



*Air Quality,
Atmospheric
Change and
Energy
Considerations
in Conservation
Planning*

**Presented by the Air Quality & Atmospheric Change
and Energy Technology Development Teams
West National Technology Support Center
Portland Oregon**





Who We Are

Energy Team:

- Stefanie Aschmann, Leader
- Curtis Framel, Energy Specialist

Air Quality & Atmospheric Change Team:

- Greg Johnson, Leader
- Susan O'Neill, Air Quality Scientist
- Greg Zwicke, Air Quality Engineer
- Air Quality Scientist (vacant)

also...

Michele Laur, Nat'l Atmos Resource Specialist (ESD, NHQ)

Ron Heavner, Nat'l Air Quality Specialist (CED, NHQ)



National Technology Development Teams

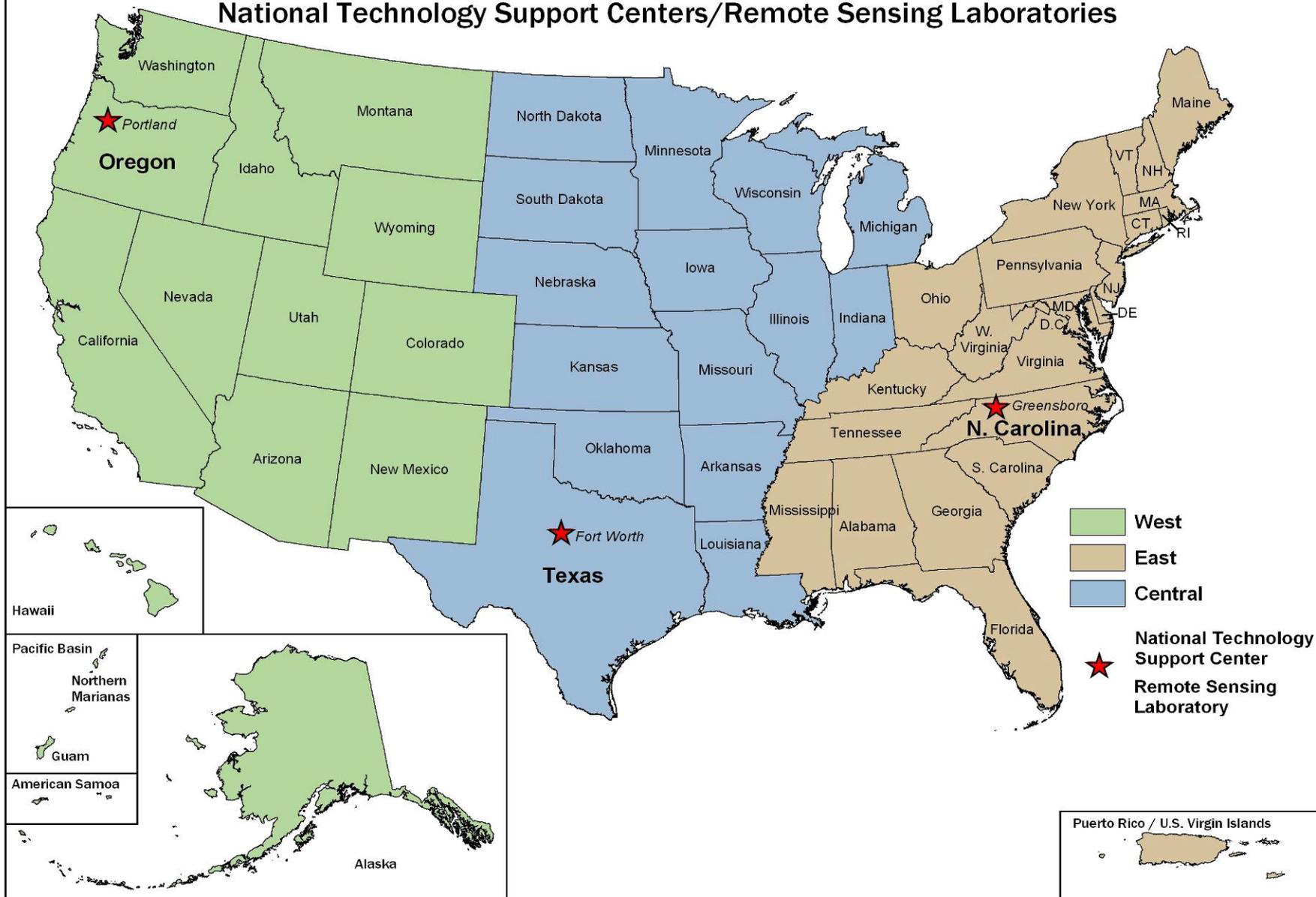
3 at each NTSC

- **Portland:** AQAC, Energy, Water Quantity and Quality
- **Ft. Worth:** Grazinglands, Wildlife, Wetlands
- **Greensboro:** Manure Management, Social Sciences, Soil Quality

