

Clean Air and Sustainability

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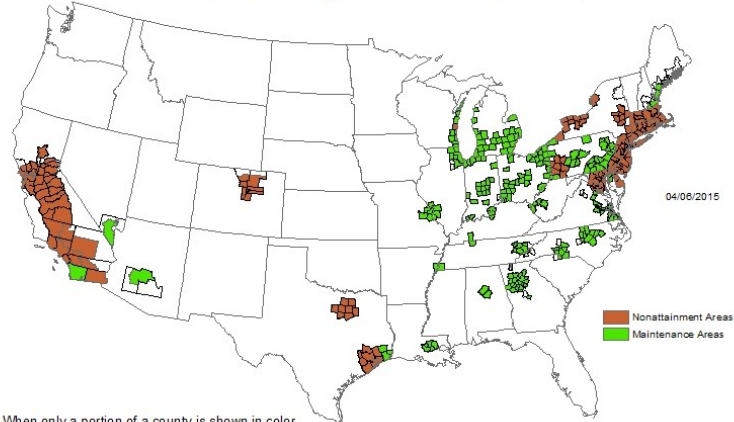


WAKE FOREST
UNIVERSITY

CAPCA, Asheville, NC April 12, 2018

What A Difference 20 Years Makes!

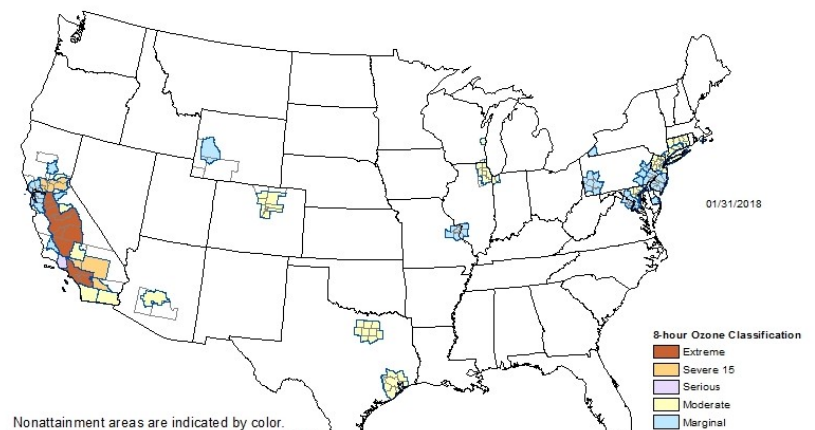
8-Hour Ozone Nonattainment and Maintenance Areas (1997 Standard - Revoked)



