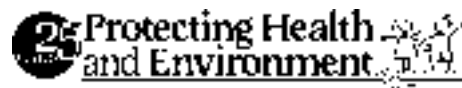


WASHINGTON  
TOXICS  
COALITION

# Alternatives



## Legislative Victories: Ban on Toxic Flame Retardants; New Funding for WSU Organic Agriculture Program

Erika Schreder

The toxic-flame-retardant industry spent more than \$200,000 to stop us. They sent misleading flyers to thousands of Washington residents. They hired lobbyists that had a constant presence in Olympia. They paid for full-page ads in numerous newspapers saying their toxic flame retardants were safe. They attempted to mislead legislators into believing they represented fire-safety organizations.

And what did we do? We worked with a crack team of policy experts, doctors, nurses, public-interest lobbyists, fire fighters, children's advocates, moms, and scientists and told the truth about the potential dangers of the toxic flame retardants (PBDEs). We pursued a reasonable approach to phasing them out in favor of safer alternatives and won the support of legislators on both sides of the aisle. A huge boost to our three-year campaign was the decision of the state departments of Ecology and Health and the governor to make this legislation a priority.

The final tally makes it clear that legislators heard the truth and saw the need for action to prevent these flame retardants from building up in our children and threatening their health: both houses passed the legislation with overwhelming bipartisan majorities, 71 to 24 in the House of Representatives and 41 to 8 in the Senate.

Rep. Ross Hunter (D-Medina) and Sen. Debbie Regala (D-Tacoma) shepherded the bill from its inception in 2005. Rep. Hunter worked day and night to ensure the passage of this bill because of his concern for children's health.

"Washington state is leading the way for improving the health and safety of our children," said Hunter. "We've come up with a common-sense strategy for preserving fire safety while getting rid of chemicals like PBDEs that build up in our environment, in our bodies, and even in mothers'



breast milk."

As a mother and grandmother, Sen. Regala fought passionately for the bill's passage and held firm against industry attacks. She applauded the bill's final passage, saying "Companies have proven that we don't need toxic chemicals like PBDEs to make effective products. It's up to us at the state level to move the rest of the industry toward safer practices."

The Washington State Departments of Ecology and Health requested the legislation, which was supported by Gov. Gregoire, three state fire associations, the Washington State Nurses Association, the Washington Medical Association, and many others. The bill was the first one of the four Priorities for a Healthy Washington to head to the Governor's desk.

While other states have passed bans on the penta and octa forms of PBDEs, which have been phased out of manufacture, Washington is the first to act on the deca form. Deca has by far the highest production volume of the PBDE forms. A measure to ban deca is now moving through the Maine

WTC worked with the Washington State Council of Fire Fighters, the Washington State Nurses Association, and many other allies in getting the PBDE bill passed into law.

See related "First Person" story about the PBDE bill on page 2.

### In this issue ...

Legislative Victories ....	1
First Person .....	2
"X-ray Gun" Study .....	3
Book Review .....	4
"PBDE Free" Photos ....	6
Fluoride Exposures .....	8
Point of View .....	10
Bulletin Board .....	12

Continued on page 4, see **VICTORIES**



## First Person

# A Special Bill Signing

Gregg Small

On April 17, I had the opportunity to take part in a very special event: Governor Gregoire signing the first law in the nation to phase out all forms of the toxic flame retardants called PBDEs that are rapidly building up in breast milk, our bodies, and the environment.

I have been to bill signings before, but something made this one special. What made it so special was the extraordinary and diverse set of individuals and organizations that worked to pass this bill against well-funded and aggressive opposition.

Take a look at the bill signing photo. You probably won't recognize many of the people in the photo, but you might notice that there are a lot of us in there. In fact, the governor was joking that we should lock the doors so no one else could get in the room! Many people wanted to be part of this symbolic moment because so many people poured their hearts into this extraordinary campaign over many years.

The large number of people in the room represented the diversity of people who led this effort. We had powerful leadership from legislators like Rep. Ross Hunter and Sen. Debbie Regala, who sponsored the bill for three years. Department of Ecology Director Jay Manning and his dedicated staff, along with people like Rob Duff from the Department of Health were true champions.

A broad set of coalitions played leading roles in the campaign. The Toxic Free Legacy Coalition, which unites doctors, nurses, breast cancer survivors, and more, was critical. The Priorities for Healthy Washington Coalition, which unites the leading environmental organizations in the state, prioritized the PBDE bill for each of the past three years, providing significant political weight to our effort. And WTC worked closely with allies across the country working to pass similar policies in other states, providing all of us with invaluable informa-

tion and resources.

