



SFEnvironment

Our home. Our city. Our planet.

A Department of the City and County of San Francisco



Edwin M. Lee
Mayor

Melanie Nutter
Director

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.

1 Harrold, K.H., D. Yee, M. Sedlak, S. Klosterhaus, J.A. Davis, M. Woudneh, and P. Riley. 2009. Pharmaceutical Concentrations in Wastewater Treatment Plant Influent and Effluent and Surface Waters of Lower South San Francisco Bay. SFEI Contribution 549. San Francisco Estuary Institute, Oakland, CA.

2 Perreault, H, K Semsar, J Godwin. 2003. Fluoxetine treatment decreases territorial aggression in a coral reef fish. *Physiology & Behavior* 79:719-724.

3 Centers for Disease Control and Prevention. Prescription painkiller overdoses in the US. *Vital Signs*. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention; 2011.

4 See Attachment 2

The Pilot Program:

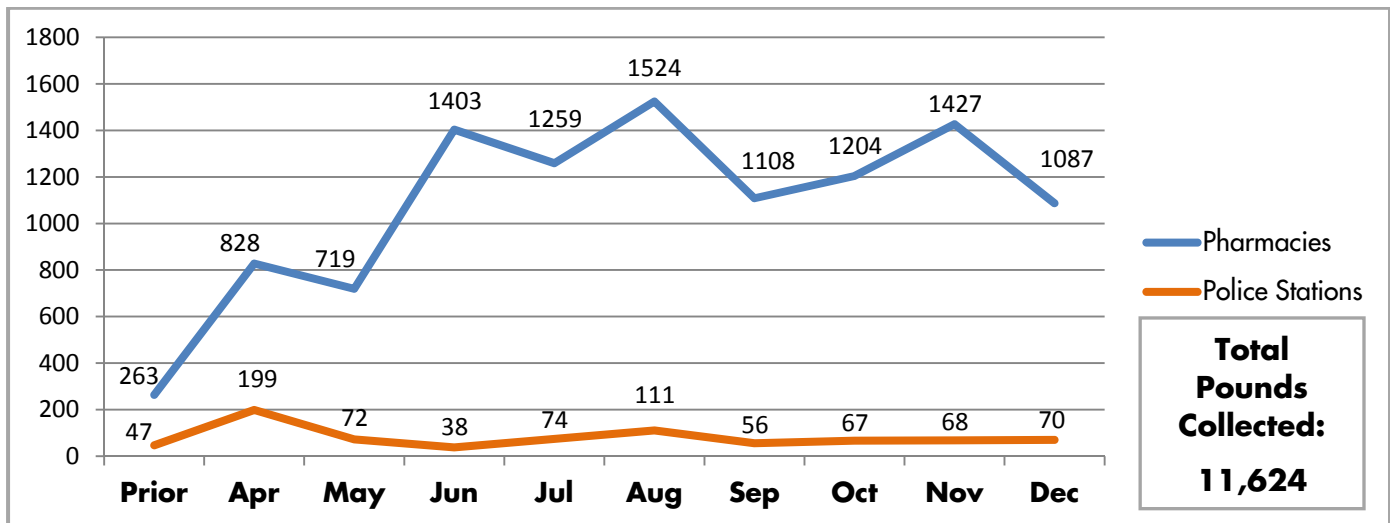
San Francisco's Safe Medicine Disposal Pilot Program is designed to build on lessons learned from previous efforts to provide secure disposal methods for home-generated expired or unwanted medicine. Following nine months of preparation and planning, San Francisco launched the Pilot Program in April 2012. 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. SFEEnvironment 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.



[The San Francisco Police Department's Property Room hosts and assists with the medicine waste characterization study]

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]



[SFEnvironment's senior center presentation]

