

Air Quality Toolkit



Delaware Valley
Regional Planning
Commission

AIR QUALITY IN THE DELAWARE VALLEY



Do you think we can't do much about the quality of the air we breathe? Think again.

As an Air Quality Partner, you have the power to take action for cleaner, healthier air in the Delaware Valley. The Air Quality Partnership (AQP) helps protect the public from air quality health risks while encouraging voluntary actions to reduce the formation of the two most common types of air pollution - ground-level ozone and particle pollution. While poor air quality affects everyone, children, the elderly, people with heart and lung diseases, and those who work outdoors in the summer months are particularly susceptible.



What is the AQP?

The AQP is a voluntary coalition of public / private partners that encourages its participants and the general public to take voluntary action to improve air quality in our region year round. During the summer the AQP kicks off the Ozone Action program, a program that alerts and educates the public about high ozone days. Particle pollution is a year-round problem, which can be high during the warmer months but is more problematic during cold weather. Summer and wintertime tips encouraging actions when either pollutant or combination of both pollutants is high will be made available to all Partners. Participation in the AQP and programs is entirely voluntary and our success depends on everyone sharing the responsibility.



Why is there an AQP?

Air quality affects quality of life **and** the economy of the Delaware Valley. For instance, employee illness or absenteeism from the effects of poor air quality reduces productivity and is bad for business. The AQP seeks to alert and educate the general public, employers and their employees about poor air quality and what we can do to counteract its negative effects. Locally, the Delaware Valley Regional Planning Commission (DVRPC) administers the program but there are over 70 similar programs in other areas throughout the country, with new programs being established every year. Over 350 area Partners have signed on to date and the number is growing. If we all contribute to improving our air quality, the health of our citizens and our economy will also benefit.



What do Partners get in return?

Partners receive notification via e-mail or fax the day before a high ozone or particle pollution day. They, in turn, inform their employees about forecasted air quality health risks and ask them to take actions to protect their health and reduce ground-level ozone and/or particle pollution. The ozone season runs from May to September, with an average number of 10 high ozone days called each season. This year, a few additional Particle Pollution Days may be announced during the winter months. Free promotional items and brochures are available to all Partners.

Follow the **five easy steps** listed in this Partner Toolkit and your organization will be ready to *take action!* →

Program Benefits

Whether you join the Air Quality Partnership (AQP) as a private business, a non-profit organization, or as a public institution:

- ✓ You are showing your employees, clients and the general public that you care about their health and the environment.
- ✓ Your employees and clients have the chance to take pro-active steps to improve the air they breathe, and take precautions to protect their health.
- ✓ You are also sharing beneficial knowledge on how to protect human health and the environment with the entire community.

What would an AQ Partner do?

The AQ Partnership will inform Partners via e-mail or fax when ground-level ozone and/or particle pollution levels are high. Program coordinators then forward this notice to your employees and/or clients, along with suggested voluntary actions for that day.

What do these actions do?

These voluntary actions help reduce the amount of chemicals and solids that go into the atmosphere that react to form ground-level ozone and particle pollution. By reducing the chemicals, you directly reduce the amount of both pollutants and improve the air we breathe.

What kinds of actions should we take?

- ✓ Use public transit or carpooling
- ✓ Link errands together in a single trip
- ✓ Allow employees to telework
- ✓ Refuel after dusk and do not "top off" the tank when refueling
- ✓ Postpone mowing lawns with gasoline-powered mowers
- ✓ Postpone using oil-based paints

How can you do it?

- ✓ Have senior management adopt the program (DVRPC can help with any presentations you may give to them).
- ✓ Name an in-house coordinator (human resources personnel or employee transportation coordinators are usually a good choice).
- ✓ Contact the DVRPC's AQP Coordinator (listed in Step 3) to officially join the program.
- ✓ When an Ozone Action notice is received, notify your employees and/or clients (see Step 4).

It's that easy! →

In-house program coordinators devote only 15 minutes of their time when a high pollution day is forecast, making it easy to integrate into a daily work schedule. The AQP does the bulk of the work for you!

Step 1

Air Pollution? What's That?

The following can be included in the text of an e-mail. You can also copy and distribute one of the enclosed sample newsletters when you start your program.

Air pollution is created by different sources, but the majority of it originates with people. Industry, power plants, cars and trucks, and many consumer products are all contributors. This means that everyone—businesses and consumers—contribute to the problem. Since air pollution is not confined to a specific area and everyone is affected, it is the region's largest environmental health risk.

The Clean Air Act requires the U.S. Environmental Protection Agency to set and monitor health standards for six common air pollutants. The Delaware Valley does not meet the health standard for two of these pollutants—Ground-level Ozone and Particle Pollution.

Ground-Level Ozone



Ozone in the upper atmosphere protects us from the sun's harmful rays. But at ground-level, where we breathe it, it's not good for us. In the summer, sunlight and high temperatures "bake" pollutants emitted by motor vehicles, power plants, industrial manufacturing, and other sources to form high levels of ground-level ozone, commonly known as smog.