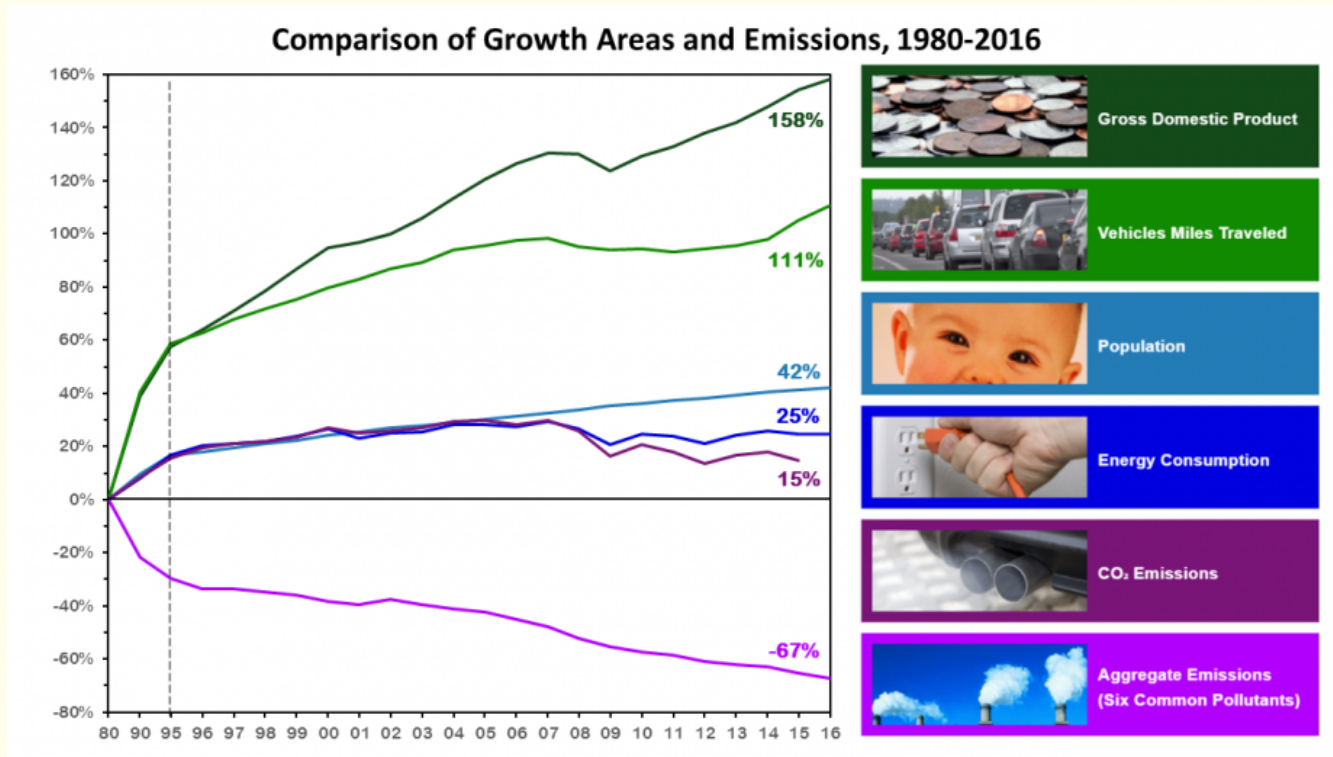
When only a portion of a county is shown in color, it indicates that only that part of the county is within an area boundary.

The 1997 Ozone NAAQS was revoked effective April 6, 2015 (80 FR 12264).

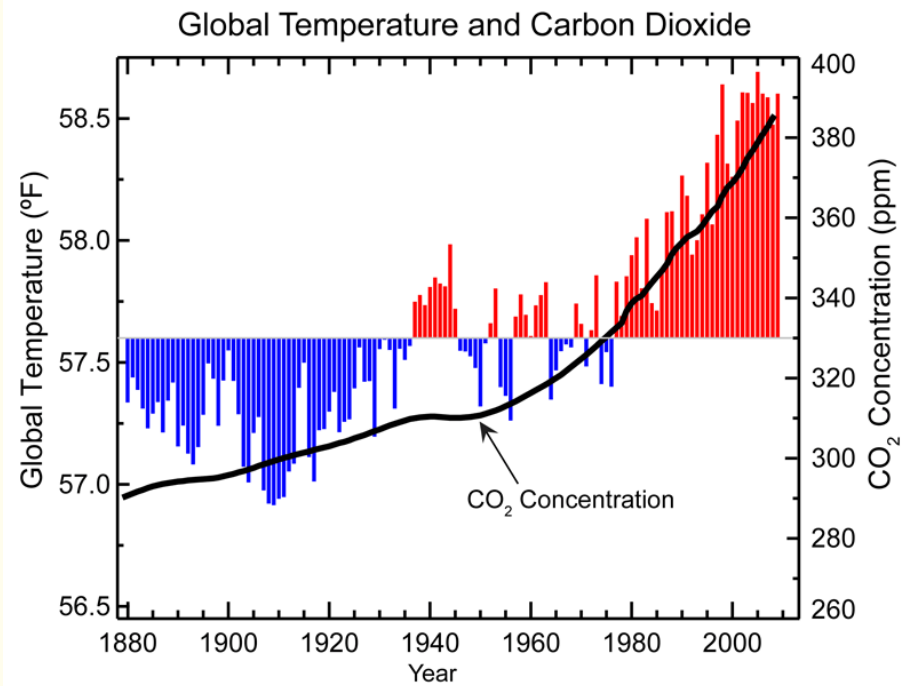
8-Hour Ozone Nonattainment Areas (2008 Standard)



Nonattainment areas are indicated by color. When only a portion of a county is shown in color, it indicates that only that part of the county is within a nonattainment area boundary.



