

# **AIR QUALITY RESEARCH PROGRAM**

**Texas Commission on Environmental Quality  
Contract Number 582-22-20017  
Awarded to The University of Texas at Austin**

**Quarterly Report  
September 1, 2023-February 29, 2024**

**Submitted to**

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## Texas Air Quality Research Program

### Quarterly Report

September 1, 2023 – February 29, 2024

#### OVERVIEW

The goals of the State of Texas Air Quality Research Program (AQRP) are:

- (i) to support scientific research related to Texas air quality, in the areas of emissions inventory development, atmospheric chemistry, meteorology, and air quality modeling,
- (ii) to integrate AQRP research with the work of other organizations, and
- (iii) to communicate the results of AQRP research to air quality decision-makers and stakeholders.

#### PROGRAM ACTIVITIES FOR THE QUARTER

Between September 1, 2023 and February 29, 2024, the AQRP program efforts were focused primarily on finalizing the research priorities for the biennium, seating the Advisory Council and Independent Technical Advisory Committee (ITAC), and updating all required Request for Proposal (RFP) documents in preparation for the public announcement of the 2024-2025 Biennium RFP, and ongoing administrative processes.

A list of candidates for the Advisory Council was approved by the Texas Commission on Environment Quality (TCEQ). The AQRP Director, Dr. David Allen, invited the candidates to serve. The Advisory Council was seated by the candidates listed in Table 2. The Advisory Council met in September 2023 to discuss Research Priorities. The final Research Priorities were presented to the TCEQ in October 2023 and were approved. Research priorities for the 2024-2025 Biennium are posted publicly here: <https://www.aqrp.ceer.utexas.edu/edocman/rfp/RP2425-FINAL.pdf>. The Advisory Council will remotely meet in June 2024 to discuss final proposal selections.

Significant efforts were dedicated to preparing the new RFP documents for the 2024-2025 Biennium Request for Proposals (RFP). This included drafting the RFP, incorporating feedback from stakeholders, and ensuring compliance with current UT and TCEQ contractual guidelines. RFP documentation (Subaward Agreement, Work Plan Guidelines, and other required documents documentation) was finalized and the RFP notice was released on November 16, 2023. All proposals were submitted by January 30, 2024 to the AQRP Program Manager. No exceptions were made to the proposal deadline. A summary list of all proposals submitted will be provided in future reports. The proposals are currently confidential until awards are announced.

The AQRP actively managed the receipt of proposals from applicants and promptly addressed questions and provided clarifications to assist applicants in submitting complete and accurate proposals. A dedicated communication channel was maintained to handle inquiries efficiently. All received proposals were systematically collected and sorted. This process involved logging submissions, verifying completeness, and categorizing proposals for review. The team ensured that each proposal met the necessary criteria before proceeding to the evaluation stage. Proposals were granted AQRP internal Proposal Number IDs in the order they were received.

TCEQ approved a list of potential ITAC members to serve in the 2024-2025 biennium. The AQRP Director invited each potential member. Selected ITAC members who accepted the invitation are listed in Table 1. The ITAC met on February 21, 2024 for the initial triage review of proposals. Follow up proposal review meetings are scheduled for March 12, 2024 and April 3, 2024. The ITAC's final selections will be ranked by the TCEQ utilizing the AQRP Proposal Rating form (<https://www.aqrp.ceer.utexas.edu/edocman/rfp/RatingForm24-25.pdf>). The final selected proposals will be reviewed by the Advisory Council in June 2023.

The AQRP's website was updated to include the latest RFP documents and other relevant information. Enhancements were made to improve the user experience and accessibility of key resources. Future updates will also include posting answers to frequently asked questions, comprehensive review of publication accessibility, and ensuring all document hyperlinks are active. Website maintenance and development will be an ongoing effort.

