



Healthy Valley  
ALLIANCE

***Improving Environmental Health in the Mahoning Valley:***

***Report of the  
Healthy Valley PACE EH Project***

***December 2004***



***Protocol for Assessing Community Excellence in Environmental Health  
(PACE EH)***

***PACE EH***

***Developed by:***

National Association of County and City Health Officials (NACCHO)

***Supported by:***

National Center for Environmental Health, U.S. Centers for Disease Control and Prevention (CDC)

**EXECUTIVE SUMMARY**  
**Mahoning Valley PACE EH Report**  
Mahoning & Trumbull Counties, Ohio

**Introduction:** A methodology has been developed to provide local communities with guidance for identifying and addressing environmental health priorities. This methodology is called *PACE EH (Protocol for Assessing Community Excellence in Environmental Health)*.

PACE EH was developed through a partnership between the National Center for Environmental Health (NCEH) of the Centers for Disease Control and Prevention (CDC) and the National Association of County and City Health Officials (NACCHO) to address the following challenges identified by local health officials:

- *Accurately identify environmental health issues at the community level;*
- *Identify populations at disproportionate risk of environmental exposure and adverse health outcomes;*
- *Discover, collect, and analyze meaningful environmental health data; and*
- *Strategically allocate resources to address pressing community environmental health concerns.*

**Participation:** In 2003, eight local public health agencies in the U.S. were awarded funding to serve as *PACE EH* demonstration sites. The Mahoning County District Board of Health, Youngstown, Ohio was one of those local public health agencies. The scope of the site was expanded to include Trumbull County as well.

**Report:** The intent of this report is to publish the process and findings of the Mahoning Valley *PACE EH* project. The intended audience is two-fold:  
1) NACCHO, CDC, other national audiences and future *PACE EH* projects;  
2) Mahoning Valley agencies and organizations.

Because this report has such distinct sets of readers, it is important to explain its structure and how it will be of optimal use.

- 1) Those involved in developing or using the *PACE EH* methodology will benefit from studying the process and reviewing the evaluations made by the teams who worked on the project.
- 2) Mahoning Valley readers will be impacted by the results of the project (i.e.: the key findings and recommendations made by the workgroups who analyzed the data). Therefore, it is important to understand the results of the project.

It is important for all readers to understand the context and process in order for the specific content to make sense. That is the purpose of this summary.

**Process:** PACE EH is a 13-task methodology. As such, it provides a step-by-step process for facilitating a community-based environmental health assessment. This assessment relies on a team of local stakeholders --community members and the staff of local agencies -- working collaboratively to:

- *identify local environmental health priorities,*
- *establish relevant indicators, and*
- *coordinate significant short and long term interventions.*

A benefit of this methodology is the development of significant new working relationships amongst the stakeholders. Moreover, as a community-based process, local citizens are given the opportunity to influence the local environmental health agenda.

To identify the concerns, the public was asked to complete a survey that listed many environmental health issues. The survey also provided an opportunity for written comments. A set of concerns was distilled from the results of the survey.

**Results:** The Mahoning Valley PACE EH project team identified three areas of concern:

- drinking water safety,
- indoor air pollution, and
- sprawl.

Each issue identified has a corresponding set of indicators and proposed interventions. The interventions that have been suggested will require greater cooperation and collaboration between local agencies as well as state and federal agencies.

**Conclusion:** There is opportunity, here, to make a difference in the environmental health of the Mahoning Valley if the community-based effort is sustained. We ask you to carefully read this report and learn how you can join this effort.

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This report was authorized by the Healthy Valley Alliance and was prepared by Leanne Turner, utilizing the Information Mapping™ format.



# Healthy Valley

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ALLIANCE

## COMMISSION FOR ENVIRONMENTAL HEALTH

### MISSION

The Commission for Environmental Health will utilize the *Protocol for Assessing Community Excellence in Environmental Health*\* to:

- create an environmental health profile of Mahoning and Trumbull Counties
- identify environmental health problems using scientific information and community perceptions
- choose the priorities among our environmental health problems
- set goals for environmental health improvement and propose actions to mobilize community resources to achieve these goals.

\*Environmental health is those aspects of human health, including quality of life, that are determined by interactions with physical, chemical, biological and social factors in the environment. (Pew Environmental Health Commission, 1999. <http://pewenvirohealth.jhsph.edu>.) The Protocol for Assessing Community Excellence in Environmental Health (PACE EH) was developed by the National Association of County and City Health Officials and the U.S. Centers for Disease Control and Prevention.

## OVERVIEW

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**Choosing PACE EH:** The decision to utilize the PACE EH program was made by the Mahoning County District Board of Health with the Healthy Valley Alliance\*. The Healthy Valley Alliance sponsored this program to provide a systematic process of identifying the environmental health priorities and to develop a plan to address them.

(\*See Appendix for description of Healthy Valley Alliance.)

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**Selection to program:** Application was a competitive process. This program has been used in only 10 pilot sites across the country and the developers were embarking on an 8-site demonstration project. Participation in the demonstration project was contingent upon application to NACCHO and selection by a jury of NACCHO members. The applicant communities were ranked and selected according to a set of criteria; the top eight sites, as determined by the judges, were selected.

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**Need:**

The District Board of Health provided the following indicators as a “statement of need” in their application:

- ✓ Since 1994, over 1,000 children in Youngstown have been diagnosed with lead poisoning. Over 70% of the housing stock was constructed before 1950 and more than 6,000 children are at risk for lead exposure in these older homes.
- ✓ Over 10,000 families depend on private wells for drinking water in Mahoning County. One-third of wells tested by the District Board of Health routinely show evidence of bacterial contamination.
- ✓ As more of Mahoning County's population migrates to suburban and rural areas of the County, dependence on on-lot septic systems is growing. More than 17,000 households depend on on-lot systems for wastewater treatment; up to half of these systems may be failing to adequately treat wastewater.
- ✓ A century of steel-making in the Mahoning Valley has contributed to persistent contamination of sediments in our primary waterway: the Mahoning River. A fishing, swimming, and wading advisory against contact with the river has been in place since 1988.
- ✓ The Ruetgers-Nease Superfund site on Mahoning County's southern border has released mirex and other cancer causing compounds into the Little Beaver Creek that courses northward through the center of the County. Remediation of creek sediments has not yet occurred.
- ✓ Childhood asthma prevalence and hospitalization rates in Mahoning County have been growing steadily. Health departments, medical care providers and others have just begun to organize efforts to address environmental tobacco smoke, molds, and other agents that can initiate and trigger this condition.
- ✓ Although modern technology is used to manage the one million tons of waste disposed of in Mahoning County's four active landfills, several closed landfills in fast developing areas operated at a time when this technology was not available and accepted wastes that may present a future threat to groundwater in the area.
- ✓ The growing prevalence of childhood and adult obesity in Mahoning County (one of the five *Healthy Valley* priority health problems) can be attributed in part to limited access to public places for recreation that enable children and adults to be physically active.

**DESCRIPTION: PACE EH**

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**13-Tasks:** To fully grasp the protocol and to understand the activities of the project, please review the 13-task list that follows on the next page and the flowchart for the utilization of the tasks by the Healthy Valley Alliance.

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**Iterative Design:** The PACE EH methodology is described as a 13-task assessment protocol that, *“although presented in a numbered sequence, is not necessarily a step-by-step, sequential process, but rather an iterative, dynamic, and ongoing activity”*. (Page 11, Guidebook for local health officials.)

In other words, each step in the process may cause a redefining of the previous step.

--*Example:* If an issue of concern is ‘the impact on the community of water-borne pollutants’, that fits into Task 5, “Generate the Environmental Health Issue List”.

But it also begs a set of logical questions, i.e.: what is meant by “community?” or what part of the community is impacted?

In that case, the process needs to revisit Task 2, “Define and Characterize the Community”.

In our project, the Healthy Valley Alliance and District Board of Health expanded the community to include the neighboring county, other boards of health and community agencies in the “community” known as the Mahoning Valley.

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**Questions:** If you have any questions while reading this report, please visit these webpages:

**PACE EH Demonstration Project**

<http://www.naccho.org/general540.cfm>

**PACE EH Frequently Asked Questions**

<http://www.naccho.org/files/documents/FAQ.html>

Or, call the project coordinator Jane Warga at 330-270-2855 x131.

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## **LIST: 13-tasks\***

The methodology consists of a series of tasks to engage the public's involvement, collect necessary and relevant information pertaining to community environmental health status, rank issues, and set local priorities for action.

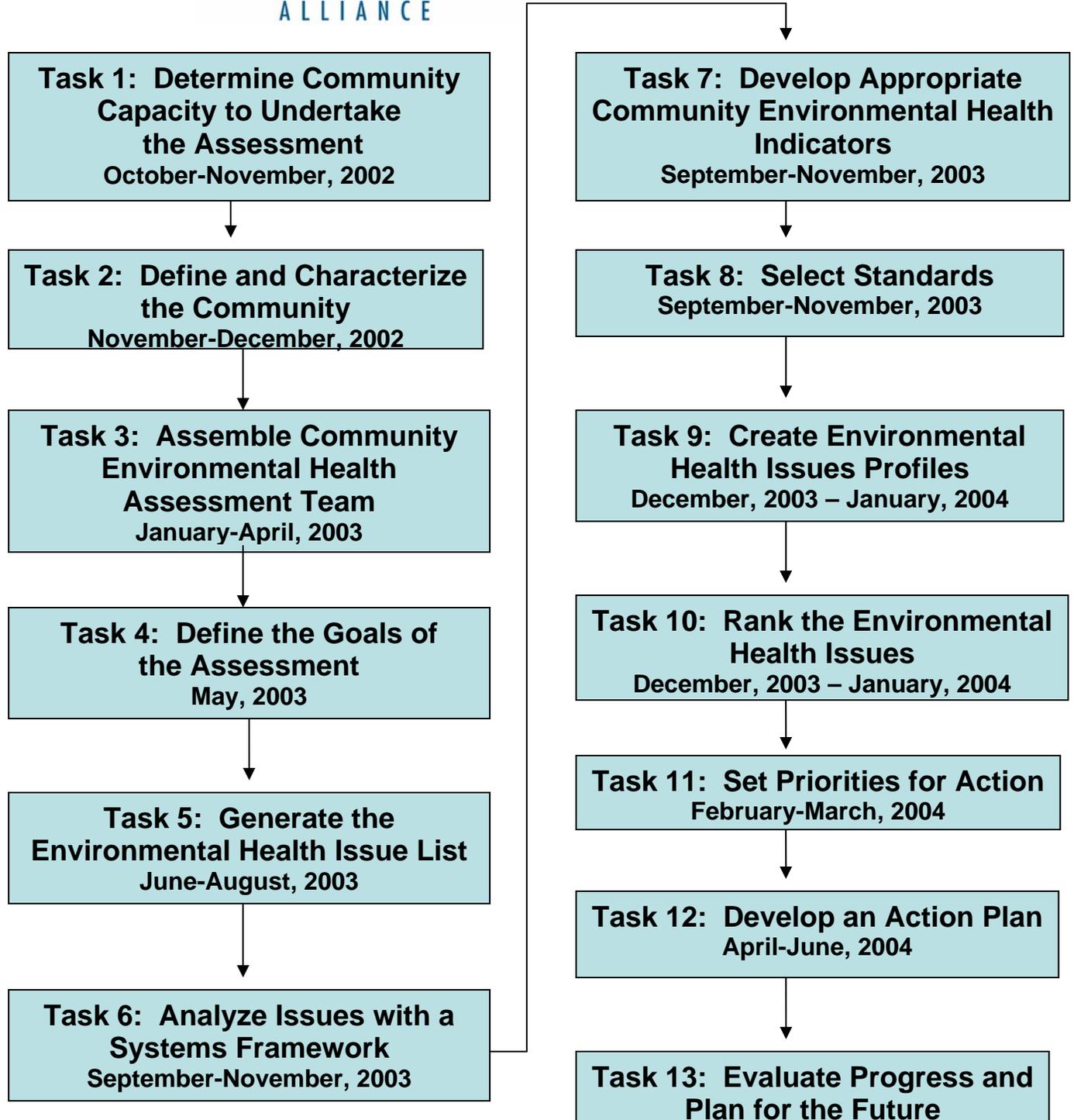
The tasks include:

