AQRP Monthly Technical Report

PROJECT TITLE	Texas Urban Vegetation BVOC Emission Source Inventory	PROJECT #	20-007
PROJECT PARTICIPANTS	Ramboll Alex Guenther Wildland Solutions Chris Geron	DATE SUBMITTED	4/12/2021
REPORTING PERIOD	**From:** March 1, 2021 **To:** March 31, 2021	REPORT #	9

A Financial Status Report (FSR) and Invoice will be submitted separately from each of the Project Participants reflecting charges for this Reporting Period. No activity was conducted by Wildland Solutions in March, so this report doesn't indicate any work performed by them. 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: High Resolution (8-day, 10-m) LAI and Vegetation Cover Fraction for Urban Texas
No work was performed on Task 1 during March 2021.

Task 2. BVOC Emitting Tree Distributions for Three Major Texas Urban Areas
No work was performed on Task 2 during March 2021.

Task 3. MEGAN and BEIS input data, processors and results
Ramboll and Dr. Guenther developed an improved approach for specifying canopy type in the MEGAN framework. We began working on developing new MEGAN emission factor processor approach that is both simpler and more robust than the previous system. Dr. Guenther created a test case to serve as example for creating Python program.

Task 4: Project Reporting and Presentation
Initiated description of Task 3 approach with an outline of the steps required to reproduce the procedures used for this project. Developed February MTR and FSR and submitted to AQRP.

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
Continue developing the relative abundance of high BVOC-emitting trees and other vegetation cover types for three Texas urban areas: San Antonio, Austin and Houston. Continue working on integrating urban vegetation cover data in an appropriate format for input to the MEGAN and BEIS biogenic emission models.

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 AQRP 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 AQRP 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 AQRP should be made aware of.
None.

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   Tejas Shah

Principal Investigator   Tejas Shah