

1 [Plumbing Code - Graywater.]
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3 **Ordinance amending the San Francisco Plumbing Code Sections 1601A.0, 1602A.0,**
 4 **1603A.0, 1603A1.1, 1603A.1.2, 1604A.0, 1605A.0, 1612A.0, and Table 1603A.1.4**
 5 **concerning graywater, adopting findings of local conditions pursuant to California**
 6 **Health and Safety Code Section 17958.7 and directing the Clerk of the Board of**
 7 **Supervisors to forward San Francisco's amendments and findings to the California**
 8 **Building Standards Commission, making environmental findings.**

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

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

13 Section 1. Environmental Findings.

14 Section 2. Findings about BSC.

15 Section 3. Findings regarding Local Conditions and Directions to the Clerk

16 Section 4. The San Francisco Plumbing Code is hereby amended by amending
 17 Sections 1601A.0, 1602A.0, 1603A.0, 1603A1.1, 1603A.1.2, 1604A.0, 1605A.0, 1612A.0, and
 18 Table 1603A.1.4 to read as follows:

19 **Sec. 1601A.0 Graywater Systems – General.**

20 (A) The provisions of this part shall apply to the construction, alteration, discharge,
 21 use, and repair of graywater systems. The graywater system shall not be connected to any
 22 potable water system without an air gap ~~or other physical device~~ which prevents backflow and
 23 shall not cause the ponding or runoff of graywater. A city, county, or city and county or other
 24 local government may, after a public hearing and enactment of an ordinance or resolution,
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1 further restrict or prohibit the use of graywater systems. For additional information, see Health
2 and Safety Code Section 18941.7.

3 (B) The type of system shall be determined by the location, discharge capacity, soil
4 type, and ground water level. The system shall be designed to handle graywater discharged
5 from the building and may include tank(s) and other appurtenances necessary to ensure
6 proper function of the system.

7 (C) No graywater system or part thereof shall be located on any lot other than the lot
8 that is the site of the building or structure that discharges the graywater, nor shall any
9 graywater system or part thereof be located at any point having less than the minimum
10 distances indicated in Table 16A-1.

11 ~~Exception: When there exists a lawfully recorded perpetual and exclusive covenant to an~~
12 ~~easement appurtenant and right of way between adjoining land owners of two or more~~
13 ~~contiguous lots to discharge graywater from one lot to an adjoining lot.~~

14 (D) No construction permit for any graywater system shall be issued until a plot plan
15 with appropriate data satisfactory to the Enforcing Agency has been submitted and approved.
16 When there is insufficient lot area or inappropriate soil conditions to prevent the ponding or
17 runoff of the graywater, as determined by the Enforcing Agency, no graywater system shall be
18 allowed.

19 ~~Exception: A construction permit shall not be required for a graywater system supplied by a~~
20 ~~clothes washer system and/or a single fixture system in compliance with the requirements of~~
21 ~~Section 1603A.1.1.~~

22 (E) All graywater systems shall be designed to allow the user to direct the flow to
23 either the irrigation or disposal field or the building sewer. The means of changing the
24 direction of the graywater shall be clearly labeled and readily accessible to the user.

1 (F) Water used to wash diapers or similarly soiled or infectious garments or other
2 prohibited contents shall be diverted by the user to the building sewer.

3 (G) Graywater shall not be used in spray irrigation, allowed to pond or runoff and shall
4 not be discharged directly into or reach any storm sewer system or any surface body of water.

5 (H) Human contact with graywater or the soil irrigated by graywater shall be minimized
6 and avoided, except as required to maintain the graywater system. The discharge point of
7 any graywater irrigation or disposal field shall be covered by at least (2) inches (51 mm) of
8 mulch, rock, or soil, or a solid shield to minimize the possibility of human contact.

9 (I) Graywater shall not be used to irrigate root crops or edible parts of food crops that
10 touch the soil.

11 (J) No permit shall be issued for a graywater system on any property in a geologically sensitive
12 area as determined by the Authority Having Jurisdiction.

13 **SEC. 1602A.0 Definitions.**

14 **Clothes Washer System.** A graywater system utilizing only a single domestic clothes
15 washing machine in a one- or two-family dwelling.

16 **Complex System.** Graywater systems that discharge over 250 gallons (947 L) per day.

