Toilets Are Not Trash Cans!

Working Cooperatively Towards Mutually Beneficial Solutions

Melody LaBella

NACWA Winter Conference

February 4, 2014

Central Contra Costa Sanitary District (Central San)

About Central San

- ADWF: 33.8 MGD, Permitted capacity: 53.8 MGD
- Serve ~470,000 people and ~3,000 businesses in a 146 mi^2 service area 35 miles east of SF
- Recycled Water Program – 2.5 MGD peak
- Household Hazardous Waste Collection Program
  - Collect ~2 million pounds of HHW each year
- Pharmaceutical Collection Program
  - 12 law enforcement partner agencies host collection bins (non-controlled only)
  - We pay for disposal via medical waste hauler
  - Collected almost 50,000 pounds of unwanted medications since program started in 2009

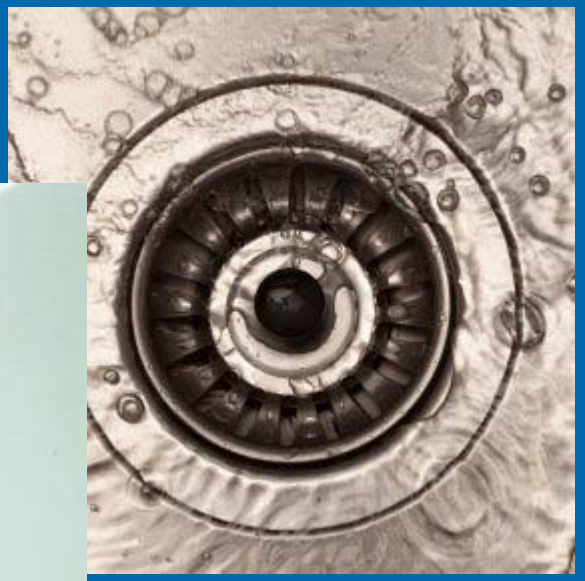
Meet The Panel

- Helen Cantril Dulac, Grease Abatement Coordinator
  Dallas Water Utilities
  Dallas, TX

- Dave Rousse, President
  Association of the Nonwoven Fabrics Industry (INDA)
  Cary, NC

- Michelle Daugherty, Diversion Investigator
  Drug Enforcement Agency (DEA)
  Albuquerque, NM

Focus of Panel Discussion



Focus of Panel Discussion

Fats, Oil & Grease (FOG)

Dallas Water Utilities

FOG Abatement Program

FOG + Baby Wipes = Fatberg

GENTLEMEN USE WIPES.

EXPERIENCE THE LIFE CHANGING NEW WAY TO SOLVE THE PROBLEM.
LIVE THE ONE TRUE CLEAN. ACCEPT NO SUBSTITUTE.

video

$4

"I've got just the thing."

ADD +

- ✓ Buttwipes made for men
- ✓ 40 durable 5"x7" sheets, S&H Incl.
- ✓ Flushable & biodegradable viscose rayon
- ✓ Soothing, calming, and refreshing
- ✓ Gentle peppermint scent

Wipes


Pull-Ups
Flushable Moist Wipes
42
Pull-Ups
Flushable Moist Wipes


Kills Cold & Flu Viruses*
CLOROX
Disinfecting Wipes
FIGHTS KITCHEN GREASE


earthbath
Good for the Planet
All Natural
GROOMING WIPES
especially for puppies
with AWAPUHI
100
extra-thick soft & moist pet wipes
EXTRA-LARGE 8x7in. MOIST TOWELS • LANOLIN-FREE


Wet Ones
Hands and Face Wipes
ANTIBACTERIAL
Kills Germs
Fresh Scent

Flush Only Human Waste and Toilet Paper

Wipes Clog Pipes

Disposable wipes of all kinds are exploding in popularity – and wreaking havoc on sewer systems!

Many consumers use disposable wipes because they're convenient for cleaning and disinfecting. Even people who would not normally embrace disposable products because of concern for overburdened landfills are using wipes that are being marketed as "flushable." Instead of tossing them in the trash, people flush them down the toilet, believing they've done the right thing.

"Flushable" Wipes Should NOT be Flushed

The "flushable" label means they will go down your toilet when flushed. What you should be concerned about is what can happen next.

