

AQRP Monthly Technical Report

PROJECT TITLE	Improving Urban Representation in the High-Resolution WRF-CAMx Model and Evaluating the Effects on PBL and Ozone Prediction	PROJECT #	26-015
PROJECT PARTICIPANTS	Yuxuan Wang, James Flynn	DATE SUBMITTED	09/10/2026
REPORTING PERIOD	From: 08/01/2026 To: 08/30/2026	REPORT #	1

A Financial Status Report (FSR) and Invoice will be submitted separately from each of the Project Participants reflecting charges for this Reporting Period. I understand that the FSR and Invoice are due to the AQRP by the 15th of the month following the reporting period shown above.

Detailed Accomplishments by Task for reporting period

Task 1: Work Plan

- Work plan was submitted and approved. This task was completed.

Task 2: Monthly Technical Reports

- Ongoing

Task 3: Urban Classification in WRF

- Started downloading and preparing the urban data to replace the default single urban land-use category in the Weather Research and Forecasting (WRF) model with a 10 Local Climate Zones (LCZ) framework using the World Urban Database and Access Portal Tools (WUDAPT) datasets.

Preliminary Analysis

None

Data Collected

None

Identify Any Problems or Issues Encountered and Proposed Solutions or Adjustments

None

Goals and Anticipated Issues for the Succeeding Reporting Period

Goals: Continue working on Task 3.

Anticipated Issues: None.

Detailed Analysis of the Progress of the Task Order to Date

None

Do you have any publications related to this project currently under development? If so, please provide a working title, and the journals you plan to submit to.

☐ Yes ☒ No

Do you have any publications related to this project currently under review by a journal? If so, what is the working title and the journal name? Have you sent a copy of the article to your AQR Project Manager and your TCEQ Liaison?

☐ Yes ☒ No

Do you have any bibliographic publications (ie: publications that cite the project) related to this project that have been published? If so, please list the reference information. List all items for the lifetime of the project.

☐ Yes ☒ No

Do you have any presentations related to this project currently under development? If so, please provide working title, and the conference you plan to present it (this does not include presentations for the AQR Workshop).

☐ Yes ☒ No

Do you have any presentations related to this project that have been published? If so, please list reference information. List all items for the lifetime of the project.

☐ Yes ☒ No

Have any personnel changes occurred that were not listed in the original proposal? If so, please include a detailed description of the personnel change(s) below.

☐ Yes ☒ No

Are any delays expected in the progress of the research? If so, please include a detailed description of the potential delay below.

☐ Yes ☒ No

Describe any possible concerns/issues (technical or non-technical) that AQR should be made aware of.

**Are you anticipating using all the available funds allocated to this project by the end date?
If not, why and approximately what is the amount to be returned?**

☒ **Yes**

☐ **No**

Submitted to AQRP by
Yuxuan Wang