- Determining Community Capacity to Undertake the Assessment
- Defining and Characterizing the Community
- Assembling Community Environmental Health Assessment Team
- Defining the Goals of the Assessment
- Generating the Environmental Health Issue List
- Analyzing Issues with a Systems Framework
- Developing Appropriate Community Environmental Health Indicators
- Selecting Standards
- Creating Environmental Health Issue Profiles
- Ranking the Environmental Health Issues
- Setting Priorities for Action
- Developing an Action Plan
- Evaluating Progress and Planning for the Future

\*From: <http://www.naccho.org/files/documents/FAQ.html>



# Healthy Valley ALLIANCE



**PACE EH MAHONING VALLEY  
PROJECT DESCRIPTION  
13 Tasks**

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**Tasks 1, 2, 3:** To begin the PACE EH process, the Healthy Valley Alliance determined that the community has the capacity to undertake the assessment (Task 1), defined the community (Task 2) and assembled a team (Task 3). This set of decisions and actions were based on experience with a previous community health assessment and planning venture: Healthy Valley 2000. (See Healthy Valley Alliance in the Appendix and at [www.mahoning-health.org/Valley2000/alliance](http://www.mahoning-health.org/Valley2000/alliance))

There were two levels of participation: a Steering Committee and the Commission for Environmental Health. The Steering Committee was chosen by the Healthy Valley Alliance and was comprised of 14 members. (See Appendix for list of members and the organizations they represented.)

A general call for nominations for the Commission was released and interested candidates responded. A screening process was administered by Leadership Mahoning Valley alumni. The final selection of 26 members was made by the Steering Committee. (See Appendix 'Call for Nominations' and list of Commission Members and the organizations they represented.)

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**Task 4:** The Steering Committee designed the mission of the Commission, a job description for the officers (Chair, Vice Chair and Recording Secretary) and by-laws. Commission members reviewed, made recommendations and accepted the By-laws. (See Appendix for Commission Mission, Job Description, By-Laws)

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**Task 5:** To complete this task, a community survey was developed by the Steering Committee. The community survey was used to gauge the public's perceptions of which of the 26 environmental health issues identified by the Steering Committee were the most important to address in the Mahoning Valley. These 26 issues were drawn mostly from Healthy People 2010 environmental health objectives, although Steering Committee members also suggested additional issues not addressed in Healthy People 2010. It was administered at a public event: the Canfield Fair, attended by nearly 500,000 area residents. The Steering Committee reviewed the data and provided the report to the Commission.

The Survey Results are on the next page. (See Appendix for the original survey form, written comments from participants and list of initial workgroups.)

## COMMUNITY SURVEY RESULTS

Rank	Improvement Item	Tally	% of Total	Have an Influence?				
				Sex	Age	Minority	Geography	College
1	Safe drinking water	81	19.1%	I	D	I	N	N
2	Combined sewer overflow	65	15.4%	I	D	I	N	I
3	Loss of green space	57	13.5%	D	I	D	N	N
4	Air pollution	54	12.8%	N	D	N	N	D
4	Development out of control	54	12.8%	D	I	N	I	N
4	Secondhand smoke	54	12.8%	I	I	I	N	I
				<i>I=Female</i>		<i>I=Minority</i>		<i>I=College Grad</i>
7	Landfill concerns	49	15.8%					
8	Substandard housing	44	14.2%		<i>I=65+</i>		<i>I=Ytown</i>	
9	Transportation of hazardous materials	38	12.3%					
10	Mold	35	11.3%					
11	Bioterrorism	34	11.0%					
12	School hazards & safety	33	10.6%					
13	Noise	26	8.4%					
14	Pesticide use/exposure	26	8.4%					
15	Natural disaster	25	8.1%					
16	Waterborne disease outbreaks	25	8.1%					
17	Bicycle paths	22	7.1%					
18	Lack of parks	20	6.5%					
19	Septic tanks	20	6.5%					
20	Availability of outdoor exercise	17	5.5%					
21	Lead poisoning	17	5.5%					
22	Vehicle exhaust	17	5.5%					
23	Indoor air quality	15	4.8%					
24	Fish contamination	13	4.2%					
25	Recreational water safety	9	2.9%					
26	Radon	5	1.6%					
27	Blank	36	11.6%					
28	Selected more than 3	39	12.6%					

**Key for Influence:**

I = Increase

D=Decrease

N=No effect

**Total from all 310 Surveys: 930**

*\*Note: Preliminary results from 310 of the 423 completed surveys, mostly from the Canfield Fair.*

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**Tasks 6- 12:**

In this set of tasks, the Commission took on the issues that were identified in Task 5 and began the process of selecting priority issues, analyzing the issues within a systems framework, developing indicators and selecting standards. Then, forming “issue workgroups” they identified the existing data/reports that would allow for profiling. Lastly, they developed action plans for each priority issue.

Commission members decided that community survey responses could be grouped into six priority areas: development, recreation, water, building health, air quality, and disasters. Through deliberation, the Commission grouped these six areas into a consensus set of three priority issues: drinking water safety, indoor air pollution, and sprawl. The Commission then divided itself into three separate Workgroups for each of these priority issues. Each of the three Workgroup reports is presented in the sections that follow.

**--Balance:**

The reader is cautioned to understand the context of issues while reading. At the outset, it is important to know that the work results seem “imbalanced”. That does not reflect the quality of work done; rather, it is reflective of the complexity of the topics and of the availability of data.

**--Complexity:**

For example, the three issues have different federal legislation in place. The Clean Water Act (i.e.: Federal Water Pollution Control Act Amendments) was passed in 1972. The Clean Air Act was passed in 1990. To date, there is no “Sprawl Prevention Act.”

As a result, more material (i.e.: reports, data, guidelines, laws) is available for water and air than for the other priority issues. There is no regulation to determine safe vs. unsafe levels of mold and no legal authority, making it difficult to address. There is no body of scientific literature that expressly addresses the issue of sprawl. It was left to the Workgroup to relate the effects of sprawl as an environmental impact to our health through some means that can be quantified and administered.

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**Issues Workgroups:** Individuals joined the Workgroup that reflected their area of expertise or interest. Their work is described in the next section. The detailed description of PACE EH methods as utilized by the Workgroups is provided in the Appendix.

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**Format:**

The contents of this section are laid out in this format:  
Quote, Goals, Recommendations, Process, Implementation, Benefits.

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## Issue Workgroup: Drinking Water Quality

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**QUOTE:** *“The community-input surveys revealed that protection of public drinking water supplies (PWS) was the number one rated public concern. We also noticed that many of the other top-ranked public concerns also relate directly or indirectly to the protection of PWS.” Keith Riley, Ohio EPA*

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**GOALS:** Protect and improve the drinking water quality.

These goals meet the number one public concern, as demonstrated in the community survey wherein 24% of respondents ranked safe drinking water as the greatest environmental health concern.

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**RECOMMENDATIONS:** To meet the goals, the Workgroup recommends the following.

- Assist Eastgate Regional Council of Governments in completing a 208 Water Quality Management Plan that incorporates strategies to protect surface water public water systems;
- Implement a public awareness program to promote strategies to protect surface water public water systems;
- Implement (Phase II Storm Water Plan) the evaluation and elimination of illicit (unpermitted or failing) discharges in watersheds that drain to surface water supplies;
- Assist smaller public water system owners (NTNC/TNC water systems which include schools, restaurants, camps, mobile home parks, nursing homes) to implement the items on their individualized SWAP checklists recommended to protect their water supplies from contamination.

[See Appendix for details of the Drinking Water Quality Workgroup’s activities and a glossary.]

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**PROCESS:** Involvement of the health districts is vital to the success of the plan. Before finalizing a course of action, the Workgroup engaged the involvement of both county health districts to verify the validity of recommended action plan items and to promote ownership of the plan.

*--Issue:* The Safe Drinking Water Act now requires a Source Water Assessment Plan (SWAP) to identify threats and a Source Water Pollution Protection Plan (SWPPP).

--Problems: 1.) Implementation of the recommendations within a completed Source Water Assessment Plan (SWAP) report is currently a voluntary effort (i.e., not required by law).  
2.) Currently, there is no program in place to assess which public water suppliers (PWS) have made any progress toward implementing these SWAP action plans -- nor are there any efforts to engage health districts and other potential partner agencies to assist and support regional public water systems to implement these plans. As a result: *Many public water suppliers need encouragement and coaching to complete these tasks.*

--Solution: The health districts can engage the support of regional stakeholders who can assist public water suppliers in implementing strategies that protect public drinking water supplies. The health districts can also examine the SWAP plans and initiate efforts to support the recommendations of this Workgroup where there is connection to their existing programs.

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**IMPLEMENTATION:** The action plan was complete in July of 2004 and the Workgroup began to implement the public awareness and partnership portions of it.

Outreach: The first outreach effort was completed on August 26, 2004. A 208 Water Quality Management Plan (WQMP) presentation was made to the Mahoning County Township Association highlighting the potential ways the local governments can use the 208 WQMP tool to protect public water supplies. Four Workgroup members participated in the presentations; there were 60 attendees. Follow-up meetings will be scheduled with each cluster of townships within each of the watersheds that drain to a surface water supply.

The Workgroup plans to hold a similar presentation for the Trumbull County Township Association.

Partnership: The Workgroup developed a partnership with the American Water Works Association – an organization dedicated to the education of water plant licensed operators - to hold a half-day workshop. The purpose of the workshop was to explore tools to protect public water supplies with emphasis on systems in the Mahoning Valley.

On Oct. 7, 2004, the Workgroup successfully held a SWAP Workshop with six speakers. The Workgroup developed the entire program and obtained CEUs accreditation for the program (thus assuring good attendance by operators). The Workgroup also marketed the workshop to ensure the attendance of its target audience (managers of the community public water supply plants which are served by surface water impoundments). There were about 100 attendees.

*Result:* A number of the public surface water suppliers indicated they would like to meet with local officials to discuss the 208 WQM Plan alternatives that could be instituted to protect tributaries to their water supply watersheds.

**Next Steps:** To learn more about plans for more follow-up actions and the schedule for the next phase, contact Kim Mascarella at Eastgate Regional Council of Governments. Phone (330) 779-3800; [Kmascarella@eastgatecog.org](mailto:Kmascarella@eastgatecog.org)

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**BENEFITS:** THE PACE EH demonstration project provided many direct benefits as demonstrated in the Workgroup's process and implementation.

Significant secondary benefits were derived from the new working relationships:

A.) The inclusion of a township trustee on the Commission provided a connection to the Mahoning County Township Association that assisted in the outreach event (i.e., opportunities to use the 208 WQMP tool to implement strategies to protect local water supplies).

