



**Sacramento Regional County  
Sanitation District**

# Improving HHW Awareness at the Regional, County and Local Level

April 27, 2006



Wastewater Treatment,  
the Watershed  
and  
HHW Partnership Success  
(Or Why We Can't Live Without our HHWs)



Presented By

**Terry D. Musil**

Supervisor, Technical Services  
Wastewater Source Control Section

Sacramento Regional County  
Sanitation District

# Purpose

- Share our experiences and successes in source reduction through public/private partnerships
- Provide simple tools, insights and lessons learned
- Update our partnership activities
- Discuss sampling data, results & trends

# Numbers in Perspective

Part per  
thousand

Part per  
billion

Part per  
million

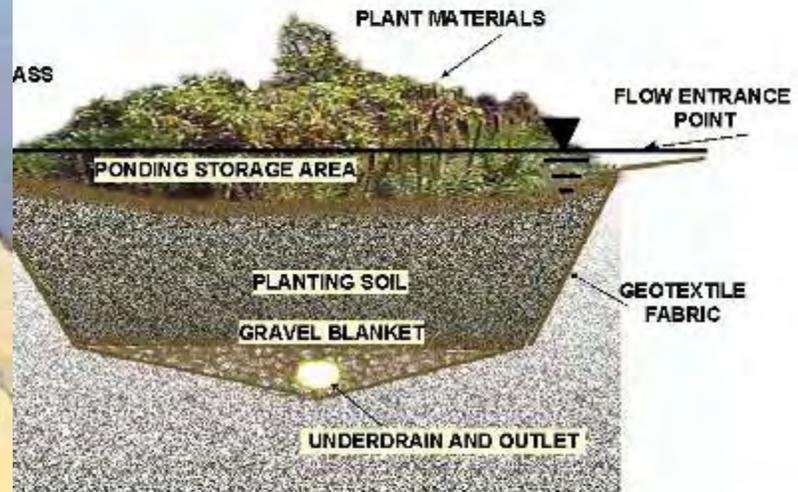
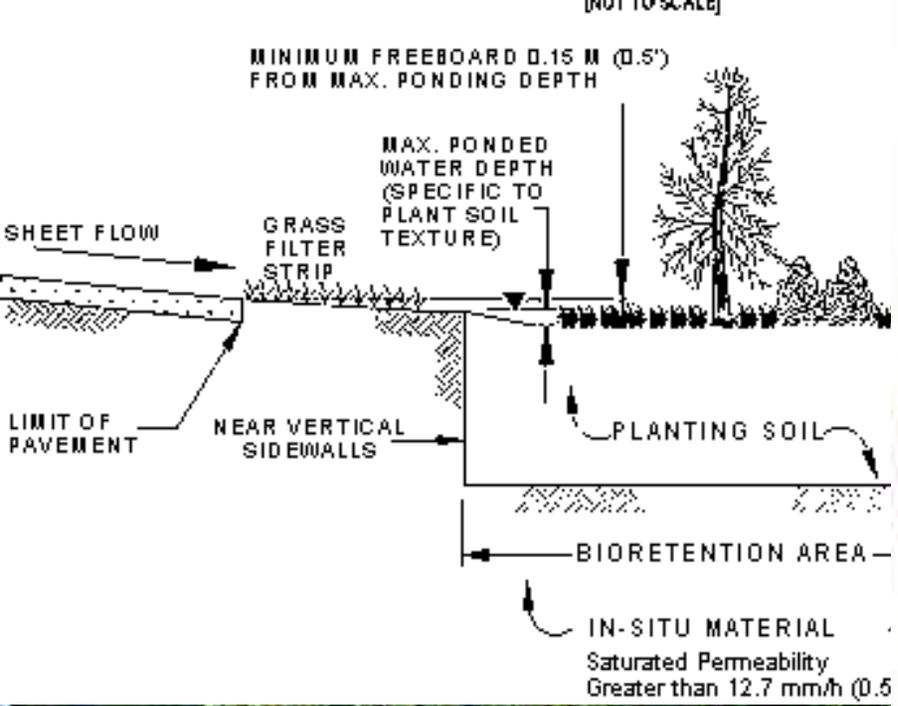
Part per  
trillion

Part per  
quadrillion

Milligram  
per  
kilogram

# Presentation Overview

- Background
- Source reduction programs & HHW partnership
- Road map for success
- Trends



# Background

## Treatment Plants and Stormwater Control Programs

- Permit driven

## Other reasons for a Source Reduction Program

- TMDLs
- Local limits
- Protection of the collection system
- Future uses of water
- Self-preservation

## Work Plans

- Source reduction

# WWTP - SRWTP

- Inland discharger to the Sacramento River
- Average dry weather Flow: 155 - 165 MGD
- Portions of collection system are a combined system
- Interim mercury effluent limit of 5.1 pounds per year (equivalent to 0.014 pounds per day)

# Sacramento Regional Wastewater Treatment Plant



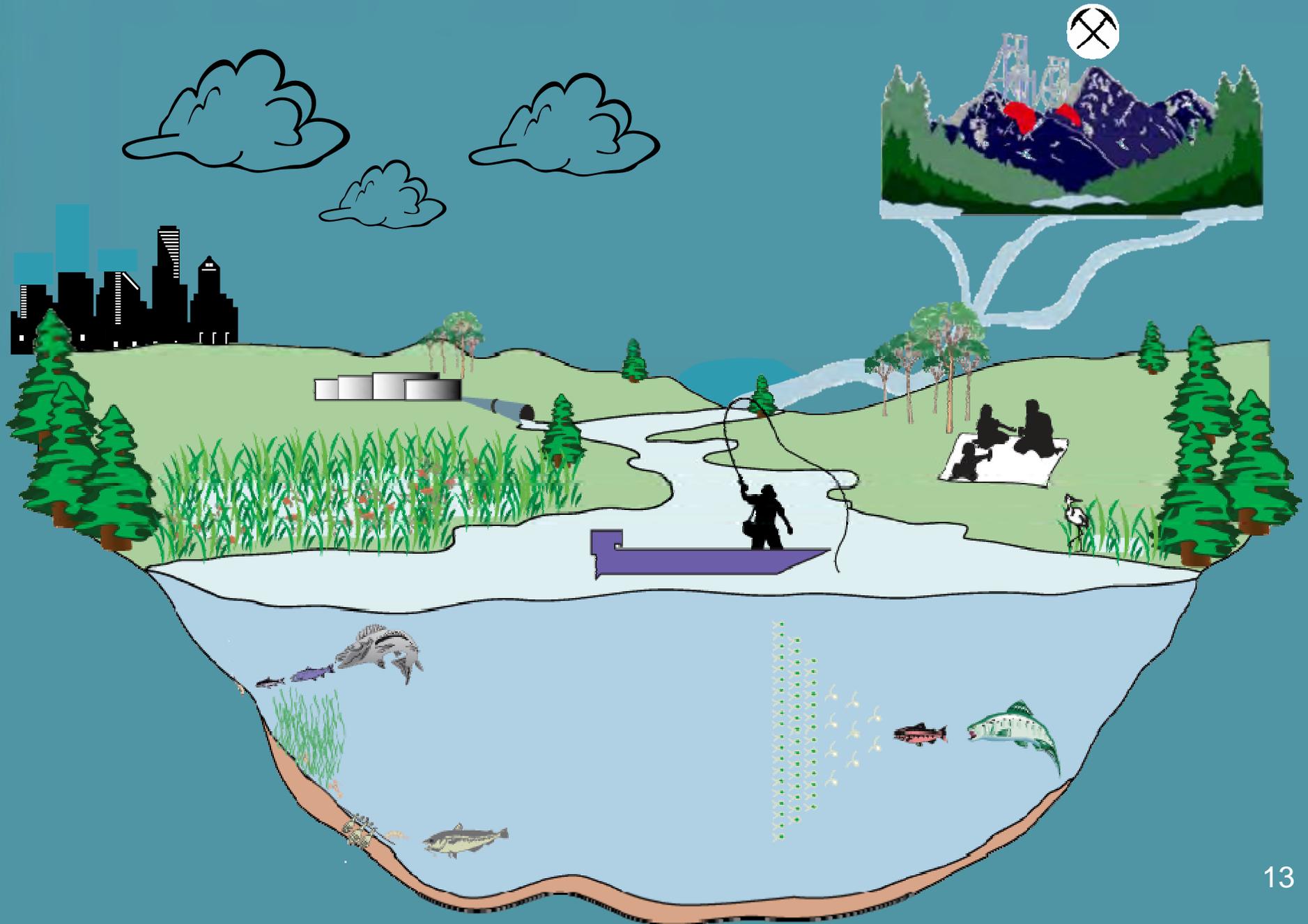
# “The Guardian” – Monitoring Water Quality



