

NWDA

Air Quality Committee Work Plan

September 10, 2012

Mission Statement

Protection of public health and the environment in the Northwest District encompasses a number of needs as outlined in the Northwest District Plan. The greatest health and environment concern for the neighborhood is the quality of air in our urban neighborhood. Factors that compromise air quality in the neighborhood are:

- **Manufacturing facilities in the adjacent Northwest Industrial District.**
- **Vehicular traffic on nearby freeways and highways**
- **Day-to-day activities associated with a densely populated urban community (e.g. local traffic, construction, commercial etc.)**
- **Proximity to decades-old above-ground fuel storage tanks in a "tank farm" along the Willamette River.**

Overall population density, as well as large numbers of children, senior citizens, and those with health concerns, amplify these air quality concerns in our neighborhood. The NWDA Air Quality Committee is dedicated to monitoring and promoting a clean and healthy air shed in which Northwest neighbors can live and work. The Committee evaluates health and environmental issues affecting Northwest District air quality, communicates with neighbors about air pollution and health impacts, promotes public health and works with the community, DEQ, legislature and other public officials to improve the quality of NW neighborhood air.

The committee will continue to focus its energies and resources on the reduction of toxic air pollutants, including volatile organic compounds (VOCs) and particulate matter (dust), primarily from fixed industrial sources. Our three top priorities, in descending order of importance, are to reduce air pollution caused by:

- **Industrial sources**
- **Construction equipment**
- **Automobile and commercial vehicles**

Based on Committee member interests and resource limitations, the Air Quality Committee will not address personal sources of air pollution other than automobiles & trucks and stationary industrial sources.

Background

NWDA is a dense, mixed use, residential neighborhood bounded by I-405, West Burnside Street, the West Hills and Highway 30. Its northern edge abuts the Northwest Industrial Neighborhood. This industrial zone includes a high concentration of factories and manufacturing facilities, some of which do not have modern pollution control equipment. Heavy car and truck traffic on I-405, Highway 30, and Burnside Street also contribute to air pollution into the neighborhood.

The Committee supported studies that identified the presence of air shed pollutants that include heavy metals, particulate matter, and VOCs. Starting in 1997, the Committee conducted air monitoring studies that identified more than 70 toxic compounds, including elevated levels of heavy metals such as lead, manganese, nickel, and hexavalent chromium ("chromium-6").

The NWDA Air Quality Committee continues to maintain an online odor complaint form at www.portlandair.org, which allows neighbors to report offensive odors that may also be indicators of potentially harmful pollutants.

Potential health impacts of the known pollutants are of particular concern for young children, the elderly and anyone with respiratory health problems. Health concerns for some of the known pollutants include cancer, asthma, Parkinson's disease, and other neurological ailments. Several of the known pollutants such as manganese and lead are neurological toxins.

A. Ongoing Activities

- 1. Advocate for policies and programs that reduce industrial air pollutants which are thought to pose the greatest health risks for the neighborhood.**
- 2. Hold monthly meetings - keep and publish on the NWDA website meeting minutes and agendas.**

B. Priority Objectives, 2012 - 2013

- 1. Inform the City, ODEQ, and community about the "Precautionary Principle", in order to advocate for industrial best practices requiring permitted polluters to use, as much as practicable, the least toxic materials and safest production methods for sites near dense, residential neighborhoods.**
- 2. Work with NWDA Board and Planning Committee to promote the use of clean diesel construction in the Conway Master Plan area through a Good Neighbor Agreement with Conway during their proposed ten years' construction in the neighborhood. The project proposes to bring in about 6,000 new residents and several thousand new office workers.**
- 3. Conduct outreach at meetings and events to educate neighbors, schools, and other organizations about the dangers of and potential mitigation for industrial air pollution.**
- 4. Guide participation of three NWDA representatives on the ESCO Neighborhood Advisory Committee (NAC) to assure ESCO fulfills commitments contained in the NWDA Good Neighbor Agreement (GNA) and the ESCO Title V permit issued by ODEQ on March 1, 2012.**
- 5. Track odor complaints received from the NWDA AQ Committee website to help identify the locations and sources of odors and potentially harmful emissions.**
- 6. Provide the NWDA Board with a quarterly log of all complaints received, a written summary of the number and type of odor complaints received, and a list of any Committee actions resulting from these complaints.**
- 7. Continue to testify at EQC, ODEQ and other hearings and legislative committee meetings on air pollution. Where possible work with the Mayor's Office and legislature to reduce industrial pollution through new legislation.**

Long Range Objectives

1. As Committee resources allow, develop a community monitoring program to be evaluated and approved by the NWDA Board of Directors.

