# MARAMA 2018

*Photo credit: Debbie Wilson - Cove Point Light Station, Calvert County, MD*

## Helping Members Improve Air Quality

A voluntary association of ten state and local air pollution control agencies, MARAMA strengthens the skills and capabilities of member agencies and helps them work together to prevent and reduce air pollution impacts in the Mid-Atlantic Region.

This report highlights our accomplishments from October 2017 through September 2018.

**Mid-Atlantic Regional Air Management Association, Inc.**
**8600 LaSalle Road, Suite 636**
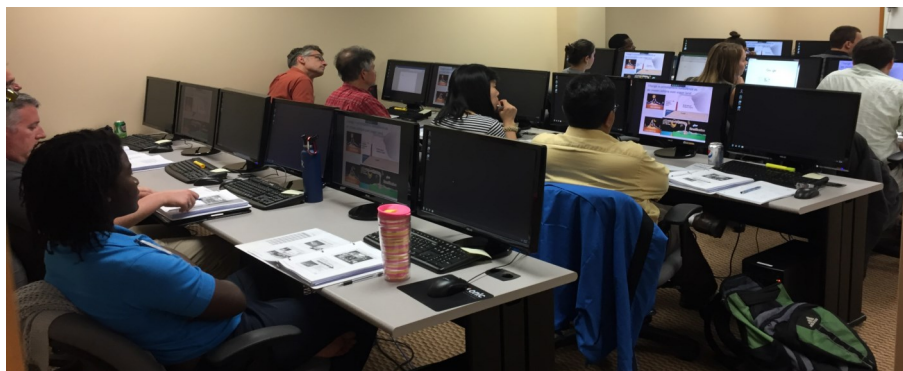**Towson, Maryland 21286**

**Phone: 443-901-1882**

# MARAMA Training Events for FY 2018

**MARAMA hosted three workshops.** MARAMA's workshops provide invaluable opportunities for new and experienced staff from all ten MARAMA agencies to interact and learn from each other as well as from invited expert speakers and MARAMA Air Directors.

- **MARAMA Monitoring Committee Training Workshop** - 71 attended in Wayne, PA
- **MARAMA Air Permits Training Workshop** - 66 attended in Hunt Valley, MD
- **MARAMA Air Toxics Training Workshop** - 74 attended in Swarthmore, PA

## MARAMA hosted 9 in-person training courses.

- **NACT 335 Principles of Environmental Compliance & Enforcement** - 23 attended Pittsburgh, PA
- **Continuous Monitoring Systems (CEMS) Course** - 31 attended in Richmond, VA
- **APTI 452  Principles and Practices of Air Pollution** - 31 attended in Norristown, PA
- **NACT 271 Stationary Reciprocating Engines** - 30 attended in Charleston, WV
- **NACT 272 Stationary Gas Turbines** - 30 attended in Charleston, WV
- **NACT 224 Observing Source Tests** - 26 attended in Charleston, WV
- **NACT 290 MACT** - 27 attended in Norristown, PA
- **NACT 246 Aggregate, Asphalt & Concrete Batching Operations** - 26 attended in Norristown, PA
- **APTI 423 AERMOD** - 23 attended in Wilmington, DE  (***See picture below***)



**MARAMA also helped 40 members travel to 10 national and regional conferences or meetings.**
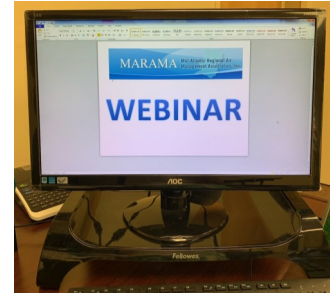
## 1,549 MARAMA Agency Staff Attended MARAMA Events in FY 2018

| | | | | | |
|---|---|---|---|---|---|
| Allegheny County | 95 | New Jersey | 182 | Philadelphia | 68 |
| Delaware | 119 | North Carolina | 118 | Virginia | 251 |
| District of Columbia | 64 | Pennsylvania | 365 | West Virginia | 138 |
| Maryland | 149 | | | | |

# MARAMA Hosted Eight Technical Webinars

MARAMA has become a national leader in webinar training for state, local, and Federal Air Management agency staff.  Out of the 2,477 webinar participants in FY 2018, many (1,359) were from non-MARAMA Air Management agencies (including Alaska and Hawaii).  Webinar topics included:

