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October 13, 2009

Mr. Dave Walls
Building Standards Commission
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833

RE: PROPOSED EMERGENCY BUILDING STANDARDS

Dear Mr. Walls:

This is to provide you with comments regarding the proposed Emergency Building Standards and the Adoption of the new Code that became in effect as of August 8, 2009.

We are particularly impressed that you have swiftly taken action in effort to help the drought situation that we are experiencing in California. We are very appreciative of the fact that these standards will result in further conservation of our groundwater sources and will encourage property owners to take part in this endeavor.

Though, because of the concerns for protection of drinking water supplies, water quality, and due to the potential public health impacts, we believe that certain portion of these standards should be amended to ensure the safety of the usage of graywater for irrigation and/or disposal. We do have specific comments on the proposed Emergency Building Standards. These comments (attached) are submitted for your consideration. In addition, along with our comments I'm also including comments from our sister entity, Department of Public Works for your consideration.

We appreciate the opportunity to comment on the proposed standards and its adoption. Should you have any questions regarding the enclosed comments, please contact me at 626-430-5390 or write to pnejadian@ph.lacounty.gov.

Respectfully,

Patrick Nejadian, Chief REHS
Environmental Health, Land Use Program

Attachment



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COMMENTS REGARDING THE PROPOSED EMERGENCY BUILDING STANDARDS

Prepared by Los Angeles County Department of Public Health (DPH),
Land Use Program

DPH supports the idea intended through the referenced emergency building standards. We believe that due to the potential public health impacts, additional regulatory measures should be reinstated by amending certain sections, as follows:

1. Section 1601A.0; Exemption under Subsection (D) provides means for a typical property owner to utilize graywater for irrigation and/or disposal purposes without obtaining authorization from the Enforcing Agency. We believe that the design and construction of graywater systems require regulatory oversight to ensure proper operation and dispersal of graywater.
Section 1601A.0; Subsection (F) states that, "*Water used to wash diapers or similarly soiled or infectious garments or other prohibited contents shall be diverted by the user to the building sewer*". We foresee that the expectation that the property owners will go to the extent of designing the graywater systems with diverter valves to allow the graywater containing prohibited contents to drain into the building sewer and be mindful of switching the valve when such washes are performed is unrealistic.
Section 1601A.0; Subsection (G) states that, "*Graywater shall not be used in spray irrigation, allowed to pond or runoff and shall be discharged directly or reach any storm sewer system or any surface water system*". We are concerned that without regulatory oversight, systems designed by typical property owners will not be efficiently operated and consequently will not be maintained to prevent ponding and runoff of graywater.
Section 1601A.0; Subsection (H) states that, "...*The discharge point of any graywater irrigation or disposal fields shall be covered by at least (2) inches (51mm) of mulch, rock,*" We are concerned that (2) inches of covering materials, such as, mulch or similar material will not provide adequate protection to prevent human contact.
Section 1601A.0; Subsection (I) states that, "*Graywater shall not be used to irrigate root crops or edible parts of food crops that touch the soil*". We realize that this section requires that graywater not be used for vegetable gardens; there is no mechanism to ensure that this provision is understood by the property owners.

2. Section 1603A.1.1. As mentioned above, the design, construction and installation of graywater systems is complex and require regulatory oversight to prevent public health concerns that could result from faulty design and/or installation of such systems by typical property owner. Moreover, we note that the revisions stipulate that the property owners shall design, construct, install and maintain graywater systems in accordance with the conditions set forth under this section; without a permitting procedure, there is no practical way to ensure that this stipulation will be followed by the property owners.
3. Section 1604A.1 states that, "*Verification of ground water levels that exceed three (3) vertical feet (915 mm) below the deepest irrigation or disposal point of the proposed graywater system shall not be required*". We are concerned that this provision will compromise the protection of underlying drinking water supplies. In some cases, the seasonal groundwater for the area may not be known or due to drought conditions may be at lower level than it should.
4. Section 1608A; Subsection (C) states that, "*When a percolation test is required, no graywater system shall be permitted if the test shows the absorption capacity of the soil is unable to accommodate the intended discharge of the proposed graywater system*". This section refers to a test; however the section does not provide any perimeters for the acceptable percolation rates for the testing. Hence, the previously established boundary for the acceptable percolation capacity (0.83 gal./ft./day to 5.12 gal./ft./day) should be reinstated.
5. Table 16A-1 indicates that the minimum horizontal distance required from an onsite domestic water service line to irrigation field and dispersal field is 0 feet (0mm). It appears that the required distances may have been left out inadvertently. However, if the intent is to allow irrigation and dispersal fields to be located beside to onsite domestic water service lines, we contend that this could potentially create serious water contamination. Since some domestic water service lines operate under low head pressure, it become significantly important to maintain adequate distance from dispersal area to prevent back siphonage of graywater into the domestic water supply lines.