B.) Participating representatives from the Ohio EPA, and Eastgate Regional Council of Governments (USEPA 208 Designated Planning Agency for the Mahoning-Trumbull county area) developed close relationships with the county health districts.

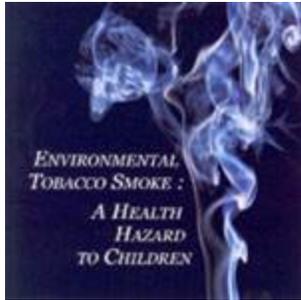
C.) Ohio EPA provided technical expertise/reports including: a copy of the completed Source Water Protection Plan (SWAP) for each of the community water supplies in the region; and presentations on the topics of SWAPs and the possible role of using the 208 Water Quality Management Plans (WQMPs) as a tool to address both the protection of water supplies and sprawl issues.

D.) Participants who became involved in helping to implement the Action Plan included the Steering Committee, Commission Workgroup members and external partners – a cross-section of professionals of varied expertise united on a common goal.

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**Documents:** In the Appendix there are documents used or created by the Workgroup and a Glossary of Terms.

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## Issue Workgroup: Indoor Air Quality

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**QUOTE:** *Americans spend between 67 to 90 % of their time indoors. Therefore, the impact of poor indoor air quality on the health status of people becomes an important issue to all. – IAQ Task 12 report*

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**GOALS:** Manage the quality of the indoor air environment by reducing exposures to those agents that would otherwise adversely affect our public environmental health status

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**RECOMMENDATIONS:** Indoor Air Quality (IAQ) includes many contributing factors such as: radon, lead, toxic molds, asthma triggers (pollens, dust mites, pet dander, pests [rodents and cockroaches] and second-hand smoke) and other air pollutants.

The IAQ Workgroup concluded that all of the above-mentioned issues are important to our community. The final recommendations are to:

- Provide public awareness and education to the general public through community health fairs, presentations, and other health-related activities.
  - Provide access to basic screening or testing in the individual areas.
  - Create alliances /collaborations with agencies active in projects related to the IAQ issues.
  - Pursue additional grant funds in partnership with agencies or organizations. (See Appendix for detailed list.)
- 

**PROCESS:** The PACE EH 13-step process was used to evaluate and rank the community's indoor air quality issues. As a result, the overall rankings were as follows: (See Appendix for a fully detailed description.)

- Lead – score: 69
  - Asthma Triggers – 64.5
  - Radon – 45
  - Mold - 30
-

**IMPLEMENTATION:** There are actions that can be taken to reduce the risk of indoor air pollution. The Workgroup suggests these steps. (See Appendix for detailed recommendations.)

1. Lead poisoning prevention programs with available funding sources are well established locally and regulations are in place. With adequate education and implementation, long-term adverse health effects can be prevented.
2. Asthma triggers have been identified as an important issue in this community. Collaboration with current hospital-based asthma projects can be easily accomplished. Focus will be on families, property owners, landlords, as well as school personnel for education and control of indoor asthma triggers.
3. Radon test kits are relatively inexpensive and available. Increased public awareness about radon can be easily provided through education directed toward homebuyers and owners, as well as home inspectors and builders. Alliances for assistance with education can be achieved through currently existing U.S. Department of Housing and Urban Development-funded Healthy Homes projects and through financial lending institutions.
4. Mold needs to be addressed but there are significant obstacles to addressing this issue.

*Mold --Issue:*

Mold is included as an indoor asthma trigger, thus receiving attention in that context. However, mold is the topic we know the least about.

- There is no regulation to determine safe vs. unsafe levels of mold and no specific legal authority for government to address it.
- Moisture and dampness issues need to be addressed; they impact the severity of problems related to mold, dust mites, and pest infestation.

*Mold -- Solution:*

In addition to inclusion with asthma triggers, focus on the mold issues will be directed on new home construction – mold testing at the time new homes are built. New homebuyers and the Home Builders Association (HBA) will be targeted for education. The Mahoning County District Board of Health is developing a fully accredited laboratory for mold analysis.

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**BENEFITS:**

The IAQ Workgroup found that the PACE EH demonstration project provided many direct benefits as demonstrated in the Workgroup’s process and implementation.

Additionally, the opportunity to work together garnered information, for example: USEPA provided access to numerous fact sheets related to indoor air pollution.

The Workgroup identified 13 agencies and resources available that may assist in accomplishing the recommendations. (See Appendix)

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**Documents:**

In the Appendix there are documents used or created by the Workgroup.

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## Issue Workgroup: Sprawl

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### QUOTES:

*Despite the fact that the population of the Mahoning Valley has continued to decline, the region continues to expand spatially, consuming more and more land. Between 1970 and 1990, the population of the Youngstown-Warren area declined by 9 percent but its urbanized land area grew by 30 percent—corresponding to a 30 percent decrease in overall population density in the urbanized portion of the region. -- “Ohio’s Mahoning Valley Regional Metropatterns: A Regional Agenda for Community and Stability”, Orfield M, Luce T., Metropolitan Area Research Corporation, September 2001. Page 1.*

*Youngstown, Ohio has a sprawl index value of 77.05 (on a scale of 0 to 100) according to the US Census data used by researchers at Boston University School of Public Health. -- American Journal of Public Health, September 2004.*

*None of us knew as much about the public health impact of land use decisions a year ago as we do now. As we learn more about the issue, we’ll be able to make more astute recommendations for changing land use decision-making processes that are evidence-based. – Matthew Stefanak, Mahoning County Health Commissioner*

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### GOALS:

Reduce the risk of illnesses associated with physical inactivity and injury risk by promoting high density, mixed-use development with walking or bicycling access to accomplish daily tasks.

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**RECOMMENDATIONS:** The following actions are suggested by the Workgroup.

- Decrease the proportion of adults who engage in no leisure activity to 28% by 2006 (baseline: 31% of Mahoning County adults in 2000).
- The proportion of children who walk to school will increase to 35% in 2005 (baseline: 31% of school trips one mile or less were made by walking in the U.S. in 1995).
- By the end of 2006, begin building 100% of new residential subdivisions with sidewalks to reduce motor vehicle-pedestrian injury risk and promote walking.

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**PROCESS:**

“Sprawl” emerged as one of the top three priorities for two reasons.

- About 1 out of 5 community survey respondents cited “development out-of-control” or “loss of green space” as our most pressing environmental health problem.
- The Workgroup realized that the impact of last summer’s floods was made more severe by the growth of impervious (paved) surfaces in high growth areas like Boardman.

**--Issues:**

Measures of sprawl are not standardized: there is no national “consensus set of indicators” to reference.

**--Solutions:**

The Workgroup applied the PEARL\* test to the potential objectives and activities it identified through a brainstorming process. The Workgroup drew linkages between land use decisions that discourage physical activity and their impact on levels of physical activity and obesity.

(\*See Appendix for PEARL description.)

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**IMPLEMENTATION:** The Sprawl Workgroup proposes the implementation of these actions.

- Adopt county subdivision regulations to require sidewalks, open space, and green corridors to schools and recreational spaces in new residential subdivisions
- Promote mixed-use development and a connected grid of streets, allowing homes, work, schools, and stores to be close together and accessible by walking and bicycling.
- Open more utility right-of-ways to hikers/bikers.
- Advocate that political subdivisions invest Community Development Block Grant funds in retrofitting unwalkable neighborhoods with sidewalks.
- Coordinate transportation improvements with community walkability improvements.
- Advocate for state legislation that supports regional planning.
- Promote “walk your child to school” events in each school district.
- Publish an “active community index” that rates community infrastructure and opportunities for physical activity.
- Promote walking programs as part of worksite wellness promotion programs.

**--Barriers:**

Unless the following barriers and needs are addressed, the implementation of the proposed actions will be slowed or impossible.

Potential barriers:

- Resistance from developers to regulatory requirements for green space set-aside and sidewalks
- Competing priorities for expending limited infrastructure improvement funds

- Political subdivision unwillingness to assume responsibility for infrastructure maintenance
- Lack of student peer support for walking to school
- Lack of employer support for wellness programs

Resource needs

Funding for community walkability infrastructure improvements, i.e., hike-bike trails, sidewalks.

--*Solutions:*

To implement the action plan, it is important to utilize these assets and partners.

Community assets:

- planning expertise in the university urban and regional studies program, regional council of governments, and metropolitan park district
- Mahoning and Trumbull Safe Communities, Mill Creek Metroparks ‘Hike for the Health of It’, and Steps to a Healthier Ohio programs

Partners:

County road engineers and planning commissions, YSU, Eastgate Regional Council of Governments, Home Builders Association, school boards, health districts, Mill Creek Metroparks, local state legislators, Mahoning Alliance for School Health, Mahoning County Planning Association

**BENEFITS:**

These are the benefits to this Workgroup experience with PACE EH.

A.) Real-life experience: The Workgroup realized that they needed more participation from urban planners familiar with Ohio planning and zoning laws and smart growth initiatives in Ohio. However, the Workgroup was fortunate to have a Boardman township trustee on the issue Workgroup team. She is experiencing first-hand the consequences of land use decisions in a fast growing community.

B.) Lessons Learned: The relationship between land use decisions and public health is an emerging field of study and practice. As a result of this project, members of the Workgroup developed an awareness of the public health impact of land use decisions.

C.) Continuation: Staff members at the District Board of Health are receiving additional training in urban planning and public health. With this new expertise, local public health agencies will be more credible advocates with local planning and zoning officials for considering the public health implications of the land use decisions they make.

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**Documents:**

In the Appendix there are documents used or created by the Workgroup.

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**SUMMARY**  
**PACE EH Mahoning Valley Project**  
**Overall Benefits, Implementation & Evaluation**

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**Overall Benefits:** As demonstrated in the Issues Workgroup reports, utilization of the PACE EH process has already netted significant benefits toward effectively identifying and addressing environmental health priorities.

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**New/Improved partnerships: Quotes from participants**

*“Participating representatives from the Ohio EPA, USEPA, and Eastgate Council of Governments (USEPA 208 Designated Planning Agency for the Mahoning-Trumbull county area) developed close relationships with the county health districts that could serve as a bridge to work on future quality of life issues that affect the region..” -- Ohio EPA Representative Keith Riley*

*“The U.S. EPA Region 5 Cleveland Office works in partnership with the Ohio EPA. The Ohio EPA introduced the PACE pilot project to the Cleveland Office, and suggested joining the Steering Committee as a way to build relationships and networking across the state. I was able to develop a new network in the Greater Youngstown area. I currently communicate with people on the Indoor Air Team [IAQ Workgroup sic] regarding lead and asthma issues. Contacts at the Health Department have proved valuable. The U.S. EPA may get involved in follow up work based on Task 12. The U.S. EPA Region 5 Chicago office received reports following the various PACE meetings. More than 1,200 people have access to these reports, including senior managers who are aware of the involvement in the project.” -- USEPA Representative Lyn Luttner*

*“If we can take the current recommendations and put them into practice, we will make some important improvements in environmental health. I’d be quite happy with these steps, even if small, as the topics covered are important.” --Larry Frisch, MD, MPH, Medical Director, Mahoning County District Board of Health and Andrews Professor of Community Medicine, Northeastern Ohio Universities College of Medicine*

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## **IMPLEMENTATION: Call to Action**

Already, the Drinking Water Quality Workgroup has implemented the public awareness portion of their action plan. Members of the steering committee made a presentation on the PACE EH Mahoning Valley Project to all of the public health officials attending the Northeast District Environmental Health Association Conference. This activity exposed other communities to the PACE EH process and what it can do for them.

