

Be Involved in the Parkland Ozone Management Plan

WHAT IS OZONE?

Ozone (O₃) is a colourless gas which at normal concentrations is odourless. When found at higher concentrations it has a distinctive sharp odour associated with electrical charges in lightening storms and photocopiers. Ozone in the upper atmosphere (stratosphere) plays an important role in shielding the earth from harmful rays from the sun, particularly from ultraviolet rays. However, ozone at ground level is primarily a human produced pollutant which contributes to the creation of smog; that yellow or brownish haze you may see in the horizon or over a city on a very hot day.

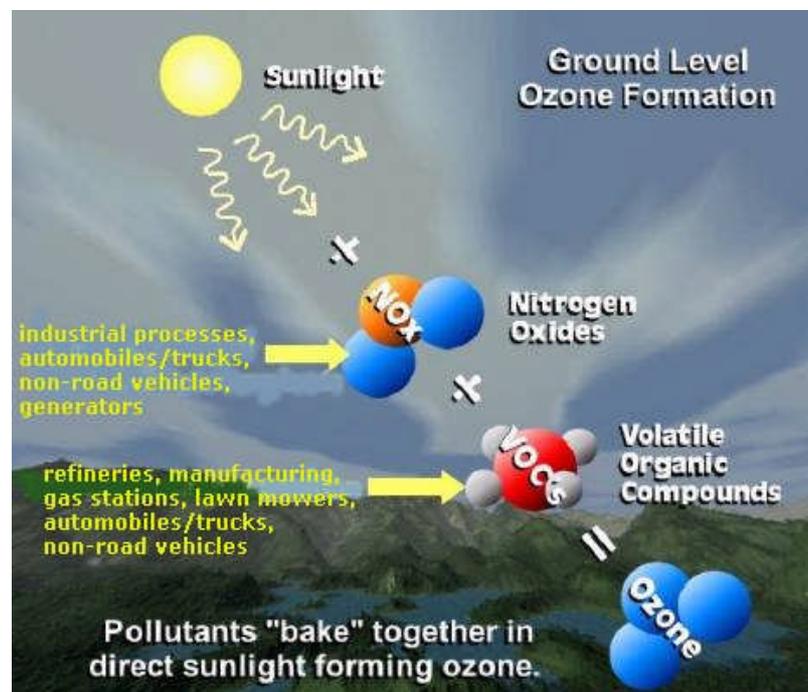
Ground level ozone is different from other pollutants in that it is not emitted directly into the air. It requires two primary precursor pollutants (nitrogen oxides and volatile organic compounds or VOCs) to react in the presence of heat and sunlight under stagnant weather conditions.

Nitrogen oxides are produced by combustion from vehicles, trains, motor boats, gas burning lawn and farm equipment and home heating, as well as from industrial sources such as oil and gas and power generation plants, for example.

VOCs include hydrocarbons like alkanes, alkenes, aromatics (i.e. benzenes and toluene) aldehydes, ketones, alcohols, esters and some chlorinated compounds.

Other sources for VOCs can include

intensive livestock operations, petroleum and chemical industries, vehicular emissions, gasoline marketing and storage tanks, dry cleaning, fireplaces, natural gas emissions and aircraft traffic.



WHY IS OZONE A CONCERN?

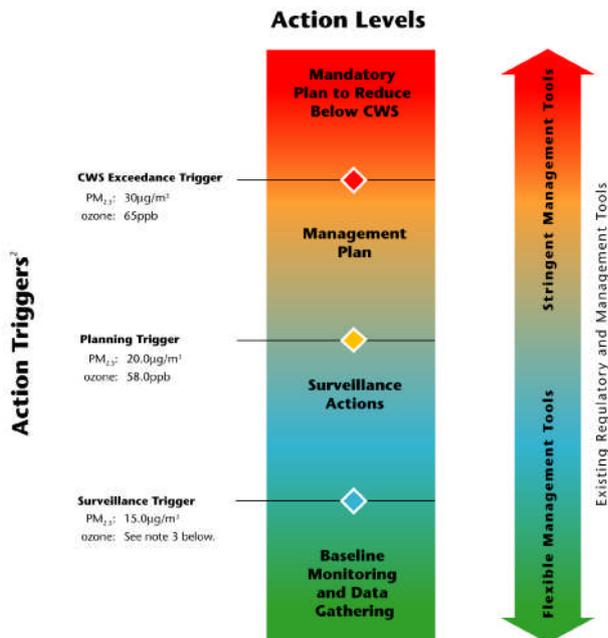
Ground level ozone at high concentrations is a pollutant that has detrimental effects on human and animal health and the environment. It can reduce lung function, cause chest tightness, coughing or wheezing and aggravate existing respiratory illness as well as irritate eyes, nose and throat. Chronic exposure can cause permanent damage to the alveoli of the lungs. Additionally it can reduce crop yields and plant growth and contribute to noticeable leaf damage.

In recent years ozone levels in the Parkland Airshed Management Zone (PAMZ) have approached the Canadian Wide Standards (CWS) limit of 65 parts per billion (PPB). These levels triggered the need for an ozone management plan for the area to ensure we do not reduce our air quality to the point where we have extended periods of smog, reduced visibility, increased incidents of air quality related health concerns, damage to our vegetation, limited outdoor activity and general loss of the quality of life.

WHAT IS BEING DONE ABOUT IT? - THE OZONE MANAGEMENT PLAN

Ozone levels in the Parkland Airshed Management Zone triggered the need for an Ozone Management Plan as mandated by the CASA Particulate Matter and Ozone management Framework. This framework is based on standards established by the Canadian Council of Ministers on the Environment (CCME).

Fine Particulate Matter and Ozone Management Framework



The fundamental principles behind the PAMZ Ozone Management Plan are continuous improvement, pollution prevention and keeping clean areas clean. **Therefore, the intention is to avoid polluting up to CWS levels.**

The main focus of the management plan is on voluntary stewardship, corporate responsibility and supportive programming to reduce ozone levels in our region. This means that every sector, organization, business and individual in the region is encouraged to play a role in helping to reduce emissions that create ground level ozone.

The Ozone Management Plan is in place to ensure continuous improvement, but it may require more stringent actions if future air quality conditions worsen or we fail to work toward reducing our emissions of precursor pollutants in the region.

The need for a management plan was identified by Alberta Environment (AENV). PAMZ agreed to be the coordinating body to develop, maintain and be responsible for the plan.

The plan was developed through a collaborative effort among key stakeholders and includes six objectives:

- Determine the human health impacts of poor air quality on PAMZ stakeholders
- Maintain and improve air quality in the PAMZ where possible.
- Continuous improvement in air quality will encourage future regional and economic growth and potentially promote new business opportunities
- Regional land use planning to encourage and promote good air quality.
- Build and promote awareness of local air quality issues.
- Agencies will work collaboratively to improve air quality and to share environmental responsibility.

(For detailed information about the Ozone Management Plan, go to the PAMZ website at www.pamz.org).

HOW CAN YOU CONTRIBUTE TO THE OZONE MANAGEMENT PLAN?

Whether you are a non-government organization, a business, industry or municipality, there are ways you can play a role in reducing emissions that cause ground level ozone pollution. PAMZ encourages you to:

- Learn about the Ozone Management Plan and how your business or organization can play a role in reducing emissions causing ozone in the region.
- Assess your organization's current environmental performance and provide PAMZ with an inventory of what you already are doing.
- Build awareness within your organization about ground level ozone and generate ideas about how your organization can further reduce emissions causing ozone in our atmosphere.
- Enact plans to encourage your employees or the members of your organization to actively participate in ozone reduction strategies.