Program Update: San Francisco’s Safe Medicine Disposal Pilot

Introduction:
San Francisco’s Safe Medicine Disposal Pilot Program has been in operation since April 2012. San Francisco’s Department of the Environment (SFEnvironment) currently administers the Pilot Program in cooperation with the San Francisco Public Utilities Commission (SFPUC) and the San Francisco Police Department (SFPD). This memo provides a status update and a historic context of how the Safe Medicine Disposal Pilot Program was created.

Background:
There are two main concerns when unwanted or expired medicines are improperly handled: pollution and public safety. Scientific evidence continues to demonstrate that landfilling or flushing medicine threatens our health by polluting local waterways. Those who choose not to dispose their unwanted medicine, retain excess medicines that are often abused or accidentally misused. These concerns are well documented. For instance, the active ingredient in popular pain relievers has been detected in the San Francisco Bay1, and research has demonstrated that antidepressants disrupt fish reproductive cycles2. In every year since 2003, more drug overdoses have occurred annually in the United States from prescription medicines than from cocaine and heroin combined3.

Fortunately, collecting medicine for proper disposal through a “take-back” program reduces the presence of pharmaceutical compounds in aquatic ecosystems, and prevents controlled substances from landing in the hands of our youth or illicit markets. Though post-consumer medicine collection programs are not required by state law, increasing public concern about medicine disposal and the weight of scientific evidence motivated the City and County of San Francisco (the City) to take action on this public and environmental health issue.

Through a partnership with Recology, San Francisco residents were invited to dispose of expired or unwanted medicine at the local Household Hazardous Waste Facility from 1990-2005. After this program was suspended due to regulatory concerns, SFEnvironment and SFPUC held a two-day medicine collection event at Walgreens locations throughout the City in 2006. This temporary collection event was unsustainable due to outreach-related expenses. As an alternative, the agencies distributed prepaid disposal mailing envelopes to residents upon request in 2009. Again, this program was cost prohibitive. In response, the Safe Drug Disposal Ordinance4 was introduced in 2010 based on a producer responsibility approach adopted by governments such as British Columbia. As an alternative to the Ordinance, a series of stakeholder meetings yielded a creative and collaborative temporary solution: the Safe Medicine Disposal Pilot Program.

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4 See Attachment 2
The Pilot Program:
San Francisco’s Safe Medicine Disposal Pilot Program is designed to build on lessons learned from previous efforts to provide secure disposal methods for home-generated expired or unwanted medicine. Following nine months of preparation and planning, San Francisco launched the Pilot Program in April 2012. This take-back program meets the State of California’s Criteria and Procedures for Model Home-Generated Pharmaceutical Waste Collection and Disposal Programs, while increasing access to safe disposal in every neighborhood, and reducing per-pound disposal costs. The Pilot Program is supported by grant funding from Genentech and PhRMA, but is heavily dependent on interagency collaboration and in-kind staff time from City department program partners.

Through the Pilot Program, residents are invited to dispose of expired or unwanted medicine at 13 independent pharmacies and at all 10 San Francisco police stations. Pharmacy collection sites accept non-controlled substances including prescription and over-the-counter medicines, vitamins, liquid medicines, empty inhaler cartridges, pet medicines and medicated ointments. In addition to these non-controlled substances, police station collection sites accept controlled substances such as Vicodin®, OxyContin®, Percocet®, Ritalin®, Adderall®, Xanax®, and Valium®. Residents simply drop-off medicines in secure drop-boxes placed at participating neighborhood pharmacies, or hand it to the officer on duty at police stations during regular operating hours. SFEnvironment contracts with a State-licensed medical waste hauler to service the pharmacies weekly and transport medicine waste to an approved incineration facility in Texas. Police stations dispose of waste medicines with the illicit substances that they routinely collect as evidence.

[A State-licensed medical waste hauler collects and disposes of waste medicine from pharmacies weekly]
Success in 2012:

- Total weight collected: 11,624 pounds
- Average monthly weight collected: 1,257 pounds
- Pharmacy collection: 93% of total weight collected
- Police station collection: 7% of total weight collected

Data Collection:

A central focus of the Pilot Program is data collection. While only nine months have passed, SFEnvironment is currently collecting detailed information from collection sites that demonstrate clear trends in resident participation. SFEnvironment has also designed a waste characterization study to be completed in spring 2013, which attempts to identify trends in the types of medicine being disposed. The goal is to inform future outreach and create a permanent and sustainable program.