The recommendations made by the three priority issues Workgroups of the Commission serve as a call to action to the boards of health in the Mahoning Valley and to the various agencies that can contribute to the successful improvement in our environmental health.

Please review the action steps of each of the Issues Workgroups and consider what action you or your agency can take.

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**NEXT STEPS:** **Continue the progress and initiate action toward all goals.**

**Assignments:** The Healthy Valley Alliance will assign a Workgroup to implement the recommendations of the Commission. The District Board of Health will assign staff to assist the Workgroup.

**On-going review:** Periodically, the Healthy Valley Alliance will revisit the recommendations to measure success and will publish a report card on improvements in environmental health.

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**EVALUATION:** **Was it worth it?**

Perhaps not everyone was delighted with the process. Some members dropped out due to personal constraints. Others left when they couldn't manifest the sort of "agenda" that they wanted to impose on the project. It was also disappointing to experience a lack of "ownership" from some of the other health districts that were invited to participate.

Yet, when asked the question: "Having completed the PACE EH project, did it meet your expectations?" the majority of the respondents in interviews and evaluations said yes. One participant said: "It exceeded my expectations."

Others expressed positive reactions to the collaborations fostered by the PACE EH process: "Great tool for the development of partnerships between various fields of expertise in both public and private organizations" and "It is important that coalitions are built to implement the recommendations in a timely manner."

Moreover, two-thirds of the commission and steering committee members who answered the project evaluation survey expressed interest in joining a Healthy Valley workgroup to implement the PACE EH recommendations.

The ultimate test of the value of PACE EH for the Mahoning Valley comes after the implementation of the action plans suggested by the Issues Workgroups. And, that will involve far more than the members of the Steering Committee and Commission.

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## APPENDIX

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## **ADMINISTRATIVE INFORMATION**

**'Call for Nominations'**  
**Commission Mission, Job Description & By-laws**  
**Commission Members**  
**Steering Committee Members**  
**Healthy Valley Alliance**  
**Healthy Valley 2000**  
**Healthy People 2010**

**‘Call for Nominations’**



**Healthy Valley**  
ALLIANCE

Dear Community Leader

Building healthy communities requires careful planning and cooperation between business, government, community organizations, and citizens in our communities. We, as members of the Healthy Valley Alliance *PACE EH* Steering Committee, are asking you to help us recruit community members willing to join us in an environmental health assessment and planning process that can lead to improvement in environmental health for the Mahoning Valley.

The *Protocol for Assessing Community Excellence in Environmental Health* (PACE EH) and Commission for Environmental Health are described in the attached fact sheet. In order to obtain representation from all communities in Mahoning and Trumbull Counties, we ask that you distribute this call for nominations as widely as possible among your colleagues, clients and others in your community.

Nominations should be received by February 28, 2003. A selection committee of Leadership Youngstown-Warren alumni will screen nominations for final selection by our Steering Committee.

Please feel free to contact any of us if you have any questions about the **Healthy Valley Alliance** and the Commission for Environmental Health.

Matthew Stefanak, M.P.H., Convener  
Mahoning County District Board of Health

PACE EH Steering Committee

Neil Altman, M.P.H.  
Youngstown City Health District

Frank Migliozi  
Trumbull County Board of Health

Leonard Perry  
Department of Environmental and  
Occupational Health and Safety,  
Youngstown State University

John Hazy, Ph.D.  
Healthy Valley Alliance

Keith Riley  
Ohio Environmental Protection  
Agency



## ***Healthy Valley Alliance***

### **A CALL FOR NOMINATIONS FOR THE COMMISSION FOR ENVIRONMENTAL HEALTH**

#### ***WHAT IS THE HEALTHY VALLEY ALLIANCE?***

The Healthy Valley Alliance is a partnership of individuals and organizations from the public, private, and not-for-profit sectors collaborating to focus attention and resources on health problems identified as priorities in the 1998 Healthy Valley community health plan.

#### ***WHAT IS THE COMMISSION FOR ENVIRONMENTAL HEALTH?***

Direction and support from the community is essential for public health organizations to fulfill their responsibilities to their communities. Commission members will be drawn from all segments of Mahoning Valley communities: political leaders, community activists, faith communities, senior citizens, students, professionals, service club members, representatives of business and labor and many others. No previous experience in environmental health is required for service on the Commission.

#### ***WHAT DOES THE COMMISSION FOR ENVIRONMENTAL HEALTH DO?***

With help from a Healthy Valley Steering Committee, the Commission for Environmental Health will utilize a process known as PACE EH (*Protocol for Assessing Community Excellence in Environmental Health*) developed by the National Association of County and City Health Officials and the U.S. Centers for Disease Control and Prevention to identify the major environmental health problems in Mahoning and Trumbull Counties, decide which ones should be priorities, and propose strategies to improve environmental health. We estimate that this process will take 18 months and require a personal time commitment of up to four hours per month.

#### ***HOW DOES THE APPLICATION PROCESS WORK?***

A form for nominating persons for the Healthy Valley Alliance Commission for Environmental Health is enclosed. Self-nominations are welcome, as are nominations of others. These nominations are being solicited throughout Mahoning and Trumbull Counties. Following the deadline for receipt of applications/nominations, a blue-ribbon selection panel of Leadership Mahoning Valley alumni will be convened to review the nominations received and rank them on the basis of:

1. knowledge of the community;
2. demonstrated commitment to the community;
3. ability to complete the PACE EH process;
4. ability to work well within a group; and
5. ability to represent the breadth of people and interests across the Mahoning Valley.

The Commission for Environmental Health will be selected from those highest ranked by this blue ribbon selection panel.

The success of the PACE EH process will depend directly upon our ability to recruit the highest quality Commission members. We invite your participation in leading us to a better future and thank you for considering this important endeavor.

**NOMINATION FOR HEALTHY VALLEY ALLIANCE**  
**COMMISSION FOR ENVIRONMENTAL HEALTH**

INSTRUCTIONS: PLEASE BE COMPLETE IN YOUR ANSWERS AND FEEL FREE TO ATTACH EXTRA SHEETS TO ANSWER ANY OF THE ITEMS BELOW. WHENEVER POSSIBLE, GIVEN SPECIFIC EXAMPLES AS PART OF YOUR ANSWERS TO THE QUESTIONS. SELF-NOMINATIONS ARE AS WELCOME AS NOMINATIONS OF OTHERS. FOR MORE INFORMATION CONTACT JANE WARGA AT 330-270-2855 X131, EMAIL [jwarga@mahoning-health.org](mailto:jwarga@mahoning-health.org) OR VISIT THE PACE EH WEBSITE AT <http://www.naccho.org/project78.cfm>. PLEASE SEND COMPLETED NOMINATIONS BY FEBRUARY 28, 2003 TO:

**Commission for Environmental Health**

c/o District Board of Health  
50 Westchester Drive  
Youngstown, Ohio 44515

1. Nominee's Name:
2. Address:
3. Phone Number and email:
4. Current Occupation:
5. Describe fully the nominee's experiences in working with community activism, both paid and/or volunteer:
6. Please describe any previous experiences with environmental health-related issues that the nominee may have:
7. Please give examples of how the nominee has been proven effective working in groups:
8. Please tell us why the nominee would be interested in participating in the PACE EH process, how he or she will be able to commit to the 18 month time period required and what he or she would contribute to it?
9. If this is not a self-nomination, does the nominee know that they are being nominated?  
\_\_\_\_\_Yes      \_\_\_\_\_No

\_\_\_\_\_

\_\_\_\_\_  
Signature of Nominator

Date



## COMMISSION FOR ENVIRONMENTAL HEALTH

### MISSION

The Commission for Environmental Health will utilize the *Protocol for Assessing Community Excellence in Environmental Health* to:

- create an environmental health profile of Mahoning and Trumbull Counties
- identify environmental health problems using scientific information and community perceptions
- choose the priorities among our environmental health problems
- set goals for environmental health improvement and propose actions to mobilize community resources to achieve these goals.

Environmental health is those aspects of human health, including quality of life, that are determined by interactions with physical, chemical, biological and social factors in the environment. (Pew Environmental Health Commission, 1999. <http://pewenvirohealth.jhsph.edu>.) The Protocol for Assessing Community Excellence in Environmental Health (PACE EH) was developed by the National Association of County and City Health Officials and the U.S. Centers for Disease Control and Prevention.

*Healthy Valley Alliance*  
*Commission for Environmental Health*

**Job Description**

**Length of Commitment:**

18-month term

**Estimated Time Required:**

3-4 hours per month, including a monthly meeting of 1-2 hours

**Desired Attributes:**

1. Commitment to improving environmental health in Mahoning Valley communities.
2. Knowledgeable about Mahoning and Trumbull Counties.
3. Willingness to maintain a regional perspective.
4. Ability to represent an important perspective, organization or sector of the region.
5. Experience working in a group.
6. Willingness and ability to provide the required time.

**Overall Roles:**

1. Advise, consult with, and make recommendations to boards of health, the Healthy Valley Alliance, and other community health organizations.
2. Present the perspective you represent in discussions, balancing those views with a regional perspective.

**Specific Responsibilities:**

1. Identify environmental health problems using objective scientific information and community perceptions of environmental health problems.
2. Establish priorities and goals for reducing environmental health problems.
3. Propose and advocate actions to mobilize community support and resources in pursuit of an environmental health improvement plan for the Mahoning Valley.

**Benefits:**

1. Opportunity to improve public health and the environment for area residents.
2. Community service.
3. Personal and professional growth.
4. Opportunity to represent your organization or profession.

**HEALTHY VALLEY ALLIANCE  
COMMISSION FOR ENVIRONMENTAL HEALTH  
BY-LAWS**

**Article I. Name**

The name of this organization shall be the Commission for Environmental Health.

**Article II. Purpose and Goals**

Environmental health focuses on the health interrelationships between people and their environment, promotes human health and well-being, and fosters a safe and healthful environment. The Commission for Environmental Health will utilize the *Protocol for Assessing Community Excellence in Environmental Health (PACE EH)* to:

- create an environmental health profile of Mahoning and Trumbull Counties
- identify environmental health problems using scientific information and community perceptions
- choose the priorities among our environmental health problems
- set goals for environmental health improvement and propose actions to mobilize community resources to achieve these goals.

**Article III. Members**

Section 1. Number. The Commission shall initially consist of 25 members not ever falling below 18 members. A vacancy shall not prevent the Commission from conducting business.

Section 2. Selection and Removal. Initial members of the Commission shall be selected by the Healthy Valley PACE EH Steering Committee upon recommendation of the alumni of Leadership Mahoning Valley. Future members and members to fill vacancies on the Commission shall be appointed by the Commission. The Commission shall have the right to remove Commission members for good cause shown after notice and a hearing before the Commission as a whole. A two-thirds (2/3) majority is required for removal. Automatic removal results when a member misses three (3) consecutive meetings or six (6) meetings in a calendar year.

Section 3. Term. Commission members shall serve for eighteen (18) month terms.

Section 4. Voting. Each member shall be entitled to one vote on each matter submitted to a vote of the Commission.

Section 5. Staff Members. Staff and coordination will be provided by the Steering Committee.

Section 6. Volunteer Status. Commission members and proxies serve on a volunteer basis without compensation.

## **Article IV. Meetings**

Section 1. Regular Meetings. Regular meetings of the Commission shall be held on a monthly or as-needed basis.