| | | | | | |
|--|---|---|---|---|--|
| | <h3>Safe Medicine Disposal Locations</h3> | | | <h3>Safe Medicine Disposal Locations</h3> | |
| | <p>All drop-off sites accept these non-controlled substances: prescription medicines, over-the-counter medicines, vitamins, liquid medicines, empty inhaler cartridges, pet medicines and medicated ointments.</p> | | | <p>Only police stations accept controlled substances like: Vicodin®, OxyContin®, Percocet®, Ritalin®, Adderall®, Xanax®, and Valium®. They also accept all items accepted at the pharmacies.</p> | |
| <p>Central Drug Store 4494 Mission St. SF, CA 94112</p> <p>Charlie's Pharmacy 1101 Fillmore St. SF, CA 94115</p> <p>Clay Medical Pharmacy 929 Clay St. #103 SF, CA 94108</p> <p>Daniels Pharmacy 943 Geneva Ave. SF, CA 94112</p> <p>Four Fifty Sutter 450 Sutter St. #712 SF, CA 94108</p> | <p>Franklin Pharmacy 1508 Franklin St. SF, CA 94109</p> <p>Golden Gate Pharmacy 1844 Noriega St. SF, CA 94122</p> <p>Joe's Pharmacy 5199 Geary Blvd. SF, CA 94118</p> <p>Los Portales Pharmacy 2480 Mission St. #110 SF, CA 94110</p> | <p>MOMS Pharmacy 4071 18th St. SF, CA 94114</p> <p>Post Divisadero Medical Pharmacy 2299 Post St. SF, CA 94115</p> <p>Torgsyn Discount Pharmacy Inc. 5614 Geary Blvd. SF, CA 94121</p> <p>Visitacion Valley Pharmacy 100 Leland Ave. SF, CA 94134</p> | <p>Bayview Station 201 Williams St. SF, CA 94124</p> <p>Central Station 766 Vallejo St. SF, CA 94133</p> <p>Ingleside Station 1 John V. Young Ln. SF, CA 94112</p> <p>Mission Station 630 Valencia St. SF, CA 94110</p> | <p>Northern Station 1125 Fillmore St. SF, CA 94115</p> <p>Park Station 1899 Waller St. SF, CA 94117</p> <p>Richmond Station 461 6th Ave. SF, CA 94118</p> <p>Southern Station 850 Bryant St. SF, CA 94103</p> | <p>Taraval Station 2345 - 24th Ave. SF, CA 94116</p> <p>Tenderloin Station 301 Eddy St. SF, CA 94102</p> |
| <p>SFEnvironment.org • (415) 355-3700 *Valid on 1825 post-consumer recycled paper.</p> | | | <p>SFEnvironment.org • (415) 355-3700 *Valid on 1825 post-consumer recycled paper.</p> | | |

[SFEnvironment's large-font factsheet is distributed at senior center presentations]

Pilot Program Start-Up Costs:

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

Pilot Program Operating Costs through 2012:

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

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:

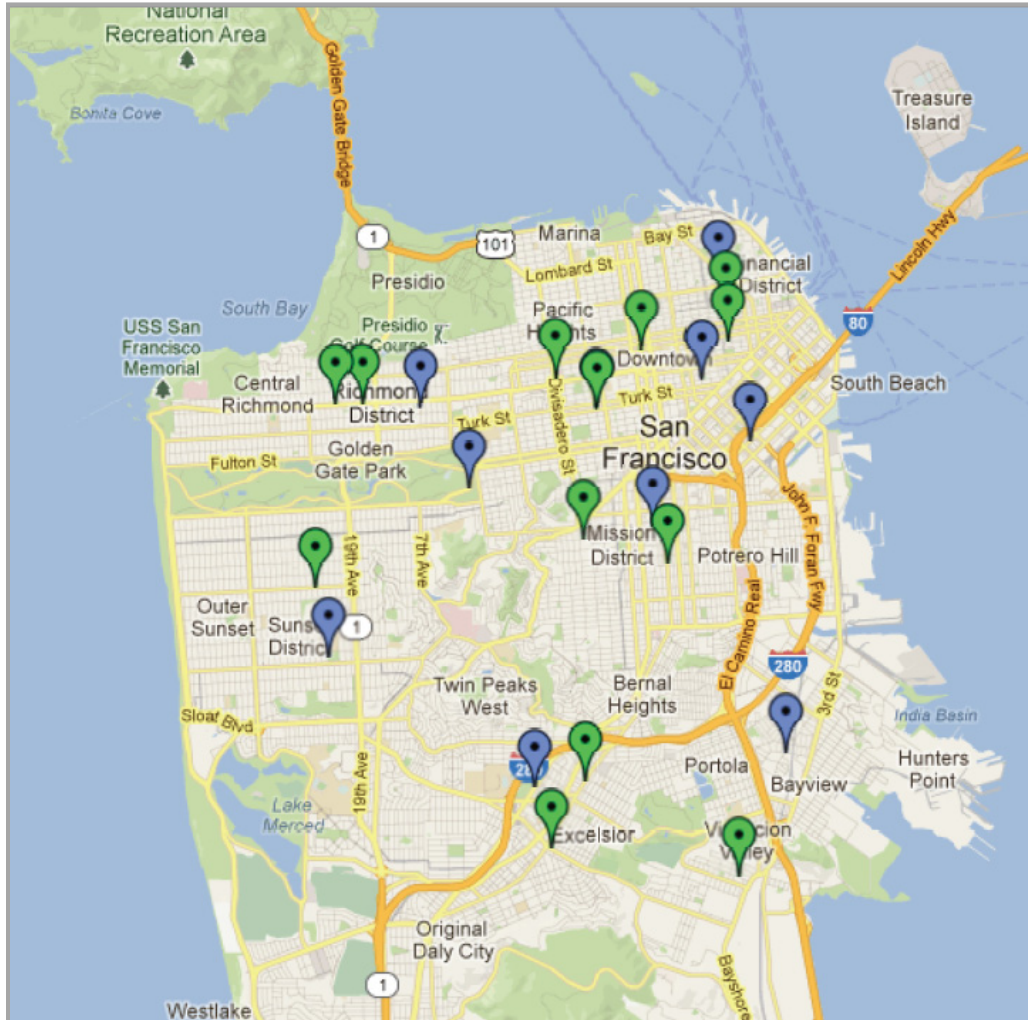
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| Annual budget | \$248,247 |
| Percentage City and County of San Francisco staff time | 83% |
| Collection and disposal of non-controlled substances at 15 locations | \$35,400 |
| Outreach materials | \$6,050 |
| 828 hours SFPD controlled substances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