What made this bill signing so special was that so many people played a role in winning this groundbreaking policy, and so many of them were there to share the moment together. The collected group of people represent the incredible amount of leadership and dedication that will be needed to win the future campaigns necessary to end our reliance on highly toxic chemicals and create a cleaner, greener economy. Passage of the PBDE bill was a truly important and groundbreaking victory, but it is also only one step in the long journey toward vastly improved public policies. Many more steps will be needed.

There are more than 80,000 chemicals on the market, and many of them have serious health and environmental impacts. Our current laws and policies are completely inadequate, and banning one chemical at a time is an insufficient long-term policy response to a problem of this scale. To truly



protect our health and environment, and to create the new, thriving industries that produce the products that we want without pollution, will require bold, innovative new policies.

Washington Toxics Coalition is planning to lead the way to create a safer tomorrow. The PBDE campaign reinforced what we already knew — that we simply can't do it alone. Taking the next step will take courage from our elected officials and government agencies. It will take wisdom and perseverance from WTC and the many, many other groups committed to this issue. It will take coordination amongst groups working in Washington and those working in other states and abroad. It will take dedication from moms and dads and grandmas and grandpas who want to protect their children and create a lasting legacy.

The PBDE campaign showed that when we work together we can do amazing things in the face of powerful opposition. Let's use the momentum and lessons from this great victory to take the next step. ■

*Passage of the PBDE bill was a truly important and groundbreaking victory, but it is also only one step in the long journey toward vastly improved public policies.*

## Toxic-Free Legacy

### X-Ray Gun Finds Toxic Chemicals in Everyday Items

Erika Schreder

When we first heard about an “X-ray gun” that could detect toxic flame retardants (PBDEs) and other toxic chemicals, we thought it was too good to be true. But before we knew it, we had an intimidating-looking black case in our office containing a high-tech gizmo, otherwise known as an X-ray spectrometer, with some amazing capabilities.

Spectrometry is a method for figuring out the chemical composition of materials, but most of the time it happens deep in specialized laboratories, not in your living room. But with the “X-ray gun,” or, more formally, the XRF analyzer, a researcher can very quickly test many different types of products in just about any setting.

Companies and agencies have been using the XRF analyzer for several years, but researchers and advocacy groups are just beginning to realize its potential as a tool in the fight against toxic chemicals. The Washington Toxics Coalition is the first organization of its kind in the United States to publish results from the analyzer, highlighting the problems with toxic chemicals in everyday products.

In early February, we released results of our testing, which found PBDEs and lead in many everyday home and office items, including high concentrations of PBDE flame retardants in nearly every TV tested. We demonstrated how the analyzer works in the Olympia office of Washington State Sen. Debbie Regala (D-Tacoma). Regala and Rep. Ross Hunter (D-Medina) were lead sponsors of legislation to eliminate PBDEs in consumer products.

This testing shows that average homes and offices have a surprisingly large array of items containing toxic chemicals. The testing done on furniture, mattresses, electronic equipment, toys, and clothing in five Seattle homes and two legislative offices in Olympia found:

- ❖ Each of us is likely living and working in environments that are rich with items containing toxic PBDE flame retardants. Televisions, furniture, and children’s items such as changing pads, car seats, and mattresses frequently tested positive for bromine, indicating the likely presence of PBDEs.
- ❖ Some household items, including children’s items, had unexpectedly high concentrations of lead. The X-ray gun detected lead in PVC/vinyl clothing, toys, and electronics, sometimes at alarmingly high levels.
- ❖ PBDE-free products showed up in all product categories we tested. The homes and offices tested contained furniture, mattresses, toys, a television, and electronics (outer parts) that appear to have no added PBDEs, confirming that some manufacturers are making products without PBDEs.



The XRF Analyzer in action, testing a computer monitor.

“I was shocked to find out that items in my home as common as a baby changing pad actually have toxic chemicals in them. There may be better products out there, but it’s hard for an average consumer like me to determine whether these chemicals are present in the items we buy. There should be policies that do a better job of protecting the public,” remarked Janine Duncan Monnin, mother of two, and owner of one of the Seattle homes tested.

The findings came as lawmakers in Olympia were considering passage of historic legislation to phase out all PBDEs in televisions, computers, and residential mattresses and upholstered furniture as long as safer alternatives that meet high fire safety standards are available.

The House of Representatives passed the legislation in February, the week after the X-ray gun results were released, and the Senate passed the bill in April. Governor Gregoire signed the legislation into law on April 17.

