

# Community Based Planning for Ozone Reduction

New health studies have shown humans are more negatively impacted by ozone pollution than previously understood. By August 31, 2010 the U.S. Environmental Protection Agency will announce a more stringent health standard for ground-level ozone and the Omaha-Council Bluffs monitored areas could be impacted.

To keep the Omaha-Council Bluffs area attractive as an economically viable choice for development and to protect the area's vulnerable populations, a broad community-supported planning and implementation effort is needed.

The Iowa Department of Natural Resources and the Nebraska Department of Environmental Quality will collaborate with the Metropolitan Area Planning Agency, stakeholders, community leaders and citizens to plan a framework for air quality improvements. A series of public meetings will engage stakeholders and communities in a discussion of ozone and mitigation measures. Supported by air agencies' technical expertise, participants will determine the opportunities and alternatives for mitigation measures.

The result will be a Performance Agreement, with agreed upon mitigation measures, milestones, backup measures if the initial mitigation measures are not successful, and the final goal.

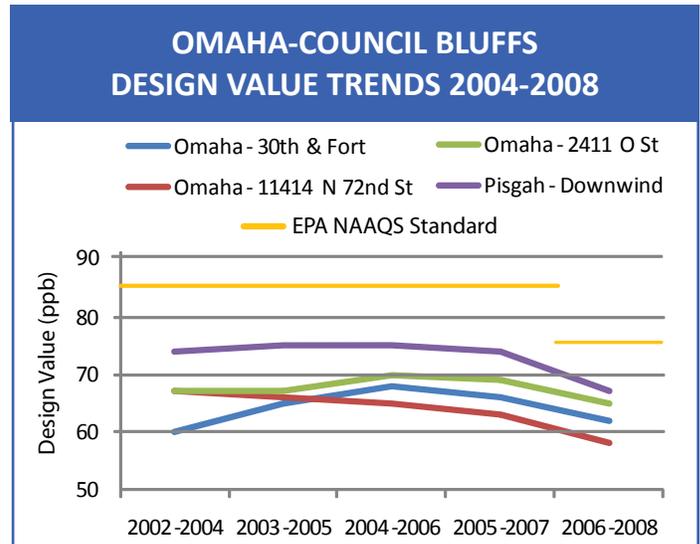
## Background: Ozone is Good Up High, Bad Nearby

Ozone occurs in two layers of the atmosphere. In the layer closest to the Earth's surface where ground-level ozone occurs, the presence of ozone is harmful to breathe and it damages crops and trees.

Six miles up is the second layer of atmosphere where ozone occurs. Up there, ozone has a protective role—sheltering life on Earth from the sun's harmful ultraviolet (UV) rays which leads to increased cases of skin cancer and other harmful effects.