Outreach:

To increase awareness of the Pilot Program, the San Francisco Board of Supervisors passed the Safe Medicine Disposal Information Ordinance which requires that every pharmacy in San Francisco display informational materials. “Non-participating,” or non-collection site pharmacies must display signage promoting proper medicine disposal and listing participating pharmacies. Participating pharmacies must display informational signage as well. Please see Attachments 3 and 4 for examples of these display posters. SFEnvironment outreach staff visits non-participating pharmacies approximately once every six months to restock display posters.
SFEnvironment provides in-kind staff time to administer and perform these additional outreach activities:

- Senior Center Presentations: 11 senior centers have hosted 30-minute presentations for over 500 attendees
- Special Events: Information is distributed at approximately 15 environmental health-related events each month
- Medical Office Visits: 155 medical offices have been targeted to voluntarily display program materials
- Social Media Strategy: SFPUC and SFEnvironment educate the public on Facebook and Twitter
- Newsletters and Newspapers: 13 articles have been circulated to educate residents about this issue

![SFEnvironment’s health fair outreach](image1)

![SFEnvironment’s senior center presentation](image2)

![SFEnvironment’s large-font factsheet is distributed at senior center presentations](image3)
Pilot Program Start-Up Costs:

<table>
<thead>
<tr>
<th>Expenses incurred or committed through December 31, 2012</th>
<th>$51,341</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of total grant funding</td>
<td>47%</td>
</tr>
<tr>
<td>Collection site bins and signage</td>
<td>$14,354</td>
</tr>
<tr>
<td>Medical waste generator permits</td>
<td>$2,441</td>
</tr>
<tr>
<td>Waste characterization study</td>
<td>$34,546</td>
</tr>
<tr>
<td>1673 hours SFEnvironment, SFPUC, SFPD and City Attorney’s staff time to establish collection network</td>
<td>In-kind</td>
</tr>
</tbody>
</table>

Pilot Program Operating Costs through 2012:

<table>
<thead>
<tr>
<th>Expenses incurred or committed through December 31, 2012</th>
<th>$30,649</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of total grant funding</td>
<td>28%</td>
</tr>
<tr>
<td>Collection and disposal of non-controlled substances at 13 locations</td>
<td>$21,409</td>
</tr>
<tr>
<td>Outreach materials</td>
<td>$9,240</td>
</tr>
<tr>
<td>1008 hours SFPD staff time for controlled substances management</td>
<td>In-kind</td>
</tr>
<tr>
<td>1032 hours SFEnvironment staff time for program administration</td>
<td>In-kind</td>
</tr>
<tr>
<td>1512 hours SFEnvironment staff time for community outreach</td>
<td>In-kind</td>
</tr>
</tbody>
</table>

Please note that grant funding has been disproportionately utilized to provide for one-time program start-up expenses.

At the end of calendar year 2012, approximately 25% of the Pilot Program’s $110,000 grant remained. Based on current resident participation rates, the Pilot Program’s existing grant funding will sustain collection and disposal services through summer 2013.

Budget Forecast for Future Operating Costs:

<table>
<thead>
<tr>
<th>Annual budget</th>
<th>$248,247</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage City and County of San Francisco staff time</td>
<td>83%</td>
</tr>
<tr>
<td>Collection and disposal of non-controlled substances at 15 locations</td>
<td>$35,400</td>
</tr>
<tr>
<td>Outreach materials</td>
<td>$6,050</td>
</tr>
<tr>
<td>828 hours SFPD controlled substances management</td>
<td>$57,736</td>
</tr>
<tr>
<td>413 hours SFEnvironment program administration</td>
<td>$33,465</td>
</tr>
<tr>
<td>1512 hours SFEnvironment community outreach</td>
<td>$115,596</td>
</tr>
</tbody>
</table>

Please note that the future budget forecast (directly above) assumes a 15-site collection network will be maintained.
Growth and Next Steps:

Moving forward, the Pilot Program will be adaptively managed based on monthly collections data, information gathered through the waste characterization study, resident feedback, and program developments in other jurisdictions, including Alameda County.