Section 2. Special Meetings. Special meetings of the Commission may be held on call of the Chair of the Commission, or three (3) members of the Commission. Members should be notified at least 7 days prior to the special meeting date.

Section 3. Quorum. A quorum for the purpose of holding a meeting shall consist of 1 more than 50% of current commission membership.

Section 4. Manner of Acting. A quorum present, the act of a majority of the members present shall constitute the action of the entire Commission, except as may be otherwise provided in these Bylaws.

Section 5. Parliamentary Procedure. *Robert's Rules of Order*<sup>1</sup> are adopted.

## **Article V. Officers**

The officers of the Commission shall consist of the following and such other officers as the Commission may from time to time designate and appoint:

- (a) Chair
- (b) Vice-Chair
- (c) Recording Secretary

The Chair shall preside at all meetings of the Commission. In the absence of the Chair, the Vice-Chair shall preside. The Recording Secretary shall supervise and present minutes at each meeting. In the event that the Chair and Vice-Chair are both unable to attend, an appointed commission member by the chair shall preside.

## **Article VI. Committees**

Section 1. Subcommittees may be appointed specializing in concerns relative to children, adolescents, adults, seniors or subject matter.

Section 2. The Executive Committee, consisting of the Chair, Vice-Chair, and Recording Secretary, shall meet with the Healthy Valley PACE EH Steering Committee periodically to report and plan Commission activities.

## **Article VII. Task Forces**

Task forces may be appointed as needed to accomplish specific short-term objectives.

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<sup>1</sup>Roberts, Henry N. *Robert's Rules of Order, Newly Revised* (Glenview, Ill.:Scott, Foresman & Co., 1981).

### **Article VIII. Books and Records**

The Commission shall keep minutes of all proceedings of the Commission and such other books and records as may be required for the proper conduct of its business and affairs.

### **Article IX. Amendments**

These Bylaws may be amended at any regular or special meeting of the Commission. Written notice of the proposed Bylaw change shall be mailed or delivered to each member at least five (5) days prior to the date of the meeting. Bylaw changes require a two-thirds (2/3) majority vote of the Commission members present. Changes in the Bylaws must also be approved by the Steering Committee.

## Commission Members

<b>Name</b>	<b>Organization -- Position</b>
Ginger Cartright	YSU-- Environmental Studies Student
Janice Elias	YSU-- Associate Professor, Human Ecology
Thomas Finnerty, Jr.	YSU -- Associate Director for Urban Studies
Anne Greenwald	Retired
Shirley Heck	Springfield Township Trustee
Michael Heher	BFI Poland Landfill Manager
Amy Holinbaugh	YSU -- Environmental Scientist
Delores Karnofel	Volunteer
Theresa Lyden	YSU --Student; Massotherapist
Kimberly Mascarella	Eastgate Regional Council of Governments -- Director of Environmental Planning
Kathy Miller	Boardman Township Trustee; Real Estate Broker
Patricia Natali	Ohio EPA -- Environmental Specialist; KSU faculty member
Paul Novak	Cleveland State Univ. -- Director of Safety & Environmental Health,
Trish Nuskievicz	Trumbull County Planning Commission -- Planner
Robert Ramoff	Retired -- Youngstown City Health District, Air Pollution
Michael Robinson	Humility of Mary HP -- Director of Community Outreach
Gary Singer	Mahoning County -- Director, Lead-based Paint Hazard Control Program
Lynn Sowers	EPA -- Environmental Supervisor
Cheryl Strother	Warren Health Department -- Public Health Nurse
Howard Vayner	Real Estate Broker
Marilyn Walton	Forum Health Tod Children's Hospital
Joe Warino	Mahoning County--Sanitary Engineer
Helen Yaslik	Retired; Volunteer
Richard Zapko	Industrial Hygienist

### Commission Officers:

Patricia Natali, Commission Chair  
Michael Robinson, Commission Vice-Chair  
Janice Elias, Commission Secretary

### Commission Members – Resigned:

James Sweeney -- Retired Signal Lineman  
Rebecca Dale -- MetroMonthly writer, Sierra Club Vice-Chair

## **Steering Committee Members**

Neil Altman	Youngstown City Health District – Health Commissioner
Larry Frisch	Medical Director, Mahoning County District Board of Health; Andrews Professor of Community Medicine, Northeastern Ohio Universities College of Medicine
Rick George	Youngstown State University
John Hazy	Youngstown State University (Criminal Justice)
Lyn Luttner	US EPA
Frank Migliozi	Trumbull County General Health District
Len Perry	Youngstown State University (Environmental Health)
Robert Pinti	Warren City Health District
Keith Riley	Ohio EPA
Sue Scavelli	Youngstown State University
Bill Skowronski	Ohio EPA
Ted Smith	Trumbull County General Health District
Matthew Stefanak	Mahoning County District Board of Health -- Health Commissioner
Jane Warga	Mahoning County District Board of Health

### ***Healthy Valley Alliance***

**The Alliance is . . .** A partnership of organizations from the public, private and not-for-profit sectors collaborating to focus attention and resources on health problems identified as priorities through the Healthy Valley 2000 community health assessment and planning process.

**Our Vision is of . . .** Healthy people and healthy communities in the Mahoning Valley.

**Our mission is . . .** To promote the initiation, development and sustainability of initiatives that result in measurable improvements in the priority areas identified by the Commission for Community Health and future community health assessment and planning efforts. The Alliance will encourage collaborative action and efficient use of resources from multiple sectors and community systems in the Mahoning Valley.

<http://www.mahoning-health.org/Valley2000/alliance.htm>

### ***Healthy Valley 2000***

In 1994, Mahoning County joined over 1,200 other communities in the United States when we created Healthy Valley 2000 - a collaboration between the Valley's boards of health, hospitals, physicians and other community leaders who shared a concern for improving community health. Over the next four years this small group grew into a cadre of more than 100 persons who volunteered thousands of hours to shaping this community health plan.

<http://www.mahoning-health.org/Valley2000/invitation.htm>

### ***Healthy People 2010***

**Healthy People 2010** is a set of health objectives for the Nation to achieve over the first decade of the new century. It can be used by States, communities, professional organizations, and others to help them develop programs to improve health.

**Healthy People 2010** builds on initiatives pursued over the past two decades. The 1979 Surgeon General's Report, Healthy People, and Healthy People 2000: National Health Promotion and Disease Prevention Objectives both established national health objectives and served as the basis for the development of State and community plans. Like its predecessors, Healthy People 2010 was developed through a broad consultation process, built on the best scientific knowledge and designed to measure programs over time.

**Healthy People 2010** sets three broad health goals for the decade:

- Increase the quality and years of healthy life
- Eliminate health disparities among Americans.

<http://www.healthypeople.gov>

Healthy People is managed by the  
[Office of Disease Prevention and Health Promotion,](#)  
[U.S. Department of Health and Human Services](#)

## REFERENCE MATERIAL

- Bibliography & Websites: See following pages.
- Community Survey & Survey Results: See following pages.
- County Demographics
  - See Ohio County Profiles, Mahoning & Trumbull. Office of Strategic Research, Ohio Department of Development at:  
<http://www.odod.state.oh.us/research/files/s0.html>
- Map of lead poisoned children and lead hazards in Youngstown
  - See indoor air quality bulletin board directory at: <http://www.Mahoning-health.org/valley2000.htm>
- Reports: OEPA advisories, USEPA Indoor Air
  - See State and Federal EPA websites at these addresses:  
**OEPA Advisories: Water**  
<http://www.epa.state.oh.us/dsw/fishadvisory/index.html>  
<http://www.epa.state.oh.us/pic/nr/2004/february/fishadv.html>  
<http://www.epa.state.oh.us/dsw/fishadvisory/index.html>  
<http://www.epa.state.oh.us/dsw/fishadvisory/2004%20fish%20advisory%20card.pdf>  
<http://web.epa.state.oh.us/dsw/fishadvisory/limitmeals.html#Mad>  
<http://www.epa.state.oh.us/dsw/fishadvisory/donotwade.html>

### **USEPA Fact Sheets: AIR**

- <http://www.epa.gov/ebtpages/air.html>
- <http://www.epa.gov/iaq/schools/tfs/guidei.html>

## BIBLIOGRAPHY & WEBSITES: Topical & Entity Listings

### Topical Listing:

#### Background Information:

- Children and the Environment <http://www.epa.gov/envirohealth/children/>
- Environmental Health Indicators Project: <http://www.cdc.gov/nceh/indicators/default.htm>
- Ohio County Profiles:
  - <http://odh.state.oh.us/data/county/indresults.asp?cntyname=Mahoning>
  - <http://odh.state.oh.us/data/county/indresults.asp?cntyname=Trumbull>
- USEPA HUMAN HEALTH: <http://www.epa.gov/ebtpages/humanhealth.html>

#### Water Information:

- Mahoning River- Mahoning & Trumbull Counties - Warren to PA Line- Total Contact Avoidance Advisory (Fishing, Swimming, Wading Advisories)  
<http://www.epa.state.oh.us/dsw/fishadvisory/index.html>  
<http://www.epa.state.oh.us/pic/nr/2004/february/fishadv.html>  
<http://www.epa.state.oh.us/dsw/fishadvisory/index.html>  
<http://www.epa.state.oh.us/dsw/fishadvisory/2004%20fish%20advisory%20card.pdf>  
<http://web.epa.state.oh.us/dsw/fishadvisory/limitmeals.html#Mad>  
<http://www.epa.state.oh.us/dsw/fishadvisory/donotwade.html>
- Sprawl Impact on Water: [http://www.epa.gov/smartgrowth/water\\_resource.htm](http://www.epa.gov/smartgrowth/water_resource.htm)
- Protecting Water Resources with Smart Growth. [http://www.epa.gov/smartgrowth/water\\_resource.htm](http://www.epa.gov/smartgrowth/water_resource.htm)
- USEPA Water Fact Sheet: <http://www.epa.gov/ebtpages/water.html>

#### Air Quality Information:

- “*Damp Indoor Spaces and Health*”. Institute of Medicine. Washington, D.C.: National Academy Press, 2004.
- “*Lead astray: Ohio is failing to protect children from lead poisoning*”. Environmental Working Group: <http://www.ewg.org/reports/ohiolead/summary.php>
- Preventing Lead Poisoning in Young Children: <http://www.cdc.gov/nceh/lead/publications/books/plpyc/contents.htm>
- USEPA AIR Fact Sheet: <http://www.epa.gov/ebtpages/air.html>
- USEPA IAQ Fact Sheet: <http://www.epa.gov/iaq/schools/tfs/guidei.html>

#### Sprawl Information:

- “Creating a Health Environment: the Impact of the Built Environment on Public Health.”, Jackson RJ, Kochtitzky C.: [www.sprawlwatch.org](http://www.sprawlwatch.org)
- Designing and Building Healthy Places. <http://www.cdc.gov/healthyplaces/>
- Encouraging Smart Growth. <http://www.epa.gov/smartgrowth/>
- Exurban Change Program. Ohio State University Extension. <http://aede.osu.edu/programs/exurbs/index.htm>
- Integrating Public Health into Land-Use Decision Making. <http://www.naccho.org/project84.cfm>
- National Center for Bicycling and Walking. <http://www.bikewalk.org/>
- “Ohio’s Mahoning Valley Regional Metropatterns: A Regional Agenda for Community and Stability”, Orfield M, Luce T., Metropolitan Area Research Corporation, September 2001.: [www.metroresearch.org](http://www.metroresearch.org)
- “Urban Sprawl and Risk for Being Overweight or Obese”, Russ Lopez, DSc., *American Journal of Public Health*, September 2004, Vol 94, No. 9; Research and Practice, p. 1574-9.