- **CEMS Webinar Series**
    - CEMS Module 1 - **Introduction to Continuous Monitoring Systems Webinar** (626 participants)
    - CEMS Module 2 - **Good vs. Bad Continuous Monitoring System Data Webinar** (450 participants)
    - CEMS Module 3 - **Compliance Demonstration (Data Averaging & Validation)** (406 participants)
    - CEMS Module 4 - **Reporting of Continuous Monitoring System Data Webinar** (365 participants)

- **Mercury CEMS - A Field Guide Webinar** (95 participants)

- **Clean Air Act Webinar** (278 participants)

- **Statement of Basis:  EPA Overview Webinar** (61 participants)

- **Oil and Gas 101 Webinar** (196 participants)



# 2018 MARAMA Outstanding Service Awards

MARAMA's  success depends on collaborative efforts by staff from member agencies.  Each year, MARAMA presents an award to recognize those individuals whose contributions have been outstanding.  The **2018 MARAMA Outstanding Service Awards** went to the Virginia DEQ's Training Team!

**Kevin Vaughan, Marilee Tretina, Sherry Tostenson, and Todd Alonzo**

were presented this award in recognition of their contribution to MARAMA's overall training program and for consistently contributing input and suggestions regarding training needs and strategies not only to MARAMA, but to the Joint Training Committee as well.

# Susan Wierman, MARAMA's Executive Director for 21 Years, Retires

## Susan Wierman's Parting Words

*In 1996, I was very excited to be given the opportunity to be MARAMA's Executive Director. Jim Hambright had retired and was a tough act to follow, but I knew I could do it.*

*The MARAMA Directors told me their priority was training, which was and is one of my passions. Our training program grew with the help of wonderful training coordinators Serpil Kayin, Alice Lutrey, Sue Dilli, and Jackie Burkhardt. Highlights include in 2007 creating eight training modules on Mid-Atlantic Air Quality, in 2011-2012 helping*



**MARAMA Board of Director's Honored Susan Wierman's 21 Years of Service at a Retirement Party in Hunt Valley, MD (February 2018).**
*Pictured left to right: Julie McDill, Jayme Graham, Cecily Beall, Kass Sellassie, Susan Wierman, Tad Aburn, Mike Dowd, Fred Durham, Ali Mirzakhalili, and Mike Abraczinskas.*

*organize a national curriculum for EPA's Air Pollution Training Institute, and since 2010 embracing the new online webinar technology that has become such an important training resource.*

*The mutual support between MARAMA staff and members has been inspiring. Careful management of MARAMA's limited resources, along with the support of the Air Directors and EPA, helped MARAMA gradually expand from two employees in 1996 to a temporary peak of 10 in FY 2004, when nearly half our budget was supported by regional haze grants. With technical skills and ability to facilitate collaboration, Serpil Kayin, Julie McDill, Susan McCusker, Patrick Davis, Bill Gillespie, Susan Stevenson, and Debbie Thomas, and other supporting staff, conducted projects, worked with members, and managed contractor work.*

*We helped launch ozone mapping, promoted best practices in managing, reporting, and analyzing air quality data, improved regional emissions inventories, and produced technical support documents to help members understand pollution sources and solutions and collaborate to improve air quality.*

*I loved working with MARAMA Air Directors, staff, and members, and it was very hard to step away, but I know that I left the organization in good hands with a commitment to continue serving our members. I look forward to learning what MARAMA will do next!*

*Susan Wierman*

# Reducing Diesel Emissions

MARAMA worked with other members of the Mid-Atlantic Diesel Collaborative to reduce diesel emissions in the region. MARAMA administered three EPA DERA grants, valued at over $2 million dollars, to reduce diesel emissions from dray trucks serving Mid-Atlantic ports by providing financial incentives to truck owners to give up their old polluting trucks. Under all the DERA Programs, MARAMA replaced a total of 36 dray trucks serving the ports of Virginia, Delaware and Pennsylvania.

In Virginia, MARAMA worked under a DERA subgrant from Virginia Department of Environmental Quality, where nine pre-2007 model year diesel trucks were scrapped and replaced with newer and cleaner diesel trucks (engine model year 2012 or newer).

Under DERA in the port areas of Wilmington, Delaware, and Philadelphia, Pennsylvania, twenty-seven old trucks were scrapped and replaced with model year 2012 or newer class 8 dray trucks.



