

AMENDED IN ASSEMBLY APRIL 23, 2008

AMENDED IN ASSEMBLY APRIL 1, 2008

CALIFORNIA LEGISLATURE—2007—08 REGULAR SESSION

**ASSEMBLY BILL**

**No. 2425**

**Introduced by Assembly Member Coto**

February 21, 2008

An act to add and repeal Chapter 6.62 (commencing with Section 25255) of Division 20 of the Health and Safety Code, relating to water quality.

LEGISLATIVE COUNSEL'S DIGEST

AB 2425, as amended, Coto. State Department of Public Health: water quality: pharmaceuticals.

Existing law prohibits any person in the course of doing business from knowingly discharging or releasing a chemical known to the state to cause cancer or reproductive toxicity into water or onto or into land where such chemical passes or probably will pass into any source of drinking water, except as specified.

This bill would, ~~by July 1, 2009,~~ require every pharmaceutical manufacturer that does business with the state ~~and whose pharmaceutical products have been detected in the drinking water supplies within the state to file a specified report with the State Public Health Officer. The bill would repeal this reporting requirement on January 1, 2014.~~ *to enter into a public-private partnership with the State Department of Public Health to advance public knowledge about pharmaceuticals in public drinking water supplies, as prescribed. The bill would require the department to post links on its Internet Web site to other Web sites that*

*have relevant educational information on the proper methods of handling and disposing of pharmaceuticals.*

Vote: majority. Appropriation: no. Fiscal committee: yes.  
State-mandated local program: no.

*The people of the State of California do enact as follows:*

1 SECTION. 1. The Legislature hereby finds and declares all of  
2 the following:

3 (a) In the course of a major study conducted and reported by  
4 the Associated Press, pharmaceutical ~~drugs~~ *products* have been  
5 detected in the drinking water supplies of 24 major metropolitan  
6 areas of the country, including southern California.

7 (b) The federal government does not require safety testing of  
8 pharmaceutical products in drinking water. Some local water  
9 providers screen only for one or two pharmaceutical products, but  
10 not other pharmaceutical products that can cause harm.

11 (c) An official of the United States Environmental Protection  
12 Agency has acknowledged that pharmaceutical “contamination in  
13 water supplies is a growing concern and that government has some  
14 catching up to do.”

15 ~~(d) In California, prescription drug spending totaled over \$188~~  
16 ~~billion in 2004, a \$14 billion dollar per year spending increase~~  
17 ~~from 1984.~~

18 ~~(e) It is the purpose of this act to address the issue of prescription~~  
19 ~~drugs in public drinking water systems.~~

20 *(d) It is the purpose of this act to provide more education on*  
21 *the potential effects of pharmaceuticals entering drinking water*  
22 *systems.*

23 SEC. 2. Chapter 6.62 (commencing with Section 25255) is  
24 added to Division 20 of the Health and Safety Code, to read:

25  
26 CHAPTER 6.62. WATER CONTAMINATION FROM  
27 PHARMACEUTICALS

28  
29 25255. For purposes of this chapter, the following definitions  
30 shall apply:

31 (a) “Pharmaceuticals” means any drug that is sold over the  
32 counter and any drug that is required to bear the legend, “Caution:

1 Federal law prohibits dispensing without a prescription,” “RX  
2 only,” or words of similar import.

3 (b) “Pharmaceutical manufacturer” means a drug manufacturer  
4 as defined in Section 4033 of the Business and Professions Code.

5 ~~25256. On or before July 1, 2009, every pharmaceutical  
6 manufacturer that does business with the state, and whose  
7 pharmaceutical products have been detected by their chemical  
8 signatures in the drinking water supplies within the state, shall file  
9 with the State Public Health Officer a report that includes the  
10 following:~~

11 ~~(a) An analysis of how these pharmaceuticals entered the  
12 drinking water supply of the state.~~

13 ~~(b) Identification of the methods of preventing and removing  
14 pharmaceutical contaminants from the drinking water supplies of  
15 the state.~~

16 *25256. (a) Every pharmaceutical manufacturer that does  
17 business with the state shall enter into a public-private partnership  
18 with the State Department of Public Health in order to advance  
19 public knowledge about pharmaceuticals in public drinking water  
20 supplies.*

21 *(b) The partnership shall include the formation of a working  
22 group that includes representatives from other entities. The  
23 working group’s responsibilities shall include all of the following:*

24 *(1) Compiling research on the topic of pharmaceuticals in public  
25 drinking water supplies in the state and the nation.*

26 *(2) Preparing a status report on the topic of pharmaceuticals  
27 in public drinking water supplies in the state. This report shall,  
28 among other things, identify methods of preventing and removing  
29 pharmaceutical contaminants from the drinking water supplies of  
30 the state.*

