Region 4
Air Monitoring Quality Assurance
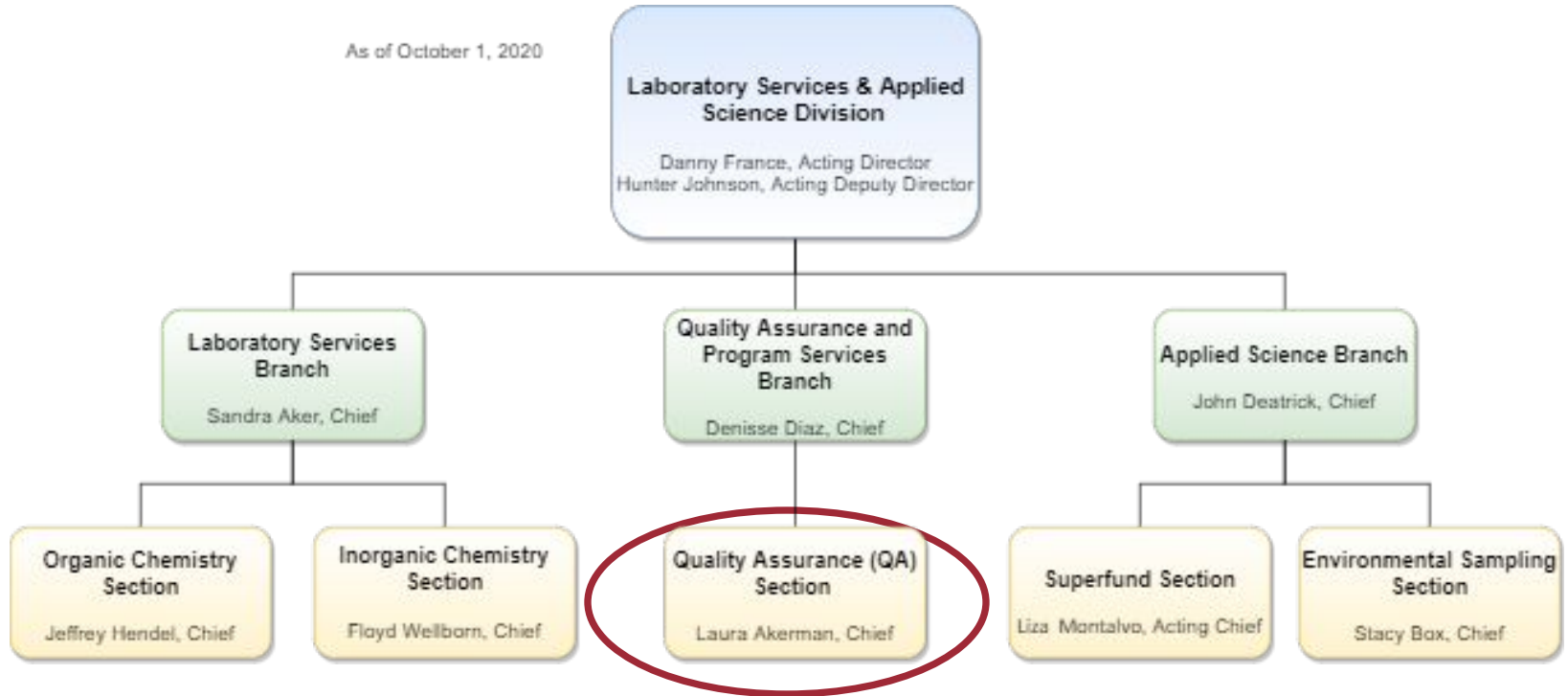
Laura Ackerman, Chief
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EPA REGION 4 ORGANIZATIONAL STRUCTURE

