

REVISION RECORD FOR THE STATE OF CALIFORNIA SUPPLEMENT  
EFFECTIVE DATE August 17, 2019  
Title 24, Part 5 California Plumbing Code

Chapter 15  
Alternate Water Sources for Nonpotable Applications

1506.0 On-Site Treated Nonpotable Gray Water Systems. 1506.1 General. The provisions of this section shall apply to the installation, construction, alteration, and repair of onsite treated nonpotable gray water systems intended to supply uses such as water closets, urinals, trap primers for floor drains and floor sinks, above and belowground irrigation, and other uses approved by the Authority Having Jurisdiction. Other approved non-potable water sources including swimming pool backwash operations, air conditioner condensate, rainwater, cooling tower blow-down water, foundation drainage, steam system condensate, fluid cooler discharge water, food steamer discharge water, combination oven discharge water, industrial process water, and fire pump test water may be permitted to be collected for re-use by gray water systems, as approved for the intended application

**TABLE 1503.15  
MINIMUM RECLAIMED (RECYCLED) WATER SOURCE TESTING, INSPECTION, AND MAINTENANCE FREQUENCY**

DESCRIPTION	MINIMUM FREQUENCY*
<i>Inspect and clean filters and screens, and replace (where necessary).</i>	<i>Every 3 months.</i>
<i>Inspect pumps and verify operation.</i>	<i>After initial installation and every 12 months thereafter.</i>
<i>Inspect valves and verify operation.</i>	<i>After initial installation and every 12 months thereafter.</i>
<i>Inspect pressure tanks and verify operation.</i>	<i>After initial installation and every 12 months thereafter.</i>
<i>Clear debris from and inspect storage tanks, locking devices, and verify operation.</i>	<i>After initial installation and every 12 months thereafter.</i>
<i>Inspect caution labels and marking.</i>	<i>After initial installation and every 12 months thereafter.</i>

\*Note: Frequency is as described in this table, or more frequently as required by manufacturer’s instructions and/or the Authority Having Jurisdiction.

**1504.0 On-Site Treated Nonpotable Gray Water Systems.**

» **1504.1 General.** The provisions of this section shall apply to the installation, construction, alteration, and repair of on-site treated nonpotable gray water systems intended to supply uses such as water closets, urinals, trap primers for floor drains and floor sinks, above and belowground irrigation, and other uses approved by the Authority Having Jurisdiction.

*Other approved nonpotable water sources including swimming pool backwash operations, air conditioner condensate, rainwater, cooling tower blow-down water, foundation drainage, steam system condensate, fluid cooler discharge water, food steamer discharge water, combination oven discharge water, industrial process water, and fire pump test water may be permitted to be collected for re-use by gray water systems, as approved for the intended application.*

» **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. **[BSC-CG, HCD 1]** *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.*

» **1504.3 System Changes.** No changes or connections shall be made to either the on-site treated nonpotable gray water system or the potable water system within a site containing an on-site treated nonpotable gray water system without approval by the Authority Having Jurisdiction.

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

**Exceptions:**

(1) Potable or reclaimed (recycled) water is permitted to be used as makeup water for a non-pressurized storage tank provided the makeup 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 on-site treated nonpotable gray water system as provided in Section 1501.11.2.2.

**1504.5 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 initial cross-connection test in the presence of the Authority Having Jurisdiction and other authorities having jurisdiction. The test shall be ruled successful by the Authority Having Jurisdiction before final approval is granted.

**1504.6 On-Site Treated Nonpotable Gray Water System Materials.** On-site treated nonpotable gray 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.

**1504.7 On-Site Treated Nonpotable Gray Water Devices and Systems.** Devices or equipment used to treat on-site treated nonpotable gray water in order to maintain the minimum water quality requirements determined by the Authority Having Jurisdiction shall be listed or labeled (third-party certified) by a listing agency (accredited conformity assessment body) or approved for the intended application. Devices or equipment used to treat on-site treated nonpotable gray water for use in water closet and urinal flushing, surface irrigation, and similar applications shall be listed or labeled to NSF 350 or approved by the Authority Having Jurisdiction.

**1504.8 On-Site Treated Nonpotable Gray Water System Color and Marking Information.** On-site treated nonpotable gray water systems shall have a colored background and marking information in accordance with Section 601.3 of this code.

**1504.9 Valves.** Valves, except fixture supply control valves, shall be equipped with a locking feature.

**1504.10 Design and Installation.** The design and installation of on-site treated nonpotable gray water systems shall be in accordance with Section 1504.10.1 through Section 1504.10.6.

**1504.10.1 Listing Terms and Installation Instructions.** On-site treated nonpotable gray water systems shall be installed in accordance with the terms of its listing and the manufacturer’s installation instructions.

»» || **1504.10.2 Minimum Water Quality [BSC-CG, HCD I].** 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, the requirements of NSF 350 shall apply.*

»» || **1504.10.3 Deactivation and Drainage.** The on-site treated nonpotable *gray* water system and the potable water system within the building shall be provided with the required appurtenances (e.g., valves, air/vacuum relief valves, etc.) to allow for deactivation or drainage as required for a cross-connection test in accordance with Section 1501.11.2.

»» || **1504.10.4 Near Underground Potable Water Pipe.** On-site treated nonpotable *gray* 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 piping materials do not meet 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 on-site treated nonpotable *gray* water piping.

»» || **1504.10.5 Required Filters.** A filter permitting the passage of particulates no larger than 100 microns (100 µm) shall be provided for on-site treated nonpotable *gray* water supplied to water closets, urinals, trap primers, and drip irrigation system.

*1504.10.6 Disinfection. Where the intended use of onsite treated nonpotable gray water requires disinfection and/or other treatment, on-site treated nonpotable gray water shall be disinfected as needed to ensure the required water quality is obtained at the point of use. Where chlorine is used for disinfection or treatment, water shall be tested for residual chlorine in accordance with ASTM D1253.*

»» || **1504.11 Signs.** Signs in buildings using on-site treated nonpotable *gray* water shall comply with Section 1501.10 and Section 1501.10.1, and applicable requirements of the California Building Code.

»» || **1504.12 Inspection and Testing.** On-site treated nonpotable *gray* water systems shall be inspected and tested in accordance with Section 1501.11, and Section 1501.11.2 and/or as required by the Authority Having Jurisdiction.