The amendment of abovementioned sections will better correspond to the premise of public health and the expected roles of Health Officer. Furthermore, in order for property owners to benefit from the use of these standards, they should bear the burden of demonstrating that utilization of graywater for irrigation or disposal purposes would be in manners that minimize the possibility of creating health risks associated with such waters.

COMMENTS AND SUGGESTED AMENDMENTS TO HCD'S CHAPTER 16A ENTITLED NONPOTABLE WATER REUSE SYSTEMS

Part I

Suggested amendments are shown as ~~double strike through~~ or **bold and double underlined**

Section 1601A.0(A)

Comment: Graywater should not surface, pond or runoff. Suggested amendment: add the word "surfacing."

The section should read as follows:

1601A.0 Graywater Systems – General.

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

Section 1601A.0(B)

Comment: The tank function is to hold graywater until it is needed for irrigation. For example, if the soil is saturated when the clothes washer is operating, release of the graywater could cause surfacing and even ponding above ground. Suggested amendment: Keep the requirement for tanks and provide avenue for alternate design without tanks.

The section should read as follows:

(B) *The type of system shall be determined by the location, discharge capacity, soil type, and ground water level. The system shall be designed to completely absorb all the ~~handle~~ graywater discharged from the building and ~~shall may~~ include tank(s) and other appurtenances necessary to ensure proper function of the system. A tank may not be provided if an approved alternate design is submitted to ensure that the system would not release the graywater when there is a possibility that the discharge could surface, pond or run off.*

Section 1601A.0(D)

Comment: Graywater should not surface, pond or runoff.

The section should read as follows:

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

Section 1601A.0(D)-Exception

Comment: How would a building department determine compliance? If the reasoning that the permit process is expensive and "burdensome" applies in this case, this same reasoning could also be applied to numerous areas of construction that are typically governed by permits. The permit will ensure that the system will be installed so as not to cause health/safety problems or concerns. Suggested amendment: delete exception.

OR:

If there is a desire to facilitate the permitting process and make it less expensive, a short list of the major requirements could be issued by the Enforcing Agency to the contractor and the inspector to shorten the inspection time, thus reducing the cost and, in turn, reducing the permit fee. This exemption should only apply to a very small system (clothes washer) and not to an entire house (see definition of single fixture system) as in larger systems there is a need to review the soils conditions to ensure that the discharge would not surface, pond or runoff.

The Exception should read as follows:

Exception: A Streamlined construction permit ~~may~~ ~~shall not be~~ issued ~~required~~ for a graywater system supplied by a clothes washer system ~~and/or a single fixture system~~ in compliance with the requirements of Section 1603A.1.1. A "streamlined" permit is an "over-the-counter permit" where a short list of the major requirements for such installation would be issued by the Enforcing Agency to the contractor and inspector to shorten the inspection time, thus reducing the permit fee.

Section 1601A.0(G)

Comment: Graywater should not surface, pond or runoff.

The section should read as follows:

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

Section 1601A.0(H)

Comment: To allow the discharge of a graywater systems to have only 2" cover (instead of model code 10") could represent a public health, nuisance and safety problems to occupants and surrounding property owners, as effluent could surface, especially when piping could be constructed above ground and covered with mulch (see subsection 7 of Section 1603A1.1). Suggested amendment: Change 2" to 9" (as provided for in Appendix G-A of the 2001 California Plumbing Code)

The section should read as follows:

(H) Human contact with graywater or the soil irrigated by graywater shall be minimized and avoided, except as required to maintain the graywater system. The discharge point of any graywater irrigation or disposal field shall be covered by at least ~~(2 9)~~ inches ~~(54 229)~~ mm) of mulch, rock, or soil, ~~or a solid shield~~ to minimize the possibility of human contact.