31 *(3) Developing best practices for industry and individuals.*

32 *(4) Making recommendations and offering options for the  
33 Legislature and Governor no later than September 1, 2009, to  
34 address any concerns on the topic of pharmaceuticals in the  
35 drinking water supplies of California.*

36 *(c) For the purposes of this section, “other entities” include,  
37 but need not be limited to, the following:*

38 *(1) The California Pharmacists Association.*

39 *(2) The Office of Environmental Health Hazard Assessment.*

40 *(3) The State Water Resources Control Board.*

- 1 (4) *The Department of Toxic Substances Control.*  
2 (5) *The California State Board of Pharmacy.*  
3 (6) *The California Integrated Waste Management Board.*  
4 (7) *Public health officers.*  
5 (8) *Environmental groups.*  
6 (9) *Public and private water agencies.*

7 (d) *The department shall not expend more than forty-nine*  
8 *thousand dollars (\$49,000) annually from existing resources for*  
9 *the purposes of this chapter. The department may accept private*  
10 *donations for the purposes of this chapter.*

11 *25257. The State Department of Public Health shall post links*  
12 *on its Internet Web site to other Web sites that have relevant*  
13 *educational information on the proper methods of handling and*  
14 *disposing of pharmaceuticals. These links may be to Web sites of*  
15 *public agencies and nongovernmental entities, including, but not*  
16 *limited to, nonprofit organizations and pharmaceutical*  
17 *manufacturers.*

18 ~~25257.~~

19 *25258. This chapter shall remain in effect only until January*  
20 *1, 2014, and as of that date is repealed, unless a later enacted*  
21 *statute, that is enacted before January 1, 2014, deletes or extends*  
22 *that date.*

## No Drugs Down the Drain! Frequently Asked Questions

### How do pharmaceuticals enter the environment?

- Residential, commercial, and agricultural pharmaceuticals can follow two primary pathways to the environment:
  - Excretion: Human and livestock excretion of drugs and their metabolites into the sanitary sewer or directly to waterways following consumption.
  - Improper Disposal: Dumping unused pharmaceuticals down the drain to the sewer or septic tank.

### Isn't excretion responsible for more pharmaceuticals entering the environment than improper disposal?

- Pharmaceuticals enter the environment through use and disposal; however, we can prevent improper disposal immediately! Pollution Prevention has proven very effective in the reduction of many pollutants into sewers and ultimately waterways.
- Pharmaceuticals dumped down the drain have not been degraded at all by the body and may be more potent.

### Why don't wastewater treatment plants improve treatment to remove pharmaceuticals?

- There is not any one type of treatment that removes everything. It is better if pharmaceuticals are not disposed down the drain in the first place.
- Treatment does remove and reduce some types of pharmaceuticals, but some aquatic species have shown sensitivity to extremely low levels of medications (as low as nanograms/liter).
- Adding treatment will cost communities millions of dollars, increasing utility rates.
- End-of-pipe treatment is always more expensive than prevention and may have other environmental consequences. Even the most effective treatment, reverse osmosis, requires enormous amounts of energy, which could mean more greenhouse gases emitted into the environment. Reverse osmosis also concentrates pollutants into a waste brine that must be disposed of – where? Nothing really goes “away.”

### Do pharmaceuticals impact water?

- Several studies have shown that exposure to certain pharmaceuticals results in abnormal development and reproduction in fish and other wildlife, even at very low levels
  - The antidepressant Fluoxetine delayed development of young Western mosquitofish (*Gambusia affinis*).<sup>1</sup>
  - Increased numbers of male fish have been associated with pharmaceuticals in ocean waters in Orange County.<sup>2</sup>
- Some waterways that supply drinking water have been reported to have trace levels of pharmaceuticals.

### Is the No Drugs Down the Drain! campaign a long-term solution?

- No. The California legislature recognized pharmaceutical disposal as a problem, and through Senate Bill 966 directed the California Integrated Waste Management Board to develop a long-term solution. The board is currently working to develop a long-term solution.

### Why don't pharmacies have collection bins for unwanted and expired medication?

- Drug Enforcement Administration regulations prohibit the collection of controlled substances such as codeine, morphine, sudafedrin and narcotics without law enforcement involvement.
- Some pharmacies collect non-controlled substances, such as antibiotics and over-the-counter medicine.
- Agencies are working to find a way to allow permanent collection sites for all pharmaceuticals.

### What is done with the medication after collection events?

- The medications are incinerated in regulated facilities to ensure that they are completely destroyed.