Source: *Our Nation's Air*, USEPA 2017





- **SO₂ from power plants will be 90% lower vs. 2005**
 - **Emissions of nitrogen oxides will be 72% lower**
 - **Climate benefits of \$20 billion**
 - **Health benefits of \$14-\$34 billion**
 - **Net benefits of \$26-\$45 billion**
 - **Avoiding, each year:**
 - 3,600 premature deaths
 - 1,700 heart attacks
 - 90,000 asthma attacks
 - 300,000 missed work days and school days
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“Sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

1987 Brundtland Report: *Our Common Future*



Sustainability Is More Than Just Climate





Pollution Control

- Rule Driven
- Compliance
- Cost Plus
- Emissions Reductions

Sustainability

- Systems Driven
- Beyond Compliance
- Cost Savings
- Social Benefits

Contrasting Yet Compatible Perspectives

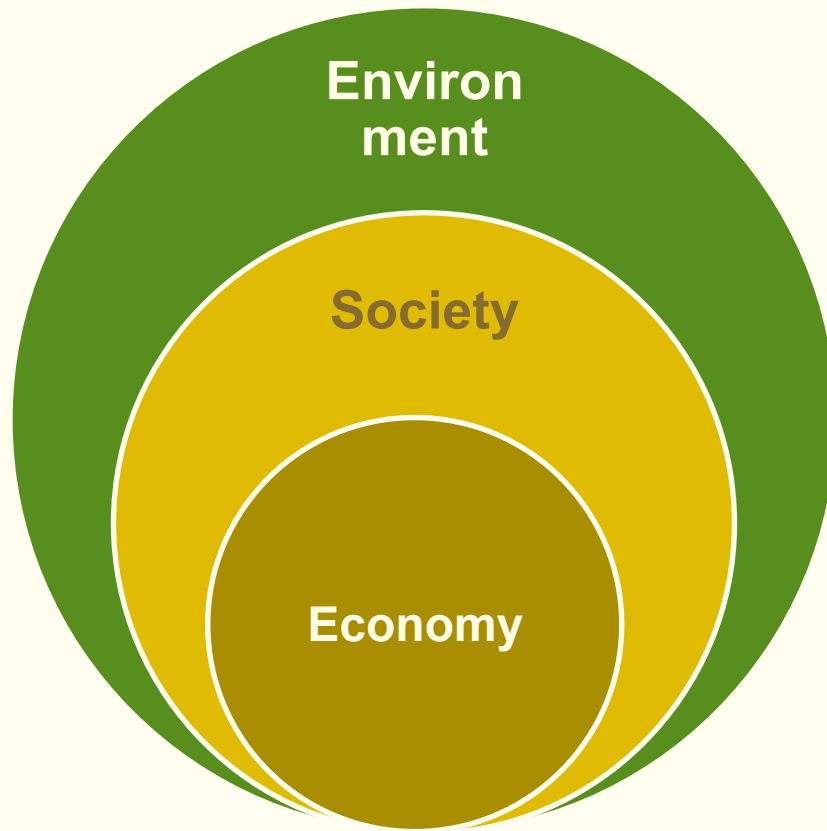
Executive Order 13693, March 19, 2015

- Required agencies to write strategic sustainability performance plans, or SSPPs.
 - SSPPs summarize actions on climate change, resilience, GHG reduction, energy efficiency (e.g., buildings, data centers), water use and fleet vehicles
 - E.O. set detailed goals for improvement
 - Progress reports required annually online
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- **Largest energy consumer in the nation**
 - **Manages >360,000 buildings and 660,000 vehicles**
 - **Reduced building energy use per square foot > 5% from 2015 to 2016**
 - **Reduced potable water use >23% since 2007**
 - **Uses renewable energy >14% of facility energy needs**
 - **Tripled alternative fuel use since 2005**
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“Trump's team ignoring Obama sustainability mandate”—ClimateWire, April 11, 2018

- **Executive Order 13693 not revoked**
 - **Of 24 agency reports only one (DOE) is up to date**
 - OMB approval required
 - **CEQ (the coordinating agency): “No comment”**
 - **Evident lack of interest, but mechanism still there**
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Interaction between

- Environmental
- Social
- Economic

Aspects of Sustainability