17 **Disposal Field.** An intended destination for graywater including but not limited to a mulch
18 basin or receiving landscape feature, graywater leach field, or other approved method of
19 disposal.

20 **Graywater.** Pursuant to Health and Safety Code Section 17922.12, "graywater" means
21 untreated wastewater that has not been contaminated by any toilet discharge, has not been
22 affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a
23 threat from contamination by unhealthful processing, manufacturing, or operating wastes.

24 "Graywater" includes but is not limited to wastewater from bathtubs, showers, bathroom
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1 washbasins, clothes washing machines, and laundry tubs, but does not include wastewater
2 from kitchen sinks or dishwashers.

3 **Graywater System.** A system designed to collect graywater and transport it out of the
4 structure for distribution in an Irrigation or Disposal Field. A graywater system may include
5 tanks, valves, filters, pumps or other appurtenances along with piping and receiving
6 landscape.

7 **Irrigation Field.** An intended destination for graywater in the receiving landscape including
8 but not limited to a drip irrigation system, mulch basin, or other approved method of dispersal
9 for irrigation purposes.

10 **Mulch.** Organic waste material including but not limited to leaves, prunings, straw, pulled
11 weeds and wood chips. Mulch shall be permeable enough to allow rapid infiltration of
12 graywater.

13 **Mulch Basin.** A type of irrigation or disposal field filled with mulch or other approved
14 permeable material of sufficient depth, length and width to prevent ponding or runoff. A mulch
15 basin may include a basin around a tree, a trough along a row of plants or other shapes
16 necessary for irrigation or disposal.

17 **Receiving Landscape.** Includes features such as soil, basins, swales, mulch, and plants.

18 **Simple System.** A graywater system serving a one- or two-family dwelling with a discharge of
19 250 gallons (947 L) per day or less. Simple systems exceed a clothes washer system and/or a
20 single fixture system.

21 **Single Fixture System.** A graywater system collecting graywater from one plumbing fixture
22 ~~or a single drain which collects graywater from more than one fixture in a one- or two-family dwelling.~~

23 **Treated Graywater.** Nonpotable water collected and treated on-site suitable for direct
24 beneficial use.

25 **SEC. 1603A.1 System Requirements.**

1 SEC. 1603A.1.1 Clothes Washer System and/or Single Fixture System. A clothes
2 washer system and/or a single fixture system *shall be* in compliance with all of the following
3 *is exempt from the construction permit specified in Section 108.4.1 and may be installed or altered*
4 *without a construction permit:*

5 1. ~~If required, notification has been~~ Notification shall be provided to the Enforcing Agency
6 regarding the proposed location and installation of a graywater irrigation or disposal system.

7 Note: A city, county, or city and county or other local government may, after a public
8 hearing and enactment of an ordinance or resolution, further restrict or prohibit the use
9 of graywater systems. For additional information, see Health and Safety Code Section
10 18941.7.

11 2. The design shall allow the user to direct the flow to the irrigation or disposal field or the
12 building sewer. The direction control of the graywater shall be clearly labeled and readily
13 accessible to the user.

14 3. The installation, change, alteration or repair of the system does not include a potable
15 water connection or a pump and does not affect other building, plumbing, electrical or
16 mechanical components including structural features, egress, fire-life safety, sanitation,
17 potable water supply piping or accessibility.

18 4. The graywater shall be contained on the site where it is generated.

19 5. Graywater shall be directed to and contained within an irrigation or disposal field.

20 6. Ponding or runoff is prohibited and shall be considered a nuisance.

21 7. Graywater may be released above the ground surface provided at least two (2) inches (51
22 mm) of mulch, rock, or soil, or a solid shield covers the release point. Other methods which
23 provide equivalent separation are also acceptable.

24 8. Graywater systems shall be designed to minimize contact with humans and domestic
25 pets.

1 9. Water used to wash diapers or similarly soiled or infectious garments shall not be used
2 and shall be diverted to the building sewer.

3 10. Graywater shall not contain hazardous chemicals derived from activities such as
4 cleaning car parts, washing greasy or oily rags, or disposing of waste solutions from home
5 photo labs or similar hobbyist or home occupational activities.