### What should I do with unwanted or expired medication in the future?

- See [www.nodrugsdownthedrain.org](http://www.nodrugsdownthedrain.org) for information on local disposal options.
- **Please remember: No Drugs Down the Drain!**

<sup>1</sup> Black, M.C., Rogers E.D., and Henry, T.B., 2005. Endocrine Effects of Selective Serotonin Reuptake Inhibitors (SSRIs) on Aquatic Organisms. Abstract available at <http://es.epa.gov/ncer/publications/meetings/8-23-2005/abstract/black1.html>.

<sup>2</sup> Irwin, M., Reyes, J., Steinert, S., Hwang, W., Armstrong, J., Sakamoto, K., Kelley, K. and Schlenk, D., 2005. Relationships between reproductive endpoints measured in flatfish collected near an outfall in Orange County, California. Abstract available at <http://abstracts.co.allenpress.com/pweb/setac2005/category/?ID=57549>.

# Statewide “No Drugs Down the Drain” Campaign

## October 4 – 11, 2008

### Project Summary

Everyday in California, unwanted or expired medicine is disposed of down the toilet. While this was once recommended practice to protect children and pets from accidental poisonings, studies show that pharmaceuticals can pass through wastewater treatment facilities into creeks, rivers, bays and oceans. In 2002, the U.S. Geological Survey reported that there were pharmaceutical compounds in 80% of waterways tested.<sup>1</sup> Because many of these compounds are designed to be effective in small doses, there is concern that they may have impacts on water quality and wildlife. There is also concern that pharmaceuticals may cause upsets of biological wastewater treatment systems and failures of whole effluent toxicity tests, impact the beneficial reuse of biosolids, and jeopardize POTWs’ ability to provide a high quality recycled water. Recent Associated Press (AP) articles have also brought the issue of trace pharmaceuticals in drinking water into the public eye, dramatically increasing regulators’ interest in taking steps to reduce pharmaceuticals in the environment.

To address this issue, a coalition of local, regional, state and federal agencies plans to conduct a one-week California-wide educational campaign this fall to educate the public that disposing of leftover medication down the toilet is no longer acceptable. The campaign, “**No Drugs Down the Drain!**,” will provide the public with information on alternative disposal options throughout the state.

### Background

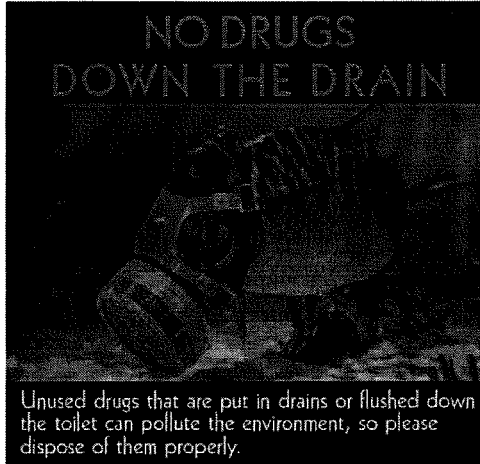
Local agencies around the nation are beginning to engage the public on how the decisions and choices they make can impact the compliance status of municipal wastewater treatment facilities as well as the long-term health of receiving waters. Pharmaceutical disposal has been found to be a compelling vehicle to convey this message and can be a springboard for broadening the dialogue to other issues (kitchen fats, oils and greases resulting in sanitary sewer overflows, household hazardous waste, etc.) and environmental stewardship goals generally. Region 9 EPA and California State Water Resources Control Board enthusiastically support this concept. In the wake of the AP stories, these and other regulators’ support for the campaign has grown.

### Pharmaceutical Take-back Campaign

The campaign, “**No Drugs Down the Drain!**,” will educate the public that disposing of leftover medication down the toilet has environmental costs and will communicate preferred approaches to pharmaceutical disposal throughout the state. The campaign builds from other agencies’ previous efforts, reducing the costs and barriers to participation. For example, Southern California agencies are providing artwork and graphics, shown below, and Bay Area agencies are providing event logistics support.

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<sup>1</sup> Kolpin, Dana et al. 2002. Pharmaceuticals, hormones and other organic wastewater contaminants in U.S. Streams, 1999-2000: A National Reconnaissance, *Environmental Science and Technology* v. 36: 1202-1211.



The target campaign timeframe is Oct. 4-11, 2008. The messages include:

- There are easy alternatives for the proper disposal of unwanted medication
- Check [www.nodrugsdownthedrain.org](http://www.nodrugsdownthedrain.org) for options in your local area

### **Timeline**

April 2008	Local agencies statewide are notified of opportunity to participate; fundraising begins; media consultant selected
May 2008	Interested local agencies engage in a statewide training conference call
June 2008	Materials and press kit development; local agencies coordinate local event logistics, including site selection, coordination with local law enforcement and medical waste hauler
July 2008	State and federal collaborators assist with pitching proclamations/resolutions
September 2008	Outreach through bill inserts, advertising; media relations group pitches to press and sends out press releases/advisories
October 2008	Full media coverage; take-back events occur around State

