

**Collaborative on Health and the Environment–Washington (CHE-WA)**  
**Quarterly Meeting**  
**Antioch University Seattle**  
**May 16, 2007**  
**2:00–4:00pm**  
**Focus: Pesticides**  
**NOTES**

**Participants**

*Jason Allen*, University of Washington  
*Maryon Attwood*, Institute for Children’s Environmental Health  
*Jack Barbash*, United States Geological Survey  
*Mary Bartholet*, Washington State Nurses Association  
*Julia Berg*, Local Hazardous Waste Management Program in King County  
*Marnie Boardman*, Washington Department of Health  
*Aimee Boulanger*, Institute for Children’s Environmental Health and new coordinator for CHE-WA  
*Diane Cortese*, student at Antioch University Seattle  
*Carol Dansereau*, Farm Worker Pesticide Project  
*Kate Davies*, Antioch University Seattle  
*Elizabeth Davis*, League of Women Voters of Washington  
*Jim DiPeso*, Republicans for Environmental Protection  
*Richard Fenske*, University of Washington Department of Environmental and Occupational Health Sciences  
*Gail Gensler*, Local Hazardous Waste Management Program in King County, Young Children's Project  
*Steven Gilbert*, Institute of Neurotoxicology and Neurological Disorders  
*Ellen Lettvin*, University of Washington Applied Physics Lab  
*Kyoko Marayama*, Seattle Biotech Legacy Fund  
*Tracee Mayfield*, Public Health – Seattle & King County  
*Elise Miller*, Institute for Children’s Environmental Health, CHE-WA’s founding coordinator  
*Lan Nguyen*, House of Representatives for Frank Chopp  
*Debra Oliver*, Local Hazardous Waste Management Program in King County, Young Children's Project  
*Millie Piazza*, Washington State Department of Ecology  
*Janna Rolland*, Institute for Children’s Environmental Health (board member)  
*Roger Rosenblatt*, University of Washington Department of Family Medicine  
*Rachel Severson*, University of Washington Department of Psychology  
*Margaret Shield*, Toxic Free Legacy Coalition  
*Lindsey Spencer*, Tacoma-Pierce County Health Department  
*Rini Sulaiman*, Institute for Children’s Environmental Health (board member)  
*Jennifer Taylor*, student at University of Washington Medical Center/University of Washington Bothell  
*Pam Tazioli*, Breast Cancer Fund  
*Heather Trim*, People for Puget Sound  
*Carl Woestwin*, Seattle Public Utilities

## **Welcome and Introductions**

Elise Miller, executive director of the Institute for Children's Environmental Health and founding coordinator of the Collaborative on Health and the Environment for Washington (CHE-WA), welcomed everyone to the quarterly meeting. She noted that this meeting's focus was on pesticides and underscored that pesticide exposures have been linked to numerous disabilities and diseases, such as Parkinson's, various cancers, and learning and developmental disabilities—and were clearly of real concern to many members of CHE.

Kate Davies welcomed everyone to Antioch. Kate is on the core faculty for Antioch University Seattle's Environment & Community program and chairs CHE-WA's Research and Information Working Group.

Participants introduced themselves briefly.

## **Announcements**

Elise announced that she is officially transitioning coordination of CHE-WA to ICEH's very capable and experienced program director, Aimee Boulanger. Though Elise will remain intimately involved in CHE and welcomed people to contact her anytime, having Aimee take on this leadership role will allow Elise to work more on other national and some international environmental health issues.

In addition, Elise noted that Michael Lerner, PhD, president of Commonweal and co-founder of the national Collaborative on Health and the Environment, will be our speaker at the next CHE-WA meeting on September 14<sup>th</sup> from 10:00 a.m. to noon. More information will follow.

## **Science update**

Research Chemist Jack Barbash, PhD, United States Geological Survey

Jack, who serves on the Pesticide National Synthesis Team of the USGS discussed "Pesticides in Streams and Groundwater, Observations from Washington State and across the Nation." The national summary of this study is online at <http://ca.water.usgs.gov/pnsp/>. The report includes selected results from Puget Sound, and viewers may select a particular area and a particular contaminant and find related information online. The study underscored the need for data on nonagricultural use of pesticides.

