

**INITIAL EXPRESS TERMS
FOR
PROPOSED BUILDING STANDARDS
OF THE
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
REGARDING THE AMENDMENT OF THE
2016 CALIFORNIA PLUMBING CODE
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 5
(HCD XXX)**

The Department of Housing and Community Development (HCD) proposes to make necessary changes to be included into the 2016 edition of the California Plumbing Code (CPC) as presented on the following pages, including any necessary amendments.

LEGEND FOR EXPRESS TERMS:

1. **UPC language with new California amendments:** UPC language shown in normal Arial 9 point; California amendments to UPC text shown *underlined and in italics* with vertical bar in left margin.
 2. **Existing California amendments being modified:** All such existing language shown in *italics*, modified language is *underlined* or shown in ~~strikeout~~ with vertical bar in left margin.
 3. **Existing California amendments with no modification:** All such existing language shown in *italics*, modified model code language is shown in ~~strikeout~~.
 4. **Text not being modified:** All language not displayed in full is shown as “...” (i.e., ellipsis).
 5. **Repealed text:** All language shown in ~~strikeout~~.
 6. **Notation:** Authority and Reference citations are provided at the end of each action.
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1. HCD proposes to amend Chapter 2 as follows:

CHAPTER 2 DEFINITIONS

203.0

Alternate water source. Nonpotable source of water that includes but is not limited to gray water, on-site treated nonpotable ~~gray~~ water, rainwater, and reclaimed (recycled) water.

205.0

Construction site. A parcel of land bounded by lot line(s) or a designated portion of a public right-of-way where construction is taking place. A site development shall include, but not be limited to, buildings and accessory structures, walks, sidewalks, curbs, curb ramps, parking facilities, planting areas, pools, promenades, exterior gathering or assembly areas, raised or depressed paved areas, open spaces, golf courses, landscape areas.

For the purposes of Section 1503, when a recycled water supply pipe is located within 1000 feet from a construction site, it shall be considered that recycled water is available from a municipal source to the construction site.

NOTE: A residential development which includes more than one single family dwelling shall be considered a construction site, not the single lots alone.

206.0

Disinfected Tertiary Recycled Water. Filtered and subsequently disinfected wastewater that meets the approved method of treatment and minimum level of water quality specified in California Code of Regulations, Title 22, Division 4, Chapter 3 for the purpose of direct beneficial use.

220.0

Reclaimed (Recycled) Water. (HCD 1) Nonpotable water that meets California Department of Public Health State Water Resources Control Board statewide uniform criteria for disinfected tertiary recycled water. Reclaimed (recycled) water is also known as “recycled water” or “reclaimed water”.

Recycled Water Supply System. The building supply pipe, the water distribution pipes, and the necessary connecting pipes, fittings, control valves, backflow prevention devices, and all appurtenances carrying or supplying municipal recycled water in or adjacent to the building or premises.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17921, 17921.5, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1, and Water Code Section 14877.3, 13552.2, 13552.4, 13553.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

2. HCD proposes to amend Chapter 6 as follows:

CHAPTER 6 WATER SUPPLY AND DISTRIBUTION

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601.2 Hot and Cold Water Required. Except where not deemed necessary for safety or sanitation by the Authority Having Jurisdiction, each plumbing fixture shall be provided with an adequate supply of potable running water piped thereto in an approved manner, so arranged as to flush and keep it in a clean and sanitary condition without danger

of backflow or cross-connection. Water closets and urinals shall be flushed by means of an approved flush tank or flushometer valve.

Exceptions:

1. Listed fixtures that do not require water for their operation and are not connected to the water supply.
2. **(HCD 1 & HCD 2)** For limited-density owner-built rural dwellings, potable water shall be available to the dwelling site, although such water need not be pressurized. Where water is not piped from a well, spring, cistern or other source, there shall be a minimum reserve of 50 gallons (189 L) of potable water available. Where water delivery is pressurized, piping shall be installed in accordance with the provisions of this chapter.
3. **(HCD 1 & HCD 2)** Recycled ~~may be allowed as specified in Chapter 16A Part II and on-site treated nonpotable gray water as specified in Chapter 15, Section 1504 of this code.~~
3. **(HCD 1 & HCD 2)** Alternate water sources shall be allowed as specified in Chapter 15 of this code.