The X-ray gun findings pick up where last year’s Pollution in People study left off. That study, which tested the blood, hair, and urine of 10 Washingtonians (see related story on page 10), found alarming concentrations of a number of toxic chemicals, including PBDEs, in all people tested. Previous studies found high levels of these chemicals in household dust as well.

Copies of the Pollution in People study is available at [www.watoxics.org](http://www.watoxics.org). ■

***“I was shocked to find out that items in my home as common as a baby changing pad actually have toxic chemicals in them.”***

***—Janine Duncan Monnin, Study participant***

## Book Review: Exposure Analysis, Edited by Wayne Ott, Anne Steinemann, and Lance Wallace.\*

Philip Dickey

*Exposure Analysis* is a new textbook about a new field of science, the science of measuring, understanding, and predicting how humans are exposed to a variety of toxic chemicals through multiple pathways. As Dr. Wayne Ott explains in the first chapter, exposure science differs from past approaches in that it is target-centered rather than merely source-centered, so it looks at all of the exposures that might affect an individual, while taking into account the individual's behavior and other characteristics.

This book arose out of a course at Stanford University, and includes chapters contributed by many leading experts in the field. It covers exposure concepts, routes of exposure, multi-media pathways, mathematical models, and ends with an analysis of current policies. The reference list is extensive and up to date.

This book is a must-have reference for scientists, teachers, graduate students, and non-profit staff members working in the field of toxic chemicals and human exposures. The text is written at a fairly high level but is not beyond the reach of those interested in the subject who have some previous background. One of the most useful aspects of the book is the large number of case studies or examples that are presented by the various authors. Within the first hour of having this book I was able to put it to use on a project.

I strongly recommend this book and only wish that I had had it years ago. ■

\**Exposure Analysis*, edited by Wayne R. Ott, Anne C. Steinemann, and Lance A. Wallace (Boca Raton, Fla: CRC/Taylor & Francis, 2007), 533 pp.



## VICTORIES, from page 1

legislature. Despite the industry's best efforts to kill the ban with full-page ads as well as radio and television spots, Maine's Natural Resources Committee has passed the legislation with a vote of 11 to 2.

"Fire fighters are concerned about preventing fires and reducing exposure to toxic chemicals because we're on the front lines in both cases," said Keven Rojecki of the Washington State Council of Fire Fighters. "Fire fighters are already exposed to so many deadly carcinogens, it is critical that safer alternatives be used to ensure products are fire safe. This bill is a victory for protecting the health of fire fighters and the public from harmful toxic chemicals."

The legislation does the following:

- ❖ Bans the use of the penta and octa forms of PBDEs, with limited exceptions, by 2008;
- ❖ Bans the use of the deca form in mattresses by 2008; and
- ❖ Bans the use of the deca form in televisions, computers, and residential upholstered furniture by 2011, as long as a safer, reasonable, and effective alternative has been identified by the state departments of Ecology and Health and approved by fire safety officials.

"This legislation is about doing the right thing to protect families and our environment from the harmful effects of PBDEs," said Rep. Skip Priest, R-Federal Way. "We're doing the responsible thing: banning the chemical and working with alternative fire retardants so we don't trade one danger for another." Priest added that he was very concerned about the possible link between PBDEs and irregular brain development in fetuses. This measure, he says, is the only sure way to break that connection.

Three hundred healthcare professionals signed a letter supporting the ban on PBDEs, citing harmful health impacts from PBDEs including learning and behavioral disorders, memory impairments, disruption of thyroid function, reproductive effects, and cancer. The letter's authors noted that substantial evidence shows the buildup of PBDEs in people, orca whales, and the environment, and new studies find that the deca form breaks down into other forms of PBDEs that have already been phased out.

"This action by the Washington State Legislature marks a crucial step forward for the health, development and learning of Washington's children," said Barry Lawson, MD, immediate past president of the Washington Chapter of the American Academy of Pediatrics. "By phasing out

PBDEs, we can safeguard our children from exposures to these persistent toxic chemicals and act on our responsibility to provide them with a healthier future.”

“This is truly a case where prevention is essential,” said Judy Huntington, MN, RN, executive director of the Washington State Nurses Association. “By passing this legislation, we are making vital progress in protecting our state’s children, families and workers from permanent yet preventable harm.”

