

Exhibit C1 - Scope of Work

Section 3: Scope of Work

The proposed project aims to engage the community of Guadalupe in air quality monitoring and education on local air quality and pesticide concerns. The project will implement a network of low-cost sensors at community hubs and schools in Guadalupe and surrounding areas of the Santa Maria Valley. The purpose of the project is to gather data and support community education about air quality, wildfire smoke, and pesticide deposition. Air deposition samples will be collected and analyzed for pesticides. Air quality monitoring and pesticide sampling will coincide with community outreach and educational workshops.

The following objectives will be achieved by the proposed project:

1. Develop an effective technical work plan to guide project execution, community participation, refine project team responsibilities, and track progress.

2. Continuously monitor for PM 2.5, PM 10, NO₂, O₃, VOCs, and weather parameters (temperature, humidity, pressure, and wind speed and direction) at schools and community centers.
3. Conduct air deposition sampling to gather preliminary data on community pesticide exposure.
4. Develop a bilingual Guadalupe air monitoring website that community members and workers can use to track local air monitoring data in real time, find educational materials and resources relating to air quality, and ask questions through an online form.
5. Conduct bilingual community engagement activities to educate students and community members on local air quality, share data from community scale air monitoring, document community concerns, and gather input on preferences for community notifications about air quality and wildfire smoke conditions.
6. Hire one (1) project Fellow from the local community or nearby colleges/universities for workforce development, education, and training, and to foster additional community engagement.
7. Work with the SBCAPCD, California DPR, and UCSB to share project results, including air quality monitoring data, pesticide sampling data, community input, and preferences for new or improved air quality notifications about air quality and wildfire smoke conditions.

Each of the following tasks has been developed to address one of more of the seven project objectives listed above. Sub-tasks outline the scope of work needed to achieve project objectives. Deliverables and milestones are bulleted below each of the five main tasks, and their completion will be used to measure the success of each task.

Task 1: Work Plan Development

Objective 1: Develop an effective technical work plan to guide project execution, community participation, establish project team responsibilities, and track progress.

1.1 – Kick Off Meeting:

Subcontract agreements will be executed with Blue Tomorrow and a kickoff meeting will be held with the project team, advisors, and community partners. Project goals, air monitoring objectives, community participation, and responsibilities of each member of the project team will be discussed. The project timeline and dates for milestones will be reviewed. Requirements for the development of the technical work plan will be discussed including the five elements from Appendix E of CARB's Community Air Protection Blueprint Guidance.

1.2 – Technical Work Plan Development:

The technical work plan will include the five elements from Appendix E of CARB's Community Air Protection Blueprint Guidance. The work plan will describe the community participation from the schools and Guadalupe community groups. Monitoring tasks described in Task 2 of the project proposal will be included with responsible parties, objectives, and timeline for each.

Task 1 Deliverables & Milestones: March 2022 - April 2022

- *Executed subcontractor agreement between CEC and Blue Tomorrow (March 2022)*
- *Community partners notified about project and kickoff plans (March 2022)*
- *Project kickoff meeting completed (March 2022)*
- *Draft technical work plan completed (March 2022)*
- *Final work plan submitted and approved with partners (April 2022)*

Task 2: Monitoring

Objective 2: Continuously monitor for PM 2.5, PM 10, NO₂, O₃, VOCs, and weather parameters (temperature, humidity, pressure, and wind speed and direction) at schools and community centers.

Objective 3: Conduct air deposition sampling to gather preliminary data on community pesticide exposure.

Objective 4: Develop a bilingual Guadalupe air monitoring website that the community members can use to track local air monitoring data in real time, find educational materials and resources relating to air quality, and ask questions through an online form.

2.1 – System Development:

A total of five (5) custom air quality monitors will be assembled; four (4) for placement at Guadalupe community schools and parks; one for collocation and calibration purposes at the Santa Barbara County Air Pollution Control District (SBCAPCD) air monitoring station in the nearby City of Santa Maria. The monitors will be equipped with sensors that continuously detect and measure concentrations of PM 2.5, PM 10, NO₂, O₃, and VOCs. In addition to monitoring local sources of air pollution, PM 2.5 monitoring and data analysis will be set up to evaluate wildfire smoke impacts during periods when there are active wildfires in California. The monitors will also measure ambient temperature, humidity, and pressure, and wind speed and direction. In addition to the sensors, the monitors will be equipped with hardware that wirelessly transmits the data to a cloud database.