Section 1603A.0-Exception

Comment: How would a building department determine compliance? If the permit process is expensive and "burdensome", this concept could apply to numerous areas of construction that are typically governed by permits. The permit will ensure that the system will be installed so as not to cause health/safety problems or concerns. Suggested amendment: maintain model code language for the section and delete exception.

The section should read as follows:

1603A.0 Permit.

It shall be unlawful for any person to construct, install, or alter, or cause to be constructed, installed, or altered any gray water system in a building or on a premises without first obtaining a permit to do such work from the Enforcing Agency. ~~A written construction permit shall be obtained from the Enforcing Agency prior to the erection, construction, reconstruction, installation, relocation or alteration of any graywater system that requires a permit.~~

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

Section 1603A.1.1

Comment: An Enforcement Agency could not enforce any of the code requirements unless a permit is issued. Some may argue that a code enforcement program could correct violations. Several obstacles exist: funds are not usually available for such proactive code enforcement program, right-of-entry issues would not allow inspectors to enter backyards to inspect unless invited by the owner or tenant, etc. Suggested amendment: amend to require a "streamlined" or "over-the-counter" permit for smaller installations. Provide a checklist to the contractor at the time of issuance of the permit requiring simplified compliance without the need to submit plans or calculations. Provide the same checklist to the inspector to facilitate inspection and reduce inspection time. This would allow the Enforcing Agency to reduce the cost of inspection, thus possibly reducing the permit fee. A single fixture system was deleted as the definition indicates that it could be a single drain line serving the entire house. Without checking the capability of the soil to absorb the discharge from the house, graywater could surface, pond or runoff.

The section should read as follows:

1603A.1.1 Clothes Washer System and/or Single Fixture System. ~~A clothes washer system and/or a single fixture system in compliance with all of the following is exempt~~ **allowed to obtain a "streamlined" or "over-the-counter" permit from the construction permit specified in Section 1.8.4.1 and may be installed or altered without a construction permit:**

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

~~**Note:** A city, county, or city and county or other local government may, after a public hearing and enactment of an ordinance or resolution, further restrict or prohibit the use of graywater systems. For additional information, see Health and Safety Code Section 18041.7.~~

Plans are not required for permit issuance.

- The design shall allow the user to direct the flow to the irrigation or disposal field or the building sewer. The direction control of the graywater shall be clearly labeled and readily accessible to the user.
- The installation, change, alteration or repair of the system does not include a potable water connection or a pump and does not affect other building, plumbing, electrical or mechanical components including structural features, egress, fire-life safety, sanitation, potable water supply piping or accessibility.
- The graywater shall be contained on the site where it is generated.
- Graywater shall be directed to and contained within ~~an irrigation or a~~ disposal field.
 - Calculate number of occupants (Section 1606A.0(A)1).**
 - Assume "Clay with considerable sand"-type soil (Table 16-A-2).**
 - A minimum 12" wide and 17" deep irrigation field shall be constructed with 3" diameter perforated pipe with 9" minimum cover. The minimum length of the irrigation field shall be 13.5 feet/occupant. (Alternate irrigation field length based on a different type of soil may be submitted for approval at the time of permit issuance.)**
- Surfacing,** ponding or runoff is prohibited and shall be considered a nuisance.
- ~~Graywater may be released above the ground surface provided at least two (2) inches (51 mm) of mulch, rock, or soil, or a solid shield covers the release point. Other methods which provide equivalent separation are also acceptable.~~
- Graywater systems shall be designed to minimize contact with humans and domestic pets.
- Water used to wash diapers or similarly soiled or infectious garments shall not be used and shall be diverted to the building sewer.
- Graywater shall not contain hazardous chemicals derived from activities such as cleaning car parts, washing greasy or oily rags, or disposing of waste solutions from home photo labs or similar hobbyist or home occupational activities.
- ~~Exemption from construction permit requirements of this code shall not be deemed to grant authorization for any graywater system to be installed in a manner that violates other provisions of this code or any other laws or ordinances of the Enforcing Agency.~~
- An operation and maintenance manual shall be provided. Directions shall indicate the manual is to remain with the building throughout the life of the system and indicate that upon change of ownership or occupancy, the new owner or tenant shall be notified the structure contains a graywater system.

Renumber the section as appropriate.

Section 1603A.1.2 & .3

Comment: An Enforcement Agency could not enforce any of the code requirements unless a permit is issued.