2 Main Purposes:

- **To provide technological direct assistance and technology transfer**
- **To acquire and/or develop new science and technology in order to provide cutting-edge technological support**

Natural Resources Conservation Service National Technology Support Centers/Remote Sensing Laboratories



U.S. Department of Agriculture
Natural Resources Conservation Service
Resources Inventory Assessment Division
Washington, D.C. April 2007

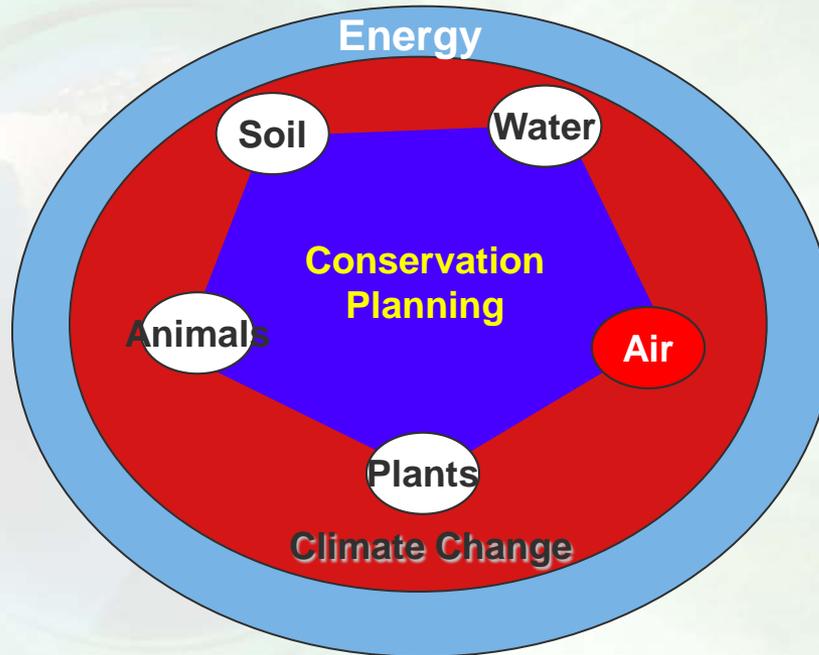


Why a Course on Air Quality, Atmospheric Change, and Energy?

- New and emerging areas of focus for the NRCS
- We tend to stovepipe resource analyses
- Examination of how air quality and energy are interrelated, and related to other resources (SWAPA+H)

Addressing Air Quality: The Holistic Approach to Addressing Resource Issues

Air Quality, Energy and Climate Change are Integral in the Total System



Agenda



Tuesday April 20

- Welcome, Introductions, Pre-Test
- NM/AZ Farm & Ranch Perspectives on AQ & Energy
- Energy Brainstorming Session
- Why Do We Care About Energy? and Energy Basics
- Energy Efficiency in Agriculture
- Renewable Energy (Guest Speaker)
- Energy Conservation Tools
- Local Energy Resources (Guest Speaker)
- Case Studies Round 1 - Energy
- An Overview of Air Quality
- NRCS AQAC Resource Concern Overview
 - ▶ Particulate Matter

Agenda



Wednesday April 21

- NRCS AQAC Resource Concern Overview
 - ▶ Ozone Precursors
 - ▶ Odors
 - ▶ Greenhouse Gases and Carbon Sequestration
- Carbon Sequestration on NM/AZ Crop and Rangeland (Guest Speaker)
- Smoke Management Principles
- Smoke Management & Agriculture (Guest Speakers)
- Conducting an AQAC Assessment
- Manure Management and Air Quality
- Agricultural Air Quality Brainstorming
- Agricultural Air Quality Issues in Dona Ana County NM (Guest Speaker)
- Case Studies Round 2 -AQAC
- Soil Management Strategies for Improving AQ and Enhancing Energy Efficiency
- Regional Digest Plan for Dairies (Guest Speaker)
- PM Measurement and Monitoring (Guest Speaker)

Agenda



Thursday April 21

- Field Tour (7:30 to Noon)
- Emerging AQAC and Energy Issues, and NRCS Relevance
- Case Studies Round 3 - Integration
- Small Group Case Study Report Outs
- Debrief and Review
- Wrap Up and Head Home!



GOALS

Better understanding of basic information and issues regarding Air Quality, Atmospheric Change and Energy, in relationship to agricultural production and NRCS conservation activities

Ability to assess both AQAC and Energy issues on a farm and develop appropriate strategies for addressing these



Expectations

Be engaged!

Make it Interactive. Ask Questions.

Take notes!

Review electronic and other materials.

Give us feedback!

Look for win-win opportunities

Share your experiences

Have fun!