#### Protocol Information:

- PACE EH Demonstration Sites. <http://pace.naccho.org/Demonstration-Report/PACE-Demostration-site.html>
- Protocol for Assessing Community Excellence in Environmental Health: A Guidebook for Local Health Officials, NACCHO, 1100 17<sup>th</sup> St., NW, 2<sup>nd</sup> Floor, Washington, D.C. 20036
- Protocol for Assessing Community Excellence in Environmental Health (PACE EH): <http://www.cdc.gov/nceh/ehs/PIB/PACE.htm>

## Entity Listing:

Healthy Valley Alliance: <http://www.mahoning-health.org/Valley2000/alliance.htm>

Commission Reports & Minutes: On-Line Directory

<http://www.mahoning->

[health.org/valley2000/members/HEALTHY%20VALLEY%20ALLIANCE/PACE%20Commission%20for%20Environmental%20Health](http://www.mahoning-health.org/valley2000/members/HEALTHY%20VALLEY%20ALLIANCE/PACE%20Commission%20for%20Environmental%20Health)

Healthy People 2010: <http://www.healthypeople.gov>

Healthy People is managed by the Office of Disease Prevention and Health Promotion, [U.S. Department of Health and Human Services](http://www.hhs.gov/odphp)

NACCHO (National Association of County and City Health Officials): <http://www.naccho.org/index.cfm>

OEPA (Ohio EPA): <http://www.epa.state.oh.us>

USEPA: <http://www.epa.gov/>

Youngstown State University: [www.yosu.edu](http://www.yosu.edu)

Department of Environmental & Occupational Health & Safety: <http://cc.yosu.edu/eohs>

Alliance for Watershed Action and Riparian Easements (AWARE): <http://www.watershed.cboss.com>

Community Survey



**ENVIRONMENTAL HEALTH SURVEY**

**Directions:** The Healthy Valley Alliance Commission for Environmental Health wants your help in deciding on Mahoning Valley environmental health priority areas. Your honest responses are important to us. Your comments will stay private. Do NOT put your name on this survey.

1. Below are 26 items that involve or influence environmental health. Check (X) up to three (3) you would like to see Healthy Valley Alliance address in order to improve the health in Mahoning Valley.

- |   |  |
|---|--|
| <input type="checkbox"/> Air pollution                    | <input type="checkbox"/> Natural disaster                      |
| <input type="checkbox"/> Availability of outdoor exercise | <input type="checkbox"/> Noise                                 |
| <input type="checkbox"/> Bicycle paths                    | <input type="checkbox"/> Pesticide use/exposure                |
| <input type="checkbox"/> Bioterrorism                     | <input type="checkbox"/> Radon                                 |
| <input type="checkbox"/> Combined sewer overflow          | <input type="checkbox"/> Recreational water safety             |
| <input type="checkbox"/> Development out of control       | <input type="checkbox"/> Safe drinking water                   |
| <input type="checkbox"/> Fish contamination               | <input type="checkbox"/> School hazards & safety               |
| <input type="checkbox"/> Indoor air quality               | <input type="checkbox"/> Secondhand smoke                      |
| <input type="checkbox"/> Lack of parks                    | <input type="checkbox"/> Septic tanks                          |
| <input type="checkbox"/> Landfill concerns                | <input type="checkbox"/> Substandard housing                   |
| <input type="checkbox"/> Lead poisoning                   | <input type="checkbox"/> Transportation of hazardous materials |
| <input type="checkbox"/> Loss of green space              | <input type="checkbox"/> Vehicle exhaust                       |
| <input type="checkbox"/> Mold                             | <input type="checkbox"/> Waterborne disease outbreaks          |

2. Please describe anything else (good or bad) not listed above in question #1 you would like to see our HVA Commission for Environmental Health focus on in order to improve Mahoning Valley's environmental health.

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3. What is your highest level of education?
- |   |   |
|---|---|
| <input type="checkbox"/> Not a high school graduate | <input type="checkbox"/> Some trade school or college |
| <input type="checkbox"/> High school graduate       | <input type="checkbox"/> College graduate             |
4. How many children age 18 or less live in your home? \_\_\_\_\_ number
5. How many adults over 18 live in your home? \_\_\_\_\_ number
6. What is your sex? Female Male
7. To what racial or ethnic group do you belong? White Black Hispanic Other
8. What is your age? \_\_\_\_\_ years
9. What is your Zip Code and city? \_\_\_\_\_ 5-digit Zip Code \_\_\_\_\_ City Name
10. If you live in Mahoning or Trumbull County, how long have you lived here? \_\_\_\_\_ year(s)
11. Where do you live? House/condo Apartment Mobile home Other
12. How old is the place where you live? \_\_\_\_\_ year(s)

Thank you very much for your valuable time and input! ☺

## Survey Results

### HEALTHY VALLEY ALLIANCE ENVIRONMENTAL HEALTH SURVEY SEPT 2003: OPEN-ENDED COMMENTS

Question #2: Please describe anything else (good or bad) not listed above in question #1 you would like to see our HVA Commission for Environmental Health focus on in order to improve Mahoning Valley's environmental health;

#### Count

- 1 Better coordination between public service agencies
- 2 Check for acid rain in lakes and streams and lime were needed
- 3 City development or renovation without proper planning resulting in vast urban ugliness
- 4 Clean up the TV programs of moral filth
- 5 Cleaning up the Valley's river and streams and using the space for biking/hiking and other recreational activities
- 6 Disposing of hazardous wastes
- 7 Drugs (alcohol)
- 8 Earning one million dollars in our lifetime is not addressed. Money comes from extraction and processing of Natural Resources. Successfully accomplishing all of the above would only correct 5% of our true impact. Exploitation of all of nature will/occur (Human Nature)
- 9 Filter all ambient air
- 10 Flooding made worse by too many impermeable surfaces--streets, parking lots, roofs, etc.
- 11 Garbage and trash, drawing cats in unoccupied or occupied homes
- 12 Gas wells, city revitalization (less new construction on wild land) less urban sprawl
- 13 Gas wells, revitalization of Youngstown
- 14 Green space, public transportation, and public health care
- 15 Health in schools
- 16 I think more important than any of the above factors is irresponsible use of alcohol and drugs. About 50% of trauma admissions and deaths are associated with alcohol or drug use. Another important issue is abuse and neglect of children. Unfortunately, you have to pass a test to drive a car but anyone over 11 years of age can have a child.
- 17 I would like to see a concentrated effort in the area improvement of water quality and the processes and procedures of the respective city water treatment plants. In Campbell, we receive notifications at least once per year stating that the water was a problem. The problem, such as an overgrowth of algae, along with the expected resolution date is always included in the letter but the resolution date is always past the date that the residents actually receive the notice.
- 18 I would like to see public places become non smoking
- 19 Ignorance of litter control of suburbs & inner city's lack of concern of each other's livelihood
- 20 Improved rail and bus service throughout the Valley and Sharon/New Castle too.
- 21 Increase employment opportunities, reduce poverty, ecologically restore the Mahoning River
- 22 Issues in the city are somewhat different from suburbs, and both areas should receive attention
- 23 Items listed above are already being addressed by US EPA, OEPA, MT ACA, local health departments, etc. This looks like more "grant" work paid for out of tax funds which should be returned to this tax payer.
- 24 Just too much to cover, too few people to cover the problem
- 25 Lack of people being willing to use recycling
- 26 Landfill on Meridian Rd is an eyesore in getting way too big and high
- 27 Light pollution
- 28 Lobby effects for medical insurance/ prescription
- 29 Loss of ecological function of the Valley (failure to plan for sustainable development), restoration of the Mahoning River--it is the single most important environmental attribute of the Mahoning alley
- 30 Loss of wildlife habitat in our area
- 31 Mahoning River contamination
- 32 Mahoning River contamination! State health ban on Mahoning River
- 33 Meander Reservoir needs better access roads- since hazardous materials are transported across our interstate connecting system highways are a significant rate
- 34 Mosquito baiting and adulticiding and larviciding
- 35 Mosquito control

- 36 Number of vacant homes and buildings and poorly maintained buildings leads to unwanted animals
- 37 Old autos, inoperable, noise, same restrictions all cities, townships, zoning
- 38 Please focus on preserving the undeveloped areas of the Mahoning Valley (approximately 75% rural and open space). Do not focus on small patches of undeveloped land that are surrounded by heavy development.
- 39 Proper drainage of water to prevent mosquito outbreak (West Nile virus)
- 40 Remove combined sewer overflow
- 41 Residential use of pesticides and herbicides should be banned in the watershed of all drinking water supplies, or within some safe distance (maybe 1/2 mile) of all waterways. We need better stormwater regulations- detention ponds should be designed for the 100-year storm because contractors cut corners during construction. Also, erosion and sediment control measures should be enforced.
- 42 Road safety
- 43 Safe drinking water is my fourth concern. The water supply from the Meander Reservoir is a better quality than the water from Consumers Water. Consumers Water Company is not interested in improving the water quality. I have contacted the company multiple times without any success.
- 44 Safety is the main issue surrounding the development of safe outdoor recreation and park areas. I think spending money on lighting and patrolling in areas of parks and pools can enhance the use of the areas we already have. Our city pools have been left to go and the park areas. Kids need to have a place to go that has a small cost and can be both fun physically and socially. Strict rules need to be made and enforced.
- 45 Sewer overflow
- 46 Sewer overflow
- 47 Stream pollution, people dump anything they want down storm drains without realizing the repercussions
- 48 Suburban sprawl that effects deer population
- 49 Teen pregnancy, distribution of wealth
- 50 The ARMS section in Liberty (Logan Arms) seems to have an abnormally high number of people who come down with cancer. The area is built over mines. It is referred to as "love canal" by its residents. Can you pinpoint what is causing this? Should we move out?
- 51 The entire fairgrounds should be non-smoking
- 52 The entire fairgrounds should be non-smoking. Children are getting burnt and some people are asthmatic
- 53 The loss of natural habitat for animals--urban sprawl, recycling education in schools
- 54 Tobacco use and secondhand exposure, physical space (safe and convenient tied with programming), and substandard housing are major issues for our community. Some of these issues are significant risk factors for leading causes of death (heart disease, cancer, etc.) while some of the above issues are important, they may not represent a significant threat to the public's health.
- 55 Urban sprawl
- 56 We have the most beautiful park with Mill Creek Park that's available to the public
- 57 West Nile virus

10/28/2003 HV AP ACEEHSurveyOE20030ct 2 of 2

### Initial Workgroups: Distilling the Survey Results

Issues	Group Members
<b>Category 4/5 Development/Recreation:</b>	
Availability of outdoor exercise Bicycle paths Lack of parks Recreational water safety Fish contamination Loss of green space Development out of control Septic tanks Combined sewer overflow Noise Landfill concerns	Matthew Stefanak (steering committee) Howard Vayner Tom Finnerty Amy Holinbaugh Lynn Sowers Kathy Miller John Hazy Mike Heher Patricia Natali
<b>Category 3 Water:</b>	
Combined sewer overflow Fish contamination Safe drinking water Recreational water safety Waterborne disease outbreaks Septic tanks Pesticide use & exposure Mahoning River cleanup Loss of greenspace Landfill concerns	Ginger Cartright Cheryl Strother Keith Riley (steering committee) Theresa Lyden Shirley Heck Joe Warino Paul Novak Matthew Stefanak (steering committee)
<b>Category 1/2 Building/Air</b>	
Radon Lead poisoning Mold Substandard housing School hazards & safety Second-hand smoke Indoor air quality Pesticide use & exposure Air pollution Vehicle exhaust	Richard Zapko (chair) Rebecca Dale Lynn Luttner (steering committee) Janice Elias Len Perry (steering committee) Gary Singer
<b>Category 6 Disasters</b>	
Bioterrorism Natural Disasters Waterborne disease epidemics Transportation of hazardous waste Landfill concerns	Theresa Lyden Larry Frisch (steering committee) Michael Robinson

## **Technical Information:**

Issues Workgroup Analyzing Framework, et. al. (Process: Tasks 6-12)

On the following pages there are detailed descriptions of how each workgroup analyzed environmental health information in order to develop their recommendations.