2.2 – Calibration:

Once monitors are developed, all sensors will be evaluated simultaneously to track data performance and consistency. Monitors will then be calibrated by collocating at the SBCAPCD monitoring station to develop calibration coefficients that will be applied to the raw measurements transmitted by the sensors. An initial screening for outliers will be conducted through the database for negative values and positive readings above realistic thresholds. Additional data review will be conducted for another layer of data quality assurance. Re-calibration of each of the five (5) monitors will be conducted on a quarterly basis to ensure measurements are as accurate as possible. Additional calibrations will be conducted for wildfire smoke monitoring during active wildfire smoke events.

2.3 – Installation

Proposed locations for the air quality monitors include Kermit McKenzie Intermediate School, Jack O’Connell Park, Leroy Park, Mary Buren Elementary School, Bonita Elementary School. Monitors will be sited following EPA air monitoring siting criteria, including placing the monitoring equipment near the typical breathing zone of 3 to 6 feet above ground level and away from vegetation or structures that could impede airflow. Once the monitors are installed, they will begin transmitting data to the cloud database and data quality check will begin.

2.4 – Website Development

A bilingual website will be developed that displays air quality data transmitted wirelessly from the monitors in near real-time (pollutant concentrations and AQI will be averaged appropriately depending on the pollutant and sensor). After network installation, data transmitted to the website will be evaluated for consistency, accuracy, and potential errors. Once the website is finalized and testing is complete, it will be made accessible to the public. Through the website, community members will have access to current air pollution concentrations, AQI, and past data. The website will be a resource for the community to obtain air quality data and other information that they can use to reduce their exposure to harmful air pollutants, including wildfire smoke. Blue Tomorrow will also incorporate correction factors and data cleaning for wildfire smoke data. The website will contain links to summary reports, relevant news articles, educational materials developed for community meetings and other information about the air monitoring and project. CEC’s translation and interpretation service provider for the project will provide Spanish-language translation for the project website.

2.5 – Quality Assurance and Controls

Raw data will be reviewed every two weeks and monitor calibrations will be conducted quarterly or more frequently if needed. This review will include data

comparisons to the SBCAPCD monitoring data in Santa Maria. This will ensure that the monitors and website continue to record and report, respectively, accurate air pollutant levels. For criteria air pollutants (PM, O₃, NO₂) pollutant concentrations will be averaged to compare results with regulatory thresholds and Air Quality Index health indicators. Additional quality assurance and controls will be conducted when Guadalupe is experiencing wildfire smoke impacts. Periodic cycles of collocating the calibration monitor, between the CARB station in Santa Maria (for recalibration) and the monitoring sites in Guadalupe will be conducted on as needed basis. A detailed record of data review, calibrations (including coefficients), and maintenance logs will be kept.

2.6 – Operation and Maintenance

Air quality monitors will be operated and maintained for 30 months with funding from the Community Air Grant Program, during which time the project team will pursue other funding sources and potential partners to continue the monitoring in perpetuity. Sensor performance will be monitored to identify if maintenance or sensor replacement is needed. Blue Tomorrow will provide support by ordering replacement parts, troubleshooting issues, and continuing data analysis, calibration, and website maintenance. Maintenance visits will be coordinated as needed and determined by performance checks conducted every two weeks. Maintenance responsibilities will be shared by CEC, the project Fellow, and Blue Tomorrow. If an air monitor is malfunctioning and/or not reporting unusual measurements, the malfunctioning sensor data or entire monitor may be removed from the public website until the specific issue is fixed. The website will be checked, security updates performed, and content backed up on a monthly basis.

2.7 – Pesticide Sampling

Air deposition samples will be collected around the community and analyzed for pesticides and pesticide residues. The Guadalupe community organization LAG will assist in identifying sampling locations near or at residential homes, city parks, and open space areas utilized by the community. In order to understand the types of pesticides being transported from surrounding agricultural uses, up to thirty (30) samples are planned over the course of the project. Samples will be collected using standardized methods and appropriate sampling procedures. Samples will be sent to a third-party laboratory with expertise and certification in pesticide analyses. Results from this sampling will be presented in the annual reports, at community meetings, and include information on potential health risks.

Task 2 Deliverables & Milestones: March 2022 - March 2025

- *Assembly and installation of 5 air quality monitors (March 2022 - September 2022)*

- *Quarterly calibration reports of air monitors with performance statistics (August 2022 - March 2025)*
- *Launch bilingual community air quality monitoring website (March 2022 - November 2022)*
- *Biweekly air quality monitor system checks (September 2022 - March 2025)*
- *Thirty (30) months of continuous air quality data (September 2022 - March 2025)*
- *Up to thirty (30) pesticide samples collected and analyzed (May 2023 - August 2023 and May 2024 - August 2024)*

Task 3: Community Engagement

Objective 5: Conduct bilingual community engagement activities to educate students and community members on local air quality, share data from community scale air monitoring, document community concerns, and gather input on preferences for community notifications about air quality and wildfire smoke conditions.