Disposable wipes do not disintegrate quickly in water like toilet paper does. Consumer Reports® tested several brands of wipes labeled "flushable" and found that while toilet paper disintegrated after about eight seconds, the wipes still hadn't broken down after 30 minutes.

These products stay largely intact as they travel through sewer pipes and can easily get caught on roots or other debris, increasing the risk of clogs in your pipes and sewage overflows in your home or the street.

As the use of disposable wipes grows, we are being forced to commit significant resources to remove them from our sewer lines, pumps, and treatment plant facilities, and to repair or replace the equipment they damage.

Disposable wipes are an even greater threat to your home's sewer pipe, which is smaller and more easily clogged.

In addition to potentially causing clogs and overflows, many of the cleaning and disinfecting wipes contain chemicals that are difficult for sewer treatment processes to remove, and they can thus pollute local waters.

If you use disposable cleaning/disinfecting wipes, moist towelettes, baby wipes, personal hygiene wipes or similar disposable or so-called "flushable" products, please put them in the trash, never in your toilet.

Flush only human waste and toilet paper, regardless of what a product label says.

WIPES CLOG PIPES.

Avoid a clog disaster. Flush only human waste and toilet paper.

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Avoid a clog disaster.
Only flush toilet paper and you-know-what.

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WIPES CLOG PIPES
Flush Only Human Waste and Toilet Paper
www.WipesClogPipes.com
Central Contra Costa Sanitary District
CLEAR CHANNEL
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Your Toilet

Wipes Clog Pipes

Flush Only Human Waste and Toilet Paper

Disposable wipes are growing in popularity – and wreaking havoc on sewer systems.

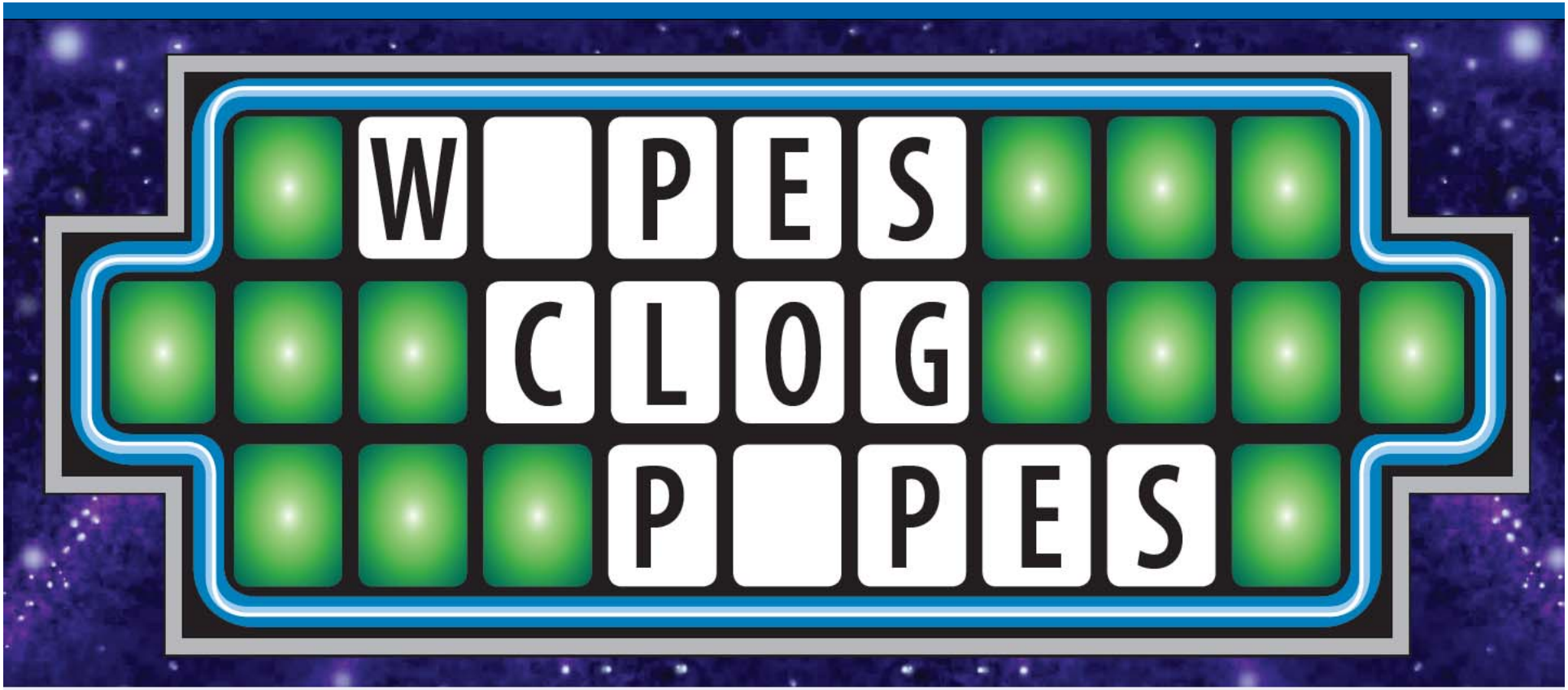
Many consumers use disposable wipes because they're convenient for cleaning and disinfecting. Even people who would not normally embrace disposable products because of concern for overburdened landfills are using wipes that are being marketed as "flushable." They don't toss them in the trash; they flush them down the toilet, believing they've done the right thing.