During Quarter 1, the TCEQ notified the AQRP that a contractual amendment will need to be processed to execute the 2024-2025 funding to The University of Texas at Austin (Contract Number 582-22-20017, Amendment 3). The amendment will be fully executed in April 2024. The Financial Status Report (FSR) section of this report includes accounting through February 2024. Due to contractual and budgetary delays, the first Financial Status Report will be submitted for the period of September 2023 through March 2024. Additionally, the remaining balance from the 2023-2024 Biennium was approved to carry-forward into the 2024-2025 Biennium budget in late February 2024. Funds carried forward totaled \$22,757.19 into Administration and \$32,625.09 into Subaward Contract (direct funding for RFP awards). Carry forward funds are included in the Financial Status Report section of this report.

Throughout the reporting period, the the AQRP Program Manager communicated regularly with the TCEQ regarding program requirements. The first and second quarter report was approved to be combined and submitted as one document.

**BACKGROUND**

Section 387.010 of House Bill (HB) 1796 (81<sup>st</sup> Legislative Session), directs the Texas Commission on Environmental Quality (TCEQ) to establish the Texas Air Quality Research Program (AQRP). The University of Texas at Austin (UT) was selected by the TCEQ to administer the program. A contract for the administration of the AQRP was established between the TCEQ and UT.

Consistent with the provisions in HB 1796, up to 10% of the available funding is to be used for program administration; the remainder (90%) of the available funding is to be used for research projects, individual project management activities, and meeting expenses associated with an Independent Technical Advisory Committee (ITAC).

A new AQRP contract was executed for the 2024-2025 biennium and funding of \$750,000 per year was awarded.

## RESEARCH PROJECT CYCLE

The Research Program is implemented through a nine-step cycle each biennium. The steps in the cycle are described from project concept generation to final project evaluation for a single project cycle.

- 1) The project cycle is initiated by developing (in year 1) or updating (in subsequent years) the research priorities. The Air Quality Research Program (AQRP) Director, in consultation with the Independent Technical Advisory Committee (ITAC), the Advisory Council (the Council) and the Texas Commission on Environmental Quality (TCEQ), develop research priorities; the research priorities are released along with a Request for Proposals (RFP).
- 2) Project proposals relevant to the research priorities are solicited. The RFP will be found at <http://aqrp.ceer.utexas.edu/> once released.
- 3) The ITAC performs a scientific and technical evaluation of the proposals.
- 4) The project proposals and ITAC recommendations are forwarded to the TCEQ. The TCEQ evaluates the project recommendations from the ITAC and comments on the relevancy of the projects to the State of Texas's air quality research needs.
- 5) The recommendations from the ITAC and the TCEQ are presented to the Council and the Council selects the proposals to be funded.
- 6) All Investigators are notified of the status of their proposals, either intent to fund, not funded, or contingent (not funded at this time, but being held for possible reconsideration if funding becomes available).
- 7) Intent to fund projects are assigned an AQRP Project Manager at UT Austin and a Project Liaison at TCEQ. The AQRP Project Manager is responsible for ensuring that project objectives are achieved in a timely manner and that effective communication is maintained among investigators involved in multi-institution projects. The AQRP Project Manager has responsibility for documenting progress toward project measures of success for each project. The AQRP Project Manager works with the researchers, and the TCEQ, to create an approved work plan for the project.  
  
The AQRP Project Manager also works with the researchers, TCEQ, and the Program's Quality Assurance officer to develop an approved Quality Assurance Project Plan (QAPP) and Work Plan for each project. Subaward Agreements are issued. The AQRP Project Manager reviews monthly, annual, and final reports from the researchers and works with the researchers to address deficiencies.
- 8) The AQRP Director and the AQRP Project Manager for each project describe progress on the project in the ITAC and Council meetings dedicated to on-going project review.
- 9) The project findings are communicated through multiple mechanisms. Final reports are posted to the AQRP web site (<http://aqrp.ceer.utexas.edu/>); research briefings are developed for the public and air quality decision makers; and a bi-annual research conference/data workshop is held.

During this period, the AQRP performed step 1, 2, and partially step 3.

