

# THE NEXT STEP

*Toward a Healthier Future*

A BI-MONTHLY NEWSLETTER OF THE SEBASTOPOL TOXICS EDUCATION PROGRAM



## Healing from the Fires

As we went to press with our last newsletter, the North Bay fires were still burning. So I wrote then about the high level of toxics that can be released and spread broadly in such events, and how we might protect ourselves from that. I also noted that release during disasters is just another cost of toxics, and another reason to minimize our use of them.

Thankfully, local folks have sought to address the toxics released by these fires. However, the scale of this challenge can be daunting. Thus, community support and creativity will be crucial to ensure that we protect the well-being of our shared environment and water supplies.

So I'll summarize some key information here. I've also put this article plus citations, action information, and resources at [www.healthyworld.org/NBFires2.html](http://www.healthyworld.org/NBFires2.html).

### The Toxic Challenges

■ **The size of the fires.** It can be hard for us even to comprehend how much these fires have damaged. In Sonoma County alone, they burned 137 square miles and destroyed 6,600 structures, mostly homes. The key Tubbs fire is considered the most destructive wildfire in California history. The current cleanup is expected to be the largest in California history.

Officials recently estimated that 200 tons of ash and debris will be removed from each residential lot, with



a projected total of about one million tons. That's three times our total municipal solid waste for all of 2016!

■ **The scale of the toxic debris.** These fires also left an unprecedented level of hazardous materials behind. Richard Halsey, Director of the California Chaparral Institute, says, "it's almost like a toxic waste dump."

The knee-deep ash and detritus from burned-out homes and cars can contain a wide range of hazardous materials, including: asbestos; heavy metals such as arsenic, lead, aluminum, and chromium; and burned plastics, paint, solvents, pesticides, and rubber. All of these can pose serious threats to people and wildlife now and long into the future.

Jeremiah Puget, who works for the North Coast Regional Water Quality Control Board, says, "We have never encountered anything quite like this. The scope of this is astounding."

■ **Traveling ash.** The fires' toxic ash impacted people and places far beyond the burn areas — landing in San Francisco and beyond! This caused air quality warnings, event cancellations, and the risk of health problems such as stinging eyes, sore throats, respiratory illness, and heart attacks. Its tiny particles can go deep into our lungs and even bloodstreams. Plus it can harm ocean chemistry and marine life. Even now, the high quantities of ash can continue to travel in air, on shoes and cars, etc.

■ **The risk of rain.** As the fires raged, we prayed for rain to damp them down and nourish the dry land. We were grateful when it arrived.

See *Healing*, over



## It's Our Birthday!!

With this issue, we're celebrating 17 years of publishing *The Next STEP (TNS)*!

Our goal with this innovative City project is to nurture a healthier Sebastopol for everyone by reducing our exposure to toxics.

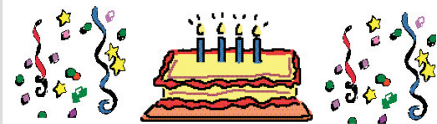
Thus, we help folks reduce the toxics in all areas of our lives — including our homes, schools, businesses, parks, food, and environment.

TNS is produced by a small team of local citizens, working on a volunteer basis (which keeps costs very low) because we support this goal. We're grateful to the City Council and staff for acting in the community's best interest with this project.

Now we need your help! Please fill out the enclosed survey card to give us your feedback about our efforts.

Also let us know how we can best support your toxics reduction in the coming year, including any questions, tips, story ideas, or success stories. (The Feedback card is also in the City's online bill paying system.)

We want to hear from you! Your support makes this project possible. Thank you!



### Did You Know?

*The Next STEP* costs the City almost nothing. Created entirely by volunteer efforts, and with no added postage expense, its primary cost is copying. This is literally a drop in the bucket of Sebastopol's \$11 million annual budget. Given the consistent evidence that common toxics are harming us all, this is a bargain for our shared health, now and long into the future.

**Healing, continued**

Still, rain also brought a new threat. The burned ground was now vulnerable to erosion, with less plant life, topsoil, and other materials to hold back water and stabilize hillsides.

Plus the water could carry ash and sediment throughout the Russian River watershed and to the San Francisco Bay, harming water quality and ecosystems along the way.

Wildlife such as crawfish and river otters are often vulnerable to lower levels of toxics than us. Plus burdens would be added to already-threatened fish, such as steelhead trout, chinook salmon, and coho salmon.

