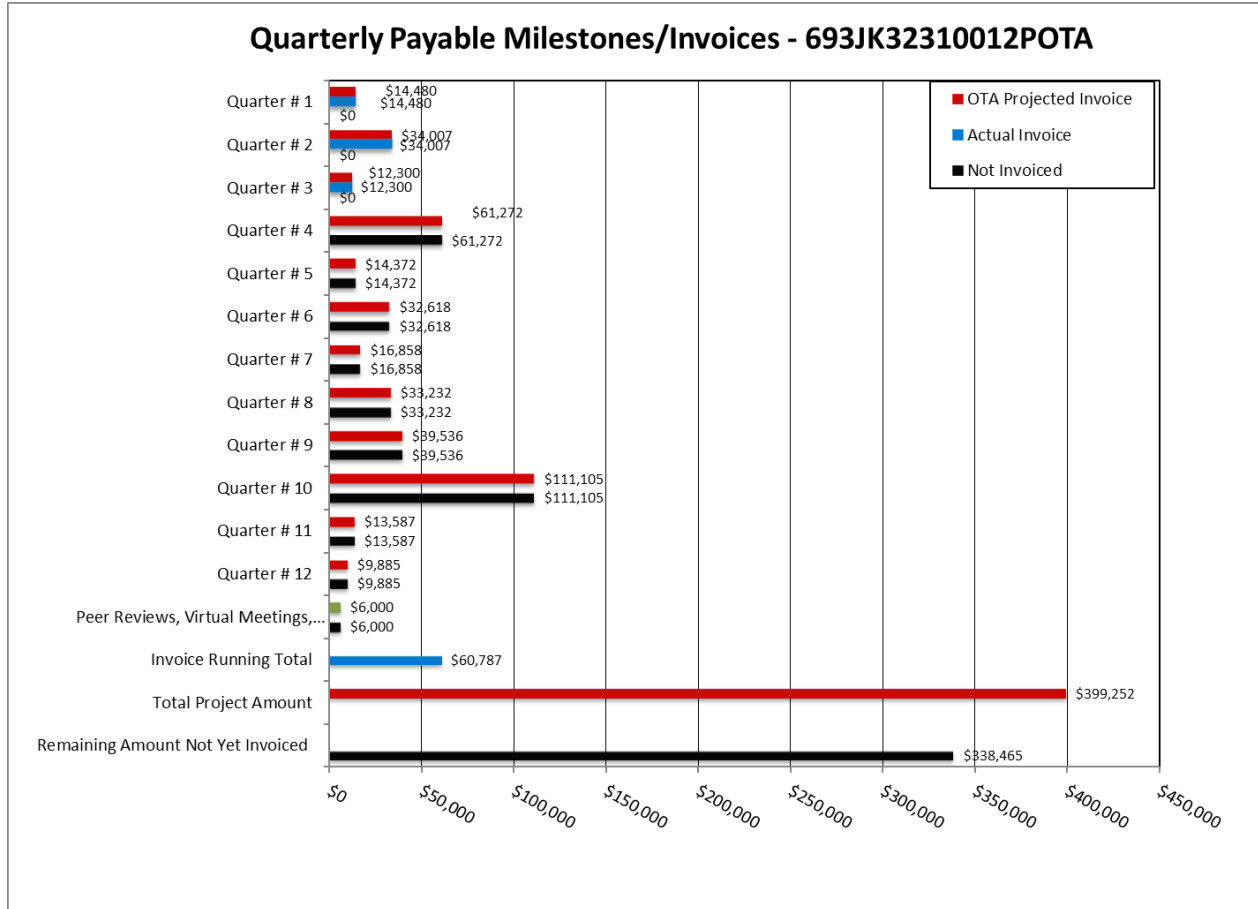
1: Items Completed During this Quarterly Period:

<i>Item #</i>	<i>Task #</i>	<i>Activity/Deliverable</i>	<i>Title</i>	<i>Federal Cost</i>	<i>Cost Share</i>
4	4	Standards Organization Outreach	Interim Report 1 on standards organization outreach	9,527.00	14,538.00
6	1	Project Kickoff, Stakeholder Identification, Requirements Development, and State-of-the-Art Documentation	Recommendations on stakeholder requirements for addressing system and schema	10,000.00	10,000.00
8	11	3rd Quarterly Status Report	Submit 3rd quarterly report	2,300.00	1,415.00

2: Items Not Completed During this Quarterly Period:

None

3: Project Financial Tracking During this Quarterly Period:



4: Project Technical Status

The missing standards outreach deliverable from Q2 has been completed. The project is now back on schedule and budget.

1. The standards outreach effort plan has been laid out in detail and discussed with the TAP. The report in Appendix 1 summarizes the planned approach and lists the standards organizations that will be approached. In Appendix 1 where stakeholder requirements are discussed, several standards are reviewed to identify the elements of the standards that the proposed data and modeling management architecture being developed in this project can support.
2. This interim report considers stakeholder requirements for an addressing system that encodes location in the analysis of geohazard data. The requirements are considered from three vantage points:
 - a. First, this report lays out technical capabilities needed for effective and efficient pipeline geohazard management within the context of a data? management lifecycle.
 - b. Next, this report considers existing standards that provide guidance for the technical execution toward the thematic goals of pipeline geohazard management.
 - c. Finally, we lay out a plan to obtain more detailed qualitative information from pipeline operators.
 - d. This report explores geohashing as a recommendation to fulfill these requirements.
 - e. Definitions, for the purpose of this report:
 - i. Addressing System A logical system that uniquely labels a location in space, like coordinate reference systems, geohashing, or mailbox address, so that data can be referenced to a location.
 - ii. Geohashing One of many addressing systems, a mathematical system which divides and assigns a unique identifier to a region on the Earth. Geohash identifiers are bytes versus lat / long coordinates which are numerical. For a longer discussion, see previous report.

End of report