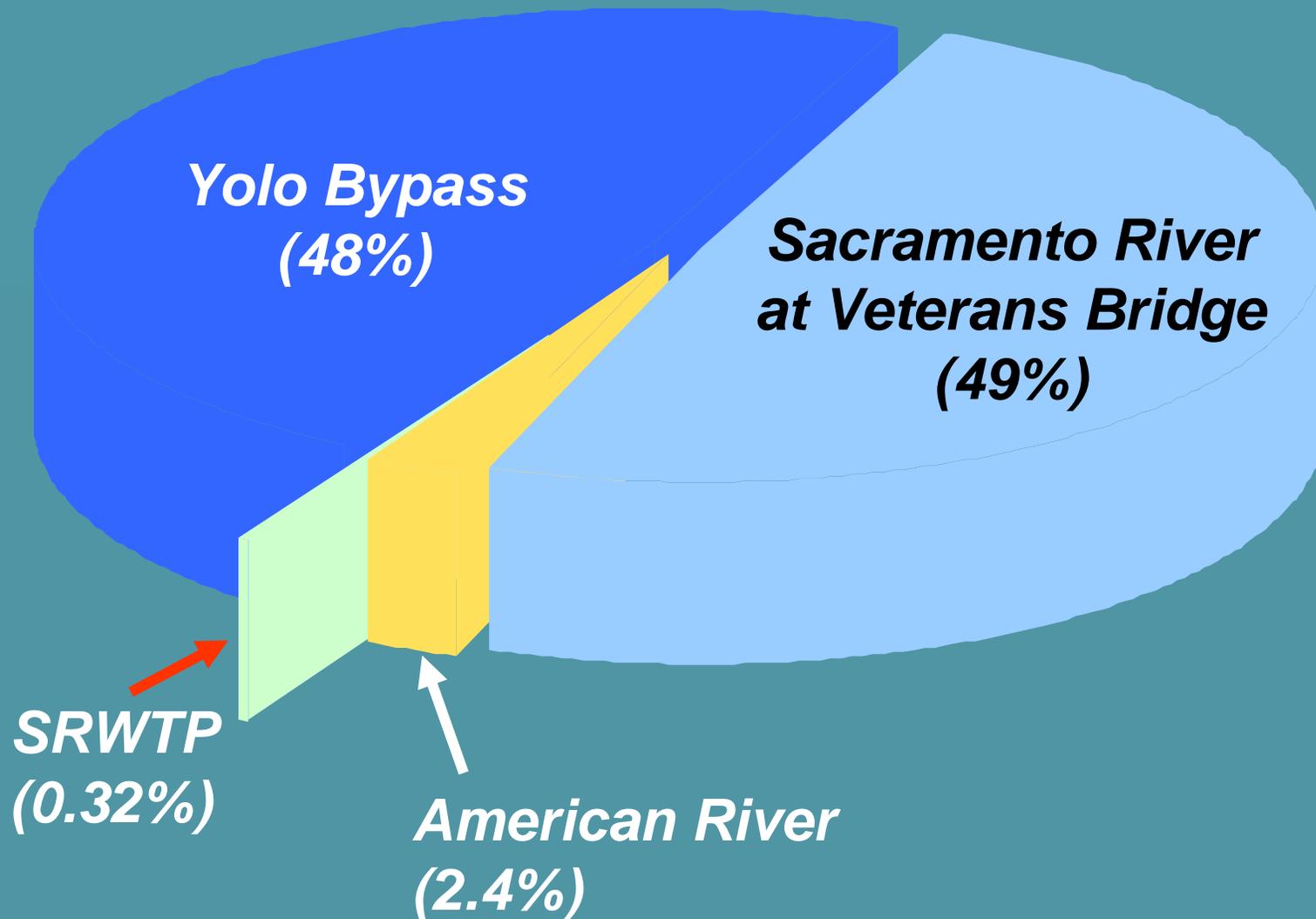
# Permit

- NPDES
- Issued August 4, 2000 - currently being revised
- Mandated development of a source control (reduction) program
- Work plan for reducing pollutant loads
  - Submitted October 1, 2001
  - Approved May 30, 2002

# The Watershed Issue



# Relative Mercury Loads



# Permit Mandated Programs for Source Reduction

- Lindane
- OP Pesticides
- Mercury
  - Dental
  - Hospitals
  - Residential
  - Schools

**Lindane...** ...is used in prescription shampoo to treat head lice and in prescription cream to treat scabies.



Check to see if any of your products contain Lindane. Lindane may appear on the product label as Lindane, hexachlorocyclopentadiene, HCH, gamma-HCH, or gamma hexachloro (BHC).

Please do not dispose of these products by pouring them down the drain. These Lindane-containing products should be disposed of safely through your local household hazardous waste disposal site.

**Household Hazardous Waste Facility Information**

<b>Sacramento County</b> 825-5225 4451 Roseville Blvd.	<b>City of Sacramento</b> 378-0900 3801 Fruitridge Road sacramento	<b>Folsom</b> 355-8317 Call for information
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**Did you know...**  
garden pesticides that run off into storm drains or are poured into sinks and drains to the sewer could eventually flow into local waterways?



**There are many ways to control pests in your yard, garden, lawn and home without polluting our water.**

- Protect beneficial insects
- Determine your pest problem
- Use non-chemical alternatives
- Read product labels
- Dispose of pesticides properly (not down the drain)

For more information on taking steps for water-wise pest control at the self or visit [www.sacramento.gov/water](http://www.sacramento.gov/water). For more information on the Water Wise Seal visit [www.waterwise.org](http://www.waterwise.org) or call (916) 433-4300.