# MARAMA Hosted 5 Mid-Atlantic Diesel Collaborative (MDC) Webinars

- **Activity Patterns of Heavy Duty Vehicles and their Implications on Emissions Webinar** (57 participants)
- **Emerging Issues at Ports: Resilience Webinar** (61 participants)
- **The Potential of Using AIS Data for Emission Inventories Webinar** (40 participants)
- **A Look into EPA's DERA Grant Program from School Bus Perspective Webinar** (39 participants)
- **Benefits and Challenges of New Technologies Webinar** (23 participants)

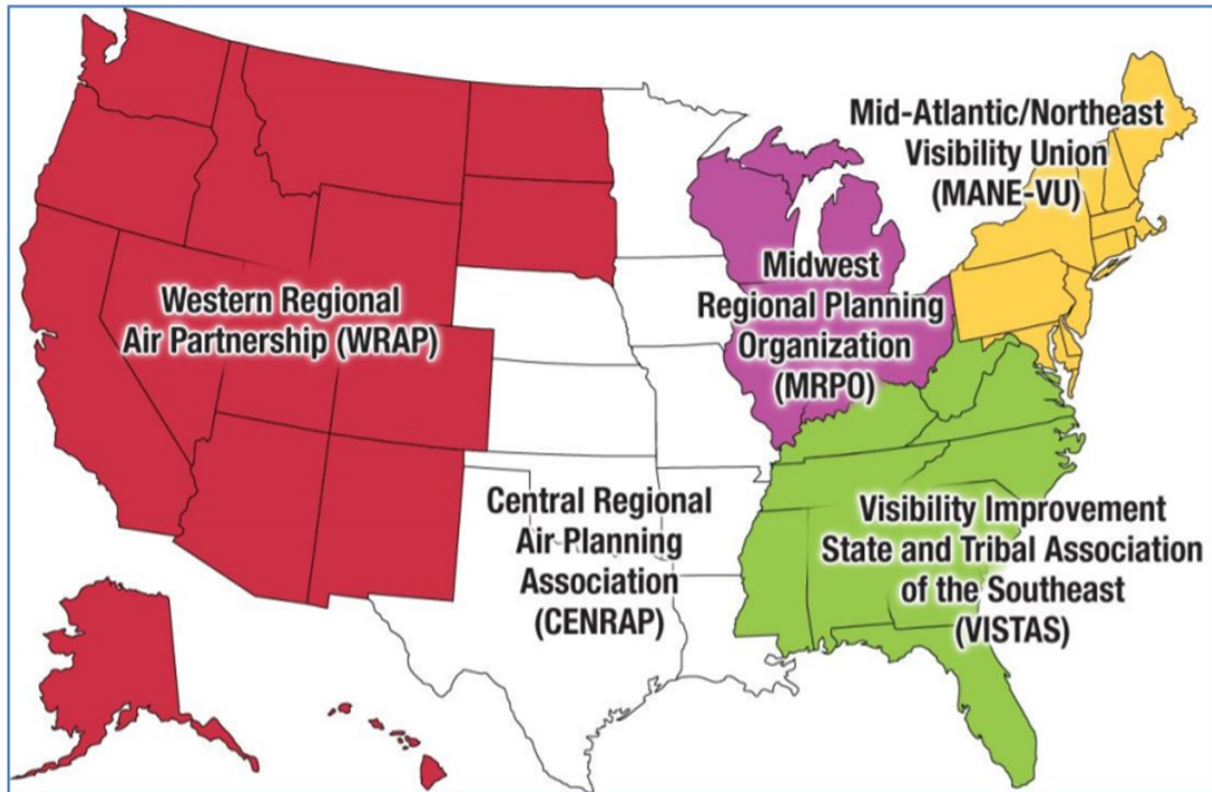# Julie McDill named MARAMA's New Executive Director