The sections should read as follows:

1603A.1.2 Simple System. Simple systems exceed a clothes washer system ~~and/or a single fixture system~~ and shall comply with the following:

1. The discharge capacity of a graywater system shall be determined by Section 1606A.0. Simple systems have a discharge capacity of 250 gallons (947 L) per day or less.
2. Simple systems shall require a construction permit, ~~unless exempted from a construction permit by the Enforcing Agency. The Enforcing Agency shall consult with any public water system (as defined in Health and Safety Code, Section 116275) providing drinking water to the dwelling before allowing and exemption from a construction permit.~~
3. The design of simple systems shall be acceptable to the Enforcing Agency and shall meet generally accepted graywater system design criteria.

1603A.1.3 Complex System. Any graywater system that is not a clothes washer system, ~~single fixture system~~ or simple system shall comply with the following:

1. The discharge capacity of a graywater system shall be determined by Section 1606A.0. Complex systems have a discharge capacity over 250 gallons (947 L) per day.
2. Complex systems shall require a construction permit, ~~unless exempted from a construction permit by the Enforcing Agency. The Enforcing Agency shall consult with any public water system (as defined in Health and Safety Code, Section 116275) providing drinking water to the dwelling before allowing and exemption from a construction permit.~~
3. A complex system shall be designed by a person who can demonstrate competence to the satisfaction of the Enforcing Agency.

Table 1603A.1.4

Comment: An Enforcement Agency could not enforce any of the code requirements unless a permit is issued.

The table should read as follows:

Table 1603A.1.4 – Construction Permit Requirements

Type of System	Permit Requirements
Clothes Washer System and/or a Single Fixture System	<u>A Streamlined</u> No construction permit <u>is allowed</u> required if conditions in Section 1603A.1.1 are met.
Simple System	Permit and plans required unless exempted by Enforcing Agency.
Complex System	Permit and plans required unless exempted by Enforcing Agency.
Treated Graywater	Permit and plans required unless exempted by Enforcing Agency.

Section 1604A.1

Comment: The reasoning used to reduce clearance to ground water is: "The California State Water Resources Control Board (CSWRCB) is now in the process of developing regulations for on-site wastewater disposal systems (septic system). At this time, the proposed regulations call for three (3) feet separation to

high ground water. This requirement is less stringent than the model code graywater standard that requires five (5) feet separation to high ground water. This change was necessary to remove the conflict between the graywater standards and the CSWRCB's programs."

Before such change is implemented, we should ensure that CSWRC would go through with the change. The distance to groundwater is important to ensure that the effluent will be filtered before entering the ground water stream that could be used for drinking. If the soil is of a type that allows the effluent to pass through quickly (sandy soil) the effluent will not have sufficient time/filtration to rid it from contaminants. Therefore, it is possible for CSWRCB to maintain the 5' requirement. Suggested Amendments: Change 3' to 5'.

The section should read as follows:

1604A.1 Groundwater Depth. Verification of ground water levels which exceed ~~five three (3 5)~~ vertical feet (~~945 1524~~ mm) from the deepest irrigation or disposal point of the proposed graywater system shall not be required.

Note: The absence of groundwater in a test hole ~~three five (3 5)~~ vertical feet (~~945 1524~~ mm) below the deepest irrigation or disposal point shall be sufficient to satisfy this section unless seasonal high groundwater levels have been documented to rise to within this area.

Section 1607A.0

Comment: Graywater should not be discharged within 5' of ground water. See previous comment.

The section should read as follows:

1607A.0 Required Area of Subsurface Irrigation or Disposal Fields Irrigation or disposal fields may have one or more valved zones. Each zone must be of adequate size to receive the graywater anticipated in that zone. No irrigation or disposal field shall extend within ~~three five (3 5)~~ vertical feet (~~945 1524~~ mm) of the highest known seasonal groundwater, or to a depth where graywater contaminates the groundwater, ocean water or surface water. The applicant shall supply evidence of groundwater depth to the satisfaction of the Enforcing Agency.

Note: The absence of groundwater in a test hole ~~three five (3 5)~~ vertical feet (~~945 1524~~ mm) below the deepest irrigation or disposal point shall be sufficient to satisfy this section unless seasonal high groundwater levels have been documented to rise to within this area.