**Control pests with less toxic products.**

To order these FREE information cards, send a number 10, self-addressed, stamped envelope with \$36 postage to:

**80 Cooperative Extension**  
8700 Valley Dr. (near Hwy 49) Colusa, CA  
4140 Branch Center Road  
Sacramento, CA 95827

**Free Pesticide Disposal Information** Call (916) 433-4300 to register for the Sacramento County Department of Public Works and Recycling and provide directions to the collection site for household hazardous materials, including pesticides, with funds, batteries, oil and parts. For information on the City of Sacramento collection site, call (916) 391-3331.




# Pharmaceuticals Partners & Stakeholder Examples

- Sacramento Sheriff's Environmental Crime Unit
- County Departments: DWQ, DWM&R, DHHS, EMD (HMD, EHD), BERCC
- Cities: Folsom, Sacramento, HHWs
- State: DTSC, DHS
- Federal: DEA
- Other Agencies and Organizations: BAPPG, PSI, EXP Pharmaceuticals

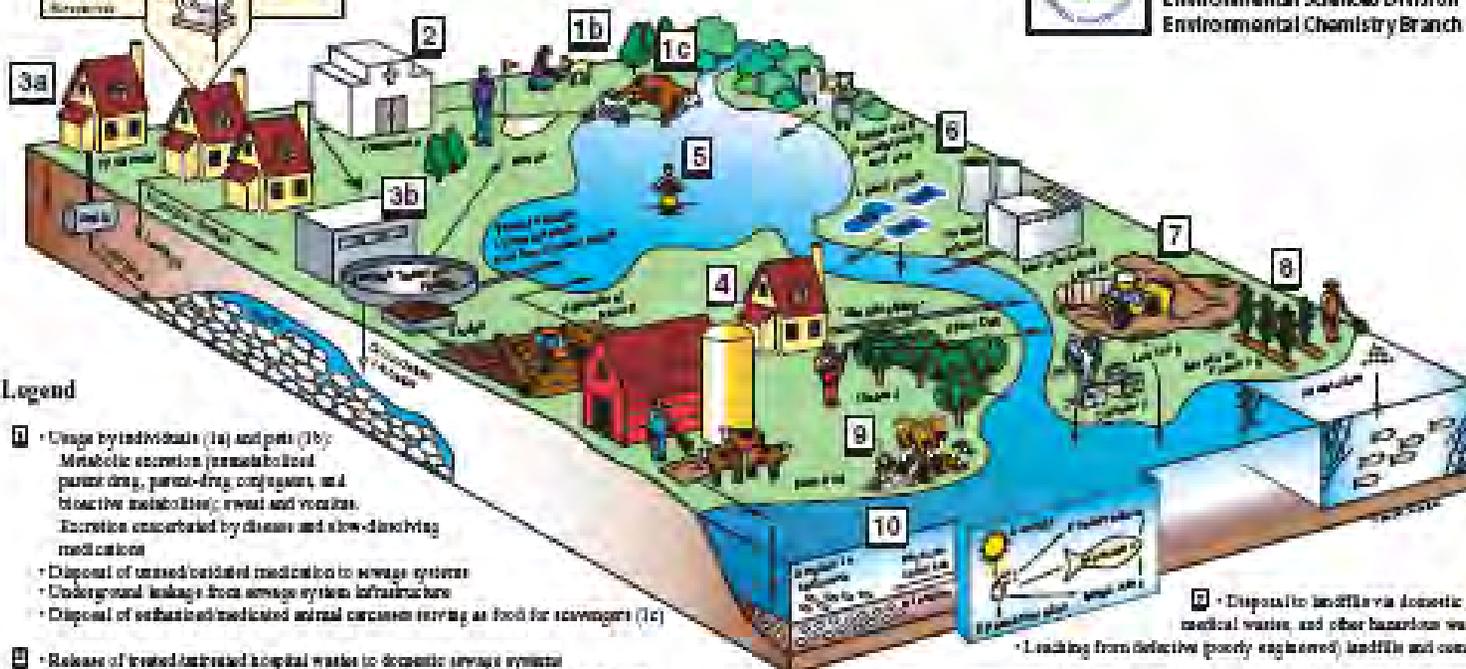


# Origins and Fate of PPCPs<sup>1</sup> in the Environment

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 secretion (parental drug, parent-drug conjugates, and bioactive metabolites); sweat and vomitus.
    - Excretion exacerbated by disease and slow-dissolving medications
  - Disposal of unused/unused medication to sewage systems
  - Underground leakage from sewage systems 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 antibiotic toxic drugs and diagnostic agents, as opposed to long-term medications); also disposed by pharmacist, physicians, community drug supplies
- 3**
  - Release to private septic/leach fields
  - Treated effluent from domestic sewage treatment plants discharged to surface water or re-injected into aquifers (recharge)
  - Overflow of untreated sewage from storm events and system failures directly to surface waters
- 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)
  - Drug from medicated domestic animals (e.g., feed)- CAFOs (confined animal feeding operations)
- 5**
  - Direct release to open waters via washing/hulling/trimming
- 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 coverdumps
- 8**
  - Release to open waters from aquaculture (medicated feed and resulting secretions)
  - Future potential for release from molecular farming (production of therapeutic proteins 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; azoxystrobin, antifungicide → avian food and reproductive inhibitors; certain herbicides → used for orchard pathogens; acenaphthoquin, analgesic → brown tree snake control; caffeine, stimulant → roach frog control
- 10**
  - Ultimate environmental transportation:
    - most PPCPs eventually transported from terrestrial domains to aquatic domains
    - phototransformation (both direct and indirect reactions via UV light)
    - physico-chemical alteration, degradation, and ultimate mineralization
    - volatilization (mainly certain anesthetics, fragrances)
    - some uptake by plants
    - respirable particulates containing sorbed drugs (e.g., medicated-feed dusts)

# Pesticides Partners & Stakeholder Examples

- Local Household Hazardous Waste facilities
- City of Sacramento – MOU
- Water Wise Pest Control
- Sacramento Area Master Gardeners
- Coalition for Urban/Rural Environmental Stewardship
- Pest Control Operators
- Department of Water Resources (stormwater)
- Sacramento Stormwater Quality Partnership (SSQP)
- Public Relations Firms

# Pesticides Program Outreach Efforts



# Customer Outreach

***Storing leftover pesticides?***

*Clean out leftover pesticides such as those containing Chlorpyrifos, Diazinon or Lindane or other chemicals by properly and safely disposing of these products through your local Household Hazardous Waste Facility. Appropriate disposal of these items can help protect and preserve our waterways and watershed.*

**Properly dispose of pesticides, mercury and other chemicals at these Household Hazardous Waste Facilities:**

<b>Sacramento County</b> 875-5555 4450 Roseville Road <a href="http://www.sacgreenteam.com">www.sacgreenteam.com</a>	<b>Sacramento Recycling &amp; Transfer Station</b> 379-0500 8491 Fruitridge Road <a href="http://www.pwsacramento.com">www.pwsacramento.com</a>	<b>City of Folsom</b> 355-8397 Pick-up service is available <a href="http://www.folsomhazmat.com">www.folsomhazmat.com</a>
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*For more information about water quality and pesticides, visit [www.sacramentostormwater.org](http://www.sacramentostormwater.org).*