*Julie McDill,*
*MARAMA Executive Director*

Ms. Julie McDill, replaced Susan Wierman as MARAMA's third Executive Director in November 2017. As Senior Environmental Engineer at MARAMA for over 10 years, Ms. McDill has worked closely with Ms. Wierman on various initiatives, programs and projects.
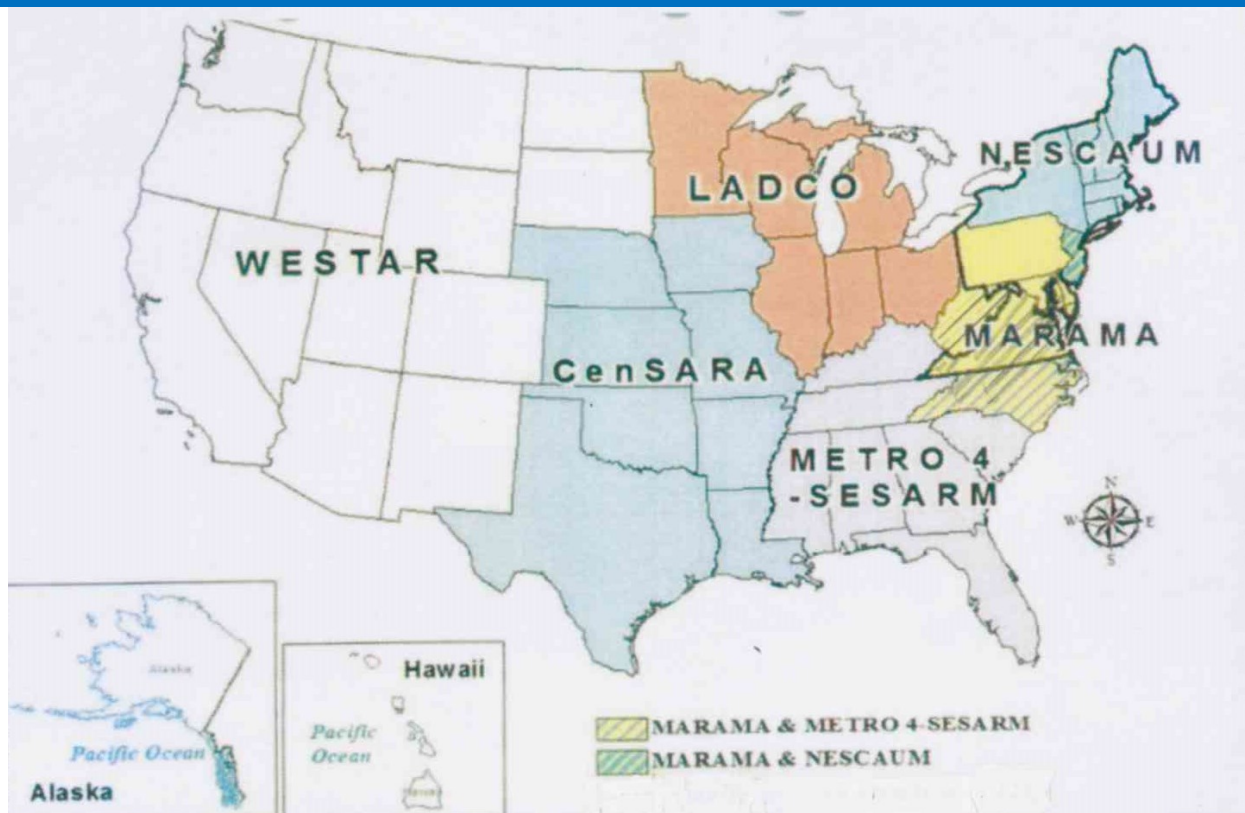
Ms. McDill has 30 years of experience in environmental engineering with an emphasis on air pollution planning, control, and regulation. Having worked as both a regulator and an industrial consultant, she understands the challenges faced by parties on both sides of the table. She has also been a researcher at laboratories in the U.S. and the Netherlands.

Her areas of technical expertise include air planning, permitting, air pollution control technology design and selection, air modeling, the air regulatory environment, and engineering economics.