Section 1608A.0 (C)

Comment: The amendment has very general language and does not provide for specific limitations on soil absorption levels. The stricken model code language not only specifies the minimum absorption levels of a soil so as effluent will not surface, but also specifies the maximum absorption levels (sandy soil) to ensure that effluent will have sufficient time and is filtered to an adequate level before it reaches ground water. Suggested amendment: keep model code language.

The section should read as follows:

(C) When a percolation test is required, no graywater system shall be permitted if the test shows the absorption capacity of the soil is less than eighty-three hundredths (0.83) of a gallon per square foot (33.8 L/m²) or more than five and twelve-hundredths (5.12) of a gallon per square foot (208.5 L/m²) of leaching area per twenty-four (24) hours ~~unable to accommodate the intended discharge of the proposed graywater system.~~

Exception: The Enforcing Agency may waive the requirement for percolation tests based on knowledge of local conditions or accept other testing methods.

Section 1611A.1

Comment: Graywater should not surface, pond or runoff.

The section should read as follows:

1611A.1 Mulch Basin A mulch basin may be used as an irrigation or disposal field. Mulch basins shall be sized in accordance with Table 16A-2 and of sufficient depth, length and width to prevent surfacing, ponding or runoff during the graywater surge of a clothes washer, bathtub or shower. Mulch must be replenished as required due to decomposition of organic matter. Mulch basins will require periodic maintenance, reshaping or removal of dirt to maintain surge capacity and to accommodate plant growth and prevent surfacing, ponding or runoff,

Section 1611A.2

Comment: The word "approved" should be inserted in this section to ensure that the Enforcement Agency will be allowed to review and approve the alternate. Also, subsection (5) is to be changed to require 9 inches of cover.

The section should read as follows:

1611A.2 Irrigation Field. The provisions of this section are not intended to prevent the use of any appropriate material, appliance, installation, device, design or method of construction. If an approved alternate design is not available, the following provisions may be used as guidance in the design of a graywater irrigation field:

The remainder of the section should remain the same except for subsection (5) to read as follows:

(5) All drip irrigation supply lines shall be polyethylene tubing or PVC Class 200 pipe or better and Schedule 40 fittings. All joints shall be properly solvent-cemented, inspected and pressure tested at 40 psi (276 kPa), and shown to be drip tight for five minutes, before burial. All supply piping shall be covered to a minimum depth of two (2 9) inches (~~54~~ 229 mm) of mulch or soil. Drip feeder lines can be poly or flexible PVC tubing and shall be covered to a minimum depth of two (2 9) inches (~~54~~ 229 mm) of mulch or soil.

Section 1611A.3

Comment: The word "approved" should be inserted in this section to ensure that the Enforcement Agency will be allowed to review and approve the alternate.

The section should read as follows:

1611A.3 Disposal Field. The provisions of this section are not intended to prevent the use of any appropriate material, appliance, installation, device, design or method of construction. If an approved alternate design is not available the following provisions may be used as guidance in the design of a graywater disposal field: (The remainder of the section to remain the same)

Section 1611A.3 (C)

Comment: Depth of earth cover of lines should be maintained at 9". See comment for Section 1601A.0 (H) above.

The section should read as follows:

(C) Disposal fields shall be constructed as follows:

(See chart below)

	Minimum	Maximum
Number of drain lines per valved zone ¹	1	—
Length of each perforated line ¹	—	100 ft. (30,840 mm)
Bottom width of trench ¹	12 in. (305 mm)	24 in. (610 mm)
Spacing of lines, center to center ¹	4 ft. (1219 mm)	—
Depth of earth cover of lines	2 in. (51 mm) 9" (230 mm)	—
Depth of filter material cover of lines	2 in. (51 mm)	—
Depth of filter material beneath lines ¹	3 in. (76 mm)	—
Grade of perforated lines	level	3 in./100 ft. (2 mm/m)

¹Manufactured leaching chambers shall be installed in compliance with the manufacturer's installation instructions.

Table 16A-1

Comment: Justification should be provided for reducing the distance between irrigation fields and private property lines from 5' to 1.5'.

Also, justification should be provided for reducing distance between irrigation and disposal fields to onsite domestic water lines from 5' to 0'.

Otherwise, model code distances should be maintained.

In addition, the proposed amendment reverses the model code language defining building structures as that including porches, steps... etc. The proposal indicates that building structures does not include any of these mentioned under note #1. Justification should be provided or model code language should be maintained.