#2030      A message from the Sacramento Regional County Sanitation District and the Sacramento Stormwater Quality Partnership



*Example of Bill Insert*

# Mercury Partners & Stakeholder Examples

- HHWs: Cities - Folsom, Sacramento; County - Sacramento
- Sacramento District Dental Society (SDDS)
- California Dental Association (CDA)
- Local Hospitals, Pharmacies (CHW/Mercy, Leader Pharmacies)
- County: DWQ, DWM&R, EMD (HMD), BERCC, Fleet Services
- State: DHS, DTSC, OEHHA
- Other Agencies / Orgs: REBRAC, SAPPCCo, The Zone FM 105, KYMX-FM, KZZO-FM, KHDK-AM, San Juan School District
- Private Sector: Ogilvy Public Relations Worldwide, Larry Walker & Associates, TV News Media

# Program Brand & Tagline



File Edit View Favorites Tools Help

Back Search Favorites

Address <http://www.bemercuryfree.net/>

Links Customize Links Free Hotmail Windows Windows Marketplace Windows Media

**S R C S D** About Us Projects Education Sewer Problems Rates & Fees  
 Facts & Info Financial Info Wastewater Treatment The Environment

HOME | SEARCH | CONTACT US

**be mercury free**  
*A Regional Partnership for Mercury Pollution Reduction*

**Program Goal:**

To protect the environment and your family by reducing mercury pollution in the Sacramento River watershed.

**Outreach and Education Efforts**

Sacramento Regional County Sanitation District (SRCSD) in partnership with the [Sacramento Stormwater Quality Partnership \(SSQP\)](#) is striving to educate Sacramento residents and businesses about the sources and effects of mercury and how to reduce the amount of mercury entering the Sacramento River watershed.

**"Be Mercury Free"** is a regional partnership making a comprehensive effort through outreach and education, to eliminate common sources of mercury pollution, such as mercury thermometers found in [households](#), old laboratory equipment in [schools and universities](#), blood-pressure cuffs used in [hospitals](#) and amalgam ("silver") fillings used in [dental offices](#) - all of which can end up in the watershed if disposed of improperly. By providing information and resources specific to each source of mercury pollution, "Be Mercury Free" is a Regional Partnership for Mercury Pollution Reduction. is [www.bemercuryfree.net](http://www.bemercuryfree.net)

SACRAMENTO

# Program Web Site

[www.bemercuryfree.net](http://www.bemercuryfree.net)



# Residential Outreach Web Page

# Schools – Mercury Removal



# Schools – Educational Material Development

## Be Mercury Free!

### Reducing Mercury Pollution and Risk in School Environments

Mercury has many uses in school environments and can be found in several commonly used items. Mercury is a shiny, silver-gray metal that is a liquid at room temperature. If released, these items can leak or spill, releasing both a liquid and an invisible and poisonous vapor. Unfortunately, mercury doesn't disappear if it is dumped down the drain or thrown in the trash—mercury finds its way into the environment where it can keep life moving, rivers and lakes.

Pollution of our waterways puts human health and safety at risk. Mercury can cause contamination in some species of fish we eat, which can cause damage to the nervous system and may impact childhood development.

### Mercury Makeover At Schools

Schools can help prevent mercury pollution and protect students and employees by eliminating and properly recycling products that contain mercury. Using mercury-free alternatives creates a safer school environment.

Some schools use mercury laboratory thermometers for classroom experiments and activities. These contain an average of 3 grams of mercury each. Schools may also use mercury thermometers in health classes or in the nurse's office. These contain an average of 0.5 grams of mercury.

Schools can replace mercury lab thermometers for alcohol

versions, and oral thermometers can be replaced with digital or non-mercury reading versions.

## Thermometers

## Fluorescent Light Bulbs

Fluorescent light bulbs and tubes use up to 50 percent less energy than incandescent light bulbs. However, fluorescent light bulbs and tubes may contain 12 to 25 milligrams of mercury and should never be thrown in the trash. Schools are required to properly recycle mercury-containing fluorescent light bulbs and tubes to prevent mercury pollution.

Glasses contain lab chemicals including mercury, including the white crystals, as well as vials and bottle caps of mercury. Many of these products can be replaced by non-mercury alternatives. If mercury-containing chemicals are necessary a leaky container not to overlook, then reducing your risk of a mercury spill.

## Laboratory Chemicals

be mercury free

A National Partnership for Mercury Pollution Reduction

www.amercuryfree.org  
(916) 875-6644

## Barometers

Barometers are instruments that measure air pressure and contain an average of 150 grams of mercury. The mercury barometer was developed in the 17th century and while still widely used today, there are non-mercury containing alternatives.

## Thermostats

Thermostats, which contain about 3 grams of mercury each, have been used in homes, offices and schools to control temperatures for more than 40 years. Today, digital thermostats are a safe replacement, and they can be programmed for maximum efficiency of heating and cooling air conditioning systems, resulting in energy cost savings.

For proper disposal and recycling of mercury-containing items, schools can contact their hazardous waste handler as, if qualified, use a certified recycling and quality generator program through a household hazardous waste collection site. For hazardous waste disposal options and contact information please visit [www.amercuryfree.org](http://www.amercuryfree.org).

## Recycling and Disposal of Mercury Containing Items

For more information about mercury removal in households, dental offices and hospital facilities, or to view our comprehensive Be Mercury Free Public Outreach and Education Program, visit our web site at [www.amercuryfree.org](http://www.amercuryfree.org) or call (916) 875-6644.

## Mercury & Schools

It can be harmful to students and teachers, as well as to the environment.

Learn how schools can be mercury free.





# Residential Thermometer Collection Events

- October 22, 2003:  
Leader – 675
- November 26, 2003:  
Leader – 939
- May 1-31, 2004:  
CHW / Mercy – 6,966
- March 1-31, 2005:  
Leader – 8,660
- September 2005 to Present:  
Local HHWs > 250



**Total > 17,500!**

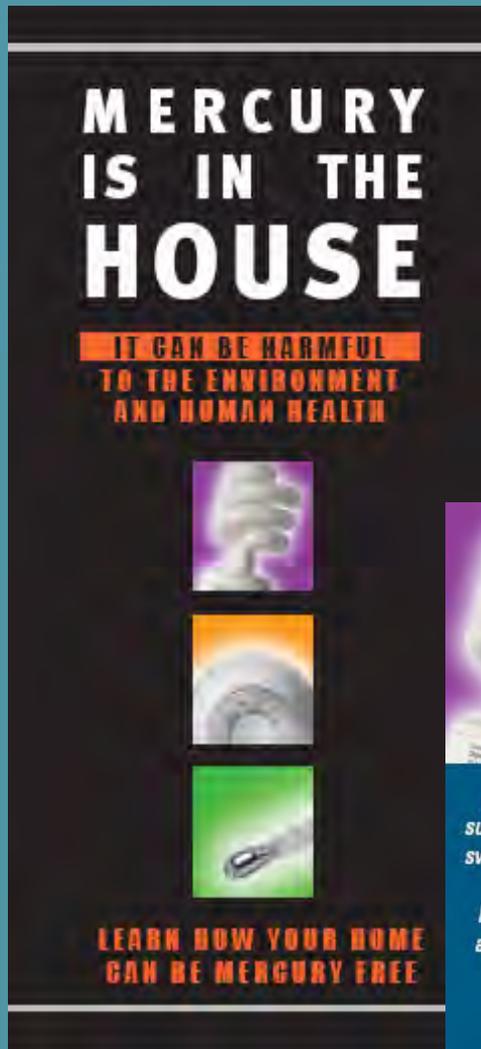


NO OPEN  
OR  
OVER FLAME

Mercury  
Thermometers

# Residential - Promotional Materials

- “Mercury is in the House” brochure
- Household hazardous waste facilities utility bill insert