3.1 – Educational Content Development

CEC will develop up to 5 bilingual educational materials with Blue Tomorrow to support clean air education, workshops, and community engagement. Materials will provide an overview of potential sources of local air pollution including wildfire smoke and pesticides. Additional education materials will describe the AQI (what it is, how to interpret it, and how it is calculated), and will provide an overview of different air pollutants, their associated health risks, and the project's air quality monitoring resources. CEC will contract with a translation and interpretation service provider for the project. The translation and interpretation service provider will translate education materials from English to Spanish to support language access.

3.2 - Community Outreach

CEC's Community Ambassador and Fellow will conduct community outreach to share information about the air quality project, promote engagement activities (see Subtasks 3.3 and 3.4), and disseminate bilingual educational materials. Outreach activities for the project will be integrated with our Community Ambassador's existing engagement activities in the community, which include tabling at local community events, providing climate/environmental education, attending community group meetings, gathering contact information for interested community members, sending email announcements, sharing information on social media, and posting/distributing fliers in the community.

3.3 – Community Workshops

A total of 2 to 3 community workshops will be organized with the LAG and GUSD and will be open to all community members. The first community workshop will be planned to create awareness of the air quality project and engage community

members. A PowerPoint presentation will be developed and delivered in Spanish and English describing the project goals and objectives, and how community members can access the project information and participate in the project.

The community workshops will be an opportunity for community members and students to learn about air quality issues and ask questions. Presentations and/or educational handouts will be developed and delivered in Spanish and English. Social media and on-the-ground engagement activities may be used to promote community workshops. Each meeting will be open to discussions, but each meeting will have a defined theme that are connected to the project objectives, such as local air pollution sources and the AQI; wildfires smoke impacts; pesticide exposure, farmer workers' rights, and health considerations; and air quality notifications and clean air community action plans. CEC and Blue Tomorrow will use input from the first community workshop to refine and finalize the focus for the subsequent community workshops. Information from the community workshops will be available on the community air monitoring website after the meetings. The workshops will also allow the public to provide feedback about their air quality concerns, potential solutions, and their preferences for receiving notification about air quality and wildfire smoke conditions.

CEC will contract with a translation and interpretation service provider for the project. The translation and interpretation service provider will provide Spanish-language interpretation for community workshops. The translation and interpretation service provider will also be consulted to plan and conduct bilingual workshops and presentations.

3.4 – Annual Monitoring Presentations

In addition to the community workshops, two (2) annual presentations will be developed to present data and results from the air monitors and pesticide sampling. CEC will work to align the monitoring data presentations with the school cycle to engage students and parents. Presentations will include results from the community air monitors and closest SBCAPCD monitoring station in Santa Maria. Presentations will discuss pollutant concentrations and wildfire smoke impacts with respect to AQI levels and describe any elevated levels of concern. Pesticide sample results will be described with potential sources and health screening levels (if available) for context. UCSB faculty and staff from the GEJP and Bren School of Environmental Science & Management will be invited to participate in the workshops. The translation and interpretation service provider will provide Spanish-language interpretation for data analysis presentations.

Task 3 Deliverables & Milestones: March 2022 - November 2024

- *Development of up to 5 bilingual outreach and education materials (March 2022 - October 2024)*
- *Community outreach contact list and tracker document engagement with 4 to 5 partners or community groups and at least 15 students or parents (May 2022 - November 2024)*
- *Completion of at least two (2) educational community meetings with sign-in sheets and notes of community comments/input (August 2022 - November 2024)*
- *Completion of two (2) presentations to communicate monitoring and sampling results (September 2023 and September 2024)*
- *Community air education outcomes, including data on the number of community members educated about the project goals and progress, such as number of attendees at the community workshops, and attendees at the annual monitoring data analysis presentations. (Included in December 2022, December 2023, and December 2024 biannual reporting for Subtask 5.3)*
- *Analytics reports on social media reach/impressions, visitors to the air quality monitoring network website, and air notification alert sign ups. (Included in December 2022, December 2023, and December 2024 biannual reporting for Subtask 5.3)*

Task 4: Workforce Development

Objectives 6: Hire a Climate Justice Fellow from the local community to support the Guadalupe Community Air project, advance local workforce development, and expand the capacity for local air quality education.