- Drinking Water Quality (includes a Glossary of Water Quality Terms)
- Indoor Air Quality
- Sprawl

(For details, see Website at Healthy Valley Alliance: <http://www.mahoning-health.org/valley2000/members/HEALTHY%20VALLEY%20ALLIANCE/PACE%20Commission%20for%20Environmental%20Health>)

## On-Line Directory: Commission for Environmental Health Reports & Minutes

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8/15/03	2:15 PM	646144	<a href="#">PACE EH.ppt</a>
8/18/03	11:03 AM	76800	<a href="#">PACE flowchart.ppt</a>
6/18/04	11:13 AM	<dir>	<a href="#">sprawl workgroup</a>

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Located at:

<http://www.mahoning-health.org/valley2000/members/HEALTHY%20VALLEY%20ALLIANCE/PACE%20Commission%20for%20Environmental%20Health/>

## **Issue Workgroup: Drinking Water Quality Analyzing Framework**

### **Topic: Protecting Public Drinking Water**

#### **Contributing Factors**

##### **Public policy decisions:**

- No completed Source Water Assessment Plan (SWAP)
- No plan of action to implement Source Water Pollution Prevention Plan (SWPPP)
- No Public Awareness Program
- Lack of: protective land use programs (allowing development to encroach)
- Lack of a riparian ordinance,
- Lack of an updated 208 WQMP,
- Lack of disaster/spill response plan,
- Lack of a continuous tributary sampling program for surface water supplies,
- Lack of progressing program to ensure proper operation & maintenance of home sewage systems
- Lack of a gradual program to abate existing failing home sewage system areas
- Failure to permit and control effluent quality from existing discharges from HSTs & SPSDSs
- Lack of an erosion prevention ordinance
- Failure to fully implement Phase II Storm Water Regulations

##### **Personal behavior:**

- Improper use of pesticides and lawn fertilizing
- Failure to implement Best Management Practices in farming
- Improper disposal practices for manure disposal
- Failure to maintain sewage systems
- Illicit dumping of oil/chemicals
- Failure to prevent erosion on private properties adjacent to waterways
- Failure to maintain vegetative cover on private properties adjacent to waterways
- Chemicals being stored in the same location as the well
- Improper waste disposal practices

#### **Environmental Agents/Conditions (chemicals, biological agents, radiation, and physical conditions in the built or natural environment):**

##### **The potential Contaminant Source Inventory includes the:**

- Initial Inventory
- Land Use Analysis
- Site Visit
- Review of Historical Potential Sources
- Ohio EPA files
- USGS files
- ODNR files

Databases included cemeteries, oil and gas wells, hazardous waste sites, landfills, underground storage tanks, air emissions, airports, etc.

**Chemicals-** barium, fluoride, nitrate, phosphorus, sulfate, pesticides/herb., volatile organic compounds,

**Biological Agents-** high bacteria counts, chlorinated organics,

**Radiation-** radioactive contaminants,

**Physical Conditions-** erosion induced high in-stream turbidity affecting intakes (Newton Falls),

*[Issue Workgroup: Drinking Water Quality -- Analyzing Framework, Page 1]*

**Exposure Factors:**

- Place of exposure-**Workplace, Home, Schools, Institutions, Restaurants,
- Activities that lead to exposure-** Bathing, Consumption, Fishing, Water related recreation,
- Route of exposure-**Ingestion (drinking water or contaminated fish), Skin contact

**Affected Population:**

**The Public Water Systems in Mahoning and Trumbull Counties include:**

7 surface water supplies  
208 are ground water well sources.

<u>Mahoning County</u>	<u>Trumbull County</u>
Community SW 3	Community SW 4
Community GW 10	Community GW 18
NTNC SW 0	NTNC SW 0
NTNC GW 14	NTNC GW 24
TNC SW 0	TNC SW 0
NC GW 85	TNC GW 57

**Mahoning and Trumbull County Community Surface Water Supplies**Warren- Mosquito Creek Reservoir- 70,000 pop.

- Newton Falls- Mahoning River- 6,250 pop.
- West Farmington- Grand River- 1,100 pop.
- MVSD- Meander Creek Reservoir- 300,000 pop. (Youngstown, Niles, & McDonald)
- Consumers Ohio Water Co.- Struthers- 44,000 pop. (Beaver, Pine, Evans, Hamilton, Burgess, McKelvey Lakes)
- Campbell- L. Hamilton & L. McKelvey- 9,650 pop.
- Sebring- Mahoning River- 8,100 pop.

**Affected population-** includes general public, fisherman, businesses, homeowners,

**Public Health Protection Factors:**

**Personal protection factors (individual behaviors)-**

- Regularly maintain and pump septic system
- Do not over fertilize yards
- Implement environmentally sound farming practices
- Practice proper disposal of domestic animal wastes
- Maintain natural vegetation within private property riparian zones

**Community protection factors (community actions or systems)-**

- Develop Disaster/Spill Response Plan
- Implementation of SWPPP
- Develop riparian ordinance and program to secure conservation easements
- Upgrade home sewage system maintenance programs
- Begin a long-term construction program to tie failing septic system areas into sanitary sewer
- Implement erosion control programs

## **Strategies to Protect Water Supplies**

- Implement a Riparian Ordinance
- Implement a Spill Response Plan
- Implement a 208 Water Quality Management Plan  
(With Measures Outlined to Protect Water Supplies)
- Implement a Public Awareness Program
  - Homeowner fact sheets for periodic testing & annual chlorination
  - Owners and Landowners for proper O & M for Oil & Gas Production Wells
- Monitor Water Quality on Tributary Streams to Surface Water Supplies
- Implement Agricultural Best Management Practices (BMPs)
- Implement Phase II Storm Water Plan
- Identify Failing Sewage Systems
- Implement Plan to Eliminate Unauthorized Discharges
- Implement Storm Sewer Stenciling Program

## **Measurable Goals to Protect Water Supplies That Could Be supported By Health District Initiatives**

- Assist EastgateCOG in completing a 208 Water Quality Management Plan**
  - to control development encroachment near water supplies,
  - to eliminate new sewage discharges tributary to water supplies,
  - develop improved management system for residential sewage systems (HSTSs) and
  - to develop model ordinances for riparian protection and storm water.
- Implement a Public Awareness Program**
  - to advise homeowner on recommendations for periodic testing & annual chlorination
  - to advise homeowners and small public water supplies on procedures to ensure safe drinking water in areas impacted by a flooding event
- Implement (Phase II Storm Water Plan) Evaluation of Illicit Discharges**
  - prioritize efforts to require repairs or installation of sewer plans to eliminate
  - failing sewage systems in all areas tributary to surface water supplies
  - work with Co. Sanitary Engineer to plan elimination of Unauthorized Discharges
  - advise PWS owners to relocate chemical storage areas with without containment
- Work with NTNC/TNC water systems (schools, restaurants, camps, MHPs, nursing homes) to implement each item on their individualized SWAP checklist**
  - review progress with implementation during license renewal and inspections

## **Measures to Evaluate PACE Health District Plan of Action**

- Monitor Fecal Coliform Counts in Tributaries to Surface Water Supplies
- Monitor Cryptosporidium levels at raw intakes for Surface Water Supplies
- Monitor % HSTSs regularly pumped / inspected near Surface Water Supplies
- Monitor % Implementation of SWAP checklist for NTNC/TNC water systems

[Issue Workgroup: Drinking Water Quality -- Analyzing Framework, Page 3]

## **Glossary: Drinking Water Quality Workgroup**

**208 WQMP** Section 208 of the Clean Water Act - Water Quality Management Plan

**AWARE-** The Alliance for Watershed Action and Riparian Easements- this is one of the strong watershed citizen's groups that are active in completing a watershed action plan for three watersheds and have established a program to purchase riparian easements to protect streams and water supplies in the Mahoning Valley.

**AWWA-** American Water Works Association

**BMPs-** Best Management Practices

**EastgateCOG-** Eastgate Council of Governments- This is one of the six federally designated areawide regional planning agencies

**GIS-** Geographic Information System

**HSTS-** Household Sewage Treatment System- a residential sewage system in an unsewered area

**PWS- Public Water Supply-** a water supply that serves at least 25 people (3 types)

**Community** - serves at least 15 service connections used by year around residents or regularly serves at least 25 year around residents. (cities, villages, mobile home park, nursing homes, homeowner's associations, public utilities, etc.)

**NTNC-** Non-transient, Non-Community- a public water supply regularly serves at least 25 of same persons over 6 mos./yr. (schools, places of employment, etc)

**TNC-** Transient, Non-Community- a public water supply that serves at least 25 people, at least 60 days/yr. (churches, campgrounds, gas stations, etc)

**SPSDS-** Semi-Public Sewage Disposal System- a small business sewage system in an unsewered area

**SW illicit discharges-** Under USEPA's Phase II Storm Water regulations, all discharges to storm sewers or man made drainage ditches containing pollutants that are legally authorized by an Ohio EPA issued NPDES permit are referred to as illicit discharges

**SWAP-** Source Water Assessment Plan The Safe Drinking Water Act now requires an assessment of threats and a SWPPP to address these threats

**SWPPP-** Source Water Pollution Prevention Plan

**TMDL-** Total Maximum Daily Load- The Clean Water Act requires that all streams be restored to full attainment with all water quality standards (fishable, swimmable). A TMDL is an assessment of current watershed conditions and an action plan to implement corrections to restore the water body to attainment (compliance with chemical, aquatic insect, and fish standards).

**WAP-** Water Action Plan

**WQS-** State of Ohio Water Quality Standards for streams and lakes

[Issue Workgroup: Drinking Water Quality -- Analyzing Framework, Page 4]

## **Issue Workgroup: Indoor Air Quality Analyzing Framework**

The PACE step process was used to evaluate the community's indoor air quality issues. After formulating an analyzing framework grid for each topic (task 6), appropriate indicators were developed analogous to the Healthy People 2010 goals and objectives (tasks 7-8). Profiles were developed (task 9) for each subject, based on available literature and local data. The topics were systematically ranked (task 10) for priority in areas such as high-risk populations, magnitude of the problem, and long-term impact on community health status, public interest. Prioritizing the action plans (task 11) was dependent upon various criteria including: current legislation/regulation, legal authority/constraints, public interest/acceptability, available data, affordability and effectiveness of implementation methods, current projects and funding applicable to the issues.

Overall rankings were as follows:

- Lead – score: 69
- Asthma Triggers – 64.5
- Radon – 45
- Mold - 30

Lead was the highest ranked category. The community has a high number young children living in old, poorly maintained housing with lead-based paint. Lead programs with available funding sources are well established locally and regulations are in place. With adequate education and implementation, long-term adverse health effects can be prevented.