## **Highlights of Jack's presentation**

### *Overview:*

- The USGS findings show strong relations between the occurrence of pesticides and their use and point out that some of the frequently detected pesticides – including the insecticide diazinon and the herbicides alachlor and cyanazine – are declining.
- The study included 52 hydrologic locations, 186 stream sites for water in the United States, 187 ground-water studies and 1,052 sites for bed sediment.

*Survey question #1:* “What is the extent and nature of pesticide occurrence in streams and ground water?”

- The results have produced the most comprehensive list of endocrine disrupters in the United States.
- Over 97% of streams in the United States have detected pesticides in water. Major aquifers have 33% detection of pesticides.
- The most frequently detected pesticides in streams are the most heavily used pesticides: atrazine, metolachlor and cyanazine. Urban settings have the most heavily used insecticides: simazine, prometon, tebuthiuron, diazinon, chlorpyrifos and carbaryl. Some of these insecticides are used on “rights of way” along roads and highways.
- Organic chlorides in fish and bed sediment: (This does not include lakes or reservoirs.)
- Legacy compounds like insecticides are higher in urban areas.
- Surveys reveal that over 98% of streams have one or more pesticides and 75% have five or more pesticides detected.
- Good data was recorded for agricultural use; however a pesticide like diazinon, widely detected in water, has little national data because of proprietary control by chemical company producers. Diazinon’s downtrend was recorded because of its phase out.
- Seasonal patterns followed the agricultural calendar and household use of pesticides. The survey also reflected the phase out of one chemical and phase in of another.
- Summary of occurrence of pesticides:
  - a) Almost always present in streams
  - b) Less common in groundwater
  - c) Mixtures are the rule, not the exception
  - d) Unique geographic and seasonal patterns
  - e) Constantly changing over time

*Survey question #2:* What is the potential for adverse effects of pesticides on humans, aquatic life and fish-eating wildlife?

- A lot of compounds don’t have benchmarks – EPA standards or guidelines that indicate an increased likelihood, but not a certainty, of effects. Even where benchmarks exist, they may underestimate the potential for effects because mixtures are the prevalent exposure.
- The Pesticide National Synthesis Team came up with a screening-level assessment by using water-quality benchmarks and surveyed potential harm to humans, aquatic life and wildlife. Pesticides with the most exceedances of aquatic-life benchmarks in water revealed that 57% of agricultural sites had pesticides (20 pesticides) and 83% of urban sites had pesticides (10 pesticides).
- Water-quality benchmarks are estimates of concentrations above which pesticides may have an adverse effect on human health, aquatic life or fish-eating wildlife. A USGS screening-level assessment is primarily intended to identify and prioritize needs for further investigation.
- Summary of potential for effects of pesticides:
  - a) Human health – low and limited
  - b) Fish-eating wildlife – substantial but decreasing
  - c) Aquatic life – widespread and always changing because of use patterns
  - d) Mixtures – the dominant mode of exposure and may increase risk.

Jack closed by discussing a three-year survey of pesticides in King County streams (1998 - 2003) undertaken by USGS. Information about more than 200 pesticides used in agriculture can now be accessed online because of this survey. Other revelations from this study: most of the transport occurs as a result of storms, and the highest sales data relate to the highest percentages of pesticides detected in streams. He also noted that the charts compiled by Washington Toxics Coalition showing monthly sales of diazinon and carbaryl in King County may represent the only place in the country where this data has been collected (1997-2002). In his presentation, Jack also referred to a two-page congressional briefing sheet written in March 2006, "Pesticides in the Nation's streams and Ground Water, 1992-2001." This further analyzed what the findings may mean to human health, aquatic life and fish-eating wildlife.

