

Summertime Air Pollution Response Plan

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This is a working document that will be updated regularly. Please visit the Department of Environmental Quality website at http://www.deq.idaho.gov/air/data_reports/reports/ada_co/pollution_response_plan_summer.pdf for the most up-to-date version of the Plan.

Summertime Air Pollution Response Plan

From April 1 through September 30, when the air quality is forecasted to be poor, the Department of Environmental Quality (DEQ) will issue an air quality alert to notify the Treasure Valley community of the following day's forecasted air quality condition. If conditions are expected to be moderate to hazardous for the weekend, alerts will continue to be issued at the regular time on Saturday and Sunday. These alerts will be reported to local media outlets and to others through an email notification list. The *Summertime Air Pollution Response Plan* (Plan) urges citizens, businesses, and local governments to do their part to reduce their impact on air pollution every day and especially during episodes of high pollution. The Plan will be updated as pollution sources in the Valley change and we develop a more precise scientific understanding of the air pollution problems we face.

DEQ has been monitoring the quality of the Treasure Valley's air since the 1970s. During that time, previously high levels of carbon monoxide (CO) and particulate matter (PM₁₀) were reduced through a series of local and federal actions. Although those two pollutants have been successfully minimized, the area still has air quality issues with other pollutants.

DEQ began monitoring levels of ozone in the Treasure Valley in 2000. Since that time there have been summertime exceedances of the federal health-based standards at monitors located in both Ada and Canyon Counties. Unlike coarse particulate and carbon monoxide, which could be effectively controlled by relatively simple measures, ozone is much more complex in its formation and in the measures that are required to control it.

Ozone is not directly emitted from any source. It is formed in the air through a series of chemical reactions that occur in the presence of heat and sunlight. The chemicals that are involved in the reaction are volatile organic compounds (VOCs) and oxides of nitrogen (NO_x). These chemicals can get into the air in many ways, including through smoke from burning, industrial operations, agricultural operations, industrial and residential cleaning fluids, evaporation of fuels, and exhaust from gasoline and diesel engines.

DEQ forecasts pollution conditions for ozone in the Treasure Valley. Forecasts are made Monday through Friday, using pollutant monitoring data and meteorological information. Because ozone needs heat and sunlight to form it is considered a summertime problem and is only monitored from April 1 through October 31. Ozone pollution can rise to very high levels when the Valley experiences hot days with few clouds in the sky. Because summers in southwest Idaho are normally hot and dry, the Treasure Valley tends to see daily ozone levels that begin to rise in the late morning and then peak in the late afternoon and early evening. This phenomenon follows very closely with the time of day that the temperatures are the hottest and the sun is the highest in the sky. Since we have no control over our weather characteristics we have to focus on controlling what we put into our air.

DEQ is mandated to protect public health and the environment. Under that mandate, in situations where high levels of air pollution are anticipated or present, DEQ coordinates efforts to ensure that the public is informed of the associated health risks. Simultaneously, to minimize health impacts DEQ coordinates efforts to bring pollutant levels down. To ensure that these efforts are

effectively undertaken, DEQ has developed *Summertime Air Pollution Response Plan*. The goal of the *Plan* is to create an opportunity for the public, governments, and businesses to become informed of high air pollution levels and take proactive steps to reduce those levels and protect the health of our citizens.

The *Plan* is based on DEQ’s air quality forecast. During periods of degraded air quality the public will be notified of the air quality alert condition by the following table:

| Air Quality | Protect Your Health | AQI |
|---------------------------------------|---|------------------|
| Good | None | 1 - 50 |
| Moderate | Sensitive* people should consider limiting prolonged outdoor exertion. | 51 - 100 |
| Unhealthy for Sensitive Groups | Everyone should limit exertion outdoors. | 101 - 150 |
| Unhealthy | Everyone should limit exertion. | 151 - 200 |
| Very Unhealthy | Limit any exertion. | 201 - 300 |
| Hazardous | Stay indoors and avoid any exertion | 301 - 500 |

- **Good:** The AQI value for your community is between 0 and 50. Air quality is considered satisfactory and air pollution poses little or no risk. Color: Green.
- **Moderate:** The AQI for your community is between 51 and 100. Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of individuals. For example, people who are unusually sensitive to ozone may experience respiratory symptoms. Color: Yellow.
- **Unhealthy for Sensitive Groups:** When AQI values are between 101 and 150, members of sensitive groups may experience health effects. This means this group of people is likely to be adversely affected at lower levels than the general public. For example, children and adults who are active outdoors and people with respiratory disease are at greater risk from exposure to ozone, while people with heart disease are at greater risk from carbon monoxide. Some people may be sensitive to more than one pollutant. The general public is not likely to be affected when the AQI is in this range. Color: Orange.
- **Unhealthy:** AQI values are between 151 and 200. Everyone may begin to experience health effects. Members of sensitive groups may experience more serious health effects. Color: Red.
- **Very Unhealthy:** AQI values between 201 and 300 trigger a health alert, meaning everyone may experience more serious health effects. Color: Purple.

- ***Hazardous:*** AQI values over 300 trigger health warnings of emergency conditions. The entire population is more likely to be affected. Color: Maroon.

DEQ is required to publish the AQI for areas with populations over 350,000 on working days and at least once per day. DEQ publishes this information for certain areas with lower populations as well. When the AQI is above 100, DEQ also must report which groups (such as children, the elderly, and people with asthma or heart disease) may be sensitive to the specific pollutant. If two or more pollutants have AQI values above 100 on a given day, DEQ reports all the groups that are sensitive to those pollutants. Because the AQI is a national index, the values and colors used to show local air quality and the associated level of health concern are the same everywhere in the U.S.