LSASD

ARD

August 31, 2020
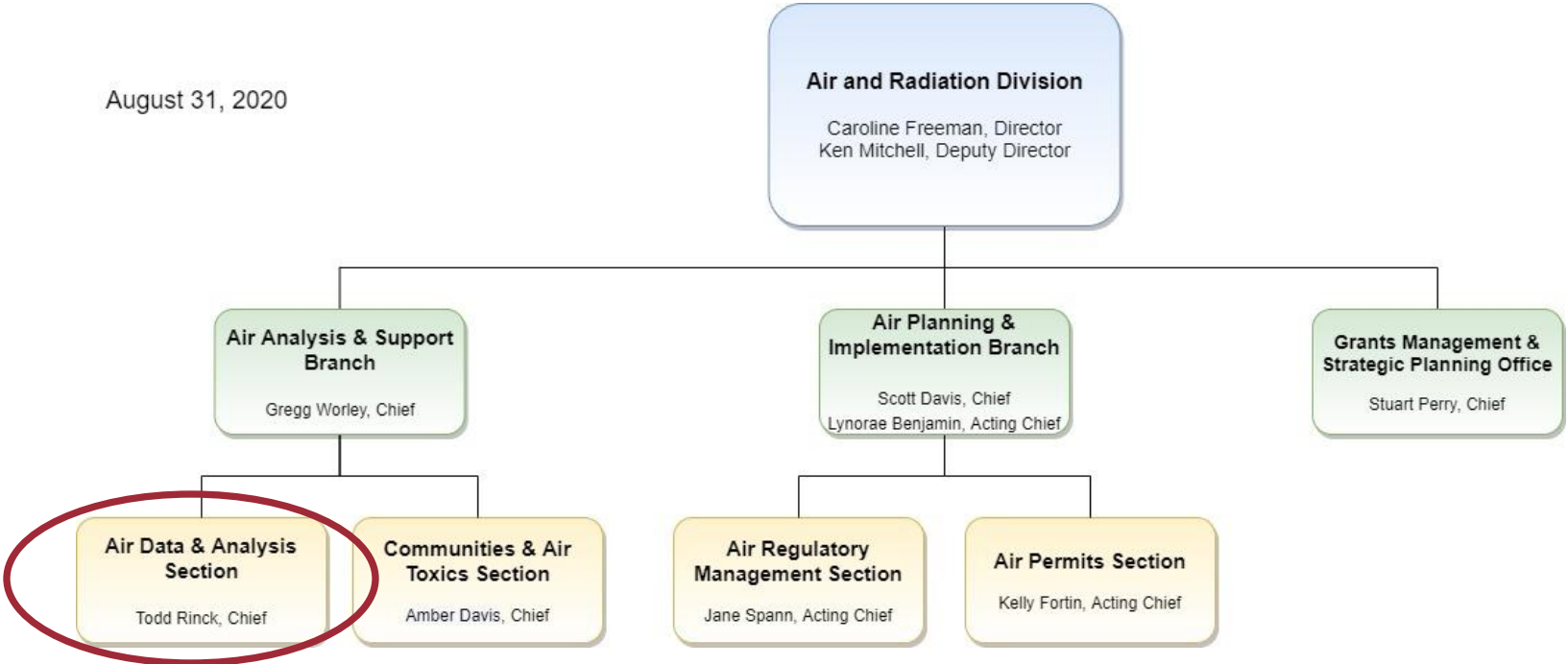
Air and Radiation Division

Caroline Freeman, Director
Ken Mitchell, Deputy Director

Air Analysis & Support Branch

Gregg Worley, Chief

Air Planning & Implementation Branch

Scott Davis, Chief
Lynorae Benjamin, Acting Chief

Grants Management & Strategic Planning Office

Stuart Perry, Chief

Air Data & Analysis Section

Todd Rinck, Chief

Communities & Air Toxics Section

Amber Davis, Chief

Air Regulatory Management Section

Jane Spann, Acting Chief

Air Permits Section

Kelly Fortin, Acting Chief

Roles and Responsibilities

ARD	LSASD
• Network plan & assessment reviews & approvals • Monitoring site approval • Data certification reviews • Data analyses • Grant reviews • Training	• TSAs • QAPP reviews & approvals • SRP verifications • Training • Technical support to state/local/tribal air monitoring agencies • NPEP audit coordination • Annual PM filter order • Toxics program support • New site reviews

