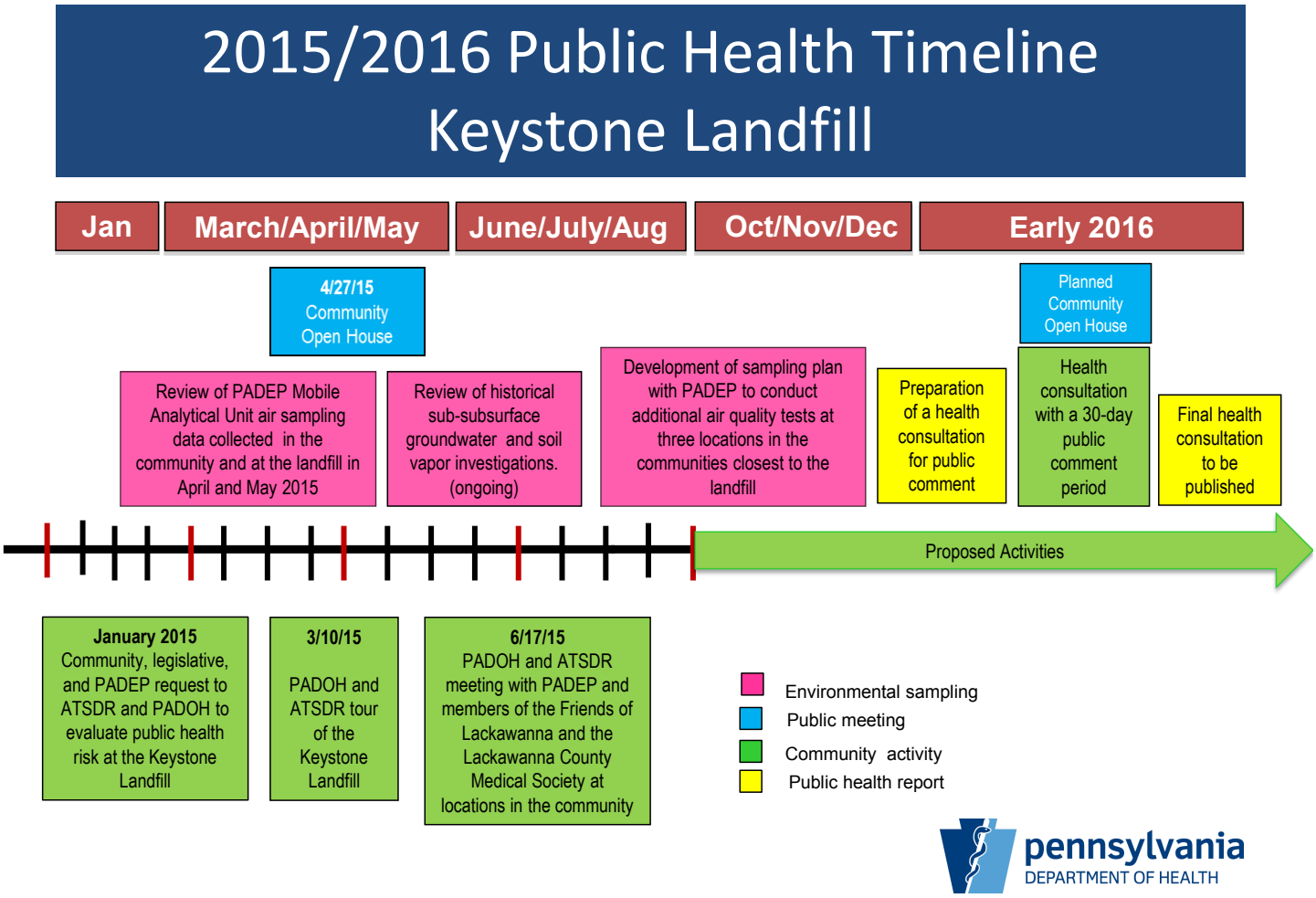
Keystone Landfill, Lackawanna County Community Update