*Interested in participating? Visit [www.nodrugsdownthedrain.org](http://www.nodrugsdownthedrain.org) for more information and to sign up.*

### **SB 966**

The “No Drugs Down the Drain!” campaign is very timely as the California Integrated Waste Management Board (CIWMB) begins implementation of Senate Bill 966. The Governor signed SB 966 into law last year, requiring the CIWMB to establish a model pharmaceutical take-back program for the state. The “No Drugs Down the Drain!” campaign is coordinating with the CIWMB so that data and lessons learned from the campaign can provide important information for SB 966 implementation. This campaign will assist the CIWMB in educating the public about the need for proper disposal of pharmaceuticals in advance of the model program. “No Drugs Down the Drain” participating agencies will provide data to CIWMB staff, including pounds collected, campaign costs and number of participants. In addition, the campaign will track the number of website hits and number of media stories. At the March CIWMB SB966 meeting, CIWMB assisted campaign coordinators in announcing the campaign to attendees.

## **Media and Outreach**

The statewide coalition will develop campaign materials and templates for local use including

- Website
- Outreach flyers
- Advertisements
- Press packets

The statewide coalition will work with partners to lead a press conference, disseminate statewide media alerts and conduct outreach.

## **Benefits of Participation**

The “No Drugs Down the Drain!” campaign provides local agencies numerous opportunities and benefits.

- Visibility to ratepayers, the public and regulators that agencies are taking action to reduce pharmaceuticals in the environment
- Support for logistics and implementation
- Statewide media and outreach, and templates for local outreach
- Collaboration with State and Federal agencies, non-profits, private sector
- Tangible and visible stewardship activity
- Springboard for disseminating other pollution prevention messages

## **Challenges**

While the benefits are numerous, there are some institutional challenges associated with the collection of pharmaceuticals. The Drug Enforcement Administration has specific requirements for the handling of any controlled (narcotic) substances that may be collected, typically requiring the involvement of law enforcement. In addition, collected non-controlled medication must be disposed by a licensed Medical Waste hauler, per the Medical Waste Management Act. While participating local agencies will be responsible for event logistics, campaign coordinators will provide training and support on how to conduct an event legally. Additionally, the campaign will provide templates for local outreach such as graphics for bill inserts and ads, in addition to statewide media and outreach. The No Drugs Down the Drain website will be a central website for residents to access information on the disposal options in their local area.

## **Budget**

\$20,000	Basic media and graphics support
	<ul style="list-style-type: none"><li>• Graphics design and support<ul style="list-style-type: none"><li>- leverage existing artwork, develop materials that local agencies can easily manipulate for use in bill inserts, local event flyers, email blasts, local print ads and banners</li></ul></li><li>• Media and public relations consultant<ul style="list-style-type: none"><li>- development of press advisory and press release</li><li>- development of Public Service Announcements for TV and radio</li><li>- coordination of statewide press event to launch campaign</li><li>- pitching of PSAs, press event and statewide campaign to print, TV and radio outlets</li><li>- tracking print, TV and radio stories</li></ul></li></ul>

- \$30,000      Statewide advertising
- Flyer printing and distribution to pharmacies statewide
  - Internet ads
  - Radio ads through morning traffic programs
  - Newspaper ads in largest news outlets, such as Sac Bee, LA Times, SF Chronicle, SD Union-Tribune, North Coast's Times-Standard, Orange County Register

\$50,000      Total Campaign Budget (does not include local event implementation and local event outreach)

### **Partners**

#### Committed in-kind contributors to campaign

- EPA Region 9 will provide
  - Multi-lingual video clips for media outreach
  - Staff and dedicated intern time
  - Press release and other media assistance
- State Water Resources Board will
  - Coordinate with CalEPA and the Governor's office
    - press releases
    - proclamations (e.g. Oct 4-11 is "No Drugs Down the Drain!" Week)

#### Potential in-kind contributors to campaign

- CA Integrated Waste Management Board press release and logistical support
- Legislative resolution or proclamation
- Retailers such as pharmacies (through associations and individual retailers)
  - Placement of flyers at pharmacy counters and circulars
  - Possible event sites
- Non-governmental organizations
  - Outreach to membership lists
  - Conduct local events
  - Media assistance

#### Potential funding organizations

- Local and regional agencies statewide
  - California Water Environment Association
  - League of Cities
  - California Association of Sanitation Agencies
  - Bay Area Clean Water Agencies
  - Southern California Association of POTWs
  - Central Valley Clean Water Agencies
  - Household Hazardous Waste associations
  - Other waste prevention organizations
- State and federal agencies
- Private foundations
- Corporate support – could include in-kind contributions and sponsorships
- Manufacturers
- Public health agencies