



RUSSIAN RIVER WATERSHED ASSOCIATION

300 Seminary Ave, Ukiah, CA 95482 • (707) 833-2553 • www.rrwatershed.org

RRWA Environmental Column- September 2009

NO DRUGS DOWN THE DRAIN – A Rx FOR KEEPING OUR WATERWAYS HEALTHY

Modern medicine has helped enhance the lives of many people. Pain medications relieve everyday aches and pains and provide a respite from the pain of surgery or a serious illness. Antibiotics have saved countless lives. Veterinary medicines have improved the health and comfort of our pets.

But what happens to the old, unused or expired medicines? For years, we've been told to "flush em' down the toilet" or "toss em' in the trash." While these methods of disposal have been common place for years, recent studies of our nations' waterways have shown that flushing pharmaceuticals down the toilet or dumping them in the trash might be setting the stage for environmental and human health problems.

Studies have found very small amounts of medications in streams, rivers and lakes across the country. A recent study performed by the United States Geological Survey sampled and analyzed 25 ground-water and 49 surface-water sources of public drinking water supply in 25 states and Puerto Rico for 124 "emerging contaminants" including pharmaceutical compounds. At least one emerging contaminant was detected in 96% of the samples. Some of the medications found included steroids, hormones, acetaminophen, antibiotics, ibuprofen, and antimicrobials.

So how do medications get into the environment? Medications can migrate to our surface waters from various sources. Run-off from animal feed lots, land application of organic materials and wastewater treatment plants. Medications can find their way into wastewater treatment plants in one of two ways: (1) we consume the medications, and excrete what our bodies do not absorb and (2) we use the old-fashioned method of "flushing them down the toilet." Flushing medicines down the toilets is not as safe as it might seem. Wastewater treatment plants are designed to remove organic material; they are not designed to remove synthetic pollutants like pharmaceuticals.

The potential impacts of small amounts of medications in surface water bodies on human health and the environment is a complex issue. The level of risk is still being determined. In the meantime, while research is on-going, it is prudent to take actions now that limit the disposal of pharmaceuticals to the sewers.

Safe Medicine Disposal Programs offer an opportunity to reduce the discharge of waste medications to the sewer. There are 30 drop-off locations throughout Sonoma and Mendocino Counties sponsored by the Russian River Watershed Association. Simply take your unwanted medicines (in their original containers with personal information marked out) to any participating pharmacy or law enforcement office. Your waste medicines will be safely collected and disposed of by a licensed medical waste hauler – FREE OF CHARGE!



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Participating drop-off sites include:

- **Cloverdale:** Cloverdale Pharmacy
- **Cotati:** Walgreens
- **Guerneville:** Lark's Drugs; Safeway Pharmacy; Sonoma County Sheriff
- **Healdsburg:** CVS/Longs Drugs; Healdsburg Police Department
- **Rohnert Park:** Costco Pharmacy; CVS/Longs Drugs
- **Santa Rosa:** Costco Pharmacy; Creekside Pharmacy; Dollar Drug; CVS/Long's Drugs (3 location); The Medicine Shoppe; Tuttle's Hoen Pharmacy; Tuttle's Doyle Park Pharmacy; Walgreens (2 locations)
- **Sebastopol:** CVS/Long's Drugs; Safeway Pharmacy
- **Sonoma:** Rite Aid; Safeway Pharmacy; CVS/Long's Drugs; Sonoma County Sheriff; Sonoma City Police Department
- **Windsor:** Health First; CVS/Long's Drugs
- **Ukiah:** Walgreens

Items accepted for disposal include:

- Prescription and over-the-counter -pills and capsules
- Liquid medications, including ointments, lotions and creams (in sealed containers please!)
- Veterinary medications
- Vitamins, supplements, homeopathic remedies
- Medical patches
- Inhalers (empty)
- Medical samples

Items NOT accepted include:

- Controlled substances (accepted at law enforcement locations but not at pharmacies).
- IV bags
- Bloody or infectious waste
- Personal care products (body lotion, shampoo etc.)
- Aerosol cans
- Epi-pens and other needles/sharps
- Thermometers
- Illegal drugs
- Medical marijuana
- Any other waste or medication not listed under "Items Accepted"

For more information about the Safe Medicines Disposal Program including addresses for drop-off locations; please visit www.rrwatershed.org/safemeds or call the Russian River Watershed Association at (707) 833-255.

This article was authored by Susan Keach of the Sonoma County Water Agency on behalf of RRWA. RRWA (www.rrwatershed.org) is an association of local public agencies in the Russian River Watershed that have come together to coordinate regional programs for clean water, fisheries restoration, and watershed enhancement