**MERCURY IS IN THE HOUSE**  
IT CAN BE HARMFUL TO THE ENVIRONMENT AND HUMAN HEALTH



**LEARN HOW YOUR HOME CAN BE MERCURY FREE**



*If you have liquid mercury or mercury-containing items such as fluorescent light bulbs, thermostats, thermometers, switches and relays, jewelry, or novelty items, you can help by properly disposing of them at your local Household Hazardous Waste Facility. Your actions can help protect and preserve our waterways and watershed now and for generations to come.*

be  mercury free

#1416

## *Is there mercury in your home?*

**Dispose your mercury-containing items at these Household Hazardous Waste Facilities:**

**Sacramento County**  
875-5555  
4450 Roseville Road  
[www.sacgreenteam.com](http://www.sacgreenteam.com)

**City of Sacramento**  
379-0500  
8491 Fruitridge Road  
[www.pwsacramento.com](http://www.pwsacramento.com)

**City of Folsom**  
355-8397  
Pick-up service is available  
[www.folsomhazmat.com](http://www.folsomhazmat.com)

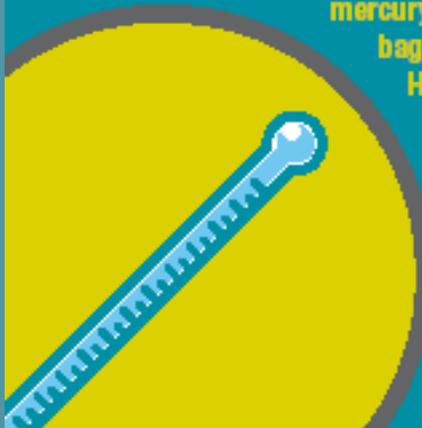
*For more information about mercury, visit [www.bemercuryfree.net](http://www.bemercuryfree.net)*

A message from the Sacramento Regional County Sanitation District and the Sacramento Stormwater Quality Partnership

# Ongoing Thermometer Exchanges, Partnering with our Local HHWs

**Do you still have a silver mercury thermometer?**

To receive a FREE digital thermometer, place your mercury thermometers in a plastic sandwich bag and take them to your local Household Hazardous Waste Facility.



Mercury can be found in many other common household products, including fluorescent light bulbs, thermostats and batteries, all of which should be disposed of properly through Household Hazardous Waste Facilities.

Exchange your mercury fever thermometers for a FREE new digital thermometer and dispose of other mercury-containing items at these Household Hazardous Waste Facilities:

**Sacramento County**  
875-5555 • 4450 Roseville Road • [www.sacgreenteam.com](http://www.sacgreenteam.com)

**Sacramento Recycling & Transfer Station**  
379-0500 • 8491 Fruitridge Road • [www.pwsacramento.com](http://www.pwsacramento.com)

**City of Folsom**  
355-8397 • Pick-up service is available • [www.folsomhazmat.com](http://www.folsomhazmat.com)

For more information about mercury, visit  
[www.bemercuryfree.net](http://www.bemercuryfree.net)

**mercury free**  
A Regional Partnership for a Mercury-Free Future

## Throwing away fluorescent lamps and tubes?

As of February 9, 2006, state law mandates that you can no longer legally dispose of the following items in the garbage:

- All fluorescent lamps and tubes
- All batteries
- All electronic devices (computers, TVs and others)
- All thermostats containing mercury

Proper disposal of these items will help protect and preserve our waterways and environment now and for generations to come.

For more information, please visit [www.zerowaste.ca.gov](http://www.zerowaste.ca.gov)



## Dispose of hazardous items and chemicals at your local Household Hazardous Waste (HHW) Facility:

**Sacramento North Area Recovery Station**  
875-5555 • 4450 Roseville Road, North Highlands

**Sacramento Recycling & Transfer Station**  
379-0500 • 8491 Fruitridge Road, Sacramento

**City of Folsom**  
355-8397 • Pick-up service is available (Folsom Residents Only)

For household hazardous waste facility and mercury information, visit [www.bemercuryfree.net/links.html](http://www.bemercuryfree.net/links.html)



## Storing leftover pesticides?

Clean out leftover pesticides (such as those containing Chlorpyrifos, Diazinon or Lindane) or other chemicals by properly disposing of them through a household hazardous waste facility. Appropriate disposal of these items can help protect and preserve our waterways and watershed.

### Properly dispose of pesticides, mercury and other chemicals at these Household Hazardous Waste (HHW) Facilities:

**Sacramento North Area Recovery Station**  
875-5555  
4450 Roseville Road  
[www.sacgreenteam.com](http://www.sacgreenteam.com)

**Sacramento Recycling & Transfer Station**  
379-0500  
8491 Fruitridge Road  
[www.cityofsacramento.org/utilities](http://www.cityofsacramento.org/utilities)

**City of Folsom**  
355-8397  
Pick-up service is available (Folsom residents only)  
[www.folsomhazmat.com](http://www.folsomhazmat.com)



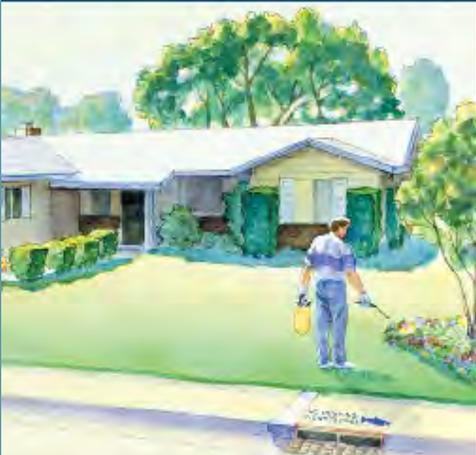
For more information about water quality and pesticides, visit [www.sacramentostormwater.org](http://www.sacramentostormwater.org).

#2041

A message from the Sacramento Regional County Sanitation District and the Sacramento Stormwater Quality Partnership.

# Spring/Summer Water Wise Bill Insert 2006

**Did you know...**  
garden pesticides that run off into storm drains  
or are poured into sinks draining to the sewer  
could eventually flow into local waterways?