In occupancies where plumbing fixtures are installed for private use, hot water shall be required for bathing, washing, laundry, cooking purposes, dishwashing or maintenance. In occupancies where plumbing fixtures are installed for public use, hot water shall be required for bathing and washing purposes. This requirement shall not supersede the requirements for individual temperature control limitations for public lavatories and public and private bidets, bathtubs, whirlpool bathtubs, and shower control valves.

601.3.3 Alternate Water Sources. Alternate water source systems shall have a purple (Pantone color No. 512, 522C, or equivalent) background with ~~be identified and permanently marked with clearly visible black~~ uppercase lettering on purple background. The identification may be accomplished by labeling piping using purple-colored (Pantone color No. 512) adhesive Mylar PVC tape affixed along the entire length of the pipe, or using non-metallic pipe manufactured with purple (Pantone color No. 512, 522C, or equivalent) integral to the material. For either material, the tape or pipe shall be installed so the wording is clearly visible and shall be field or factory-marked as follows:

- (1)....
- (2)....
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NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17921, 17921.5, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1 and Water Code Section 14877.3, 13552.2, 13552.4, 13553.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

3. HCD proposes to amend Chapter 15 as follows:

**CHAPTER 15
ALTERNATE WATER SOURCES FOR NONPOTABLE APPLICATIONS**

Intent

The provisions of this chapter are intended to:

1. Conserve potable water by facilitating greater reuse of laundry, shower, lavatory and similar sources of discharge, or by the use of alternate water sources, where available, for irrigation and/or indoor use.
2. Reduce the number of non-compliant gray water systems by making legal compliance easily achievable.
3. Provide guidance for avoiding potentially unhealthful conditions.
4. Provide an alternative way to relieve stress on a private sewage disposal system by diverting the graywater.

1501.1 Applicability. (HCD 1) Except as otherwise provided for in this chapter, the provisions of this code shall be applicable to alternate water source system installation. The provisions of this chapter shall apply to the construction, alteration, discharge, use and repair of alternate water source systems for nonpotable applications.

1501.1.1 Allowable Use of Alternate Water. Where approved or required by the Authority Having Jurisdiction, alternate water sources [reclaimed (recycled) water, gray water and on-site treated nonpotable gray water] shall be permitted to be used in lieu of potable water for the applications identified in this chapter.

1501.2 System Design. (HCD 1) Alternate water source systems complying with this chapter shall be designed by a person who demonstrates competency to design the alternate water source system as required by the Enforcing Agency. The Enforcing Agency may also require plans and specifications to be prepared by a licensed design professional for Complex Systems. Components, piping, and fittings used in any alternate water source system shall be listed.

1501.3 Permit. It shall be unlawful for a person to construct, install, alter, or cause to be constructed, installed, or altered an alternate water source system in a building or on a premise without first obtaining a permit to do such work from the Authority Having Jurisdiction. ~~Prior to commencing the issuance of permits for indoor gray water systems pursuant to state requirements relating to gray water, a city, county, city and county or other local agency shall seek consultation with the local public health department to ensure that local public health concerns are addressed in local standards or ordinances, or in issuing permits. See California Water Code Section 14877.3.~~

No changes or connections shall be made to either the alternate water source system or the potable water system within a site containing an alternate water source system without approval by the Authority Having Jurisdiction.

Exception: (HCD 1) A construction permit shall not be required for a clothes washer system meeting the requirements of Section 1502.1.1.

1501.4 Component Identification. System components shall be properly identified as to the manufacturer.

1501.5 Maintenance and Inspection. Alternate water source systems and components shall be inspected and maintained in accordance with the manufacturer's recommendations and/or as required by the Enforcing Agency.

(BSC, HCD 1) Where no manufacturers recommendations exist, additional recommendations are listed in Table 1501.5.