6 11. ~~Exemption from construction permit requirements of this code shall not be deemed to grant
7 authorization for any graywater system to be installed in a manner that violates other provisions of
8 this code or any other laws or ordinances of the Enforcing Agency.~~

9 ~~12.~~ An operation and maintenance manual shall be provided. Directions shall indicate the
10 manual is to remain with the building throughout the life of the system and indicate that upon
11 change of ownership or occupancy, the new owner or tenant shall be notified the structure
12 contains a graywater system.

13 SEC. 1603A.1.2 **Simple System.** Simple systems exceed a clothes washer system

14 and/or a single fixture system and shall comply with the following:

15 1. The discharge capacity of a graywater system shall be determined by Section 1606A.0.

16 Simple systems have a discharge capacity of 250 gallons (947 L) per day or less.

17 2. Simple systems shall require a construction permit, ~~unless exempted from a construction permit
18 by the Enforcing Agency. The Enforcing Agency shall consult with any public water system (as defined
19 in Health and Safety Code, Section 116275) providing drinking water to the dwelling before allowing
20 and exemption from a construction permit.~~

21 3. The design of simple systems shall be acceptable to the Enforcing Agency and shall meet
22 generally accepted graywater system design criteria.

1 Table 1603A.1.4 – Construction Permit Requirements

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Type of System	Permit Requirements
<p>4 Clothes Washer</p> <p>5 System and/or a</p> <p>6 Single Fixture</p> <p>7 System</p>	<p><i>No construction permit required if conditions in Section 1603A.1.1 are met. <u>Permit and plans are required, and all conditions in Section 1603A.1.1 shall be met.</u></i></p>
<p>8 Simple System</p>	<p>9 Permit and plans required unless exempted by</p> <p>10 Enforcing Agency.</p>
<p>11 Complex System</p>	<p>12 Permit and plans required unless exempted by</p> <p>13 Enforcing Agency.</p>
<p>14 Treated Graywater</p>	<p>15 Permit and plans required unless exempted by</p> <p>16 Enforcing Agency.</p>

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19 **SEC. 1604A.0 Drawings and Specifications.**

20 Graywater systems ~~for which a construction permit is required~~ may shall be subject to submittal of

21 plans and details of the proposed graywater system necessary to ensure compliance with the

22 requirements of this chapter. Identification of the groundwater level and soil absorption

23 qualities at the site shall be included in the plans or provided to the Enforcing Agency.

24 **SEC. 1605A.0 Inspection and Testing.**

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1 (A) Inspection. A graywater system ~~for which a construction permit is required~~ shall be
2 subject to inspection by the Enforcing Agency and such construction or work shall remain
3 accessible and exposed for inspection purposes until approved.

4 At the time of final inspection, an operation and maintenance manual shall be provided.
5 Directions shall indicate the manual is to remain with the building throughout the life of the
6 system and upon change of ownership, the new owner shall be notified the structure contains
7 a graywater system.

8 (B) Testing.

9 (1) Tanks shall be filled with water to the overflow line prior to and during inspection. Seams
10 and joints shall be left exposed, and the tank shall remain watertight.

11 (2) A flow test shall be performed through the system to the point of graywater irrigation or
12 disposal. Lines and components shall be watertight.

13 **SEC. 1612A.0 Special Provisions.**

14 (A) Other collection and distribution systems shall be permitted by the local Enforcing
15 Agency, as allowed by Section 108.7 of this code.

16 (B) Nothing contained in this chapter shall be construed to prevent a city, county, or
17 city and county or other local government from, after a public hearing and enactment of an
18 ordinance or resolution, further restricting or prohibiting the use of graywater systems. For
19 additional information, see Health and Safety Code Section 18941.7.

20 (C) Graywater stub-out plumbing may be allowed for future connection prior to the
21 installation of irrigation lines and landscaping. Stub-out shall be permanently marked
22 "GRAYWATER STUB-OUT, CAUTION ---UNSAFE WATER".

23 (D) Graywater drainage piping shall comply with all other requirements of the California
24 Plumbing Code for drainage systems.

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1 Section 5. Effective Date. Due to the emergency legislation amending the State
2 Plumbing Code and effective on August 4, 2009, these San Francisco Plumbing Code
3 amendments shall be applied to all Plumbing Code permit permits issued on or after the
4 effective date of this legislation.

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

8 By: _____
9 John D. Malamut
10 Deputy City Attorney