"Flushable" Wipes Should NOT be Flushed

The "flushable" label simply means they will go down your toilet when flushed. What you should be concerned about is what can happen **next**.

Unlike toilet paper, disposable wipes (even those labeled "flushable") do not quickly disintegrate in water. Consumer Reports tested several brands of wipes labeled "flushable" and found that while toilet paper disintegrated after about eight seconds, the wipes still hadn't broken down after ***30 minutes***.

These products stay largely intact as they travel through sewer pipes and can easily get caught on roots or other debris, increasing the risk of clogs and sewage overflows.



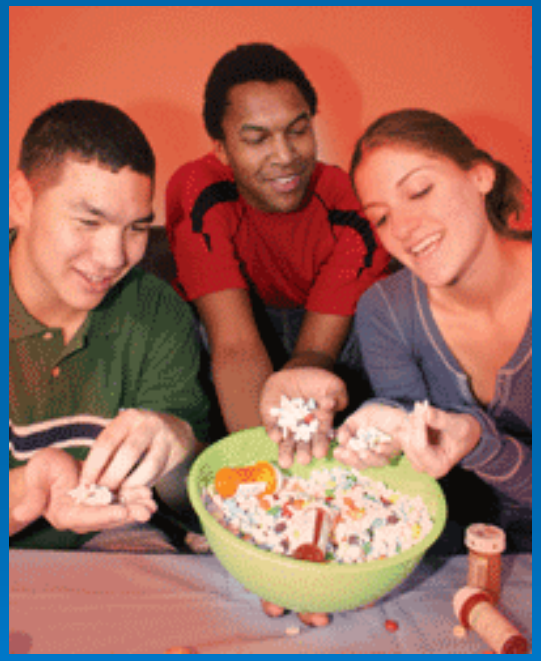
What can I do?

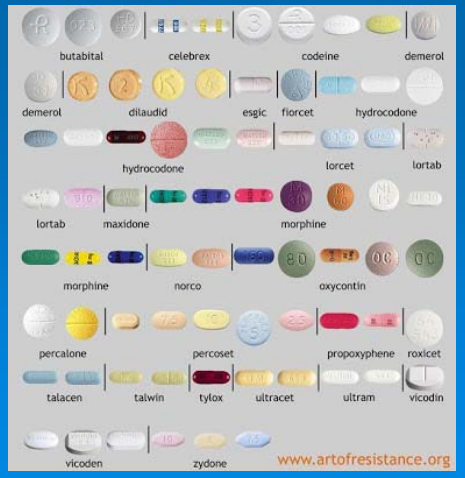
Unfortunately, it's not a game. Clogged pipes can cause sewage overflows & costly damage to your property.

BUT YOU CAN HELP PREVENT THEM.