Region 4
Ambient Air Monitoring Network

Total # of Sites

- Region 1: 87
- Region 2: 83
- Region 3: 191
- **Region 4: 338**
- **Region 5: 372**
- Region 6: 242
- Region 7: 114
- Region 8: 232
- **Region 9: 368**
- Region 10: 84

Total # of Criteria Monitors

- Region 1: 307
- Region 2: 231
- Region 3: 560
- **Region 4: 856**
- **Region 5: 924**
- Region 6: 630
- Region 7: 341
- Region 8: 669
- **Region 9: 1160**
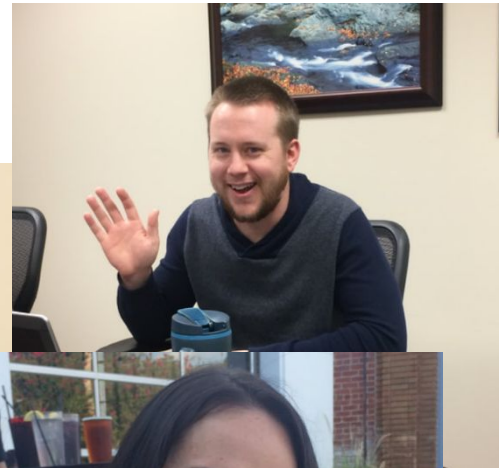- Region 10: 179

Data queried on 11/24/20. Only includes FRM/FEM/ARM monitors active in 2020.

Region 4 Air Monitoring Agencies

- 28 Monitoring Agencies
- 18 Primary Quality Assurance Organizations

▫ Florida
- 7 locals

▫ North Carolina
  - 3 locals

▫ Tennessee

▫ Memphis, TN

▫ Chattanooga, TN

▫ Nashville, TN

▫ Knoxville, TN

▫ Mississippi

▫ Alabama

▫ Birmingham, AL

▫ Huntsville, AL

▫ Kentucky

▫ Louisville, KY

▫ Georgia

▫ South Carolina

▫ 3 Tribes

Region 4 Air Monitoring QA

- Technical Systems Audits
  - ~ 9 audits per fiscal year (FY)
- QAPP Reviews/Approvals
- Standard Reference Photometer
  - ~50 Ozone instrument certifications per FY
- National Performance Evaluation Program Audits
  - ESAT Contractors
  - ~200 NPAP & PEP per FY
- National PM$_{2.5}$ Laboratory
  - ESAT Contractors
  - Weigh ~7000 filters per FY
- Training & Workshops
- Special studies
- Hurricane responses

R4 Air Monitoring QA Staff

Current Challenges

- Loss of trained, experienced staff
- Many new, inexperienced air monitoring personnel
- Lack of training resources
- Budget difficulties
  - Difficult to replace staff as they retire or leave
  - Difficult to replace aging equipment
  - In some cases, difficult to obtain standards and QA certifications in a timely manner

Common Technical Systems Audit Findings

- Loss of knowledge, trained personnel
- Inadequate or lack of data validation
  - Not validating contract lab data packages
- Issues with QAPPs and SOPs
  - New SOPS needed for: Data Validation, Document Control, Records Management
- Poor documentation practices
- Aged monitoring equipment
- Not following instrumentation FEM requirements

National Contributions

- APTI 470 Course – Stephanie McCarthy
- Ozone TAD Update – Keith Harris
- Air Monitoring QAPP Guide (Workgroup) – Stephanie McCarthy
- Data Validation Guidance (Workgroup) – Stephanie McCarthy