# Environment of Coulombian Environmental Quality

Air Quality Update





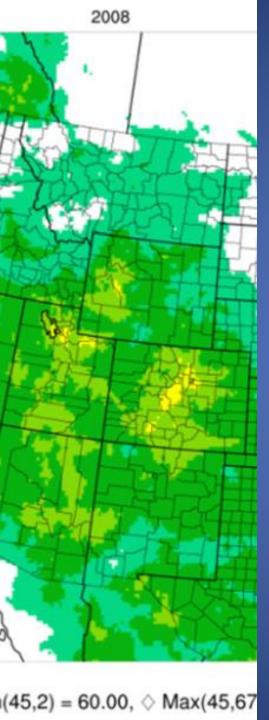
#### Overview

- Important Facts
- Upcoming Issues
  - New Ozone Standard
  - Clean Power Plan (111(d))
  - PM 2.5 Serious Area SIP
  - Regional Haze Second Planning Period
- Air Quality Budget Needs



#### Important Facts

- Air Quality is improving and is generally good, however, does not meet health standards on some days
- Perceptions about Air Quality impact Quality of Life and Economic Development
- Improving Air Quality is among the top three issues important to Utahns
- The majority of Utahns are willing to do more to improve Air Quality
- Current Air Quality Funding represents



#### Upcoming Issues

- New Ozone Standard (Based on Proposed Rule)
  - To be finalized by October 1, 2015
  - Non-attainment state recommendations in 2016
  - New Air Monitoring Requirements 2017
    - Expanded network to represent entire state
    - New chemical analysis requirements
  - New State-wide inventories and models 2017-2020
  - New State Implementation Plans 2020



#### **GHGRP, 2013**

#### Power Plants Sector Emissions (metric tons CO<sub>2</sub>e)

- <500,000
- 500,000—2,000,000
- 2,000,000—5,000,000
- 5,000,000—10,000,000
- >10,000,000

#### **Upcoming Issues**

- EPA Clean Power Plan (111(d))
  - Final rule published August 3, 2015
  - Interim Reduction targets 2022, Final reductions 2030
    - 37% reduction in rate of emissions, or
    - 23% reduction in total mass of emissions from 2012 levels
  - Requires interim state plan for implementation by September 6, 2016
  - Extensions are possible until 2018
  - Litigation has started

Data Source: 2013 Greenhouse Gas Reporting As of: 08/18/2014



#### Upcoming Issues

- PM 2.5 Serious State Implementation Plan (SIP)
  - Areas not meeting the standard by 2015 are reclassified as serious non-attainment areas
  - Serious area controls are required 18 months after bump-up
  - New Serious area SIPs will be finalized 2017-2019
  - Cache County and possibly Utah County may avoid reclassification based on 2015 air quality
  - A focused public and business effort is needed this fall to ensure that the standard is achieved



#### **Upcoming Issues**

- Regional Haze 2<sup>nd</sup> Planning Period 2018-2028
  - EPA will finalize requirements before 2018
  - New inventories and chemical analysis of air pollutants impacting visibility are required
  - Western and International modeling of air pollutant sources and impacts
  - Updated controls for identified sources



- Air Quality Research, Monitoring, Outreach and Incentive Programs (CARROT) to support:
  - Wasatch Front PM 2.5
  - Wasatch Front Ozone
  - Uinta Basin Winter Ozone

DEQ Technical Support Center

Air Monitoring Equipment Replacement

Air Quality Permitting Workflow Database



Ongoing Research Funding

\$200k-\$1M

- \$1 Million dollars was leveraged to \$7.8 Million in research funding for Utah
  - Projects addressing various issues including:
    - Optimization of EPA modeling tools for cold temperature applications(winter inversions)
    - Wood stove emissions contribution to PM 2.5
      levels along the Wasatch Front
    - Characterizing wintertime ozone chemistry in the Uinta Basin



Clean Air Retrofit & Replacement \$200k-\$700k (CARROT)

- 388 electric mowers provided at a discounted price
  - 4-11 tons annual emissions reduced, or equivalent of removing 120 passenger cars from Utah Roads
- 25 vehicles or pieces of equipment were retrofitted.
  - 477 tons of emissions reduced



DEQ Technical Support Center

\$6M

- Consolidate 3 remote facilities to 1950 W campus
- Savings over time due to current leases and inefficiency





Air Monitoring equipment

• Beyond useful life replacements \$1M (OT)

Equipment maintenance and replacement schedule

\$250k (OT) \$50K (O)

\$400k (O)

Near-road Nox and PM monitoring

\$150k (OT)

Cedar City population-based monitoring

\$50k (O)

Air Quality Permitting Workflow Database

\$1.5 M (OT)