**TABLE 1501.5
RECOMMENDED MINIMUM ALTERNATE WATER SOURCE TESTING, INSPECTION, AND MAINTENANCE
FREQUENCY**

DESCRIPTION	MINIMUM FREQUENCY
Inspect and clean filters and screens, and replace (where necessary).	<i>In accordance with manufacturer's instructions, and/or the Authority Having Jurisdiction, or every 3 months</i>
Inspect and verify that disinfection, filters and water quality treatment devices and systems are operational and maintaining minimum water quality requirements as determined by the Authority Having Jurisdiction.	<i>In accordance with manufacturer's instructions, and the Authority Having Jurisdiction.</i>
Inspect pumps and verify operation.	<i>In accordance with manufacturer's instructions, and/or the Authority Having Jurisdiction, after initial installation and every 12 months thereafter</i>
Inspect valves and verify operation.	<i>In accordance with manufacturer's instructions, and/or the Authority Having Jurisdiction, after initial installation and every 12 months thereafter</i>
Inspect pressure tanks and verify operation.	<i>In accordance with manufacturer's instructions, and/or the Authority Having Jurisdiction, after initial installation and every 12 months thereafter</i>
Clear debris from and inspect storage tanks, locking devices, and verify operation.	<i>In accordance with manufacturer's instructions, and/or the Authority Having Jurisdiction, after initial installation and every 12 months thereafter</i>
Inspect caution labels and marking.	<i>In accordance with manufacturer's instructions, and/or the Authority Having Jurisdiction, after initial installation and every 12 months thereafter</i>
Inspect and maintain mulch basins for gray water irrigation systems.	<i>As needed to maintain mulch depth and prevent ponding and runoff.</i>
Cross-connection inspection and test*	<i>In accordance with manufacturer's instructions, and/or the Authority Having Jurisdiction, after initial installation and every 12 months thereafter.</i>

*The cross-connection test shall be performed in the presence of the Authority Having Jurisdiction in accordance with the requirements of this chapter, *unless site conditions do not require it. Alternate testing requirements shall be permitted by the Authority Having Jurisdiction.*

**TABLE 1501.5
RECOMMENDED MINIMUM ALTERNATE WATER SOURCE TESTING, INSPECTION, AND MAINTENANCE
FREQUENCY**

DESCRIPTION	MINIMUM FREQUENCY
Inspect and clean filters and screens, and replace (where necessary).	every 3 months
Inspect and verify that disinfection, filters and water quality treatment devices and systems are operational and maintaining minimum water quality requirements as determined by the Authority Having Jurisdiction.	In accordance with manufacturer's instructions, and the Authority Having Jurisdiction.
Inspect pumps and verify operation.	After initial installation and every 12 months thereafter
Inspect valves and verify operation.	After initial installation and every 12 months thereafter
Inspect pressure tanks and verify operation.	After initial installation and every 12 months thereafter
Clear debris from and inspect storage tanks, locking devices, and verify operation.	After initial installation and every 12 months thereafter
Inspect caution labels and marking.	After initial installation and every 12 months thereafter
Inspect and maintain mulch basins for gray water irrigation systems.	As needed to maintain mulch depth and prevent ponding and runoff.
Cross-connection inspection and test*	After initial installation and every 12 months thereafter.

*The cross-connection test shall be performed in the presence of the Authority Having Jurisdiction in accordance with the requirements of this chapter, *unless site conditions do not require it. Alternate testing requirements shall be permitted by the Authority Having Jurisdiction.*

1501.5.1 Maintenance Responsibility. The required maintenance and inspection of alternate water source systems shall be the responsibility of the property owner, unless otherwise required by the Authority Having Jurisdiction.

(Note for stakeholders) HCD does not adopt what is proposed to be the new 1501.5.1 Method and Frequency, 1501.5.2 Maintenance Log

1501.6 Operation and Maintenance Manual. An operation and maintenance manual for gray water, and on-site treated *nonpotable* water and *recycled water* systems required to have a permit in accordance with Sections 1501.3 and 1503.2 shall be supplied to the building owner by the system designer or installer. The operating and maintenance manual shall include the following:

- (1) *Diagram(s)* of the entire system and the location of system components.
- (2) Instructions on operating and maintaining the system.
- (3) *Instructions* on maintaining the required water quality for on-site treated nonpotable water systems.
- (4) Details on *startup, shutdown, and* deactivating the system for maintenance, repair, or other purposes.
- (5) Applicable testing, inspection, and maintenance frequencies in accordance with Section 1501.5.
- (6) A method of contacting the *installer and/or* manufacturer(s).
- (7) *Directions to the owner or occupant that the manual shall remain with the building throughout the life cycle of the structure.*

1501.7 Minimum Water Quality Requirements. (HCD-1) The minimum water quality for alternate water source systems shall meet the applicable water quality requirements for the intended application as determined by the Authority Having Jurisdiction. ~~In the absence of water~~ *Water* quality requirements for on-site treated nonpotable graywater shall comply with ~~systems the requirements of NSF 350 shall apply.~~ Section 1504.10.2. Recycled water shall comply with the water quality requirements of Section 1503.14.