4.1 – Fellow Recruitment

CEC will recruit one paid, part-time Fellow during the project period. The Fellows will be recruited from the Guadalupe community, nearby communities in the Santa Maria Valley, or from a nearby community college/university. The Fellow will work with the project team for a 6-month period and will average 15 hours per week. CEC and BT will work closely with the Fellow so they can develop technical skills and gain knowledge through training about different monitoring methods, pollution health risks, wildfire smoke impacts, and regulatory monitoring and AQI communication. The air project Fellow will perform maintenance activities alongside Blue Tomorrow and CEC with the goal of performing regular air monitor maintenance (for Subtasks 2.5 and 2.6). The Fellow will participate in regular project meetings to the extent possible and help with project organization and on-going activities.

4.2 – Training Sessions and Materials

Blue Tomorrow will develop and conduct training for the air quality project Fellow, and CEC. The training may also include interested community members or students who want to learn more about air quality monitoring. The objectives for the training is to teach the Fellow how to interpret data from the monitors and

how to perform basic maintenance on the monitors. Training will empower the Fellow to provide air quality education and advocate for improved air quality with a better understanding of how to communicate technical air quality information to the local community. Blue Tomorrow will provide guidance documents and technical support so the Fellow can be fully versed in the functionality of the monitoring technologies used in this project.

4.3 – Fellowship Support

Blue Tomorrow and CEC will provide ongoing technical support to the Fellow throughout their 6-month period of service to support their work on the project and ongoing professional development. Blue Tomorrow will provide guidance documents and in-person or phone support to the Fellow for their work on technical air monitoring activities, including maintenance of air monitors and air quality data analysis.

Task 4 Deliverables & Milestones: March 2022 - December 2022

- *Recruitment and hiring of one (1) project Fellow (March 2022 - May 2022)*
- *Completion of training materials and Fellow training sessions/workshops (June 2022)*
- *Providing on-call technical support to CEC and Fellows (May 2022 - December 2022)*
- *Completion of 6-month Fellowship and reporting (December 2022; Fellowship reporting be included in December 2022 biannual report for Subtask 5.3)*

Task 5: Reporting

Objective 7: Work with the SBCAPCD, California Department of Pesticide Regulation, and UCSB to share project results, including air quality monitoring data, pesticide sampling data, community input, and preferences for new or improved air quality notifications about air quality and wildfire smoke conditions.

5.1 – Community Action Plan

CEC will develop a two-part Community Action Plan (CAP) to advance community air protection based on technical air monitoring results and input collected from community engagement. The action plans will identify the next set of actions that are needed to advance community air protection in Guadalupe and surrounding areas of the Santa Maria Valley. Part one of the CAP will be developed in the first half of the project period and will focus on improving bilingual access to information about air quality conditions, including improvements to existing notifications and/or developing new notification systems for local air quality and wildfire smoke conditions. Part two of the CAP will be developed during the second half of the project with a focus on policies and

programs to improve air quality and protect communities from pollution sources. Both parts of the CAP will identify resources and funding pathways to sustain or expand community air monitoring, education, and protection activities with SBCAPCD, DPR, CEC, BT, UCSB, and community partners. BT and UCSB will support the development of the two-part CAP. SBCAPCD and DPR will be consulted to develop recommendations, proposed policies, and next steps included in the CAP. CEC will contract with a translation and interpretation service provider to translate both parts of the community action plan from English to Spanish.

5.2 – Annual Data Analysis Reports

After the first and second year of monitoring a summary report will be developed that includes an analysis of the data collected by the monitoring network during the previous year, notes from the community meetings, monthly website visitation data, and pesticide sample results. The summary report will include relevant graphs, tables, diagrams, and pictures. The reports will be made available on the Guadalupe community air monitoring website as well as presented at the annual data analysis presentations.

5.3 – Grant Reporting

CEC will be responsible for updating CARB on project progress and submitting the necessary biannual reports during the grant performance period. Blue Tomorrow will provide assistance summarizing relevant project tasks that have been completed to date, when necessary. This task will ensure that all reporting requirements are met, and CARB stays apprised of project activities and accomplishments. Project reports will be delivered at the end of June and December each year, and a final project report will be delivered in March 2025.

Task 5 Deliverables & Milestones: December 2023 - March 2025

- *Completion of CAP part one (December 2023)*
- *Completion of two (2) data analysis reports (September 2023 and September 2024, to coincide with data presentations for Subtask 3.4)*
- *Completion of CAP part two (December 2024)*
- *Completion of six (6) biannual grant reports submitted to CARB (June and December 2022, June and December 2023, and June and December 2025)*
- *Completion of one (1) final report at end of project (March 2025)*