Particle Pollution



Particle Pollution is the term for tiny drops of liquid or small particles of dust, metals and other material that float in the air. Some particles are large or dark enough to be seen as soot or smoke. Others are so small that they can only be detected with an electron microscope. Particle pollution comes from a variety of sources such as cars, power plants, factories, construction sites, forest fires, and

municipal waste incinerators. Although a year-round problem, particle pollution levels tend to peak during winter when woodstoves and fireplaces are in use.

By joining the AQ Partnership, your company provides its employees with the knowledge and tools needed to safeguard their families' health. You also help reduce the number of workdays lost due to environmental illness and help clean the air for everyone.

But how? Step 2 can get you started...



Step 2

What Can You Do?

Upper level management approval of the Air Quality Partnership program in your organization is key, so make sure they understand and support the AQP. Once you have the management's support, choose an in-house coordinator for your organization's program.

The AQP is a year round program, which typically focuses on ground-level ozone pollution in the summer and particle pollution in the winter.

Summertime



The ozone season runs from May to early September. During this period, the AQP promotes the Ozone Action Program. Coordinators will receive e-mail or fax alerts on days when ground-level ozone levels are forecast to be high (see step 4). In-house coordinators typically devote 15

minutes or less to the program each Ozone Action Day. An average of 10 Ozone Action Days and 24 Ozone Health Watch Days are called each season, so coordinators spend less than one day total on the program all year!

Wintertime



Particle pollution is a year round problem coming from many sources inside and outside our region. However, the onset of colder weather in the Delaware Valley sees an upsurge in the use of open burning, fireplaces and wood burning stoves that can negatively impact local air quality. Coordinators will receive e-mail or fax alerts on days when particle pollution levels are forecast to be high.

The best program coordinators have fairly regular contact with your staff.

In-house Coordinators

Effective in-house coordinators can include:

Environmental Services Staff / Director

Information Coordinator / Human Resources Manager

Employee Transportation Coordinator

Executive Secretary / Administrative Aide

Facility/Property Manager / Corporate Concierge

So, now that you've appointed your coordinator, how do you join the program? Step 3 can show you the way!

Step 4

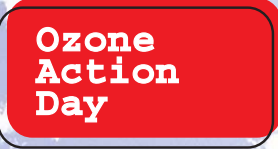

Getting the Word Out!

If high concentrations of ozone and/or particle pollution are forecast, the Air Quality Partnership will fax or e-mail an alert to your organization. Your in-house coordinator should keep an eye out for these notices between 1 - 3 p.m.

There are two air quality categories that call for your attention. It is important to understand and communicate the different risk levels.

In the summer, the AQP will inform you if particle pollution levels are **also** high during an Ozone Health Watch or Ozone Action Day episode. If a particle pollution day at the orange or red level is called, **all** strenuous activities should be either avoided or rescheduled. This is because particle pollution also affects the heart and is an indoor and outdoor pollutant.

Air Quality Index

Air Quality Index (AQI) Color Code	Levels of Health Concern	Protective Measures
	unhealthy	Everyone should avoid prolonged outdoor exertion.
	unhealthy for sensitive groups	Sensitive groups should limit outdoor activity. (including children, the elderly, persons with heart and lung diseases, and adults who exert themselves outdoors in the summer)

When an alert is received, one or more of the following actions is recommended:

Make copies of the notice and post in high traffic areas in your office

Forward the notice via e-mail to update your staff

Send a voice-mail notice or make an announcement on the intercom to alert your staff

It's as easy as that! By following just four steps, your organization is doing its share to help clean the air we breathe! You can stop here and have an effective air quality program that will benefit the public and the environment.

Looking to do more? Step 5 can help get you get on your way!

Step 5

Going Above and Beyond

Looking to do more? Great! We have ideas to inspire you to create some of your own personalized program elements. Here are a few examples:

Download brochures to distribute to your employees.

Educational materials are available to download in Adobe Acrobat format from www.airqualitypartnership.org

For small orders, promotional materials are available **free** of charge from the Air Quality Partnership or your local Transportation Management Organization (TMA).

Involve your engineers and buyers; make low emissions part of the purchasing criteria for supplies and equipment.

Network with other AQP participants for ideas and solutions.

Represent your company or organization on our Communications Committee AQP Board.

Ways You Can Take Action at the Office

Offer employees incentives for taking mass transit, carpooling, biking, walking to work, or in the summer, offer free transit passes on Ozone Action Days.

Encourage brown-bag lunches (so employees don't use their cars) by offering free sodas or snacks or discounted lunches.

Promote conference call options for all meetings.

Allow staff to telecommute or use flex schedules to avoid commute "rush" hours.

Place information in your company newsletter or post it on your internal website. Sample newsletter inserts on ozone and particle pollution are available in the Appendix.

In the Summer, Change Fleet Maintenance Practices on Ozone Action Days

Delay refueling vehicles and equipment until late afternoon or until air quality improves.

Coordinate deliveries from your sites to eliminate multiple trips.

Turn off vehicles when loading and unloading.

Lock the fuel pump during the day.

In the Summer, Change Facility Maintenance Activities on Ozone Action Days

Delay painting activities until air quality improves.