The Table should read as follows:

Table 16A -1 Location of Graywater System

Minimum Horizontal Distance Required From:	Tank	Irrigation Field	Disposal Field
	Feet/mm	Feet/mm	Feet/mm
Building structures ¹	5 (1,524 mm) ²	2 (610 mm)	5 (1,524 mm)
Property line adjoining private property	5 (1,524 mm)	1.5 feet (458 mm) 5 (1,524 mm)	5 (1,524 mm)
Water supply wells ³	50 (15,240 mm)	100 (30,480 mm)	100 (30,480 mm)
Streams and lakes ³	50 (15,240 mm)	100 (30,480 mm) ^{4,5}	100 (30,480 mm) ⁴
Sewage pits or cesspools	5 (1,524 mm)	5 (1,524 mm)	5 (1,524 mm)
Sewage disposal field	5 (1,524 mm)	4 (1,219 mm) ⁶	4 (1,219 mm) ⁶
Septic tank	0 (0)	5 (1,524 mm)	5 (1,524 mm)
Onsite domestic water service line	5 (1,524 mm)	0 (0 mm) 5 (1,524 mm)	0 (0 mm) 5 (1,524 mm)
Pressurized public water main	10 (3,048 mm)	10 (3,048 mm) ⁷	10 (3,048 mm) ⁷

¹ Building structures ~~does not~~ include porches and steps, whether covered or uncovered, breezeways, roofed porte cocheres, roofed patios, carports, covered walks, covered driveways, and similar structures or appurtenances.

² Underground tanks shall not be located within a 45 degree angle from the bottom of the foundation, or they shall be designed to address the surcharge imposed by the structure. The distance may be reduced to six (6) inches (153 mm) for aboveground tanks when first approved by the Enforcing Agency.

³ Where special hazards are involved, the distance required shall be increased as directed by the Enforcing Agency.

⁴ These minimum clear horizontal distances shall also apply between the irrigation or disposal field and the ocean mean higher high tide line.

⁵ The minimum horizontal distances may be reduced to 50 feet (15,240 mm) for irrigation fields utilizing graywater which has been filtered prior to entering distribution piping.

⁶ Plus two (2) feet (610 mm) for each additional foot of depth in excess of one (1) foot (305 mm) below the bottom of the drain line.

⁷ For parallel construction or crossings, approval by the Enforcing Agency shall be required.

Section 1612A.1

This comment and suggested change would also apply to Part II (Recycled Water) of Chapter 16A proposed by the California Department of Water Resources:

Background:

When Appendix "J" (Reclaimed Water) was first incorporated in the California Code, the definition of reclaimed water was that which is produced by a public agency. The quality of water was specified to meet tertiary treated standards in California at the time. The requirement for a public agency to produce the reclaimed water was to ensure the continued quality of water, upon which the allowance for indoor use is dependent.

This section allows the use of Graywater if treated to a disinfected tertiary state, but allows on-site water treatment systems. To ensure the continued discharge quality that would meet the California standards for tertiary water, it is proposed that an annual test be performed on the discharge of the on-site plant by a certified laboratory with the results submitted to the Enforcement Agency to certify the quality of the discharge.

For clarification purposes, an item is added to require that the installation must comply with all the provisions of Part II of the chapter.

The section should read as follows:

1612A.1 Indoor Use of Graywater. [HCD 1]

Graywater shall not be allowed for indoor use, such as flushing toilets and urinals, unless treated by an on-site water treatment system approved by the Enforcing Agency. For the purposes of this section, graywater treated by an on-site water treatment system shall be considered "Treated Graywater" and shall comply with Part II of this chapter and all of the following:

- (1) The treated graywater shall have a separate tank sized to minimize the length of time it is retained.
- (2) A maintenance and operation manual for the treatment system shall be kept at the location of the system.
- (3) The owner of the premise shall be responsible to submit an annual report to the Enforcement Agency prepared by an approved certified laboratory showing that testing has been performed on the on-site water treatment system and that the quality of the discharge is within the parameters of the State's disinfected tertiary recycled water quality.
- (4) The installation shall comply fully with all the requirements of Part II of this chapter, including testing, inspection and signage requirements, when applicable.

Fady Mattar, PE, CBO
8/15/2009
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