The declaration of any air quality alert will be made by DEQ based on an analysis of pollutant indicators and meteorological conditions. When an alert has been declared and pollution levels are forecast to continue to rise, DEQ will notify representatives from key agencies who will work together to disseminate information to the public and media. The goal of the group will be to implement specific actions in the community to relieve and reduce the pollution load on the airshed and to ensure that measures are taken to protect public health. Agencies that will participate include: DEQ, EPA-Boise Office, Central District Health Department, Southwest District Health Department, Community Planning Association, Ada County Highway District/Commuteride, Idaho Transportation Department-District 3, Oregon Department of Environmental Quality, and the National Weather Service.

During good air quality alert conditions, the community should still make commute and purchasing decisions with the quality of the air in mind. DEQ requests that during an alert the community take the following actions:

- **Limit Driving.** Consider carpooling or ridesharing options to reduce the driving associated with your daily commute. Anything that you can do to reduce vehicle emissions will help the quality of the air we breathe.
- **Combine Trips.** Consider combining all of your daily trips into one. Reducing the amount of times you have to make trips in a day will help limit air pollution, and will save money on fuel and vehicle maintenance.
- **Keep Vehicles Maintained.** A poorly maintained vehicle can pollute as much as 25 times more than a well-maintained one. Properly maintain your vehicle through regular oil changes, regular maintenance service, and proper tire inflation.
- **Don't Top Off Your Tank.** When refueling your vehicle stop pumping the fuel after the first click. When you fill your tank all the way the vapors in your tank are forced out into the air. In addition to being bad to breathe into your lungs, the vapors are primarily VOCs, one of the main chemicals in the formation of ozone.

As the air quality in the Valley begins to deteriorate, DEQ will ask that the community take the actions requested in the paragraph above **and** these further actions:

- **Comply with Open Burning Restrictions.** Many jurisdictions in the Valley have local ordinances that **prohibit open burning** when the air quality is poor. Even if you live in an area where there is no local ordinance prohibiting burning, please consider not burning during an alert. If you are not sure of the rules in your area, you can contact:

| <i>Responsible Agency/ Municipality</i> | <i>Contact Phone</i> |
|--|----------------------|
| Ada County Solid Waste Management (Landfill) | 577-4725 |
| Canyon County: Planning-Zoning & Code Enforcement | 454-7458 |
| City of Boise: Burn Ban Hotline | 384-3901 |
| City of Caldwell: Fire District | 455-3032 |
| City of Garden City: refers calls to Ada County Solid Waste Management | See above |
| City of Greenleaf: City Clerk | 454-0552 |
| City of Eagle: Fire District or City Clerk | 939-6463 or 939-6813 |
| City of Kuna: City Clerk | 922-5546 |
| City of Meridian | 888-1234 |
| City of Middleton: refers calls to Canyon County & Fire District | See Canyon County |
| City of Nampa: Fire District | 465-2240 |
| City of Notus: City Clerk | 459-6212 |
| City of Parma: Rural Fire District | (208) 722-5716 |
| City of Star: City Hall | 286-7247 |

- **Refuel After 7 p.m.** Ozone is formed when it is hot and sunny. Refueling your vehicle when the sun is lower in the sky and the temperature has decreased will cause less evaporation of the vapors from the fuel going into your tank AND the vapors that do get into the air will not be transformed into ozone.
- **Mow Your Lawn in the Evening.** Did you know that running a pre-1998 lawn mower for one hour in the summer creates the same amount of pollution as driving a car from Reno to Seattle? Not mowing your lawn in the middle of the day will reduce the polluting chemicals in the air that can react to form ozone.
- **Don't use lighter fluid in your barbecue.** Consider barbecuing with a propane grill as opposed to charcoal, or barbecue later in the evening when the sun is lower in the sky.

With the quality of the air being poor and worsening, DEQ will asks that the community take the actions requested in both air quality alert conditions listed above **and** these further actions:

- **Sensitive Populations Avoid Exposure.** If you are sensitive to air pollution you should try to avoid strenuous outdoor activities.
- **Avoid Exercising Outdoors between Noon & 7 p.m.** Ozone levels are the highest during the middle of the day when the temperature is hot and the sun is high. Consider exercising outdoors in the morning or evening or indoors during the middle of the day. If you choose to exercise outdoors try to avoid busy streets where high levels of ozone forming chemicals are being emitted.

During air quality alerts local employers and businesses will be specifically asked to take actions to reduce their contribution to the pollution in the air. Some examples of those actions are:

- **Use Video or Teleconferencing.** Consider using an alternative meeting forum if scheduled meetings require participants to drive to the meeting place. It is important to limit vehicle trips in the Valley as much as possible.
- **Allow Alternate Work Schedules.** Plan in advance for employees to stagger their work hours to decrease the air pollution from vehicles that builds up during the normal commute times.
- **Allow Telecommuting Options.** Reducing commute trips in the Valley during a air quality alert is critical to keeping pollution levels in check. Developing a policy ahead of time will allow a telecommuting program to be activated as soon as an air quality alert has been declared.
- **Minimize Industrial and Commercial Operations.** Minimizing pollution that comes from commercial and industrial activities can help lessen the severity of high pollution episodes, especially emissions of ammonia and sulfur dioxide. Develop a plan ahead of time that can be put into action as soon as an air quality alert has been declared.

DEQ is committed to working with the Treasure Valley community to develop plans for to optimize their activities to reduce air pollution. If you would like assistance, or would like to be added to DEQ's *Air Pollution Response Plan* email notification list please contact Mike DuBois at 373-0550, or via email at mike.dubois@deq.idaho.gov.