**Legislature funds healthy food and farms**

WTC’s second legislative priority for 2007 was increased funding for Washington State University’s Biological and Organic program. This program helps Washington growers take advantage of the phenomenal growth in the organic food market, providing the research and training they need to switch to organic. The program has been in place for several years, but received its first legislative funding in 2006. This year, Washington State University (WSU)

included the program in its \$10.8 million Unified Agriculture Initiative, a legislative request that included research funds as well as faculty positions.

The final budget passed by the legislature did not fully fund the initiative, but it did provide \$6 million in funding and included additional funds for the Biological and Organic program. The budget specifies that \$400,000 go to a competitive grants pool for biologically intensive and organic research; this is half of the \$800,000 that the university requested. In addition to the research dollars, the budget adds several new staff positions that are part of the Biological and Organic program, supporting value-added agricultural product research and economically and environmentally sustainable food production.

Rep. Kelli Linville (D-Bellingham) was a champion for the funding and expressed gratification that WSU made the BIOAg program part of its original budget request. “I am glad that we’re making a concerted effort to fund one of the fastest-growing segments of our agricultural economy,” she stated.

The new research dollars will add to a pool for research grants that was established last year, when

the Legislature approved \$400,000 in its supplemental budget. In the past year, WSU has used the funding to support research in organic grain production, alternative crops, winter organic vegetable production, and providing information to ranchers on sustainable rangeland management for livestock.

Dennis Nicholson, an orchardist from Peshastin, has converted his family orchard to organic. “Going organic can help keep farmers in business, but they need support to be successful with new production practices that they’re not experienced with. We need to find biological solutions to pest and weed management. The BIOAg research program is a critical source of information for farmers that want to grow organic and sustainable produce.”

“The Washington Cattlemen’s Association is happy to see the funding for the BIOAg program this year,” said Jack Field, executive vice president of the Washington Cattlemen’s Association. “Our membership directly benefited from last year’s program by attending a rangeland monitoring workshop which was an excellent

experience for a number of cattlemen and one we hope to duplicate in the future.”

Supporters of the funding include the Washington Sustainable Food and Farming Network, PCC Natural Markets, the Washington Cattlemen’s Association, the Lutheran Public Policy Office of Washington, the Washington Toxics Coalition, Tilth Producers, and dozens of growers, farmers markets, chefs, and other organizations and businesses.

Paul Benz, director of the Lutheran Public Policy Office of Washington, led the Olympia lobbying for the funding. “Funding the BIOAg program helps local farmers stay farming. Research is needed to provide the solutions that will keep them viable in today’s agricultural economy.” ■



*Washington State Rep. Kelli Linville listens as faculty member Craig Cogger describes the research performed through WSU’s Biological and Organic Program.*



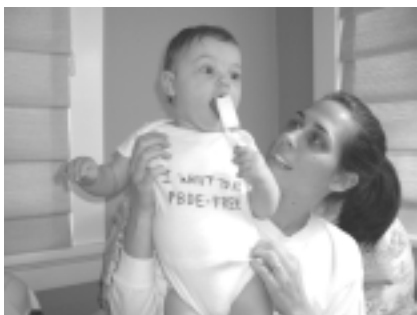
*Peshastin orchardist Dennis Nicholson talks with his senator, Linda Parlette, about funding for WSU’s Biological and Organic Program.*

## "PBDE Free" Photo Campaign

The photos on these pages were sent in by our supporters from around the state. These photos were compiled into a collage that was delivered to the Washington State Senate as part of our efforts to get the bill banning toxic flame retardants passed into law. More photos can be viewed on our website at [www.watoxics.org/issues/pbde/pbde-free-pictures](http://www.watoxics.org/issues/pbde/pbde-free-pictures).

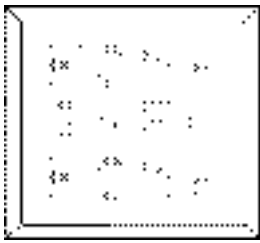


# "PBDE Free" Photo Campaign



Jessica C Levine





## Home Safe Home

# A Double-Edged Brush with Fluoride

Philip Dickey

It's not a bad idea to reconsider some of the things that were foisted on us in the 1950s. Like X-ray machines in shoe stores, nuclear power, and DDT, fluoride was extolled as a scientific breakthrough that would improve our lives. Fluoride has so far largely escaped a major revision in thinking, but recently that seems to be changing.

When Crest Toothpaste came on the market in 1955, my brother and I prided ourselves on having memorized the curiously arcane label statement: "Crest has been shown to be an effective decay-preventive dentifrice that can be of significant value when used in a conscientiously applied program of oral hygiene and regular professional care." (Now you know what Alan Greenspan would have sounded like if he had studied dentistry instead of economics.) What we didn't read was the health warning, because it wasn't on the label then: "Keep out of the reach of children under 6 years of age. If you swallow more than used for brushing, seek professional assistance or contact a Poison Control Center immediately."