Association of the
Nonwoven Fabrics Industry
Advancing Nonwovens Worldwide™

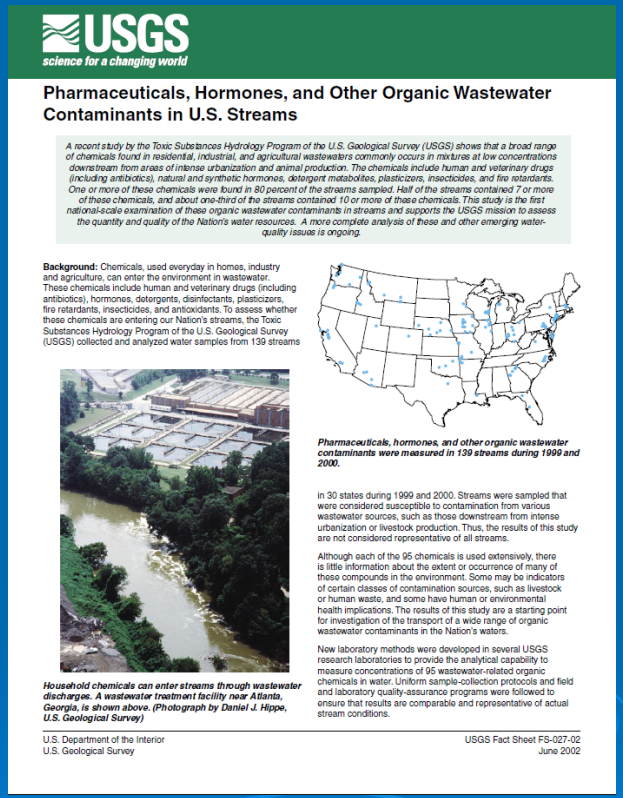
Pharmaceuticals





2002 USGS Stream Survey

- Tested 139 streams across 30 states
- 80% had measurable concentrations of prescription and non-prescription drugs, steroids and reproductive hormones.



USGS
science for a changing world

Pharmaceuticals, Hormones, and Other Organic Wastewater Contaminants in U.S. Streams

A recent study by the Toxic Substances Hydrology Program of the U.S. Geological Survey (USGS) shows that a broad range of chemicals found in residential, industrial, and agricultural wastewaters commonly occurs in mixtures at low concentrations downstream from areas of intense urbanization and animal production. The chemicals include human and veterinary drugs (including antibiotics), natural and synthetic hormones, detergent metabolites, plasticizers, insecticides, and fire retardants. One or more of these chemicals were found in 80 percent of the streams sampled. Half of the streams contained 7 or more of these chemicals, and about one-third of the streams contained 10 or more of these chemicals. This study is the first national-scale examination of these organic wastewater contaminants in streams and supports the USGS mission to assess the quantity and quality of the Nation's water resources. A more complete analysis of these and other emerging water-quality issues is ongoing.

Background: Chemicals, used everyday in homes, industry and agriculture, can enter the environment in wastewater. These chemicals include human and veterinary drugs (including antibiotics), hormones, detergents, disinfectants, plasticizers, fire retardants, insecticides, and antioxidants. To assess whether these chemicals are entering our Nation's streams, the Toxic Substances Hydrology Program of the U.S. Geological Survey (USGS) collected and analyzed water samples from 139 streams in 30 states during 1999 and 2000. Streams were sampled that were considered susceptible to contamination from various wastewater sources, such as those downstream from intense urbanization or livestock production. Thus, the results of this study are not considered representative of all streams.

Pharmaceuticals, hormones, and other organic wastewater contaminants were measured in 139 streams during 1999 and 2000.

Household chemicals can enter streams through wastewater discharges. A wastewater treatment facility near Atlanta, Georgia, is shown above. (Photograph by Daniel J. Hippe, U.S. Geological Survey)

Although each of the 95 chemicals is used extensively, there is little information about the extent or occurrence of many of these compounds in the environment. Some may be indicators of certain classes of contamination sources, such as livestock or human waste, and some have human or environmental health implications. The results of this study are a starting point for investigation of the transport of a wide range of organic wastewater contaminants in the Nation's waters.

New laboratory methods were developed in several USGS research laboratories to provide the analytical capability to measure concentrations of 95 wastewater-related organic chemicals in water. Uniform sample-collection protocols and field and laboratory quality-assurance programs were followed to ensure that results are comparable and representative of actual stream conditions.