**There are many ways  
to control pests in your yard,  
garden, lawn and home  
without polluting our water.**

- Protect beneficial insects
- Determine your pest problem
- Use non-chemical alternatives
- Read product labels
- Dispose of pesticides properly (not down the drain)

For more information on tackling pests the least-toxic way, visit us on the web at [www.sacstormwater.org/wisw](http://www.sacstormwater.org/wisw). For more information on the Water Wise Pest Control Program call (916) 876-6813. (M-F 9 am - 12pm, 1 pm - 4 pm)



WATER WISE  
PEST CONTROL

#2064

<p><b>Gardening With Good Bugs</b></p> <p>Many garden pests can be kept under control by using beneficial insects. These insects are natural predators of garden pests and can help control them without the use of pesticides.</p>	<p><b>Use Less Chemicals of Pesticides</b></p> <p>Reduce the amount of pesticides you use in your garden. Use natural alternatives like neem oil, diatomaceous earth, and insecticidal soap.</p>	<p><b>Snails and Slugs</b></p> <p>Snails and slugs can damage your garden plants. Use traps and barriers to control them.</p>
<p><b>Termites</b></p> <p>Termites can cause significant damage to your home. Look for signs of infestation and use bait stations for control.</p>	<p><b>Fleas</b></p> <p>Fleas are a common pest on pets and can bite humans. Use flea collars and shampoos for control.</p>	<p><b>Aphids</b></p> <p>Aphids are small insects that suck the sap from plants. Use ladybugs and other natural predators for control.</p>
<p><b>Ants</b></p> <p>Ants can be a nuisance in your home and garden. Use baits and barriers for control.</p>	<p><b>Lawn Insects</b></p> <p>Lawn insects like grubs can damage your lawn. Use nematodes and other natural predators for control.</p>	<p><b>Earwigs</b></p> <p>Earwigs are insects that can sting humans. Use traps and barriers for control.</p>
<p><b>Tree Borers</b></p> <p>Tree borers can damage trees by boring into the wood. Use traps and barriers for control.</p>	<p><b>Spiders</b></p> <p>Spiders are common household pests. Use traps and barriers for control.</p>	<p><b>Cockroaches</b></p> <p>Cockroaches are common household pests. Use traps and barriers for control.</p>

## Control pests with less toxic products.

To order these FREE information cards, send a number 10, self-addressed, stamped envelope with 87¢ postage to:

UC Cooperative Extension  
Water Wise Pest Control Cards  
4145 Branch Center Road  
Sacramento, CA 95827

For Pesticide Disposal Information Call: (916) 876-6565. An operator for the Sacramento County Department of Waste Management and Recycling will provide information on the collection site for household hazardous waste, including pesticides, anti-freezes, batteries, oil and paint. For information on the City of Sacramento collection site, call (916) 808-4800.







Notice  
This area is reserved for the use of the building. No other vehicles or equipment are to be parked or stored here.

Warning  
No Smoking  
No Open Flames

Warning  
No Smoking  
No Open Flames

Warning  
No Smoking  
No Open Flames

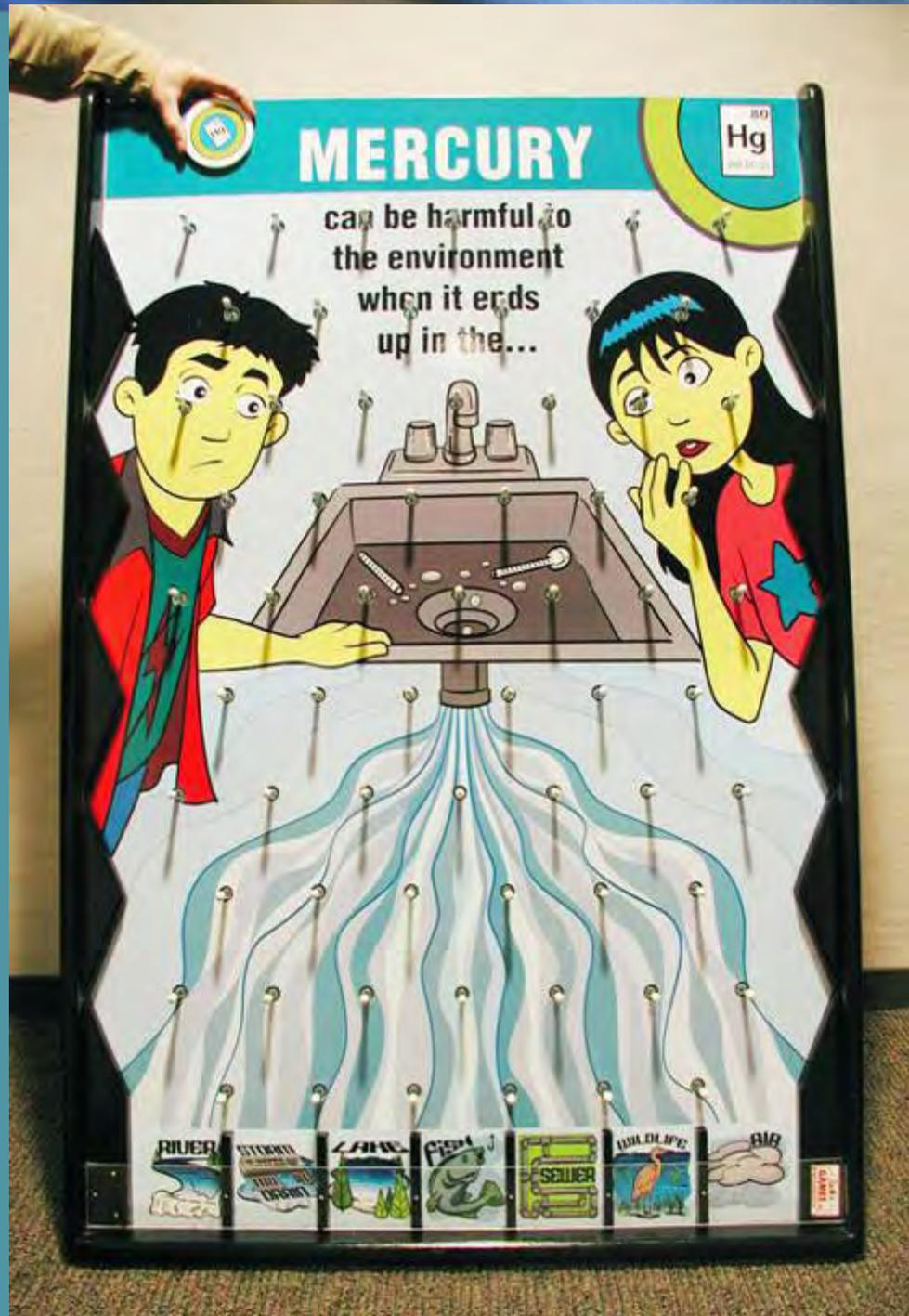
STOP

EXIT  
←

# Be Mercury Free Display - Update March 2006



# Interactive "Plinko" Game



# SCRATCH & WIN!

To properly dispose of  
mercury-containing  
items...



...throw them in  
the trash.

Sorry,  
try again.

...take them to an HHW.

**CORRECT!  
YOU WIN!**

...bury them in  
your backyard.

Sorry,  
try again.