The current controversy about fluoride is not directed at toothpaste, however, but rather at fluoridation of public water supplies, a practice that began in Grand Rapids, Michigan in January of 1945. Since then, water fluoridation has increasingly become standard practice in the United States and has been hailed by the Centers for Disease Control and Prevention (CDC) as one of the greatest public health achievements of the twentieth century. Though largely (and officially) sanctioned by the dental community, fluoridation is not without some prominent and vocal critics, dentists included, whose concerns seem to be gaining some traction.

Late last year, the National Research Council (NRC) of the National Academy of Sciences released a long-awaited report re-evaluating the safety of the current upper safety limit for fluoride in water. Called the maximum contaminant level goal, or MCLG, this level is the highest level that the Environmental Protection Agency (EPA) considers safe for daily exposure through drinking water. The MCLG is currently set at 4 parts per million (ppm), four times the amount considered optimal for deliberate fluoridation of drinking water. EPA also sets the Secondary Maximum Contaminant Level (SMCL), the point at which public drinking water purveyors must inform customers of



excessive fluoride levels. The SMCL is 2 ppm. The NRC report examined typical exposures to fluoride from all sources, including drinking water, toothpaste, foods, and inhalation. Among other things, the report concluded that the maximum amount of fluoride allowed in drinking water is too high because it does not protect against toxic effects from fluoride ingestion. The NRC directed the EPA to redo their calculations based on new research and to reduce the MCLG. They avoided any conclusions on the safety of deliberate fluoridation of drinking water at 1 ppm.

### **Effects of too much fluoride**

While fluoride can help prevent tooth decay, too much fluoride can cause a range of health effects. At fairly low doses fluoride causes dental fluorosis. In its mildest form, dental fluorosis appears as a whitish discoloration on the teeth; at higher doses, fluoride causes severe dental fluorosis, characterized by extensive unsightly mottling and pitting that may actually increase decay, thus undoing fluoride's beneficial effects. At higher doses it also damages bones. Various studies indicate that a significant fraction (roughly in the 20-30% range) of the U.S. population has some level of dental fluorosis and that fraction is increasing. Studies linking the severity of dental fluorosis with levels of fluoride in drinking water seem to indicate that severe dental fluorosis really begins to occur at about 2-2.5 ppm. When you consider that some people experience mild dental fluorosis at the "right" level of fluoridation—1 ppm—and that the problem rapidly increases in severity at about twice that amount, you see that the margin of safety is not large. Similar results can be seen for skeletal fluorosis, a weakening of the bones with symptoms similar to arthritis. The NRC report concluded that

bone fluoride concentrations from lifetime exposure at 2 ppm fall within or exceed the range associated with moderate or severe skeletal fluorosis. Again, this indicates a narrow average margin of safety, especially for a medication that is “prescribed” for everyone in a community.

Many other health effects of fluoride discussed in the NRC report are less well studied and more difficult to put in perspective, but a growing body of research also links fluoride exposure to reduced thyroid activity and other endocrine system effects, reduction in IQ, and possibly bone cancer in boys.

Things get more interesting when you realize that fluoride prevents cavities mainly after teeth erupt into the mouth and its actions mainly are topical for both adults and children. This makes fluoride toothpaste seem very logical. Fluoridated drinking water, however, has little benefit for very young children, yet they receive much higher doses than adults do. In addition, fluoridated water needlessly exposes other body tissues that receive no benefit.

#### **Sources and extent of fluoride exposure**

Our exposure to fluoride has changed since the 1950s, as both fluoridated toothpaste and drinking water have become more and more widespread. In addition, the amount of fluoride in our diet has increased because many prepared foods are manufactured from fluoridated water.

The NRC report summarizes current research on total fluoride exposure. In fluoridated communities, the amount of fluoride exposure (adjusted for body weight) resulting from drinking water is in the range of about 40-70% of total exposure after about age 1. The exact breakdown varies widely with the amount of water consumed. Toothpaste is a relatively small component (3-20%), while food provides anywhere from about 15-35% of total fluoride. The contribution from toothpaste drops rather drastically after childhood, while that from food changes less but moves somewhat in the opposite direction.

Adults drinking normal amounts of fluoridated water are generally receiving close to (if slightly below) the “recommended” amounts of fluoride. Athletes and workers, who drink much larger quantities of water, are above the optimum range and well above the dose that typical adults would receive from drinking water containing 2ppm fluoride, EPA’s secondary contaminant level.