U.S. Department of the Interior
U.S. Geological Survey

USGS Fact Sheet FS-027-02
June 2002


NO DRUGS DOWN THE DRAIN
sponsored by
MT. VIEW SANITARY DISTRICT
Aspirin
WWW.NODRUGSDOWNTHEDRAIN.ORG

March 2008

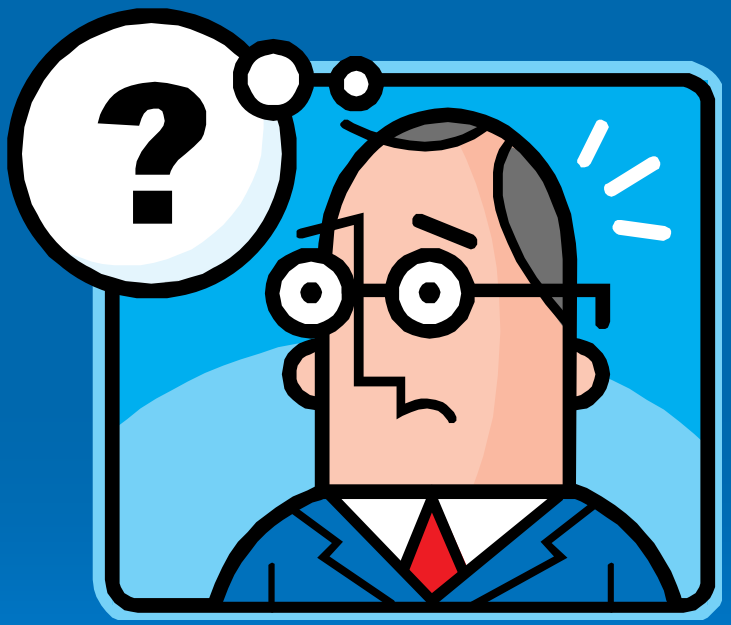
AP: Drugs found in drinking water

Updated 31d ago | Comments 147 | Recommend 76 E-mail |

By Jeff Donn, Martha Mendoza and Justin Pritchard, Associated Press

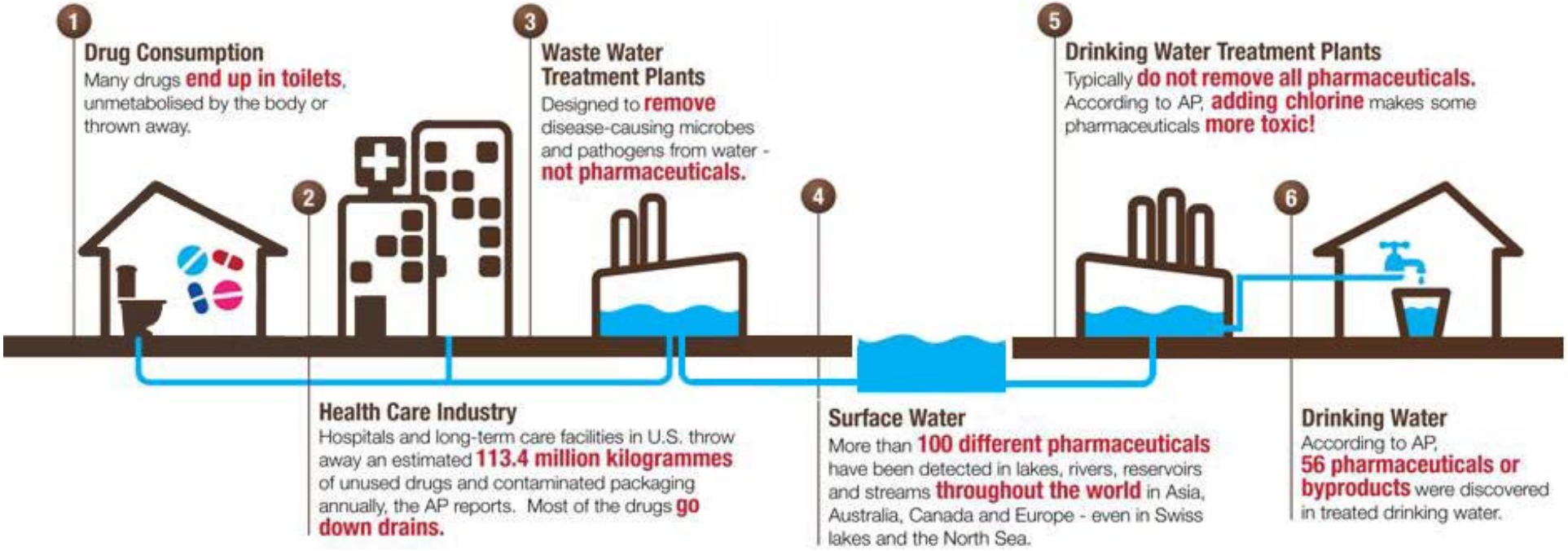
A vast array of pharmaceuticals — including antibiotics, anti-convulsants, mood stabilizers and sex hormones — have been found in the drinking water supplies of at least 41 million Americans, an Associated Press investigation shows.