# Regional Planning Organizations (RPOs - Visibility)



Western Regional Air Partnership (WRAP)

Central Regional Air-Planning Association (CENRAP)

Midwest Regional Planning Organization (MRPO)

Mid-Atlantic/Northeast Visibility Union (MANE-VU)

Visibility Improvement State and Tribal Association of the Southeast (VISTAS)

# Multi-Jurisdictional Organizations (MJOs - Training)



WESTAR

LADCO

CenSARA

NESCAUM

MARAMA

METRO 4-SESARM

Alaska

Hawaii

MARAMA & METRO 4-SESARM
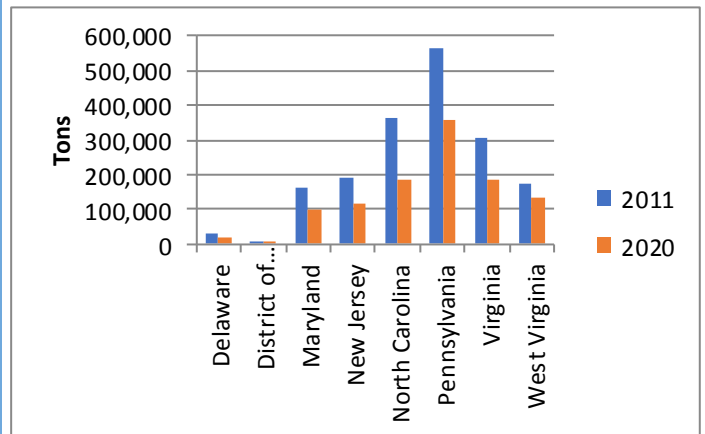MARAMA & NESCAUM

# MARAMA has been Meeting the Need for Locally-Refined Regional Emission Inventories since 2002

MARAMA member states are part of the larger Northeast emissions modeling region that differs from the rest of the county in several ways: it is highly populated, but not uniformly so; all member states except North Carolina and West Virginia are in (or have parts of the state in) the Ozone Transport Region, triggering additional EPA compliance requirements for ozone modeling and reductions; and, despite significant improvements in air quality, the region continues to have multiple ozone nonattainment areas. For these reasons, our states have implemented numerous region- and state-specific rules and strategies for reducing emissions, and MARAMA has developed the locally-refined emission inventories that reflect them for more than fifteen years.

**MARAMA Gamma Anthropogenic NOx Emissions**



*Graph curtesy of Eric Zalewsky, NY-DEC*

MARAMA creates projected inventories consistent with the future years selected by EPA for its national inventories, but the method MARAMA developed for projecting inventories also allows for relatively fast turnaround if our states need a different future year. Growth factors for future year emission estimates reflect anticipated changes in future activities to which emission categories can be linked such as energy use, employment, and population growth. This data is gathered in MARAMA's spreadsheet tool for a range of possible future years, and calculation of growth factors for any year in the range is as easy as entering the year in a single spreadsheet cell.

In FY 2017, EPA and MARAMA created future year inventories for 2023, but several of our states soon realized they might need a 2020 inventory to respond to anticipated 2008 ozone NAAQS bump-ups. Since 2020 was in the range of possible future years in its growth tool, MARAMA was able to quickly generate growth factors for 2020 and develop the inventory in time to meet the needs of our states.

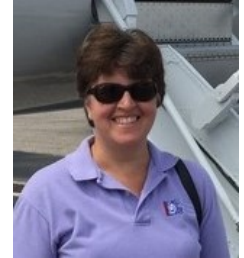# MARAMA supported Regional Haze work under the MANE-VU 2016 – 2019 Grant

MARAMA continued to work closely with the OTC and its member states to improve visibility in the MANE-VU region. In FY 2018, MARAMA:

- Coordinated and hosted monthly webinar meetings with state Emission Inventory Leads staff to hear from experts in emissions estimation, discuss issues of interest/concern to state inventory staff, and facilitate information exchange on topics such as 2017 NEI submissions.

- Guided development of the ERTAC EGU v16.0 base year 2016 and future year 2020, 2023, and 2028 inventories and coordinated with the larger multi-regional 2016 Collaborative Inventory effort

- Provided a four-part training to the OTC's 2028 Regional Haze inventory workgroup on using the Emissions Modeling Framework (EMF) to create the 2028 Regional Haze controlled modeling inventory that includes the MANE-VU "Ask" controls and developing the "Ask" control input files for the EMF.
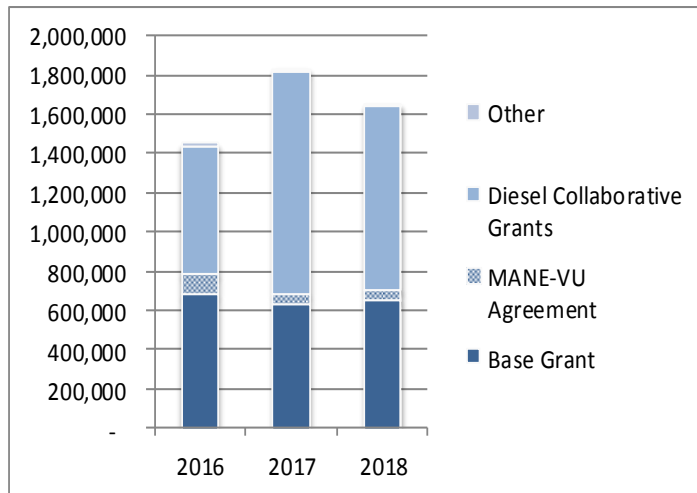
# MARAMA - A Year in Review