Children are generally receiving much higher doses. Based on EPA’s exposure estimates, children aged 1-2 exceed EPA’s reference dose, an intake EPA believes to protect against objectionable dental fluorosis but which, unlike reference doses EPA calculates for other chemicals, contains no modifying or uncertainty factors to provide a margin of

safety. Using EPA’s default water intakes (about 1 quart/day for a 22 pound child), most children’s intakes would be about twice the reference dose and more than half of the MCLG. Those numbers would be even higher if children are ingesting much toothpaste. For example, if a 3-5 year old child (44 lbs.) brushes twice per day with a typical adult fluoride toothpaste containing 1000 ppm fluoride and swallows about one-fourth of the toothpaste, their exposure would be 0.009 mg/kg/day, about what EPA assumed for exposure from toothpaste. If, on the other hand, the child swallows most of the toothpaste in the process of brushing, their exposure from toothpaste jumps to 0.036, putting their total exposure at .087, which is well over the optimal amount. This number would be higher still if the child uses more than a “pea-sized” amount of toothpaste. Has anyone ever seen a toothpaste commercial in which a pea-sized amount is used? Usually one sees a glob that covers the bristles from end to end, probably two or three peas in size.

Aware of this issue, the ADA now recommends, “Young children should always be supervised while brushing and taught to spit out rather than swallow toothpaste. Many children under age six have not fully developed their swallowing reflex and may be more likely to inadvertently swallow fluoride toothpaste. Unless advised to do so by a dentist or other health professional, parents should not use fluoride toothpaste for children less than two years of age.”

What about nursing children? Shortly after the NRC report came out, the ADA announced that because of concerns raised by the report they no longer recommend that babies be fed formula mixed with water containing fluoride because they might be receiving too much fluoride at a time when they are at risk for dental fluorosis. This means that parents who live in communities with fluoridated drinking water and who feed their babies formula would have to buy unfluoridated bottled water or use premixed formula. Parents may not know, however, that some bottled water is itself fluoridated, including some water specifically marketed for the purpose of mixing baby formula. Unfortunately, it is unlikely that most parents are aware of the ADA’s statements about the risks of too much fluoride.

#### **And the benefits?**

In general, tooth decay rates have fallen steadily since the 1970s, but this is generally true whether drinking water is fluoridated or not. Published comparisons between fluoridated and unfluoridated communities do show slightly lower cavity rates with fluoridation. For example, a large U.S. study published in 1990 found on average 0.6

***Our exposure to fluoride has changed since the 1950s, as both fluoridated toothpaste and drinking water have become more and more widespread.***

*Continued on page 11, see FLUORIDE*

## Point of View

# Rev. Ann Holmes Redding: Understanding How to Act Together Against Pollution in Our Bodies

**“To think that these things that are supposed to help us take care of our bodies actually contain toxic chemicals seemed almost diabolical.”**

**Rev. Ann Holmes Redding,** priest in the Diocese of Olympia, participated in the Toxic-Free Legacy Coalition’s Pollution in People Project, which tested ten Washingtonians for the levels of toxic chemicals in their bodies.

*Why did you decide to participate in the Pollution in People study?*

I think it’s really important that the disproportionate burden that is carried by people of color somehow gets noted, and in some studies there is not a broad range of diversity in terms of ethnicity so it was important for me as an African American woman to participate. I also knew that I could use the position I held at the time as a platform.

*Were you familiar before the study with the chemicals that were tested?*

I still don’t know the names, but what I find myself saying to people most frequently is, “Can you imagine there are these toxic chemicals in skin-care products?” To think that these things that are supposed to help us take care of our bodies actually contain toxic chemicals seemed almost diabolical.

*Describe the process of getting tested.*

It was the actual testing that brought home what I was doing. To have people actually clipping my hair and taking my blood, and me giving urine, it became very nitty gritty and personal. You have to have a really good reason to let people take your blood, so it was a way of making real my investment in this.

*What were your results, and how did you react to them?*

I was right in the range with everyone else. It was interesting to me to have a high level of pesticides—when I got those results I could smell the spraying that I grew up with. I lived in the country and they would just spray everywhere.

What hit me hard was the helplessness, because even with your best intentions you can’t help but be exposed to these chemicals. We all had toxic chemicals in our bodies, no matter our lifestyle or ethnicity.