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]

1 [Environment Code - Safe Drug Disposal Information]

2

3 **Ordinance amending the San Francisco Environment Code by adding Sections 2250**
4 **through 2254, to require any business selling prescription drugs to the public to post**
5 **display materials explaining how to safely and lawfully dispose of unused prescription**
6 **drugs, and making environmental findings.**

7 NOTE: Additions are *single-underline italics Times New Roman*;
8 deletions are ~~*strike-through italics Times New Roman*~~.
9 Board amendment additions are double-underlined;
Board amendment deletions are ~~strikethrough-normal~~.

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

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

13

14 **SEC. 2250. SHORT TITLE.**

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

16

17 **SEC. 2251. DEFINITIONS.**

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

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

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

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

25 *(d) "Display materials" means signs, posters or other similar informational materials.*

1 (e) "Prescription drug" means any drug that by federal or state law may be dispensed lawfully
2 only on prescription.

3
4 **SEC. 2252. INFORMATION REQUIRED AT POINT OF SALE.**

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

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

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

19
20 **SEC. 2253. IMPLEMENTATION.**

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

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

25
Supervisor Mirkarimi
BOARD OF SUPERVISORS

Page 2
1/11/2011

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[Attachment 2: The Safe Drug Disposal Information Ordinance (continued)]

1 **SEC. 2254. ENFORCEMENT.**

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

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

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

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

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

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

17 (d) Except as provided in subsection (c), setting forth the amount of administrative fines,
18 Administrative Code Chapter 100, "Procedures Governing the Imposition of Administrative Fines," as
19 may be amended from time to time, is hereby incorporated in its entirety and shall govern the
20 imposition, enforcement, collection, and review of administrative citations issued by the City
21 Administrator to enforce this Chapter or any regulation issued under this Chapter. Violation of this
22 Chapter is not a misdemeanor, and the Board of Supervisors intends that the requirements of this
23 Chapter be enforced only through administrative fines as provided in this Section.

1 (e) For purposes of this Chapter, each week that a business sells or offers to sell prescription
2 drugs to the public contrary to the provisions of this Chapter or any regulation issued under this
3 Chapter shall constitute a separate violation.

4
5 **Section 2. General Provisions.**

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

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

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

21 / / /

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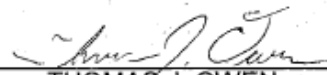
Supervisor Mirkarimi
BOARD OF SUPERVISORS

[Attachment 2: The Safe Drug Disposal Information Ordinance (continued)]

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(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. 110025 and is incorporated herein by reference.