## **Independent Technical Advisory Committee**

The Air Quality Research Program (AQRP) funding is to be used primarily for research projects, and one of three groups responsible for selecting the projects is the Independent Technical Advisory Committee (ITAC). The ITAC is composed of between 9 and 15 individuals with scientific expertise relevant to the AQRP. The ITAC is charged with recommending technical approaches, establishing research priorities, and reviewing, commenting, and advising on all projects to ensure that the projects facilitate air quality improvement in Texas. Members of the ITAC consist of the Texas Commission on Environmental Quality (TCEQ) Air Quality Deputy Director (or designee), and representatives with air quality expertise from research institutions with extensive expertise in air quality research in Texas. The members of the ITAC are listed in Table 1. The members of the ITAC are drawn from Texas universities active in air quality research, national laboratories that have participated in air quality studies in Texas, and institutions that have expertise not available in Texas and that have participated in air quality studies in Texas.

The ITAC membership is intentionally drawn from air quality researchers who have experience in Texas. These researchers and their colleagues will likely have interest in responding to the requests for research proposals issued by the AQRP. This raises potential confidentiality and conflict of interest issues, and the contract between TCEQ and the University of Texas at Austin requires that the AQRP maintain and implement an appropriate written policy on conflict of interest. Specifically, for the ITAC, all members are required to certify:

*Confidentiality:* As a member of Independent Technical Advisory Committee (ITAC), I understand that I will have access to proposals submitted to the Air Quality Research Program (AQRP). Subject to any legal requirements, I agree to keep the information in these proposals confidential until the selection process is completed and it is appropriate to release information to the public. I understand that there may be certain information that comes to me in my role as a member of ITAC that retains its confidential nature even after the process is concluded. I also understand that I will review said proposals and may have access to the reviews made by other ITAC members. I agree to keep these reviews and the identity of the reviewers confidential until such time as this information is released to the public. (NOTE: For the reviews and reviewers, this information may never be released.)

*Conflict of Interest:* As a member of ITAC, I agree that I will not evaluate, comment on, or vote on proposals in which I or my home institution is involved, including but not limited to, any financial interest, or in which I have another form of conflict of interest. I understand that ITAC members with conflicts of interest must leave the meeting room or the conference line when a proposal with which they have a conflict is discussed, voted on or otherwise being considered. I understand that I must recuse myself from participating in or attempting to influence at any time the ITAC's or the AQRP Council's consideration or decision concerning such proposals. I agree to bring any issues concerning a possible conflict of interest to the attention of the Director of the AQRP or the TCEQ Air Quality Deputy Director. If there is a question of interpretation regarding whether a conflict of interest exists, I agree that the decision regarding whether a conflict of interest exists will be made by the Director of the Air Quality Research Program or the TCEQ Air Quality Deputy Director.

All members of the ITAC agree to abide by these conflicts of interest and confidentiality provisions prior to participating in the review of proposals. Table 1 shows the currently accepted ITAC members. The finalized member table will be updated in the next quarterly report.



**Table 1. Independent Technical Advisory Committee Members**

<b>Name</b>	<b>Title</b>	<b>Institution</b>
David Allen	Professor and Director, AQRP	The University of Texas at Austin
Doug Boyer	Technical Specialist	TCEQ, Office of Air Director
Brad Pierce	Director, Space Science and Engineering Center	Univ. of Wisconsin-Madison
Don Collins	Professor	University of California, Riverside
Joost de Gouw	Research Physicist, Cooperative Institute for Research in Environmental Sciences (CIRES) Senior Scientist and Fellow	National Oceanic and Atmospheric Administration (NOAA), University of Colorado Boulder
James Nolan	Technical Specialist	TCEQ, Office of Air Director
Lea Hildebrandt Ruiz	Associate Professor	The University of Texas at Austin
Rebecca Sheesley	Associate Professor	Baylor University
William Vizquete	Professor	University of North Carolina
Yuxuan Wang	Associate Professor of Atmospheric Chemistry	University of Houston
Greg Yarwood	Principal	Ramboll
Renyi Zhang	Distinguished Professor of Atmospheric Sciences, Harold J. Haynes Chair in Geosciences	Texas A&M University

**TCEQ Relevancy Review**

The Texas Commission on Environmental Quality (TCEQ) reviews proposals for relevancy to the State’s air quality research needs. TCEQ approval is required for a project to receive funding from the Program.