*What do you think should be done?*

Even though I have changed my habits pretty significantly, I know that is not sufficient. What we need is change at the public-policy level. There are people making money because others are being poisoned, and as long as we support those companies in making money, the situation is not going to change. Thinking about how to organize ourselves

around these issues is really important, in a way that doesn’t just educate but empowers people to make the choices that will help the common good.

*What are the ethical implications from this kind of study?*

There is a real frustration because not everyone can afford to make the healthier choices, like buying organic food. This is a luxury issue for some people and yet it’s not at all. It takes people who do have that power of choice to use it not just to protect themselves but to act on behalf of other people. This applies nationally as well as globally.

*How do you approach this as a person of faith?*

The God I believe in is manifest in this entire creation. Human beings have either been assigned or have volunteered to cooperate with God in being entrusted with this creation. What is actually a privilege has become an opportunity to exploit each other and our environment. We need to understand how interdependent we are and that we are all beloved by God, and that those of us with more resources have more responsibility to care for creation.

*What would you imagine the faith community has to say to this information?*

We need to figure out how to act together, to understand the connections between our personal faith and the common good. When we say God so loved the world, we’re talking about acting as a community, in solidarity with the whole world. That’s what I think is a real challenge, especially to American Christians, because so many of us have retreated into a privatized faith. We give up on those problems that we think are too big for us. This is a perfect example—the people who can afford it will go organic, who have time will go to farmers markets. The problem with toxic chemicals in our bodies is systemic so therefore a private response is not sufficient. Jesus, who in the Christian way of looking at him had incredible essential privilege and gave it up, used it on behalf of everyone. In Islam it translates into the struggle of each human being to remember God at all times. Part of that means remembering our absolute interconnectedness, creation being diverse and learning in that way to be one. ■

**FLUORIDE**, from page 9

fewer decayed tooth surfaces (out of 128 total surfaces) among children aged 5-17 who had always had access to fluoridated water. In all, their decay rate was 18% lower with fluoridation. Tooth decay does not affect individuals equally, however, because it also is affected by diet, brushing behavior, and dental care.

**Recommendations**

So, what practical advice can be gained from all this? First of all, pay attention to the ADA's warnings about giving too much fluoride to children. These are especially important if your water supply is fluoridated. In addition:

- ❖ Supervise children under age 6 when they brush with fluoride toothpaste, and teach them to spit rather than swallow.
- ❖ Unless advised to do so by a dentist or other health professional, parents should not use fluoride toothpaste for children less than two years of age.
- ❖ Avoid mixing baby formula with fluoridated water.
- ❖ If you consume large amounts of water during exercise or heavily physical work, you might consider substituting bottled water that is not fluoridated.

As to the big question, whether public water supplies should be fluoridated, WTC believes that the current debate over fluoridation is healthy and may lead to a re-evaluation of the risks versus the benefits. Based on what we know now, we do not support water fluoridation and believe that money

currently spent on fluoridation would be better spent ensuring quality dental care for all community members, especially those less likely to have a healthy diet or brush regularly. ■

**Links and resources**

Fluoride Action Network  
www.fluoridealert.org

A Small Dose of Fluoride  
www.asmalldoseof.org/toxicology/fluoride.php

ADA statement on fluoride and children  
www.ada.org/prof/resources/positions/statements/fluoride\_infants.asp

**Alternatives** is published quarterly by the Washington Toxics Coalition. Copy deadlines are the first of January, April, July, and October. Press run is 2000 copies. Distribution is free to WTC members. If you would like extra copies of an issue, please write or call.

**Editors:** Philip Dickey, Ken Steffenson  
**Layout:** Ken Steffenson  
**Design:** CC Design  
**Printing:** EcoGraphics

Washington Toxics Coalition  
4649 Sunnyside Ave N  
Suite 540  
Seattle, WA 98103  
206-632-1545  
info@watoxics.org  
http://www.watoxics.org

**Staff:**  
Field Organizer: Jim Dawson  
Staff Scientist: Philip Dickey  
Administrative Director: Gylan Green  
Information Services Coordinator: Maria Mergel  
Development Director: Lori Mudge  
Environmental Health Advocate: Ivy G. Sager-Rosenthal  
Staff Scientist: Erika Schreder  
Executive Director: Gregg Small  
Website and Publications Director: Ken Steffenson  
Policy Director: Laurie Valeriano

**Board of Directors:**  
Don Bollinger  
Eddy Cates  
Sharon Chen  
Jennifer Dold, Vice-president  
Steve Gilbert  
Jan Hasselman  
Chris Luboff  
Karen McDonnell  
Robert Pregulman, Treasurer  
Richard Smith  
Jon Stier, President  
David Stitzhal, Secretary  
Wood Turner

**Save the Date!**



*Annual Celebration & Dinner*

**Thursday, November 1, 2007**

**Bell Harbor International Conference Center**  
**Pier 66, 2211 Alaskan Way, Seattle**

**Washington Toxics Coalition** protects public health and the environment by eliminating toxic pollution. WTC promotes alternatives, advocates policies, empowers communities, and educates people to create a healthy environment.