### **Panel on pesticides and human health:**

**1) Richard (Rich) Fenske**, PhD, professor of Environmental and Occupational Health Sciences, University of Washington, discussed source receptor relationships and populations at risk. He reviewed the 2004 Supreme Court decision to mandate cholinesterase enzyme testing. They have collected three years of data. If the enzyme level changes, the worker is removed from work. This testing program can help prevent illness, and the number of illnesses from exposures to certain pesticides has gone down. The program, however, depends upon employers enrolling the employees, and there is no record of how well this mandated program is being enforced. The original data collection in Washington relied on an independent committee/advisory board to do the oversight. The Washington State lab did analysis for the first three years. This committee was recently disbanded and the private sector has taken over this effort. Rich said in his estimation that the private sector was not doing this as effectively as the independent board did.

Rich also discussed field workers and exposure through drift and residues in the fields, orchards and AZM. He noted that workers trimming immature fruit in orchards have the highest risk, but of course, pregnant women working in agriculture are the highest-risk population because of the potential damage fetal exposure can cause.

Rich closed by saying he was very pleased about the recent legislative directive and funding that will be directed through the Department of Health to conduct air monitoring in agricultural areas in Washington. He said this legislation passed thanks in large measure to Carol Dansereau and her organization.

**2) Carol Dansereau**, JD, executive director of the Farm Worker Pesticide Project, reviewed her interest in monitoring air quality for pesticide drift. She became involved in the Pesticide Action Network and attended a training provided by the Drift Catcher Program in California. She applied what she had learned in these trainings in two communities in the Yakima Valley area. They tested air quality for 21 days at both sites. There was drift recorded every day for both sites. The study raised significant concerns for health, and because of this, she emphasized that the burden of proof of safety should really be on the producer. She also noted that the issue of drift is a civil rights issue and the precautionary principle should be used to prevent these types of exposures. For more information on this study, please contact Carol at [cdansereaufwpp@earthlink.net](mailto:cdansereaufwpp@earthlink.net).

One piece of good news Carol highlighted was that the Washington State Legislature passed a bill allocating \$538,000 for air monitoring of fumigants over two years. This pilot project will take air samples and provide recommendations and results. This project will be directed by the Department of Health and include researchers at the University of Washington and Washington State University.

Carol closed by highlighting some next steps:

- Developing an air-monitoring project design and making recommendations based on air samples taken
- Moving towards alternatives and health-based choices rather than trying to ban yet another chemical
- Implementing the Notification Pilot Project – \$150,000 was allocated by the legislature to the Washington Department of Agriculture for a volunteer testing program
- Attending the upcoming EPA Fumigant Meeting

**3) Carl Woestwin**, Landscape Conservation Planner and Program Manager, Seattle Public Utilities and Local Hazardous Waste Management Program of King County, described the basic pesticide reduction education message he and his colleagues have developed: build healthy soil, pick the right plants, water smartly, diversify and use good garden hygiene. Using this approach, pesticides become irrelevant. He then noted several programs that are effective:

1) Seattle Public Utilities:

- Green garden program for landscape professionals
- Natural Lawn & Garden Hotline for home gardeners (206-633-0224)
- Natural Yard Care Neighborhoods – have been in 50 neighborhoods
- Homeowner Associations – work with them to change covenants to encourage a greener aesthetic

2) Local Hazardous Waste Management Program for King County:

- Envirostars Certification for landscapers – go to their website at [www.envirostars.com](http://www.envirostars.com)
- *Grow Smart/Grow Safe* booklet – lists toxic compounds from least toxic to most toxic
- Natural Lawn & Garden series

3) King County Water and Land Resources Division

- Natural Yard Care Neighborhoods
- Yard-care program on KCTV
- Northwest Natural Yard Days

Carl also provided a one-page handout outlining his program and a copy of their 14-page, four-color *Natural Yard Care* and *How To Choose a Landscape Company* brochures.

Another participant added that as part of the Local Hazardous Waste Management Program in King County there is the brochure, *Healthy Home Companion*, printed in January 2006, that includes information and easy ways to protect your family from hazardous household chemicals. This is available in alternate formats by calling 206-263-3051. To learn more about fruits and vegetables and pesticide risk in those foods, go to [www.foodnews.org/](http://www.foodnews.org/).