Asthma triggers ranked second. Asthma prevalence is a nationally recognized problem, with national prevalence rates climbing, especially in young children. Our local community has been cited to be a high-risk area when benchmarked with other areas of the country. Asthma triggers have been identified as an important issue in this community. Mold, dust mites, and pest infestation are all related to dampness and moisture problems. Second-hand environmental tobacco smoke (ETS) is an issue within family units as well as public facilities. Collaboration with current hospital-based asthma projects can be easily accomplished. Focus will be on families, property owners, landlords, as well as school personnel for education and control of indoor asthma triggers.

Radon ranked third. Radon test kits are relatively inexpensive and available. Increased public awareness about radon can be easily provided through education directed toward homebuyers and owners, as well as home inspectors and builders. Alliances for assistance with education can be achieved through currently existing Healthy Homes / HUD projects and through financial lending institutions.

Mold was ranked last; it is the topic we know the least about. There is no regulation to determine safe vs. unsafe levels of mold and no legal authority, making it is difficult to address. However, mold is included as an indoor asthma trigger, thus receiving attention in that context. Moisture and dampness issues need to be addressed; they impact the severity of problems related to mold, dust mites, and pest infestation. In addition to inclusion with asthma triggers, focus on the mold issues will be directed on new home construction – mold testing at the time new homes are built. New homebuyers and the Home Builders Association (HBA) will be targeted. The Mahoning County District Board of Health is developing a fully accredited laboratory for mold analysis.

**[Issue Workgroup: Indoor Air Quality -- Analyzing Framework, Page 1]**

## COMPONENTS OF SYSTEM ANALYSIS FRAMEWORK: THE IAQ GROUP

### 1. Contributing Factors

#### Public Policies

- HUD Guidelines for lead
- HB 248-ODH lead base paint
- No regulations for IAQ
- Home/school/public building conditions
- Home/school/public building construction
- Vehicle exhausts
- Smoking in public places

#### Personal Behaviors

- Environmental tobacco smoke
- Poor home maintenance
- Poor diet/medical care
- Moisture sources
- Housekeeping

### 2. Environmental Agents/Conditions

- Lead based materials
- Radon – soil conditions
- Pest infestations
- Pet dander
- Presence of dust and mites
- Molds due to presence of moisture
- Poor ventilation
- Cigarette smoke
- Air pollution

### 3. Exposure Factors

Places of Exposure:

Homes, basements of homes; public places; schools; day care centers; cars; workplaces; any affected buildings; general environment

Activities:

Any time spent indoors; recreation/past times; basement activities; schools; employment; transportation.

Routes of Exposure:

Inhalation; ingestion; mucous membranes; water

### 4. Affected Populations

Children and adults

Chronically ill

Smokers and 2<sup>nd</sup> hand smoker exposures

Those with pre-disposing conditions

Hyper-sensitive individuals

Construction workers

### 5. Environmental Health Status

Lung cancer

Reproductive and neurological disorders

Behavioral problems

Respiratory infections and diseases

Muscle and joint pains/malaise

Asthma

Allergies

[Issue Workgroup: Indoor Air Quality -- Analyzing Framework, Page 2]

## 6. Public Health Protection Factors

### Personal:

Radon test kits  
Adequate ventilation rates  
Moisture/mold removal  
Cleaning/housekeeping habits  
Cessation of smoking  
Medications and allergy shots  
Improved health care

### Community:

Test public buildings for IAQ issues  
Adopt regulations for IAQ issues  
Regulations for home sales  
Ventilation standards for IAQ  
No smoking regulations  
Mold/moisture prevention  
Community regulations

## IAQ WORKGROUP RECOMMENDATIONS

- Education of the public – create community awareness and knowledge of the potential risks and health outcomes of the issue.
- Networking and establishing alliances with community service organizations as well as local, state and federal agencies.
- Seek to enforce existing requirements/restrictions for building demolition and renovation projects as well as establish new construction requirements/restrictions for new home and commercial property development.
- Propose mold/moisture abatement guidelines.
- Propose standards, guidelines and recommendations for building ventilation rates.
- Incorporating building and development out-of-control issues to prevent flooding, surface water, drainage, and the waste of green space problems.
- Radon and lead are environmental health issues that should be included in the safe drinking water plan.
- Consider proposals that would require/recommend that indoor air quality issues be addressed for homes (radon and mold inspections and testing prior to the sale of homes) as well as for public and commercial buildings (such as no smoking allowed in government office buildings and public establishments such as restaurants).
- Develop regulations or guidelines that provide for consumer protection services. Establish criteria and requirements for inspection, sampling and abatement of indoor air quality issues.
- Examine success stories from other communities.

## AGENCIES & RESOURCES --MAY ASSIST IN IMPLEMENTATION

- Local government agencies (city and county health districts, building inspection departments, children services board, lead abatement program)
- State governmental agencies (Ohio Department of Health, Ohio EPA)
- Federal governmental agencies (US Public Health Service, HUD, US EPA).
- American Cancer Society
- Local school districts
- Healthy Homes project
- Well-child clinics
- American Lung Association
- Mahoning and Trumbull County Fairs
- Real estate agencies
- Health symposiums and seminars
- Block Watch programs

## **Issue Workgroup: Sprawl (development out-of-control)**

### **Environmental Health Issue Profile & Analyzing Framework**

**Scope:** Continued expansion of low-density residential development away from the urban core without easy access to commercial and recreational areas, to the detriment of both city and suburbs.

#### **Background:**

Brief Summary of Local Conditions (information known to the local health agency, including community-input results):

Loss of green space and development out-of-control were ranked second and fifth, respectively, among 26 environmental health problems listed in a survey of 310 area residents conducted by the PACE EH project in 2003.

Past and current land use development decisions have an impact on many measures of public health, including:

- 1) *Asthma and other respiratory diseases*, caused in part by poor air quality. Poor air quality is tied to pollution emitted from motor vehicles. Residents of sprawling communities drive more, thus increasing motor vehicle emissions. From 1999-2001, 442 children in Mahoning and 410 children in Trumbull Counties were hospitalized for asthma. The hospitalization rate of 29.1 per 10,000 children in Mahoning County for this period was slightly above the U.S. rate of 27.7 per 10,000 in 1998.
- 2) *Risk for waterborne diseases* from surface and ground water quality impairment. Increased flooding and pollutant runoff due to an increase of impervious surfaces, such as paved roadways, parking lots, and roofs, threatens water quality. During the floods of 2003, 4-8 times as many wells tested by the District Board of Health contained bacterial contaminants than in the previous two years. Reliance on septic systems for wastewater treatment in suburbanizing areas can contribute to water quality impairment. In 2003, 36% of septic systems inspected by the District Board of Health at point-of-sale were failing. Residents filed sewage complaints with the District Board of Health at a rate of 6.0 per 1,000 septic systems between 1994-2002. Past industrial activities have also degraded surface water quality; the Ohio Department of Health has maintained fishing, swimming and wading advisories for the Mahoning River and Little Beaver Creek due to the presence of contaminants in sediment since 1988.
- 3) *Motor vehicle and pedestrian injuries*. An almost exclusive reliance on motor vehicles for most trips places residents at risk for motor vehicle-related injuries. The Ohio Department of Public Safety reported these numbers of deaths and injuries in recent years:

**Mahoning County**

**Motor Vehicle Deaths/Injuries**

2002 – 39/3402

2001 – 24/3396

2000 – 28/4817

population – 257,555

**Trumbull**

**Motor Vehicle Deaths/Injuries**

2002 – 33/2872

2001 – 37/2702

2000 – 41/3689

population – 225,116

- 4) *Lack of sidewalks*: In many areas, especially in new developments, the lack of sidewalks exposes pedestrians to motor vehicle traffic, placing them at risk for pedestrian-motor vehicle injuries. The Ohio Department of Public Safety does not break down pedestrian injuries and fatalities by county, but has reported these numbers statewide in the last three years:

**Pedestrian Deaths/Injuries – state-wide**

2002 – 91/2689

2001 – 96/2922

2000 – 95/3158

- 5) *Physical inactivity.* Sprawl often presents barriers to physical activity, contributing to increased risk for obesity, heart disease, diabetes, and other chronic diseases. Barriers include the absence of sidewalks, bicycle paths, access to parks and playgrounds, heavy motor vehicle traffic, and high levels of neighborhood crime. Older persons and persons with disabilities often have less access to recreational activities. In 2000, 30.5% of Mahoning County adults reported no leisure-time physical activity in the last month, up from 25.8% in 1993. Among Mahoning County residents 65 years and older, 37.6% reported no physical activity in the last month in 2000. In 2000, 37.2% of Mahoning County adults were overweight, up from 22.2% in 1993. In 2000-2001, 39% of 1,673 schoolchildren measured in two Mahoning County school districts were overweight. Mahoning and Trumbull County Planning Commission subdivision regulations do not require the installation of sidewalks in all new subdivisions.

### **Standards:**

- Locally appropriate (community-specified) goals/standards
  - Healthy People 2010 objectives (if available)
- 8-1. Reduce the proportion of persons exposed to air that does not meet the U.S. Environmental Protection Agency's health-based standards for harmful air pollutants.
- 8-2. Increase use of alternative modes of transportation to reduce motor vehicle emissions and improve the Nation's air quality.
- 8-8. (Developmental) Increase the proportion of assessed rivers, lakes, and estuaries that are safe for fishing and recreational purposes.
- 8-12. Minimize the risks to human health and the environment posed by hazardous sites.
- 15-15. Reduce deaths caused by motor vehicle crashes.
- 15-18. Reduce nonfatal pedestrian injuries on public roads.
- 19-1. Increase the proportion of adults who are at a healthy weight.
- 19-2. Reduce the proportion of adults who are obese.
- 19-3. Reduce the proportion of children and adolescents who are overweight or obese.
- 22-1. Reduce the proportion of adults who engage in no leisure-time physical activity.
- 22-2. Increase the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day.
- 22-3. Increase the proportion of adults who engage in vigorous physical activity that promotes the development and maintenance of cardiorespiratory fitness 3 or more days per week for 20 or more minutes per occasion.
- 22-6. Increase the proportion of adolescents who engage in moderate physical activity for at least 30 minutes on 5 or more of the previous 7 days.
- 22-7. Increase the proportion of adolescents who engage in vigorous physical activity that promotes cardiorespiratory fitness 3 or more days per week for 20 or more minutes per occasion.
- 24-2. Reduce hospitalizations for asthma.
- 24-3. Reduce hospital emergency department visits for asthma.

### **Community-specific Indicators (from Step 6 – Analyzing Framework):**

- Environmental health status: asthma, obesity, waterborne disease
- Affected populations: children, adults, the elderly and disabled
- Exposure factors: home, automobile (place), driving, walking (activities), inhalation, ingestion, pedestrian-motor vehicle collisions ( route of exposure)
- Environmental agents/conditions: septic system effluent, storm sewer discharge, motor vehicle emissions, pollutant runoff from paved surfaces
- Contributing factors and behaviors: zoning and planning laws and regulations, transportation policies, motor vehicle use, physical inactivity, urban out-migration, mixed use development, sidewalks, creation and retention of parks, green corridors, and riparian buffers
- Public health protection factors: exercise, community involvement

[Issue Workgroup: Sprawl (development out-of-control) -- Environmental Health Issue Profile, Page 2]