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

By: 
THOMAS J. OWEN
Deputy City Attorney

SAFE MEDICINE DISPOSAL

藥物安全棄置

DISPOSICION SEGURA DE
LOS MEDICAMENTOS

To find sites in San Francisco:

尋找位於舊金山的地點:

Para encontrar sitios en San Francisco:

Please take one

SAFE MEDICINE DISPOSAL LOCATIONS

可在此處安全棄置藥物

DISPOSICION SEGURA DE LOS MEDICAMENTOS AQUI



Pharmacies*

Central Drug Store
4494 Mission St.
San Francisco, CA 94112

Charlie's Pharmacy
1101 Fillmore St.
San Francisco, CA 94115

Clay Medical Pharmacy
929 Clay St. #103
San Francisco, CA 94108

Daniels Pharmacy
943 Geneva Ave.
San Francisco, CA 94112

Four Fifty Sutter Pharmacy
450 Sutter St. #712
San Francisco, CA 94108

Franklin Pharmacy
1508 Franklin St.
San Francisco, CA 94109

Golden Gate Pharmacy
1844 Noriega St.
San Francisco, CA 94122

Joe's Pharmacy
5199 Geary Blvd.
San Francisco, CA 94118

Los Portales Pharmacy
2480 Mission Street
San Francisco, CA 94110

MOMS Pharmacy
4071 18th St.
San Francisco, CA 94114

**Post Divisadero Medical
Pharmacy**
2299 Post St.
San Francisco, CA 94115

**Torgsyn Discount
Pharmacy Inc**
5614 Geary Blvd.
San Francisco, CA 94121

**Visitacion Valley
Pharmacy**
100 Leland Ave.
San Francisco, CA 94134



Police Stations

All San Francisco police stations collect unused medicine.

Find your nearest police station by calling 311 or visit our website,
sfenvironment.org/recyclewhere

*Controlled substances are only accepted at Police Stations.

SFEnvironment.org/recyclewhere (415) 355-3700



sfenvironment.org/recyclewhere
(415) 355-3700

San Francisco residents only.

必須是三藩市居民。

Para los residentes de San Francisco solamente.

Controlled substances are only accepted at police stations.

受控藥物只接受在指定的警察局。

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



Printed on 100% post-consumer recycled paper.

04/12

[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

藥物可在此處安全棄置

DEPOSITE SUS
MEDICAMENTOS AQUI



To find more sites in San Francisco:

尋找更多位於舊金山的地點:

Para encontrar más sitios en San Francisco:



sfenvironment.org/recyclewhere
(415) 355-3700

San Francisco residents only.

必須是三藩市居民。

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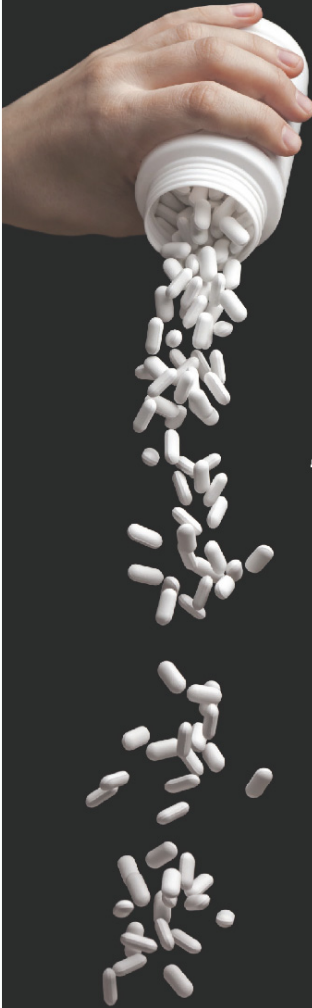
Se aceptan sustancias controladas en la delegación de policía de SF solamente.



Printed on 100% post-consumer recycled paper.

04/12

[Attachment 4: Safe Drug Disposal Information Ordinance display materials for participating pharmacies.
This poster display hangs in the window or entryway of each business.]



DISPOSE OF UNUSED MEDICINE HERE

請把未使用的醫藥放在這裡

ДЛЯ СБОРА НЕИСПОЛЬЗОВАННЫХ
И НЕНУЖНЫХ ЛЕКАРСТВ И
ЛЕКАРСТВЕННЫХ СРЕДСТВ



SF residents only. No business waste.
限三藩市居民。不收商業廢棄物。
Только для жителей Сан-Франциско!
Не для коммерческих отходов!



7/12

[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.]