Exception: Water treatment is not required for gray water used in a disposal field or for subsurface or subsoil irrigation.

1501.8 Material Compatibility. Alternate water source systems shall be constructed of materials that are compatible with the type of pipe and fitting materials, water treatment, and water conditions in the system.

1501.9 System Controls. Controls for pumps, valves, and other devices that contain mercury that come in contact with alternate water source water supply shall not be permitted.

Signage

Note: For the purposes of Sections 1501.10.1, 1501.10.2, and 1501.10.3, * _____ * shall be replaced by RECYCLED WATER or ON-SITE TREATED NONPOTABLE GRAYWATER as applicable.

1501.10 Commercial, Industrial, Institutional, and Residential Restroom Signs. A sign shall be installed in restrooms in commercial, industrial, and institutional occupancies, and shall also be installed in residential common use area restrooms using reclaimed (recycled) water and on-site treated nonpotable gray water for water closets, urinals, or both. Signs shall comply with applicable requirements of the California Building Code. Each sign shall contain the following text:

TO CONSERVE WATER, THIS BUILDING USES * _____ * ON-SITE TREATED NONPOTABLE GRAY WATER TO FLUSH TOILETS AND URINALS.

(1) Tank Type Toilets (HCD 1) Where tank-type toilets (water closets) are flushed with recycled water, a permanent sign (such as plastic or stainless steel) shall be installed inside and outside of the tank to warn that the recycled water within the tank is not suitable for direct human contact and is not a suitable emergency water supply. The sign shall be labeled: "CAUTION: NONPOTABLE * _____ * – DO NOT DRINK".

1501.10.1 Equipment Room Signs. Each room containing reclaimed (recycled) and on-site treated *nonpotable* gray water equipment shall have a sign posted in a location that is visible to anyone working on or near

reclaimed (recycled) water and/or nonpotable gray water equipment with the following wording in 1 inch (25.4 mm) letters:

CAUTION: NONPOTABLE * _____ *, DO NOT DRINK. DO NOT CONNECT TO DRINKING WATER SYSTEM. NOTICE: CONTACT BUILDING MANAGEMENT BEFORE PERFORMING ANY WORK ON THIS WATER SYSTEM.

* _____ * Shall indicate RECLAIMED (RECYCLED) WATER or ON-SITE TREATED NONPOTABLE GRAY WATER accordingly.

1501.10.2 Outdoor Signs. (HCD 1) All outdoor areas accessible to the public or in public right of way, where alternate water sources are used, a sign(s) shall be posted that identify the type(s) of alternate water used. The sign(s) shall be visible to the public, located in close proximity to the areas where alternate water source is used. The sign(s) shall be in a size no less than 4 inches high by 8 inches wide, that includes one of the following wording: * -DO NOT DRINK, and the symbol in figure 1503.9.

1501.11 Inspection and Testing. Alternate water source systems shall be inspected and tested in accordance with Section 1501.11.1 and Section 1501.11.2.

1501.11.1 Supply System Inspection and Test. Alternate water source systems shall be inspected and tested in accordance with this code for testing of potable water piping.

1501.11.2 Cross-Connection Inspection and Testing. An initial inspection and test shall be performed on both the potable and alternate water source systems. The potable and alternate water source system shall be isolated from each other and independently inspected and tested to ensure there is no cross-connection in accordance with Section 1501.11.2.1 through Section ~~1501.11.2.4~~ 1501.11.2.3.

1501.11.2.1 Visual System Inspection. Prior to commencing the cross-connection testing, a dual system inspection shall be conducted by the Authority Having Jurisdiction and other authorities having jurisdiction as follows:

- (1) Meter locations of the alternate water source and potable water lines shall be checked to verify that no modifications were made, and that no cross-connections are visible.
- (2) Pumps and equipment, equipment room signs, and exposed piping in equipment room shall be checked.
- (3) Valves shall be checked to ensure that the valve lock seals are still in place and intact. Valve control door signs shall be checked to verify that no signs have been removed.