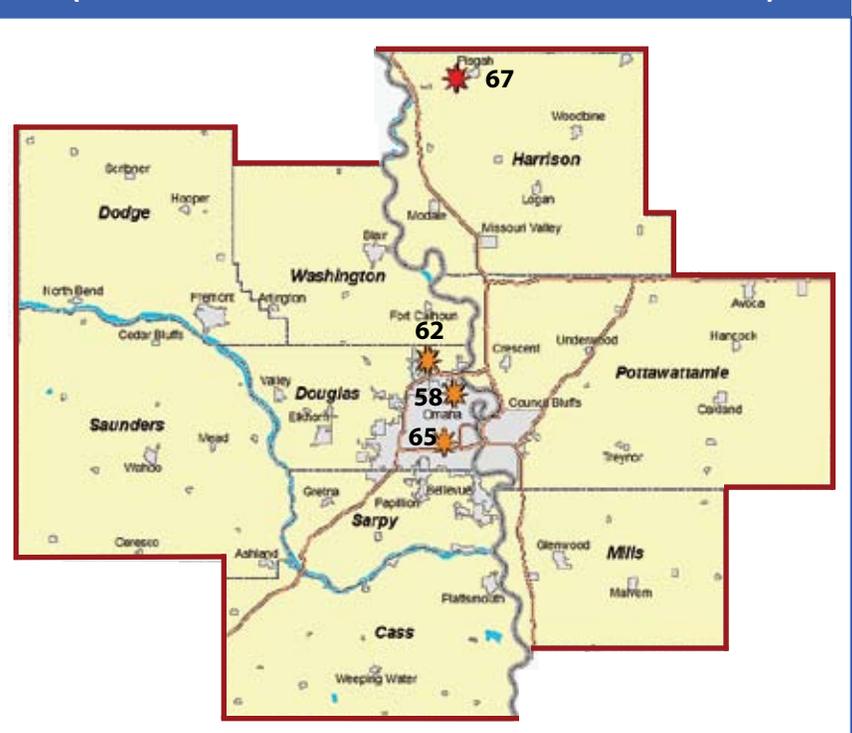
## Where Ground-level Ozone Comes From

Ozone is formed when several common airborne pollutants, called volatile organic compounds (VOCs) and nitrogen oxides (NOx) react with sunlight and heat. Volatile organic fumes come from evaporation of gasoline,



In the meantime, citizens will notice a more targeted education campaign focused on voluntary actions that individuals and small businesses can take to reduce ozone pollution.

## OMAHA-COUNCIL BLUFFS DESIGN VALUES FOR 2006-2008 (PROPOSED HEALTH THRESHOLD IS 60 TO 70 PPB)



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paint, solvents, consumer products, varnishes and industry chemicals. Nitrogen oxides come from high-temperature combustion found in exhaust from auto and truck engines, boilers, utilities and other sources. VOCs and NOx are often referred to as “ozone precursors.” Ozone is not emitted from most pollution sources: ozone precursors “cook” in the atmosphere to form ozone.

Ideal conditions for ozone formation require warm, windless days with bright sunlight found during the months of May through September. Both urban and rural areas are subject to elevated ozone levels as winds carry emissions hundreds of miles away from their original sources.

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### What Communities Can Do To Reduce Ozone Precursors

- Promote land use planning practices that lead to a reduced dependence on automobiles.
- Encourage flexible work days at workplaces so employees can schedule transportation to avoid peak traffic hours.
- Save both travel time and auto emissions by teleconferencing or videoconferencing. Consider positions that can be performed by telecommuting.
- Outdoor activities that generate ozone precursors on ozone alert days should be performed, if feasible, either early in the morning or late in the day.
- Consider tree planting and landscaping standards or ordinances. Establish minimum tree planting standards for new developments. Promote strategic tree planting along streets and in parking lots. Shade from trees helps cool buildings, parked vehicles, and pavement, reducing need for energy use.
- Use native plants in landscaping. They require less mowing, watering and use of chemicals.
- Left turn lanes and signals, rapid clearing of traffic accidents, and advance notice of construction detours improve traffic flow and avoid engine idling emissions.

### Land Use Planning

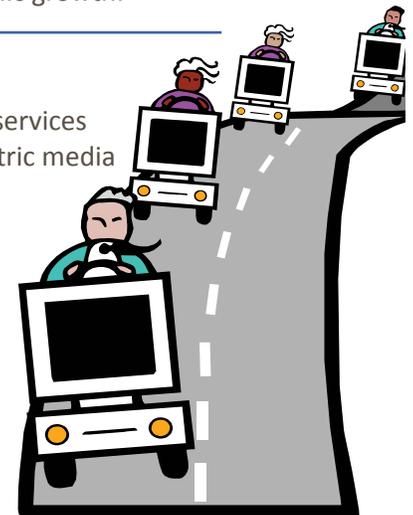
Not only must communities be concerned with the formation of ozone, they also must consider patterns of ozone dispersion. Prevailing winds, area meteorological conditions, terrain, and the concentration of pollution sources are among these possible conditions. Air shed communities must also consider the current background air pollution, historic land use patterns and transportation corridors.

Using community based planning and stakeholder advisory groups to manage the Omaha-Council Bluffs air shed will help the area stay within the EPA’s health standards and support plans for economic growth.

- Increase the number of services available by phone or electric media to reduce vehicle travel.
- Practice proper vehicle maintenance. Proper maintenance can reduce fuel demand up to 15 percent with regular tune-ups, filter replacements, and engine diagnostics.

### What Citizens Can Do to Reduce Ozone Precursors

- Refuel cars and trucks after dusk. Be sure to avoid “topping off” your tank.
- Combine errands and reduce trips.
- Limit engine idling. Reduce engine wear, save fuel, and help reduce ozone precursors.
- Choose a cleaner commute — share a ride to work or use public transportation. Bicycle or walk to errands when possible.



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