Thanks to our member agencies, MARAMA received continuing primary support through our EPA Base Grant in FY 2018. The training program was very active, with three workshops that averaged over 70 attendees each. Hosting webinars has helped MARAMA train air quality staff both in and outside of our region. Diesel Collaborative grants primarily supported pass-through funding of diesel drayage truck replacement projects. All grants and agreements helped support MARAMA's staff and office operation costs.

In FY 2018, MARAMA had a lot of staff changes. Besides, Susan Wierman retiring after 21 years as MARAMA's Executive Director and Julie McDill replacing her (see page 4 &5), MARAMA also hired Deborah Dutcher Wilson. Debbie is an air quality scientist and meteorologist who coordinates workgroup webinars on AERMOD, Fumigation, and Long Haul Truck Hoteling emissions methodologies, along with co-leading the MJO MOVES workgroup. Debbie has over 27 years of air quality experience in both the private and public sectors. Her background is on conducting air quality assessments, with a focus on transportation sources, including highways and airports. She has been a great addition to MARAMA.
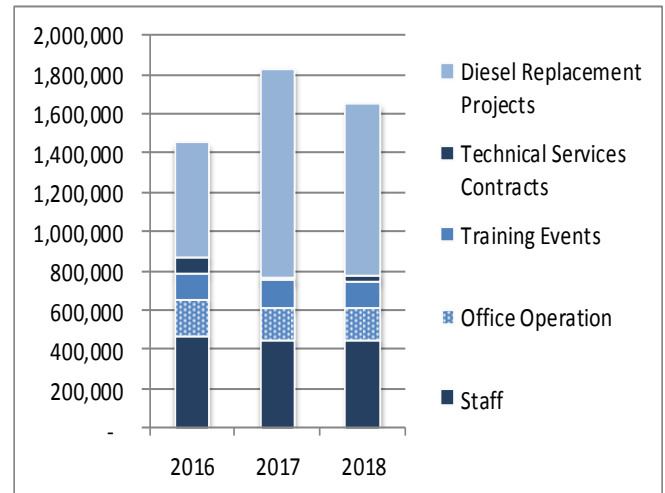
*Debbie Wilson*

## FY 2018 Revenue

Legend: Other, Diesel Collaborative Grants, MANE-VU Agreement, Base Grant

Years: 2016, 2017, 2018

## FY 2018 Expenses

Legend: Diesel Replacement Projects, Technical Services Contracts, Training Events, Office Operation, Staff

Years: 2016, 2017, 2018

## MARAMA Directors and Staff

### Board of Directors, 2018

**William F. "Fred" Durham**, West Virginia, Chair
**Cecily M. Beall**, District of Columbia, Vice-Chair
**Michael G. Dowd**, Virginia, Treasurer
**Jayme Graham,** Allegheny Country
**Ali Mirzakhalili/David Fees**, Delaware
**George S. "Tad" Aburn**, **Jr.,** Maryland
**Francis "Frank" Steitz,** New Jersey
**Michael Abraczinskas**, North Carolina
**Krishnan Ramamurthy**, Pennsylvania
**Kassahun Sellassie,** Philadelphia

### MARAMA Staff, 2018

**Susan Wierman/Julie McDill**, Executive Director
**Jackie Burkhardt**, Co-Training Coordinator
**Sue Dilli,** Co-Training Coordinator
**Susan McCusker, Ph.D.**, Sr. Environmental Scientist
**Deborah Thomas**, Diesel Program Manager
**Debbie Dutcher Wilson**, Air Quality Scientist
**Sharon Ray,** Administrative Assistant
**Megan McHargue,** Administrative Specialist