How Do Drugs Get Into Our Drinking Water Supplies???



How Do Drugs Get into Our Drinking Water?

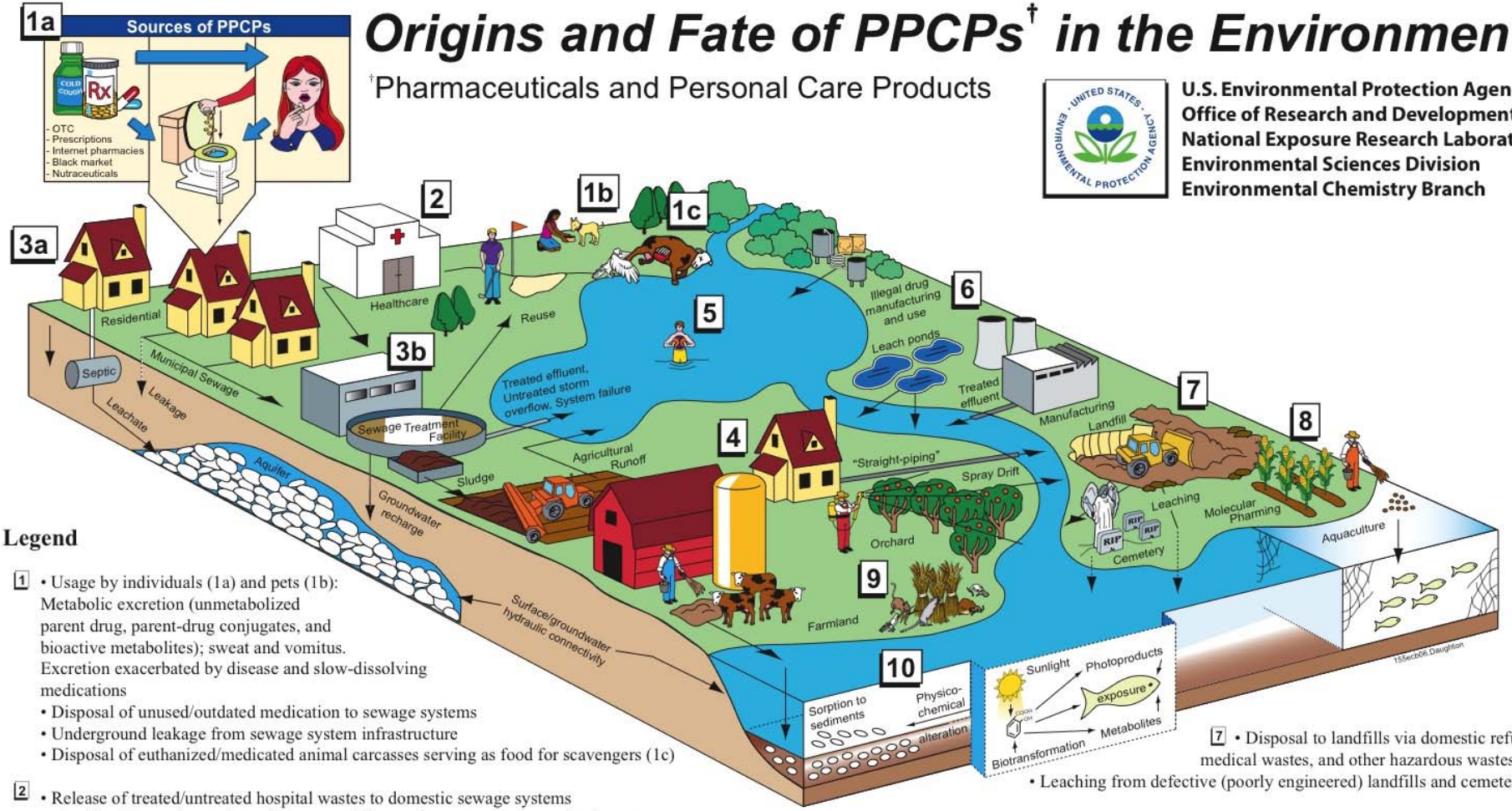
http://waterfilter.ezbi.biz



Origins and Fate of PPCPs† in the Environment

†Pharmaceuticals and Personal Care Products

U.S. Environmental Protection Agency
Office of Research and Development
National Exposure Research Laboratory
Environmental Sciences Division
Environmental Chemistry Branch



Legend

1 • Usage by individuals (1a) and pets (1b): Metabolic excretion (unmetabolized parent drug, parent-drug conjugates, and bioactive metabolites); sweat and vomitus. Excretion exacerbated by disease and slow-dissolving medications
• Disposal of unused/outdated medication to sewage systems
• Underground leakage from sewage system infrastructure
• Disposal of euthanized/medicated animal carcasses serving as food for scavengers (1c)

2 • Release of treated/untreated hospital wastes to domestic sewage systems (weighted toward acutely toxic drugs and diagnostic agents, as opposed to long-term medications); also disposal by pharmacies, physicians, humanitarian drug surplus

3 • Release to private septic/leach fields (3a)
• Treated effluent from domestic sewage treatment plants discharged to surface waters, re-injected into aquifers (recharge), recycled/reused (irrigation or domestic uses) (3b)
• Overflow of untreated sewage from storm events and system failures directly to surface waters (3b)

4 • Transfer of sewage solids ("biosolids") to land (e.g., soil amendment/fertilization)
• "Straight-piping" from homes (untreated sewage discharged directly to surface waters)
• Release from agriculture: spray drift from tree crops (e.g., antibiotics)
• Dung from medicated domestic animals (e.g., feed) - CAFOs (confined animal feeding operations)

5 • Direct release to open waters via washing/bathing/swimming

6 • Discharge of regulated/controlled industrial manufacturing waste streams