In response to community concerns, the Pennsylvania Department of Health (PADOH), under a cooperative agreement with the Agency for Toxic Substances and Disease Registry (ATSDR), is evaluating public health issues related to the Keystone Landfill in Dunmore. PADOH is reviewing existing environmental and health information, as well as collecting new environmental sampling data in collaboration with the Pennsylvania Department of Environmental Protection (PADEP). Based on our review of all the available information, PADOH will determine whether there is a public health risk to the community and report the findings and recommendations to the community in the form of a report called a health consultation. Below is a timeline of the activities conducted to date and planned over the next several months:



pennsylvania
DEPARTMENT OF HEALTH

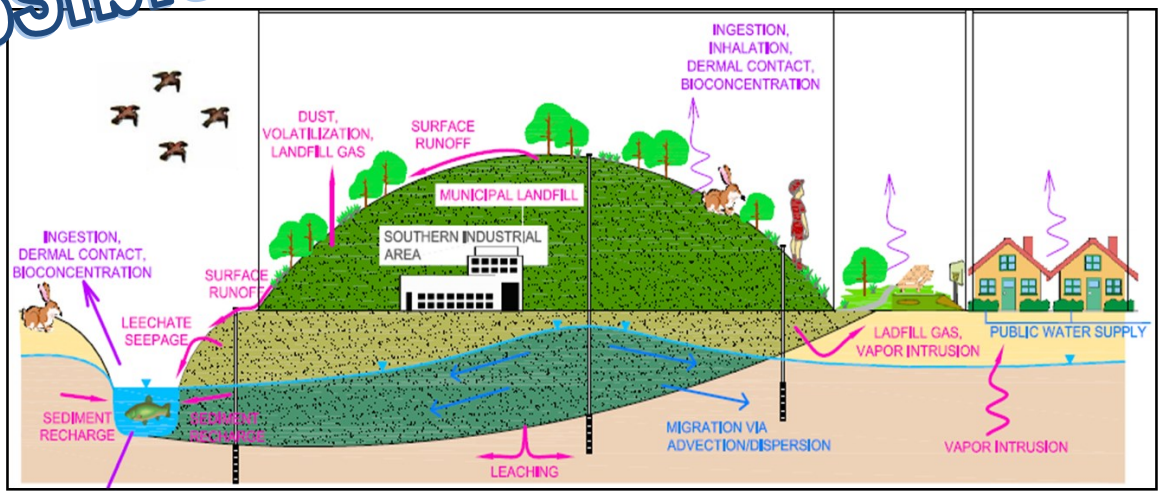
How Do We Evaluate Harmful Exposures?

We all come into contact with chemicals every day. This is called chemical exposure. Although some chemical exposures are safe, others are not. To make you sick, a certain amount of a harmful chemical must enter your body. Harmful chemicals can get into your body if you breathe, eat, or drink them or if they are absorbed through your skin.

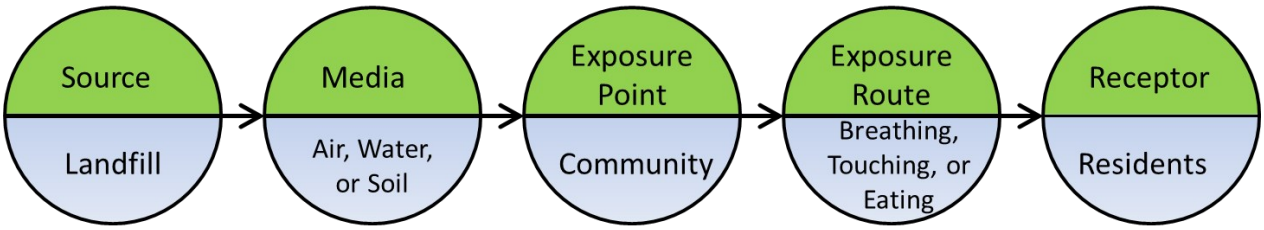
People respond to chemical exposures in different ways. Some people may come into contact with a chemical and never be harmed. Others may be more sensitive and get sick. Sometimes, illness happens only if you are exposed to a harmful substance for a long time. Many factors play a part in whether you get sick from contact with chemicals, including:

- the kind of chemical you are exposed to;
- how much of the chemical you were in contact with;
- how long the contact lasted;
- how often you were exposed;
- how it entered your body; and
- your health.

Possible Ways People Can Be Exposed to A Landfill



All of these steps must occur for an exposure to take place:



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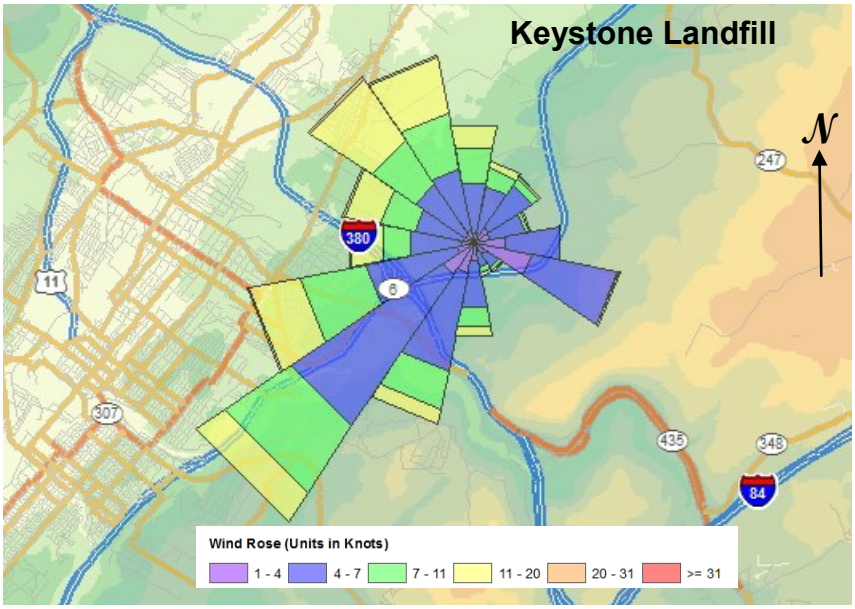
How Will You Evaluate The Keystone Landfill?

Environmental samples collected at the Keystone Landfill and in surrounding neighborhoods provide health agencies with the best possible information on whether or not residents are being exposed to harmful chemicals. We are evaluating air and water samples listed below to determine the level of exposure in the community:

AIR

- PADEP Mobile Analytical Unit air quality samples were collected in the community in April and May of 2015.
- Air study (sub-surface and indoor) was collected beginning in the late 1990s by the PADEP and the United States Environmental Protection Agency (EPA) in Dunmore following a case of carbon monoxide poisoning in a home and when I-81 was under construction. The purpose of this review is to assess the health risks resulting from vapor intrusion into residential and other structures.
- Landfill gas was collected in May 2015 at the landfill under the supervision of the PADEP.
- Air samplers will be placed in the community over the next several months to determine whether or not chemicals commonly emitted from landfills are present at a level that poses a health risk. We will select three locations where community members reported odors in the past. A private contractor will collect approximately 90 samples (30 samples per sampling site) over a period of three months. Samples will be analyzed for ammonia, volatile organic compounds, sulfur gas, methanol, aldehyde, methylamines, and trimethylamines. The data will give PADOH a representative picture of the local air quality for nearby residents. PADEP's odor complaint logs document that most complaints occurred in the area surrounding the landfill over the winter months. Air sample locations will be targeted to those areas mostly downwind of the landfill. The map below shows the typical wind direction at the landfill over the course of a year.



WATER

- Historical PADEP ground water data from monitoring wells on or near the landfill
- Surface water run-off at locations near the landfill
- Landfill leachate

Is There A High Rate Of Cancer In My Community?

The PADOH is reviewing cancer incidence data from the Pennsylvania Cancer Registry for the zip codes closest to the landfill in response to the community's concerns. Elevated cancer rates, if there are any, will not show what caused the cancer to occur. Therefore, the increase, if any, may be associated with other factors and not necessarily the landfill. The best evidence that health effects are occurring at a site such as a landfill is the identification of a chemical exposure at a level and duration that poses a harmful health effect or illness. Therefore, the focus of our investigation is on the evaluation of environmental sampling data.

What's Next?

PADOH under a cooperative agreement with ATSDR will:

- prepare a health consultation on the environmental sampling results and make recommendations for the environmental agencies and the community to reduce exposure and protect public health, as appropriate and if indicated. The health agencies' recommendations are non-regulatory guidelines and are offered for the consideration of the regulatory agencies and the community.
- distribute a 30-day public comment version of the health consulation, after which a final version will be distributed, including any comments received from the public during the public comment period.
- conduct a public availability session in the community during the public comment period of the health consultation (date to be determined).
- remain available to the community to respond to health concerns.
- remain available to provide health education to the community and health professionals.

Contact Information

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For environmental information and odor complaints:

Roger Bellas
Pennsylvania Department of Environmental Protection
Land Recycling and Waste Management Program
Program Manager
570-826-5425

For more information about landfills:

http://www.atsdr.cdc.gov/HAC/landfill/html/intro.html

For ATSDR's Public Health Assessment Guidance Manual:
www.atsdr.cdc.gov/hac/PHAManual/ch2.html#2.7.

Our goal is to ...

- **prevent or reduce illnesses resulting from exposure to hazardous waste sites;**
- **determine the health effects associated with such exposures; and**
- **provide health education to communities about health effects and how to reduce harmful exposures.**