Appendix

Committee Work to Date on Air Quality Problems – In 1997, under the direction of Dr. Robert Amundson, the Health & Environment Committee (as it was then named until 2012) began conducting neighborhood air monitoring studies. Dr. Amundson has conducted air quality monitoring since 1969 and has specialized in quantifying effects of air pollution on managed and unmanaged ecosystems. Under Dr. Amundson's guidance, Northwest neighbors monitored the air at their homes and at sites throughout the neighborhood. Funding came from various grants, including an EPA grant and a legal settlement (Chevron vs. Genasci). Some studies were conducted in conjunction with the Oregon Department of Environmental Quality (ODEQ), while others were independent neighborhood efforts.

Particulates (dust), metals and toxic gases were monitored. The following data compiled over the years yielded results that clearly indicate a serious air pollution problem in Northwest Portland:

- **Over 70 toxic compounds were found to be in the air, including compounds known to cause cancer, respiratory and endocrine problems. The aggregate health effect of such a mix of toxic substances is unknown.**
- **Dust samples collected in the neighborhood contained concentrations of lead that far exceeded the EPA's indoor standard of 40 micrograms per square foot. (see <http://www.nchh.org/Media/Press-Releases/Lead-Dust-Standard.aspx> which recommends a standard of 10 micrograms per square foot).**
- **Many heavy metals such as lead, manganese, nickel, and chromium 6 (hexavalent chrome) were found in particulates. These metals can cause serious health problems. Studies have consistently shown the level of lead and other heavy metals to be higher in locations closer to the NW industrial area, indicating a "hot spot" for industrial sources of pollution.**
- **The most recent monitoring showed concentrations of three VOCs - benzene (a Class A carcinogen), butadiene, and acrolein - high enough to be of concern. All three compounds exceeded EPA and California health benchmarks. Benzene concentrations, for instance, varied from 16 to 73 times the EPA cancer benchmark and from 67 to 293 times the California benchmark. (See H & E air monitoring data at the NWDA Office).**
- **Fuel and diesel odors are a priority because benzene, a known carcinogen, is a component of fuel. The Committee worked with the Oregon Department of Environmental Quality (ODEQ), the Environmental Protection Agency (EPA), city officials, some state legislators and a few industrial polluters. The Committee performed community outreach through neighborhood events, meetings, mailings and leaflet distribution to increase awareness of the problem and organize the efforts of concerned community members.**

Odor Complaints - The Committee's online odor complaint form (www.portlandair.org) supplements the NWDA's new general-purpose form and allows neighbors to report odors that may be associated with toxic airborne pollutants. Complaints go to the Committee Chair and Oregon DEQ. The Committee uses the complaints to work with ODEQ to identify the source of problem odors, which are not only irritants, but may also indicate dangerous air pollutants. From June 2, 2005 through February 3, 2012 the Committee received 1050 odor complaints. Of these complaints, 73% (775 complaints submitted by approximately 120 people) indicated that ESCO Corporation was the suspected source.

The other major source of odors that neighbors complained of in recent years was very strong fuel smells that came into people's homes and gardens, sometimes over a several day period. Eight oil companies operating in Portland use above ground fuel storage tanks, some at least fifty years old. These are located in a "tank farm" near the Willamette River. Fuel is transferred from ship-to-port and from ship-to-ship. ODEQ requires the use of capture equipment during the on shore transfers, but not the transfers from ship-to-ship.

Major Sources of Air Pollution - ESCO, a multinational steel foundry is located at NW Vaughn and 25th with a second plant on NW Brewer. Part of the concern is their location near Wallace Park, Chapman Elementary School and other schools. Built in 1913, the buildings are old and not air-tight. ESCO emits a suite of heavy metals and toxic gases, as well as particulate matter in the form of black dust. It is thought that the distinctive, noxious odors from the plant come from the binders used in the molding process at ESCO.

In 2008, an article in USA Today used EPA data to show that the air outside Chapman Elementary School ranked among the worst 2% of schools in the United States for the highest levels of dangerous toxic chemicals. The article indicated that ESCO Corp. is the polluter most responsible for toxics outside the school. Manganese and manganese compounds, which ESCO acknowledges are markers locally unique to their production processes, were identified as the chemicals most responsible for toxicity outside Chapman. The article elevated parents' concerns about potential health hazards at local schools and galvanized community efforts to seek pollution controls at ESCO Corp. USA Today article is available online at:

<http://content.usatoday.com/news/nation/environment/smokestack/search/OR>