Postpone lawn upkeep, or use electric lawn and garden equipment.

Utilize "environmentally-friendly" cleaning solutions.

Keep a list of low-emitting work to do on Ozone Action Days.

Defer solvent washing.

Summer and wintertime tips to help improve air quality year round are available to all Partners upon request. The AQP program coordinators want to help you with any questions on implementing any aspect of the program. Feel free to contact them at any time!



Appendix

AIR QUALITY IN THE DELAWARE VALLEY

Sample Newsletter Article: Ozone Pollution

Ground-level ozone is nothing you want to breathe—especially if you have asthma or other respiratory problems. A color-coded chart called the Air Quality Index is used to report daily air quality conditions. When either Ozone Health Watch (orange) or Ozone Action (red) Days are called, ground-level ozone is forecasted to approach or exceed unhealthy levels. Starting on Ozone Health Watch Days, sensitive groups are alerted to take precautions. Sensitive groups include children, the elderly, adults who exert themselves outdoors, and people with heart and lung diseases.

From May to September, the Air Quality Partnership announces ozone forecast as part of their daily air quality forecast. Faxes are then sent to the media and employers, and the public air quality hotline is updated.

Ozone Action Days and Ozone Health Watch Days are part of a larger effort to help reduce air pollution in our region. The Air Quality Partnership is a coalition of governments, businesses, and health advocacy groups promoting and publicizing voluntary actions to reduce pollution in our region.

On Ozone Action Days and Ozone Health Watch Days in the Delaware Valley, Air Quality Partners inform their workers and / or clients about air quality forecasts through bulletin board notices, lobby signs, voicemail, internal e-mail, flags, etc. Partners then pass on simple suggestions to improve air quality, such as the following:

- Taking public transit or carpooling (on weekends too).
- Attending offsite meetings by conference call.
- Refueling your car after dusk to prevent gas fumes from mixing with heat and sunlight to create ozone.
- Not mowing your lawn or only mowing it with a non-gasoline powered mower.

- Lighting your barbecue with an electric or chimney-type starter instead of with lighter fluid that evaporates and pollutes the air.
- Avoiding outdoor exertion during afternoon hours when ozone levels peak.

There are voluntary action programs like this all across the country. And, they've been shown to help improve air quality.

Be alert in the office for notices of an Ozone Action Day on those hot, muggy, stagnant days—and then take action. When either action day is predicted, you'll be notified soon after the forecast is received. More information on the Air Quality Partnership and other links to air quality for the Delaware Valley are available at www.airqualitypartnership.org.



**Sample
Newsletter
Article:
Air Quality
& Your Health**

(COMPANY NAME) is proud to announce that we have joined a large number of organizations in the Delaware Valley Metropolitan region in making the air we breathe a little healthier for all of us. By joining the Air Quality Partnership, we are making a conscious effort to educate ourselves, and those that our employees reach, to improve the air quality in our area.

By taking a few voluntary actions, we all can help to reduce ground-level ozone and particle pollution, improving the quality of the air we breathe.

What are Ground-Level Ozone and Particle Pollution?

Ozone in the upper atmosphere protects us from the sun's harmful rays. But at ground-level, where we breathe it, it's not so good for us. In the summer, sunlight and high temperatures "bake" pollutants emitted by motor vehicles, power plants,

industrial manufacturing and other sources to form high levels of ground-level ozone, commonly known as smog.

Tiny airborne particles, the main ingredient in haze, smoke, and airborne dust, present a serious air quality problem known as particle pollution. The size of these particles is directly linked to their potential for causing health problems. The smaller the particle, the greater the health risk they pose to your heart and lungs. Particle pollution comes from a variety of sources such as cars, power plants, factories, construction sites, forest fires, and municipal waste incinerators.

How Do These Pollutants Affect My Health?

Exposure to ground-level ozone and particle pollution can lead to variety of health effects overtime. Short-term exposure to these pollutants contributes to asthma attacks, acute bronchitis, aggravation of lung disease and increased susceptibility to respiratory infections. Children and people with respiratory and heart diseases are particularly vulnerable. Long-term exposure to these pollutants

has been associated with reduction lung function, development of asthma and chronic bronchitis and even premature death.

Don't forget, while it makes breathing more difficult for these people, it can have an effect over time on those of us without these problems as well!

How are We at (COMPANY NAME) Going to be Involved?

It's a very easy process for great results! After (COORDINATOR NAME), our Air Quality Partnership coordinator, receives notice of forecasted poor air quality from the local forecast team, he/she will notify you (by e-mail, posting fax, flying flag, lobby poster, etc). In addition, (COORDINATOR NAME) will have materials to provide information to you on additional things you can do at home to do your share for cleaner air. The regional Air Quality Partnership alerts local media as well, so the public has access to the information as well.

More information on air quality in the Delaware Valley region is available on the Internet at www.airqualitypartnership.org.



**Delaware Valley
Regional Planning
Commission**

The Bourse Building, 8th Floor
111 South Independence Mall East
Philadelphia, PA 19106-2582
www.dvrpc.org