**Advisory Council**

The final group responsible for selecting Air Quality Research Program (AQRP) research projects is the Advisory Council (the Council). The Council consists of between 7 and 11 members. Two Council members with relevant scientific expertise are nominated by the Texas Commission on Environmental Quality (TCEQ). As defined in the AQRP contract, up to four members of the Council can be county judges from the Houston-Galveston-Brazoria (HGB) and Dallas-Fort Worth (DFW) non-attainment counties. Additional members should have a general background in air quality and business practices, and can include elected officials, business community representatives, environmental group representatives, and members of the general public. The Council’s responsibilities are to attend meetings with TCEQ Management and the AQRP to understand the statewide project goals for the funding period, to select for funding the projects reviewed by the Independent Technical Advisory Committee (ITAC) and ranked by the TCEQ, and to assist with the presentation of project final results at locations throughout the state.

**Table 2. Advisory Council Members**

<b>NAME</b>	<b>TITLE</b>	<b>INSTITUTION</b>
Dan Baker	Senior Partner	Environmental Reaction Engineering Experts (E REX)
Beata Czader	Air Modeling Team Leader	TCEQ
Andrew De Candis	Clean Cities & Clean Vehicles and H-GAC Cities Co-Director	Houston-Galveston Area Council (H-GAC)
Lyle Hufstetler	Clean Cities Coordinator	Alamo Area Council of Governments (AACOG)
Chris Klaus	Senior Program Manager	North Central Texas Council of Governments (NCTCOG)
Chris Owen	Senior Technical Specialist	TCEQ
Chris Rabideau	Senior Technical Specialist	Chevron
Cyrus Reed	Conservation Director	Sierra Club

**FINANCIAL STATUS REPORT**

The Air Quality Research Program (AQRP) contract was awarded for FY 24-25 for \$750,000 per year. Funds were distributed across several different reporting categories as required under the contract with TCEQ. The reporting categories are listed below in detail.

Program Administration: Limited to 10% of the overall funding per fiscal year. This category includes all staffing, materials and supplies, and equipment needed to administer the overall AQRP. It also includes the costs for the Council meetings.

ITAC: These funds are to cover the costs, largely travel expenses, for the Independent Technical Advisory Committee (ITAC) meetings.

Project Management: Limited to 8.5% of the funds allocated for Contractual budget category. Each research project is assigned a Project Manager to ensure that project objectives are achieved in a timely manner and that effective communication is maintained among investigators in multi-institution projects. These funds are to support the staffing and performance of project management.

Research Projects / Contractual: These are the funds available to support the research projects that are selected for funding.

**Program Administration**

Program Administration includes salaries and fringe benefits for those overseeing the program, as well as materials and supplies, travel, equipment, and other expenses. This category allows indirect costs in the amount of 10% of salaries and wages.

Dr. David Allen, Principal Investigator and AQRP Director, is responsible for the overall administration of the AQRP. RoseAnna Goewey, AQRP Program Manager, assists Dr. Allen with program and grant management.

The University of Texas at Austin’s federally negotiated fringe rates for full-time/benefits eligible employees is 26.1%. Rates are estimated to have a 0.5% increase for full/part-time benefits eligible employees in subsequent years.

**Table 3: Administration Budget (2024-2025 Biennium)**

<b>BUDGET CATEGORY</b>	<b>BUDGET</b>	<b>EXPENSES</b>	<b>BALANCE*</b>
Personnel/Salary	\$106,388.68	\$28,879.20	\$77,509.48
Fringe Benefits	\$29,203.45	\$7,537.46	\$21,665.99
Supplies	\$26,526.19	\$954.81	\$25,571.38
Total Direct Costs	\$162,118.32	\$37,371.47	\$124,746.85
Authorized Indirect Costs ( <i>10% of Salaries and Wages</i> )	\$10,638.87	\$2,887.92	\$7,750.95
<b>Total Costs</b>	<b>\$172,757.19</b>	<b>\$40,259.39</b>	<b>\$132,497.80</b>

## ITAC

There are no ITAC expenditures in this reporting quarter. Table 4 details the 2024-2025 Biennium ITAC budget.