## "Scratcher" Game

# Success in Public / Private Partnerships

- Program goals and objectives
- Right players and partners
- Planning
- Execution
- Adaptability



7916

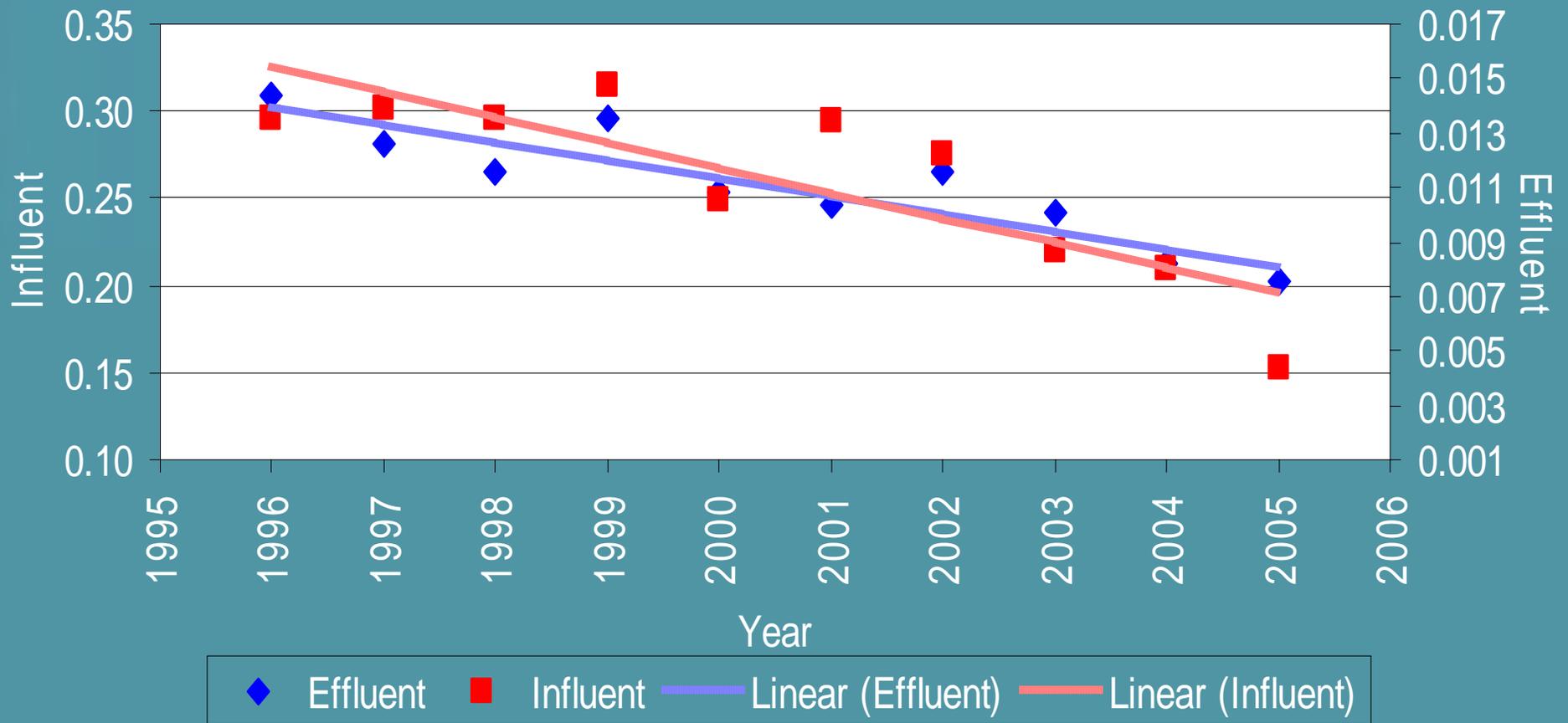
ST. JOSEPH'S SCHOOL

← KEEP

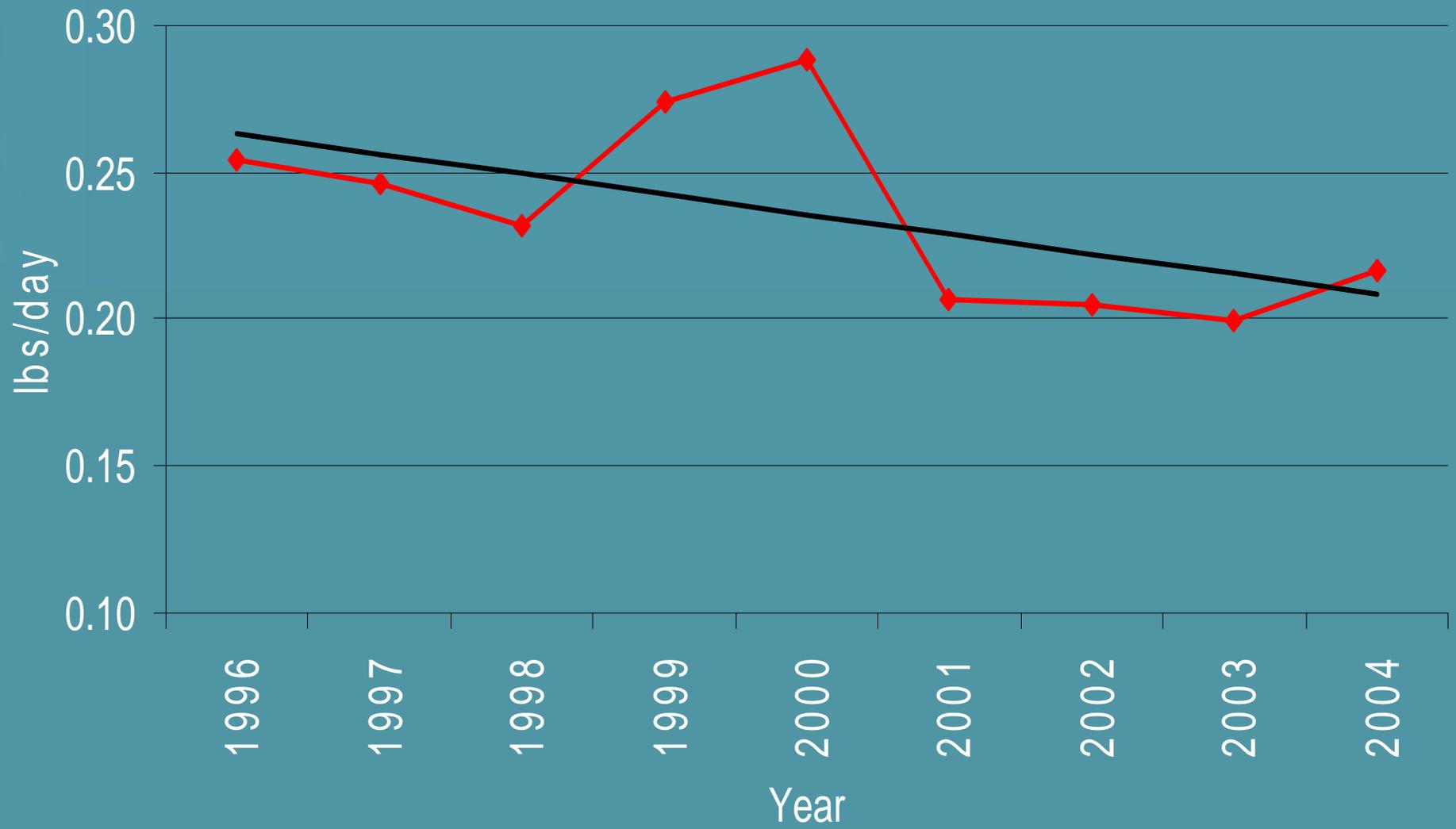
# And The Trend Is...