• Disposal/release from clandestine drug labs and illicit drug usage

7 • Disposal to landfills via domestic refuse, medical wastes, and other hazardous wastes
• Leaching from defective (poorly engineered) landfills and cemeteries

8 • Release to open waters from aquaculture (medicated feed and resulting excreta)
• Future potential for release from molecular pharming (production of therapeutics in crops)

9 • Release of drugs that serve double duty as pest control agents:
examples: 4-aminopyridine, experimental multiple sclerosis drug → used as avicide; warfarin, anticoagulant → rat poison; azacholesterol, antilipidemics → avian/rodent reproductive inhibitors; certain antibiotics → used for orchard pathogens; acetaminophen, analgesic → brown tree snake control; caffeine, stimulant → *coqui* frog control

10 Ultimate environmental transport/fate:
• most PPCPs eventually transported from terrestrial domain to aqueous domain
• phototransformation (both direct and indirect reactions via UV light)
• physicochemical alteration, degradation, and ultimate mineralization
• volatilization (mainly certain anesthetics, fragrances)
• some uptake by plants
• respirable particulates containing sorbed drugs (e.g., medicated-feed dusts)

Environmental Perspective

- Drugs are designed to impact biological systems in small doses.
- Drugs are not designed with the environment in mind, so they are not fully metabolized by the body.
- As a result of human pass-through and direct sewering, pharmaceutical concentrations are ending up in the wastewater stream.
- We can't yank existing drugs off shelves and insist that the manufacturers go back and redesign them.

Environmental Perspective

- We need to do what we can now to reduce the amount of pharmaceuticals entering the wastewater stream before we get to a problem.
  - Precautionary approach
- Unwanted and expired medications are the proverbial “low hanging fruit.”