1501.11.2.2 Cross-Connection Test. ~~The procedure for determining cross-connection shall be followed by the applicant and or other authorities having jurisdiction to determine whether a cross connection has occurred as follows:~~ A cross-connection test shall be performed in the presence of the Authority Having Jurisdiction

- (1) The potable water system shall be activated and pressurized. The alternate water source system shall be shut down, depressurized, and drained.
- (2) The potable water system shall remain pressurized for a minimum period of time specified by the Authority Having Jurisdiction while the alternate water source system is empty. The minimum period the alternate water source system is to remain depressurized shall be determined on a case-by-case basis, taking into account the size and complexity of the potable and the alternate water source distribution systems, ~~but in no case shall that period be less than 1 hour.~~
- (3) The drain on the alternate water source system shall be checked for flow during the test, and all fixtures, potable and alternate water source, shall be tested and inspected for flow. Flow from an alternate water source system outlet indicates a cross-connection. No flow from a potable water outlet shall indicate that it is connected to the alternate water source system.
- (4) The potable water system shall then be depressurized and drained.
- (5) The alternate water source system shall then be activated and pressurized.

When alternate water source is not available for the initial test, a temporary connection to a potable water supply will be required. At the conclusion of the test, the temporary connection to the potable water supply shall be disconnected.

- (6) The alternate water source system shall remain pressurized for a minimum period of time specified by the Authority Having Jurisdiction while the potable water system is empty. The minimum period the potable water system is to remain depressurized shall be determined on a case-by-case basis, ~~but in no case shall that period be less than 1 hour.~~
- (7) Fixtures, potable and alternate water source, shall be tested and inspected for flow. Flow from a potable water system outlet indicates a cross-connection. No flow from an alternate water source outlet will indicate that it is connected to the potable water system.
- (8) The drain on the potable water system shall be checked for flow during the test and at the end test.
- (9) Where there is no flow detected in the fixtures which would indicate a cross-connection, the potable water system shall be repressurized.

1501.11.2.3 Discovery of Cross-Connection. In the event that a cross-connection is discovered, the following procedure, ~~in the presence of the Authority Having Jurisdiction,~~ shall be activated immediately:

- (1) Notify the Authority Having Jurisdiction of the cross connection.
- ~~(+)~~ (2) The alternate water source piping to the building and its premises shall be shut down at the meter, and the alternate water source riser shall be drained.
- ~~(-)~~ (3) Potable water piping to the building and its premises shall be shut down at the meter.
- ~~(-)~~ (4) The cross-connection shall be uncovered and disconnected.
- ~~(+)~~ (5) The building and its premises shall be retested in accordance with Section 1501.11.2.1 and Section 1501.11.2.2.
- ~~(-)~~ (6) The potable water system shall be chlorinated with 50 parts-per-million (ppm) chlorine for 24 hours.
- ~~(-)~~ (7) The potable water system shall be flushed after 24 hours, and a standard bacteriological test shall be performed. Where test results are acceptable, the potable water system shall be permitted to be recharged.

1501.12 Separation Requirements. Underground alternate water source service piping other than gray water shall be separated from the building sewer in accordance with this code. Treated nonpotable water pipes shall be permitted to be run or laid in the same trench as potable water pipes with a 12 inch (305 mm) minimum vertical and horizontal separation where both pipe materials are approved for use within a building. Where horizontal piping materials do not comply with this requirement the minimum separation shall be increased to 60 inches (1524 mm). The potable water piping shall be installed at an elevation above the treated nonpotable water piping.

1501.13 Abandonment. Alternate water source systems that are no longer in use or fail to be maintained in accordance with Section 1501.5 shall be abandoned. Abandonment shall comply with Section 1501.13.1 and Section 1501.13.2.

1501.13.1 General. An abandoned system or part thereof covered under the scope of this chapter shall be disconnected from remaining systems, drained, plugged, and capped in an approved manner.

1501.13.2 Underground Tank. An underground water storage tank that has been abandoned or otherwise discontinued from use in a system covered under the scope of this chapter shall be completely drained and filled with earth, sand, gravel, concrete, or other approved material or removed in a manner satisfactory to the Authority Having Jurisdiction.

1501.14 Sizing. Unless otherwise provided for in this chapter, alternate water source piping shall be sized in accordance with Chapter 6 for sizing potable water piping.

1502.0 Gray Water Systems.

1502.3 Connections to Potable and Reclaimed (Recycled) Water Systems. Gray water systems shall have no direct ~~unprotected~~ connection to a potable water supply, on-site treated nonpotable graywater supply, or reclaimed (recycled) water systems. Potable water, on-site treated nonpotable graywater, reclaimed (recycled) water, or

rainwater is permitted to be used as makeup water for a non-pressurized storage tank provided the connection is protected by an airgap, ~~reduced-pressure principle backflow preventer, or other physical device which prevents backflow~~ in accordance with this code and California Code of Regulations, Title 17.