- Influent
  - 108 pounds per year to less than 76
- Effluent
  - Down from 8 ppt to roughly 4.0 ppt
  - (5.1 pounds/year down to 3.2 pounds/year)
- Biosolids
  - 2 ppm (dry weight) to currently 1.2 ppm

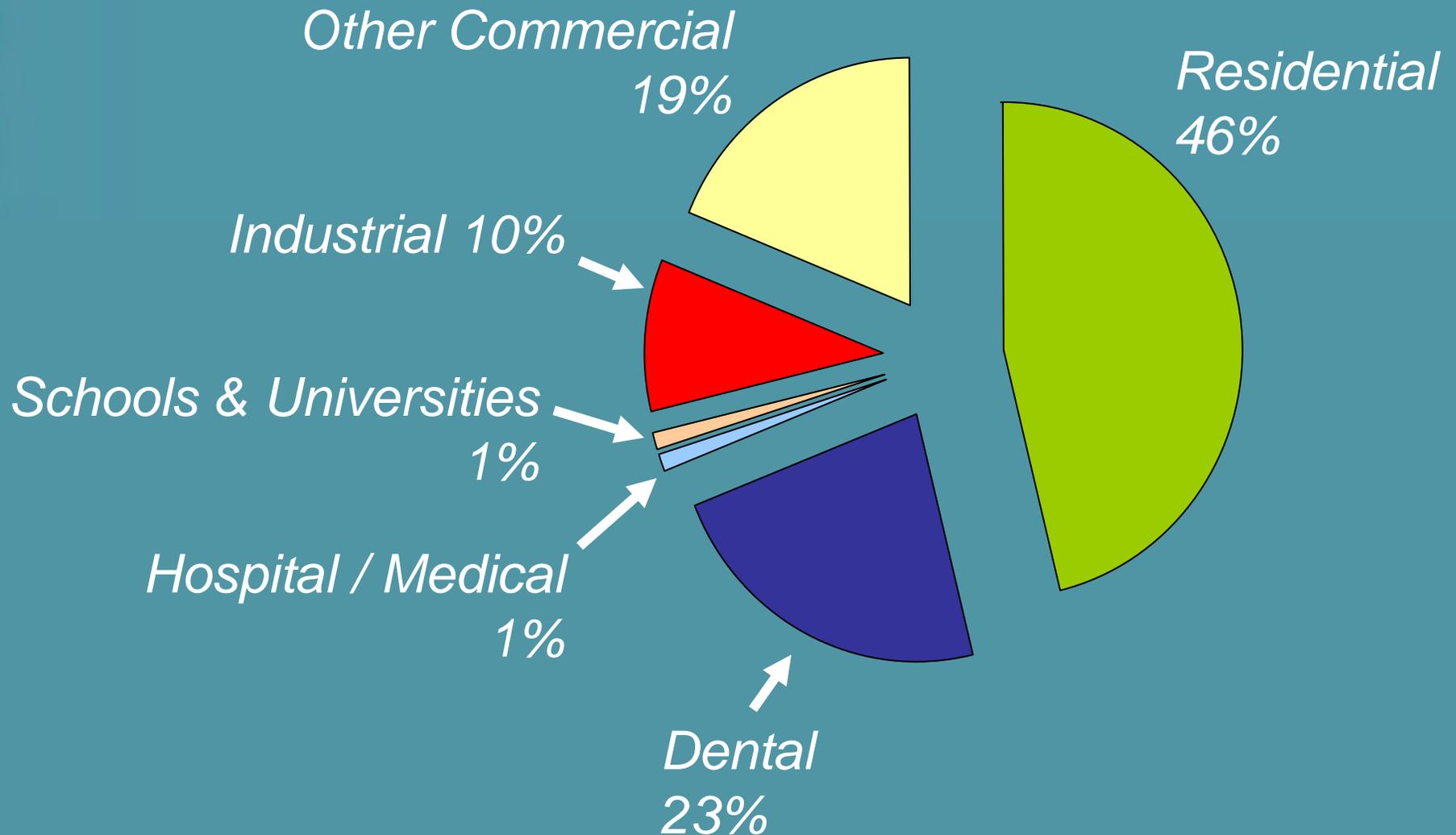
## Mercury (lbs/day) Wastewater Treatment Plant



## Biosolids Mercury



# Annual Influent Hg Contributions (2005)





# Questions and Comments

# Contact

***Terry D. Musil, Supervisor, Technical Services***

Sacramento Regional County Sanitation District,  
Wastewater Source Control Section (WSCS)

[musilt@saccounty.net](mailto:musilt@saccounty.net)

Office: (916) 875-6533

Cell: (916) 709-3910

9660 Ecology lane

Sacramento, CA 95827

# Abbreviations & Acronyms

ADA – American Dental Society

BAPPG – Bay Area Pollution Prevention Group

BERC – Business Environmental Resource Center (Sacramento County)

CDA – California Dental Society

CMO – Communications & Media Office (DWQ)

CSD-1 – County Sanitation District – 1

CUPA – Consolidated Unified Program Agency (CA)

CWEA – California Water Environment Association

DEA – Drug Enforcement Agency

DHHS – Department of Health and Human Services (Sacramento County)

DHS – Department of Health Services (California)

DTSC – Department of Toxic Substances (California)

DWM&R – Department of Waste Management & Recycling

DWQ – Department of Water Quality – Sacramento County

DWR – Department of Water Resources – Sacramento County

# Abbreviations & Acronyms

EMD – Environmental Management Department – Sacramento County

EPA – Environmental Protection Agency

HG – Mercury

HHW – Household Hazardous Waste

IWS – Industrial Waste Section – Sacramento County

JADA – Journal of the American Dental Society

kscf/day – 1,000 standard cubic feet per day

kwh/day – kilo watt hours per day

lb VS/cu ft – Pound volatile solid per cubic foot

MGD – Million Gallons per Day

mmBtu – Million British Thermal Units

MOU – Memorandum of Understanding

NPDES – National Pollutant Discharge Elimination System

OEHHA – Office of Environmental Health Hazard Assessment

OP – Organophosphate Pesticides

# Abbreviations & Acronyms

OWOW – Our Water Our World

PBT – Persistent Bioaccumulative and Toxic

POP – Point of Purchase

ppb – parts per billion

PPCPs – Pharmaceuticals and Personal Care Products

ppm – parts per million

ppt – parts per trillion

REBRAC – Regional Environmental Business Resource Assistance Center

RWQCB – Regional Water Quality Control Board

SAPPCo – Sacramento Area Pollution Prevention Committee

SRCSD – Sacramento Regional County Sanitation District

SRWTP – Sacramento Regional Wastewater Treatment Plant

SSQP – Sacramento Stormwater Quality Partnership

TMDL – Total Maximum Daily Load

WSCS – Wastewater Source Control Section