**Table 4: ITAC Budget (2024-2025 Biennium)**

<b>BUDGET CATEGORY</b>	<b>BUDGET</b>	<b>EXPENSES</b>	<b>BALANCE*</b>
Travel	\$10,000.00	\$945.97	\$9,054.03
Supplies	\$1,250.00	\$0.00	\$1,250.00
Total Direct Costs	\$11,250.00	\$945.97	\$10,304.03
<b>Total Costs</b>	<b>\$11,250.00</b>	<b>\$945.97</b>	<b>\$10,304.03</b>

## Project Management

There are no Project Management expenditures in this reporting quarter. Table 5 details the 2024-2025 Biennium Project Management Budget.

**Table 5: Project Management Budget (2024-2025 Biennium)**

<b>BUDGET CATEGORY</b>	<b>BUDGET</b>	<b>EXPENSES</b>	<b>BALANCE*</b>
Personnel/Salary	\$76,000.00	\$18,126.74	\$57,873.26
Fringe Benefits	\$20,862.00	\$4,731.08	\$16,130.92
Supplies	\$8,038.00	\$5,409.60	\$2,628.40
Other	\$3,750.00	\$0.00	\$3,750.00
Total Direct Costs	\$108,650.00	\$28,267.42	\$80,382.58
Authorized Indirect Costs ( <i>10% of Salaries and Wages</i> )	\$7,600.00	\$1,812.68	\$5,787.32
<b>Total Costs</b>	<b>\$116,250.00</b>	<b>\$30,080.10</b>	<b>\$86,169.90</b>

**RESEARCH PROJECTS**

Research projects have not been selected in this reporting quarter. Table 6 shows the 2024-2025 Biennium Research Project budget. The budget allocates \$1,222,500.00 for research projects.

**Table 6: 2024-2025 Biennium Contractual/Research Project Budget**

<b>2024 Total Contractual Funding</b>		<b>\$611,250.00</b>		
<b>2023 Contractual Carry Forward</b>		<b>\$32,625.09</b>		
<b>TOTAL CONTRACTUAL BUDGET</b>		<b>\$643,875.09</b>		
<b>Project Number</b>	<b>Institution</b>	<b>Amount Awarded</b>	<b>Cumulative Expenditures</b>	<b>Remaining Balance</b>
<i>PENDING</i>	<i>SUBAWARD HOLDING</i>	\$0.00	\$0.00	\$0.00
FY 24 Total Contractual Funding Awarded		\$0.00		
FY 24 Contractual Funds Expended (Init. Projects)			\$0.00	
FY Contractual Funds Remaining to be Spent				\$643,875.09
Total Contractual Funding		\$643,875.09		
Total Contractual Funding Awarded		\$0.00		
Total Contractual Funding Remaining to be Awarded		\$643,875.09		
Total Contractual Funds Expended to Date			\$0.00	
Total Contractual Funds Remaining to be Spent				\$643,875.09
<b>2025 Total Contractual Funding</b>		<b>\$611,250.00</b>		
<b>2024 Contractual Carry Forward</b>		<b>\$0.00</b>		
<b>TOTAL CONTRACTUAL BUDGET</b>		<b>\$611,250.00</b>		
<b>Project Number</b>	<b>Institution</b>	<b>Amount Awarded</b>	<b>Cumulative Expenditures</b>	<b>Remaining Balance</b>
<i>PENDING</i>	<i>SUBAWARD HOLDING</i>	\$0.00	\$0.00	\$0.00
FY 24 Total Contractual Funding Awarded		\$0.00		
FY 24 Contractual Funds Expended (Init. Projects)			\$0.00	
FY Contractual Funds Remaining to be Spent				\$611,250.00
Total Contractual Funding		\$1,255,125.09		
Total Contractual Funding Awarded		\$0.00		
Total Contractual Funding Remaining to be Awarded		\$1,255,125.09		
Total Contractual Funds Expended to Date			\$0.00	
Total Contractual Funds Remaining to be Spent				\$1,255,125.09