## Updates and opportunities:

### 1) Climate Change and Health Working Group

Roger Rosenblatt, chair of the working group, announced that per the last meeting he and his group have prepared a draft white paper. Please email him if you would like to receive the complete report or to be added to the list of working group members: [rosenb@u.washington.edu](mailto:rosenb@u.washington.edu). He also handed out a one-page summary for proposed developing strategic directions for the Climate Change & Human Health Working Group to foster the following:.

- a) Reduction of greenhouse gas emissions
- b) Sequestration of greenhouse gasses
- c) Carbon-free energy production
- d) Adaptation to human impacts of climate change (including identifying threats to health-affected groups and mitigating impacts on vulnerable groups)

Roger mentioned he had been asked by the EPA to share this information on a conference call on May 24<sup>th</sup> and welcomed suggestions for what he will say. (Update: the May 24<sup>th</sup> EPA webcast on "Climate Change and Children's Health" is available for you to download should you be interested. The internet location for ICF's FTP site is <ftp://ftp.icfconsulting.com> )

The logon credentials are as follows:

Username: ftpclient

Password: Upload5 (case sensitive)

Once you have logged onto the site, click on the Upload folder, then click on the EPA-OCHP folder. You will then see the WMV file named "downloadLMM\_v3dej.wmv"

You can copy and paste or otherwise drag this file onto your desktop. PC users may first need to view the FTP site in Windows Explorer as described on the FTP site.

One participant noted that there is a Washington State Global Warming Task Force. It has met four times. The governor has asked for a 50% reduction by 2050. But what we really need is an 80% reduction from today.

For those interested in more effective messaging on global warming, there is a meeting on "Global Warming Education and Outreach" at Seattle Town Hall on June 27<sup>th</sup> from 9:00 a.m. to noon.

In terms of next steps for the CHE-WA working group, Elise commented that what hasn't happened in the past is a well developed articulation of health effects on children from global warming. This white paper is one step towards that, but at the last meeting, we also considered producing fact sheets and trying to offer any service that other groups might not be undertaking yet.

**2) Environmental Justice Working Group.** Aimee Boulanger reported that there will be a **conference call** on May 21<sup>st</sup> at 1:00 p.m. for all who are interested in discussing ways for CHE-WA to support environmental justice and address health disparities. Aimee also shared that the discussion will be open, with no expectations on a particular outcome. It may be that the group decides that there are positive ways to support environmental justice groups and issues, but that the traditional working group structure is not the best vehicle. All feedback and input will be welcome and is encouraged. Aimee noted that there is no chair for this group at this time.

**3) Precautionary Principle Working Group.** Tracee Mayfield of Public Health – Seattle & King County, who chairs the working group, shared that the group is drafting a letter of inquiry to the Robert Wood Johnson Foundation. If accepted and a full proposal is approved, this grant would provide funds to create a model program for the implementation of the precautionary principle in decision making in city and county governments. Aimee added that Tracee has done exceptional work associated with this grant to envision how such a change in thinking and policy direction might be realized, and that even if this grant is not approved, the process has created an excellent work plan that might be followed regardless.

**4) Research and Information Working Group.** Kate Davies, who chairs the working group, announced that she would likely update the Research and Information pages of the CHE-WA website this fall. Kate also continues to make herself, and the working group, available to assist other working groups with their research and information needs.

**5) Update on the 2007 Legislative Session:** Margaret Shield of the Toxic Free Legacy Coalition provided an update on the tremendous successes of the 2007 legislative session. The strides made to protect the environment and human health were unprecedented and must be celebrated. Among other victories, Washington became the first state to require the phase out and replacement of deca, a toxic brominated flame retardant, that has been found accumulating in everything from the tissue of orcas to human breast milk and is associated with learning and developmental problems. She thanked so many in the room for all of their contributions toward creating a healthier Washington and to creating inspiration and a model for other states to follow.

## **Closing**

Elise Miller and Aimee Boulanger thanked everyone for coming and gave particular thanks to the speakers for their contributions. Information will be sent later this summer about the September meeting.