**Solutions****1) Removing toxic materials.**

Because of the enormous scale of the fires, the U.S. Environmental Protection Agency is currently managing the first cleanup phase for the thousands of fire-scorched properties. This includes removing high quantities of toxic items, such as batteries, paint, solvents, flammable liquids, electronic waste, and any materials containing asbestos.

In the second cleanup phase for these properties, contractors are gathering up the ash, concrete, metal, and contaminated soil.

But large amounts of toxic ash have gone beyond these burn sites, so we need to ensure that toxic materials are safely removed county-wide.

**2) Keeping materials out of our watersheds.**

As it became clear that protecting the waterways from contamination was a key goal, various agencies, groups, and volunteers installed over 30 miles of erosion-control wattles (skinny straw-filled bags) and tens of thousands of gravel bags. Folks are also seeking to stabilize soil with plantings.

**3) Creating enhanced wattles.**

Community members also collaboratively developed the idea of adding bioremediation materials to wattles, and helped create and install them. Designed by Sonoma Compost's Will Bakx, and made and donated by West Marin Compost, these contain

ria, and inoculated fungi substrate (mushrooms). The goals are to break down hydrocarbons, take up toxics, and capture heavy metals.

Chris Brokate, Founder and Executive Director of the nonprofit Clean River Alliance, who helped roll these out, says, "They've never been put out for fire runoff, so this is potentially groundbreaking."

**4) Continuing to protect our water and air quality.**

Brokate checked the wattles after the first rain, and was delighted to see debris and oily water on one side, and clear water coming out the other side. He says, "It felt like the stuff that we did the day before really made a difference." It will take longer to see how the remediation aspect works.

North Coast water regulators also report that samples from a limited number of test sites have so far tested within the expected range.

However, this is just the start, and long-term monitoring and remediation are needed. Key to that will be funding and community support.

**Sprouting Anew**

Even with the fires' grief and challenges, people are finding ways forward and moments of encouragement and hope. Green sprouts, literally. I hope that we all will find ways to be part of the healing. Maybe we can even create something better than before, as we learn from the experience and receive the wisdom of nature along the way.

~ Patricia Dines

**ABOUT STEP**

The Next STEP (TNS) is published six times a year by the **Sebastopol Toxics Education Program (STEP)**. **STEP is a project of the City of Sebastopol**, implemented by local citizen volunteers. **STEP's mission** is to support city residents in reducing their toxic use and exposure, creating a healthier and safer Sebastopol for everyone.

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**Timely Topics****■ Proper electronics disposal.**

Did you get a new computer, phone, or other tech toy for the holidays?

If so, do *not* put your old electronic products in the trash. Also be aware that most electronic waste (aka e-waste) services don't seek to reuse working equipment, let alone repair them. They just disassemble products for the raw materials, wasting any remaining usefulness and the resources used to create them.

So, first seek to give away your older item to a friend, school, email list, Craig's List, etc. It's fun being Santa Claus even after the holidays!

If that doesn't work, then donate your goodie to a place that can repair, sell, and/or donate it, such as Santa Rosa's Computer Recycling Center ([www.CRC.org](http://www.CRC.org)).

Only if those don't work, donate your item to a general e-waste site. At least it'll stay out of the trash!

For more information, see **Electronic waste** in the STEP Index.

**■ Advanced ant management.**

The winter cold and rains often bring ant invasions into our homes.

Some folks might be tempted to respond by pulling out a pesticide spray. But these are no more effective than household cleansers.

Instead, check out my easy less-toxic system, developed from years of trial and error, at [www.healthyworld.org/GRAPHICS/STEP/stepvol17no1.pdf](http://www.healthyworld.org/GRAPHICS/STEP/stepvol17no1.pdf).

**■ The next Sebastopol Toxics Collections Day is Tues. March 20,**

from 4 to 8pm. To make an appointment, call 707/795-2025 or 877/747-1870 at least 24 hours ahead. You can also drop items at the Household Toxics Facility.

**■ For more about local toxics disposal,** see [www.recyclenow.org](http://www.recyclenow.org) or call 707/565-3375.

**"Thanks** for your continued efforts to reduce pesticides in Sonoma County, and **for your most informative and interesting STEP newsletter!**

~ Jean Redus, Sebastopol