SFEnvironment and its program partners, with the assistance of the Mayor’s office and the Board of Supervisors, continue to advocate for a permanent pharmaceutical take back program for San Francisco residents. Most recently, Board President David Chiu has requested that PhRMA make additional funding available to ensure this disposal option remains available for residents in the future.

[Attachment 1: Google map of the existing pharmacy (green) and police station (blue) medicine collection locations]
Ordinance amending the San Francisco Environment Code by adding Sections 2250 through 2254, to require any business selling prescription drugs to the public to post display materials explaining how to safely and lawfully dispose of unused prescription drugs, and making environmental findings.

NOTE: Additions are *single-underline italic Times New Roman*; deletions are *strike-through italic Times New Roman*. Board amendment additions are *double-underlined*; Board amendment deletions are *strikethrough normal*.

Be it ordained by the People of the City and County of San Francisco:

Section 1. The San Francisco Environment Code is hereby amended by adding Sections 2250 through 2254, to read as follows:

SEC. 2250. SHORT TITLE.

This Ordinance shall be entitled the "Safe Drug Disposal Information Ordinance."

SEC. 2251. DEFINITIONS.

For the purposes of this Ordinance, the following words shall have the following meanings:

(a) "Business" means a fixed location within the City and County of San Francisco, whether indoors or outdoors, at which Prescription Drugs are offered for sale at retail and that is required to obtain a valid San Francisco business registration certificate from the San Francisco Tax Collector's office.

(b) "Department" means the Department of the Environment.

(c) "Director" means the Director of the Department of the Environment.

(d) "Display materials" means signs, posters or other similar informational materials.
(c) "Prescription drug" means any drug that by federal or state law may be dispensed lawfully only on prescription.

SEC. 2252. INFORMATION REQUIRED AT POINT OF SALE.

(a) Beginning September 1, 2011, any business selling prescription drugs to the public shall post display materials approved by the Director explaining how members of the public may safely and lawfully dispose of unused prescription drugs. The materials shall be in English, Spanish, and Chinese, and legible and easily readable by the average person. The materials shall be posted on the premises of the business in a location visible to the public and adjacent to the area where the prescription drugs are dispensed.

(b) The Director may, in his or her discretion, authorize a business to use alternate means to comply with the requirements of subsection (a). The Director shall authorize such alternate means through the adoption of a regulation after a noticed hearing, and no business may sell prescription drugs to the public or offer to sell prescription drugs to the public using any alternate means of compliance with this Chapter unless specifically authorized to do so in advance in writing by the Director.

(c) The City urges all persons and entities providing prescription drugs to the public for free to also participate in this program.

SEC. 2253. IMPLEMENTATION.

(a) The Director, after a public hearing, may adopt and may amend guidelines, rules, regulations, and forms to implement this Ordinance.

(b) By July 1, 2011, the Department shall issue regulations specifying the contents and format for the display materials required by Section 2252.
SEC. 2254. ENFORCEMENT.

(a) During the period between the effective date of this Chapter and September 1, 2011, the
operative date for compliance, the Department shall develop and conduct an education and assistance
program for businesses subject to the Chapter, and shall contact the businesses and assist them with
meeting the requirements of the Chapter.

(b) Beginning September 1, 2011, the City Administrator shall issue a written warning to any
person he or she determines is violating provisions of this Chapter or any regulation issued under this
Chapter. If 30 days after issuance of the written warning the City Administrator finds that the person
receiving the warning has continued to violate the provisions of the Chapter or any regulation issued
under this Chapter, the City Administrator may impose administrative fines as provided below in
subsections (c), (d), and (e).

(c) Violation of this Chapter or any regulation issued under this Chapter shall be punishable by
administrative fines in the amount of:

(1) Up to $100.00 for the first violation;

(2) Up to $250.00 for the second violation within a twelve-month period; and

(3) Up to $500 for the third and subsequent violations within a twelve-month period.

(d) Except as provided in subsection (c), setting forth the amount of administrative fines,
Administrative Code Chapter 106, "Procedures Governing the Imposition of Administrative Fines," as
may be amended from time to time, is hereby incorporated in its entirety and shall govern the
imposition, enforcement, collection, and review of administrative citations issued by the City
Administrator to enforce this Chapter or any regulation issued under this Chapter. Violation of this
Chapter is not a misdemeanor, and the Board of Supervisors intends that the requirements of this
Chapter be enforced only through administrative fines as provided in this Section.
(e) For purposes of this Chapter, each week that a business sells or offers to sell prescription drugs to the public contrary to the provisions of this Chapter or any regulation issued under this Chapter shall constitute a separate violation.