National Prescription Drug Abuse Prevention Plan

Enforcement

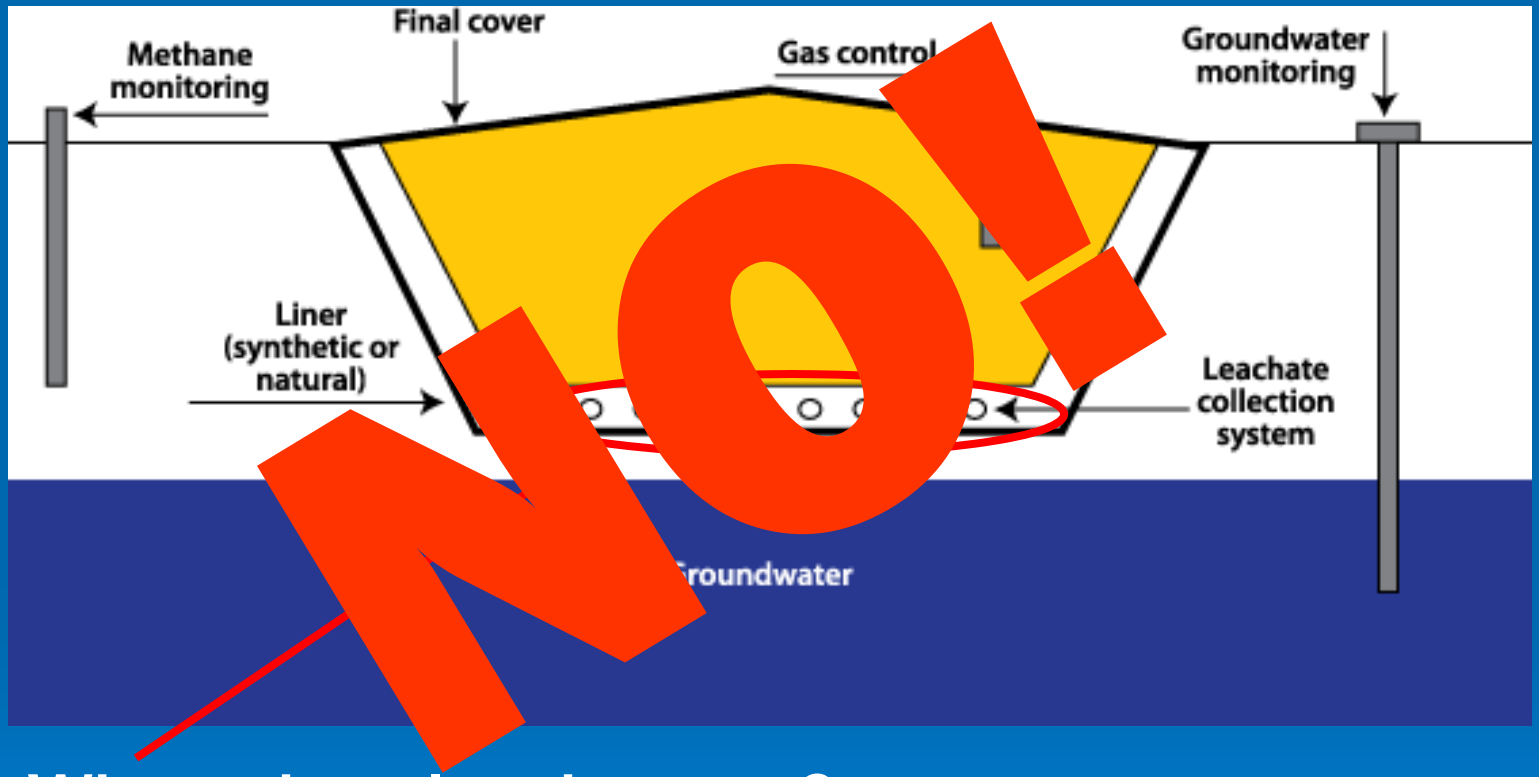
Monitoring

Proper Medication Disposal

Education

Office Of National Drug Control Policy (ONDCP)

Is Trash the Answer?



Where does leachate go?


Got Drugs?
Most abused prescription drugs come from family and friends. You could be a drug dealer and not even know it.
Visit www.dea.gov or call 800-882-9539 for more information.
dispose
unused
Rx
DEA