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1502.5 Plot Plan Submission. No permit for a gray water system shall be issued until a plot plan with data satisfactory to the authority having jurisdiction has been submitted and approved.

Exception. (HCD 1) *A construction permit shall not be required for a clothes washer system in compliance with Section 1502.1.1.*

1503.0 Reclaimed (Recycled) Water Systems.

1503.1 General. The provisions of this section shall apply to the installation, construction, alteration, and repair of reclaimed (recycled) water systems intended to supply uses such as water closets, urinals, trap primers for floor drains and floor sinks, aboveground and subsurface irrigation, industrial or commercial cooling or air conditioning and other uses approved by the Authority Having Jurisdiction.

1503.1.1 Residential Occupancies. (HCD 1) *All newly constructed single-family and multifamily residential buildings, where disinfected tertiary recycled water is available from a municipal source to a construction site, shall be provided with a potable water supply system and recycled water supply system allowing for use of reclaimed (recycled) water.*

The recycled water supply system shall be installed to allow connection to all water closets, urinals, and landscape irrigation systems.

Exceptions:

- (1) *Service areas in which the only reclaimed (recycled) water is used for potable purposes, or in which net nonpotable deliveries are anticipated to remain level or decrease as a result of the potable reuse project.*
- (2) *Where access to disinfected tertiary recycled water is not feasible and/or cost-efficient, as determined by the Authority Having Jurisdiction in consultation with the water service authority.*
- (3) *Potable water supply system is not required for landscape irrigation if the landscape irrigation system is supplied with recycled water.*

1503.1.1.1 Future use of recycled water. *Where recycled water is within a planned service area and a specific implementation timeline, within 3 years, for the provision of recycled water has been identified by the public water system in its most recent recycled water master plan, all newly constructed single-family and multifamily residential buildings shall comply with Section 1503.1.1.*

1503.2 Permit. It shall be unlawful for a person to construct, install, alter, or cause to be constructed, installed, or altered a reclaimed (recycled) water system within a building or on a premises without first obtaining a permit to do such work from the Authority Having Jurisdiction.

Prior to commencing the issuance of permits for Reclaimed (Recycled) Water supply systems pursuant to state requirements relating to recycled water, a city, county, city and county or other local agency shall seek consultation with the State Water Resource Control Board and with local public health departments to ensure that state and local public health concerns are addressed in local standards or ordinances, or in issuing permits. See California Water Code, Division 7, Chapter 7, Article 7 for Water Reuse.

1503.2.1 Plumbing Plan Submission. No permit for a reclaimed (recycled) water system shall be issued until complete plumbing plans, with data satisfactory to the Authority Having Jurisdiction, have been submitted and approved.

1503.3 System Changes. No changes or connections shall be made to either the reclaimed (recycled) water system or the potable water system within a site containing a reclaimed (recycled) water system without approval by the Authority Having Jurisdiction.

1503.4 Connections to Potable or Reclaimed (Recycled) Water Systems. Reclaimed (recycled) water supply systems shall have no connection to a potable water supply or alternate water source.

Exceptions:

- (1) Potable water is permitted to be used as makeup water for a reclaimed (recycled) water storage tank provided the potable water supply inlet is protected by an air gap in accordance with this code.
- (2) A potable water supply may be connected temporarily for initial testing of the recycled water supply system.
- (3) Reclaimed (recycled) water is permitted to be used as makeup water for an alternate water source system provided the recycled water supply system is protected by an air gap in accordance with this code.

1503.5 Initial Cross-Connection Test. A cross-connection test is required in accordance with Section 1501.11.2. Before the building is occupied or the system is activated, the installer shall perform ~~the~~ an initial cross-connection test in the presence of the Authority Having Jurisdiction ~~and~~ or other authorities having jurisdiction. The test shall be ruled successful by the Authority Having Jurisdiction before final approval is granted.

1503.6 Reclaimed (Recycled) Water System Materials. Reclaimed (recycled) water supply and distribution system materials shall comply with the requirements of this code for potable water supply and distribution systems, unless otherwise provided for in this section.

