Protecting Air Quality, with a Co-Benefit of Reducing CO₂ Emissions

Antioch University
Local Solutions: Eastern Climate Preparedness Conference
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Clean Air Act 1970

Amended 1977 & 1990

- EPA sets standards and we have to comply
  - based on latest science and technology

- Set enforceable emission limits on large pollutant-emitting facilities
- Set emission standards for motor vehicles and fuels

Our job is to ensure that air quality standards are met!
For more than forty years, the Clean Air Act has cut pollution as the U.S. economy has grown.

- 234% Gross Domestic Product (GDP)
- 70% Aggregate Emissions
- 54% Population

Source: EPA
Meeting the Clean Air Act Standards
Protecting Public Health
Air Resources Programs to Keep the Air Clean

- Monitoring
- Permitting
- Modeling
- Compliance
- Complain Investigations
- Toxics
- Risk Assessment
- Inspections
- Emissions Inventories
- Air Quality Action Days

Energy Programs

Mobile Sources Programs
“The Dirty Half-Dozen”
(Criteria Air Pollutants)

Ozone
Nitrogen Oxides
Fine Particle Pollution (PM)
Sulfur Dioxide
Carbon Monoxide
Lead
EPA has set Outdoor Air Standards for each Criteria Pollutant (National Ambient Air Quality Standards – NAAQS)

**Primary Standards**: Health-based standards to protect public health with adequate margin of safety (for example parts per million)

**Secondary Standards**: Welfare-based standards to protect environment (e.g., crops, vegetation, wildlife, buildings and visibility)
NHDES’ Mobil Source Program

Clean Diesel Program
EPA supported: retrofits & replacements

Transportation Conformity
A review process to ensure federally funded projects do not impact the NAAQS

Granite State Clean Cities
Reduce petroleum use in transportation by promoting alternative fuels & fuel reduction strategies

Drive Electric Event
Durham’s EV Charging Station
Annual “pump it up” events – check air pressure of employee vehicles

Carpooling incentives
Work with DOT & Regional Planning Commissions

Walkable Communities

Park & Rides; Transit

Commute Green Events

Supporting Local Food!
Co-benefits of Our Programming

→ Ski Areas
→ School pick up areas
→ School busses
→ Municipalities
→ Hospitality Industry

Burning of **fossil fuels** for **transportation** is the largest source of greenhouse gas emissions. Second is **electricity generation** (2016)
Wintertime Air Pollution

Keene NH at dawn on 12/2/2012

Cleaner air at higher elevations

Inversion Layer

Pollution trapped in valley by temperature inversion
Wood Stove Change - Out Programs

Problem with wood smoke build up in valley areas

Funding to replace old inefficient wood stoves

Education about burning & storing wood the right way
Burn the right wood – burn only dry seasoned hardwood

Use the right stove – it is best to use an EPA certified stove. If you can’t buy a new woodstove keep yours cleaned at least yearly

Burn the right way – maintain a hot bright fire. Smoldering wood is inefficient and makes more smoke!

Haven’t gone over the standard since 2013!

Emission reductions, more efficiency in wood burning, more sustainable fuel use & less pollution!
Not Just Air Resources

Other Initiatives with Co-Benefits

More, More, More
Tell us more
NHSaves Button Up Workshops

NH Saves - Collaboration of New Hampshire’s electric and natural gas utilities

Provide customers with information, incentives, and support designed to save energy, reduce costs, and protect our environment statewide

Cover basic building science principles and examples of whole house weatherization measures that will button up homes for the heating and cooling seasons

Include energy efficiency programs offered by NH utilities, availability of energy audits and weatherization, rebates on electric and gas appliances as well as for new construction
Other Ideas and Programs with Co-Benefits of Reducing CO₂ Emissions

- Partner with Utilities to Help Businesses Reduce Energy Use + SAVE MONEY
- Water Conservation
- Keeping Land in Open Space
  - Forestry + Agriculture
  - Wetlands + Salt Marshes + Buffers
  - CO₂ sink
- Any Waste Reductions Initiatives
- Any Energy Efficiency Initiatives
Other Ideas within our Adaptation & Resiliency work

Thank You