Section 2. General Provisions.

(a) Severability. If any section, subsection, sentence, clause, or phrase of this Ordinance is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of the Ordinance. The Board of Supervisors hereby declares that it would have passed this Ordinance and each and every section, subsection, sentence, clause, or phrase not declared invalid or unconstitutional without regard to whether any portion of this Ordinance would be subsequently declared invalid or unconstitutional.

(b) No Conflict with State or Federal Law. Nothing in this ordinance shall be interpreted or applied so as to create any requirement, power, or duty in conflict with any federal or state law.

(c) Undertaking for the General Welfare. In adopting and implementing this Ordinance, the City and County of San Francisco is assuming an undertaking only to promote the general welfare. It is not assuming, nor is it imposing on its officers and employees, an obligation for breach of which it is liable in money damages to any person who claims that such breach proximately caused injury.

[Attachment 2: The Safe Drug Disposal Information Ordinance (continued)]
(d) **Environmental Findings.** The Planning Department has determined that the actions contemplated in this ordinance are in compliance with the California Environmental Quality Act (Cal. Pub. Res. Code §§ 21000 et seq.). Said determination is on file with the Clerk of the Board of Supervisors in File No. 11002, and is incorporated herein by reference.

APPROVED AS TO FORM:
DENNIS J. HERRERA, City Attorney

By: [Signature]
THOMAS J. OWEN
Deputy City Attorney
SAFE MEDICINE DISPOSAL

To find sites in San Francisco:

Para encontrar sitios en San Francisco:

Please take one

SAFE MEDICINE DISPOSAL LOCATIONS

<table>
<thead>
<tr>
<th>Pharmacies*</th>
<th>Disposal Locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Drug Store 4494 Mission St, San Francisco, CA 94112</td>
<td>Post Divisadero Medical Pharmacy 2299 Post St, San Francisco, CA 94115</td>
</tr>
<tr>
<td>Charlie’s Pharmacy 1101 Fillmore St, San Francisco, CA 94115</td>
<td>Torgerson Discount Pharmacy Inc 5614 Geary Blvd, San Francisco, CA 94121</td>
</tr>
<tr>
<td>Clay Medical Pharmacy 935 Clay St #203, San Francisco, CA 94108</td>
<td>Visitaton Valley Pharmacy 1001 Le Conte Ave, San Francisco, CA 94134</td>
</tr>
<tr>
<td>Daniels Pharmacy 943 Guerrero Ave, San Francisco, CA 94112</td>
<td>Aspirin</td>
</tr>
<tr>
<td>FOUR FIFTY SUTHER PHARMACY 450 SUTHER ST, Suite 2, San Francisco, CA 94108</td>
<td></td>
</tr>
<tr>
<td>Police Stations</td>
<td></td>
</tr>
<tr>
<td>All San Francisco police stations collect unused medications.</td>
<td></td>
</tr>
</tbody>
</table>

*Controlled substances are only accepted at Police Stations.

sfenvironment.org/recyclewhere (415) 355-3700

Printed on 100% post-consumer recycled paper.

04/12

San Francisco residents only.

Para los residentes de San Francisco solamente.

Controlled substances are only accepted at police stations.

Se aceptan sustancias controladas en la delegación de policía de SF solamente.

[Attachment 3: Safe Drug Disposal Information Ordinance display materials for non-participating pharmacies. This poster and tear-off flyer display must be posted adjacent to the area where prescription medicine is dispensed.]
SAFE MEDICINE DISPOSAL HERE

To find more sites in San Francisco:

sfenvironment.org/recyclewhere
(415) 355-3700

San Francisco residents only.

Controlled substances are only accepted at police stations.

Printed on 100% post-consumer recycled paper.

[Attachment 4: Safe Drug Disposal Information Ordinance display materials for participating pharmacies. This poster display hangs in the window or entryway of each business.]
[Attachment 5: This sticker is applied to each participating pharmacy’s secure medicine collection bin. Combinations of English, Spanish, Chinese and Russian translations are available to suit each business’ customer base.]