1503.7 Reclaimed (Recycled) Water System Color and Marking Information. Reclaimed (recycled) water systems shall have a colored background and marking information in accordance with Section 601.3 of this code.

1503.8 Valves. Valves, except fixture supply control valves, shall be equipped with a locking feature.

1503.9 Hose Bibbs. (HCD 1) ~~Hose bibbs shall not be allowed on reclaimed (recycled) water piping systems, located in areas accessible to the public. Access to reclaimed (recycled) water at points in the system accessible to the public shall be through a quick-disconnect device that differs from those installed on the potable water system. Hose bibbs supplying reclaimed (recycled) water shall be marked with the words: "CAUTION: NONPOTABLE RECLAIMED WATER, DO NOT DRINK," and the symbol in Figure 1503.9.~~



FIGURE 1503.9

1503.10 Required Appurtenances. The reclaimed (recycled) water system and the potable water system within the building and the premises shall be provided with the required appurtenances (e.g., valves, air/vacuum relief valves, etc.) to allow for ~~deactivation or drainage~~ testing as required for a cross-connection test in accordance with Section 1501.11.2.

1503.11 Same Trench as Potable Water Pipes. Reclaimed (recycled) water pipes shall be permitted to be run or laid in the same trench as potable water pipes with 12 inches (305 mm) minimum vertical and horizontal separation where both pipe materials are approved for use within a building. Where piping materials do not meet this requirement the minimum horizontal separation shall be increased to 60 inches (1524 mm). The potable water piping shall be installed at an elevation above the reclaimed (recycled) water piping. Reclaimed (recycled) water pipes laid in the same trench or crossing building sewer or drainage piping shall be installed in accordance with this code for potable water piping.

1503.12 Signs. Signs in rooms and water closet tanks in buildings using reclaimed (recycled) water shall be in accordance with Section 1501.10 and Section 1501.10.1.

1503.13 Inspection and Testing. Reclaimed (recycled) water systems shall be inspected and tested in accordance with Section 1501.11.

1503.14 Minimum Water Quality Requirements for Reclaimed (Recycled) Water (HCD 1). *The minimum water quality for reclaimed (recycled) water shall meet the applicable water quality requirements of California Code Regulations, Title 22, Division 4, Chapter 3 (commencing with Section 60301.230) for disinfected tertiary recycled water and the applicable recycled water use.*

1504.0 On-Site Treated Nonpotable Gray Water Systems.

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1504.2 Plumbing Plan Submission. No permit for an on-site treated nonpotable gray water system shall be issued until complete plumbing plans, with data satisfactory to the Authority Having Jurisdiction, have been submitted and approved.

Prior to commencing the issuance of permits for indoor gray water systems pursuant to state requirements relating to graywater, a city, county, city and county or other local agency shall seek consultation with the local public health department to ensure that local public health concerns are addressed in local standards or ordinances, or in issuing permits. See California Water Code Section 14877.3.

1504.4 Connections to Potable or Reclaimed (Recycled) Water Systems. On-site treated nonpotable gray water systems shall have no ~~unprotected~~ connection to a potable water supply or reclaimed (recycled) water ~~source~~ supply system.

Exceptions:

- (1) Potable or reclaimed (recycled) water is permitted to be used as makeup water for a non-pressurized graywater storage tank provided the makeup water supply inlet is protected by an air gap, ~~reduced-pressure principle backflow preventer, or other physical device which prevents backflow~~ in accordance with this code.
- (2) A potable water supply may be connected temporarily for initial testing of the on-site treated nonpotable gray water system.

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1504.10.2 Minimum Water Quality. On-site treated nonpotable gray water supplied to toilets or urinals or for other uses in which it is sprayed or exposed shall be disinfected. Acceptable disinfection methods shall include chlorination, ultraviolet sterilization, ozone, or other methods as approved by the Authority Having Jurisdiction. The minimum water quality for on-site treated nonpotable gray water systems shall meet the applicable water quality requirements for the intended applications as determined by the public health Authority Having Jurisdiction. *In the absence of local water quality requirements for on-site treated nonpotable gray water, ~~Section 1601.7 1501.7~~ the requirements of NSF/ANSI 350 shall apply.*

Exception:

Water treatment is not required for gray water used *in a disposal field or for subsurface or subsoil irrigation.*

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NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17921, 17921.5, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1, and Water Code Section 14877.3, 13552.2, 13552.4, 13553.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.