**Clean Water for Salmon**

This Campaign seeks to phase out the use of pesticides that impact salmon and other species. We keep pressure on state and federal agencies for strong actions to protect salmon, seek pesticide phaseout policies by city and county governments, and watchdog the EPA to ensure that they comply with the Endangered Species Act.

**Healthy Schools**

The goals of the Healthy Schools project are to eliminate the use of highly hazardous pesticides in Washington's schools and to institutionalize school pest management practices that focus on

prevention of pest problems. We accomplish this by working with community members to pass and implement school district policies to replace toxic pesticides with safer products and practices.

**Home Safe Home**

The Home Safe Home program works to reduce the use of hazardous materials in household products and to reduce the purchase of toxic pesticides and chemicals by consumers. We publish informative fact sheets, perform educational presentations, maintain a fact-filled website, and have a toll-free hotline to answer questions and promote alternatives.

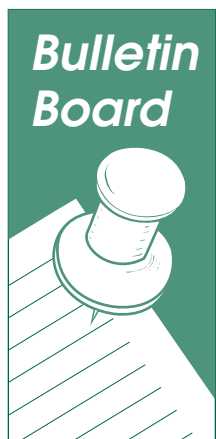
**Toxic-Free Legacy**

The goal of the Toxic Free Legacy campaign is to phase out and clean up persistent toxic chemicals such as mercury, PBDEs, dioxin, and PCBs. We do this by working for strong policies to phase out these chemicals, reducing major pollution sources, and pushing for cutting-edge government and business procurement policies and practices that establish strong markets for non-polluting products.



Printed on 100 percent post-consumer content recycled paper, not bleached with chlorine compounds (processed chlorine free).





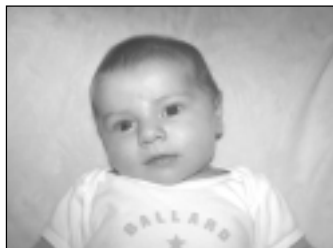
## Jean Day Leaves the WTC Board of Directors

Longtime member Jean Day recently stepped down from her position on the WTC board of directors. Jean has spent significant time as a volunteer coordinator, a research technician for a study on aging, and an instructor for multiply disabled adults. She currently volunteers with WTC, The Women's Building, a gallery selection committee for young or lesser known artists, and serves on the Executive Committee of the Older Women's League. Jean has been an active and welcome member of the WTC board since 1993, serving on our Board Development Committee, Event Committee, and our Messaging and Marketing Committee.

Jean's commitment to environmental-health issues is greatly valued by the lucky staff and board members who worked with her over the years, and we wish her the very best in her future endeavors. ■

## Welcome Gabriel Alexander Mudge-Burns

WTC's Development Director, Lori Mudge, her partner Michele Burns, and their young son Julian welcomed the newest addition to their family on January 18, 2007. Gabriel weighed in at 9 pounds, 6 ounces and is a happy, healthy, and beautiful little boy. ■



## Goodbye Kristin!

In March WTC lost a dear friend and committed staff member, when our fabulous Development Associate Kristin Tremoulet moved to Arizona to live closer to her family and pursue a nursing career.

Over the past two years you may have had the pleasure of talking with Kristin when she phoned you for support. Kristin was the heart and smile behind much of our membership activities and events and will be greatly missed. We wish her the best of luck with her new career! ■

### New Home Safe Home Fact Sheet

#### *Tales from the North Side: Problems with Moss*

by Maria Mergel and Philip Dickey

- What is moss?
- Is it a problem?
- Least-toxic strategies for:
  - Moss of roofs
  - Moss on sidewalks and decks
  - Moss in lawns

Free PDF file for download at  
[www.watoxics.org/files/moss.pdf](http://www.watoxics.org/files/moss.pdf)

Washington Toxics Coalition  
4649 Sunnyside Ave N  
Suite 540  
Seattle, WA 98103



Non Profit Org.  
U.S. Postage  
PAID  
Seattle, WA  
Permit #424

ADDRESS SERVICE REQUESTED