



RECYCLED WATER SERVICE REQUIREMENTS

This document is prepared by Las Virgenes Municipal Water District (LVMWD) to summarize the construction, operation and maintenance requirements for the use of recycled water. It is further designed to outline the conditions as required in Title 17 of the California Code of Regulations for the use of a reduced-pressure-principle backflow prevention assembly (RP) in lieu of air gap separation when both potable and recycled waters are delivered to a particular site and requirements from Title 22 in use of recycled water. Prior to the delivery of recycled water to a particular site, the recycled water user must agree to comply with these requirements. Disregard for these guidelines could result in termination of service until the specified corrections are made.

System Construction

1. New installation, repair or modification of the existing recycled water irrigation system shall follow the "Guidelines for Pipeline Construction and Installation-For the Safe Use of Recycled / Reclaimed Wastewater" (attached) from the Los Angeles County Department of Health- Environmental Health.
2. All drawings must include the most recent edition of the LVMWD "Recycled Water Service General Notes".
3. Drawings must be submitted and prior District approval obtained before beginning construction of new recycled water systems or conversion of potable systems to serve recycled water. If the site is considered a "Dual Plumbed System" as defined in Title 22, Division 4, Chapter 3, Article 1, 60301.250 of the California Code of Regulations then an engineering report shall be developed and submitted as required by Article 5 of this title.
4. Revised drawings must be submitted and prior District approval obtained before implementing any significant changes to the approved irrigation system.
5. The Las Virgenes Municipal Water District shall be notified 48 hours prior to the start of construction or pipeline installation by calling (818) 251-2100, to schedule an inspection.
6. All pressure main line piping from the recycled water system shall be installed to maintain a ten (10) foot minimum horizontal separation from all potable water piping. Where recycled and potable water pressure main line piping crosses, the recycled water piping shall be installed below the potable water piping to provide a minimum vertical clearance of one (1) foot, and shall be installed in a PVC Class 200 pipe sleeve which extends a minimum of five (5) feet on either side of the potable water piping. Where these clearances are impractical, other satisfactory provisions shall be made. Such provisions must meet with the prior approval of the Las Virgenes Municipal Water District.

Existing potable irrigation systems undergoing retrofit to serve recycled water may also employ other satisfactory provisions as approved by LVMWD in order to protect against cross connection of the two water sources.

7. Hose bibs are not permitted on the recycled water irrigation system. Quick couplers shall be used if hose connections are necessary.
8. A currently approved reduced pressure principle backflow prevention assembly shall be installed on the potable water service(s) to any recycled water use site.
9. A currently approved reduced pressure principle backflow prevention assembly shall only be installed in newly constructed recycled water systems, and/or removed from potable irrigation systems undergoing conversion to recycled water operation, at the direction of the District.
10. A physical separation (barrier ie: fence, concrete mow strip, or equivalent) is required between areas irrigated with recycled water and areas irrigated with potable water.
11. Recycled water irrigation systems shall be designed and constructed so that the water does not spray outside of the design area.
12. Drinking fountains and picnic tables shall be placed to minimize exposure to direct and wind blown recycled water spray.
13. Recycled water shall not be used to irrigate any enclosed private rear yard or patio. Exceptions can be made in the case of dual plumbed sites, where special rules take precedence.

System Identification

1. The system shall meet the "Guidelines for Pipeline Construction and Installation-For Safe Use of Recycled / Reclaimed Wastewater" from the Los Angeles Department of Health-Environmental Health.
2. All on-site potable water lines and recycled water lines must be of different materials, or different colors of same materials. (Retrofitting of existing buried systems to meet this standard may not be required.)
3. All newly constructed, buried recycled water distribution piping, including main and lateral lines, valves and other appurtenances should be color extruded purple, Pantone 512, and embossed or integrally stamped/marked by the manufacturer every 24 inches on two (2) sides: **"CAUTION: RECYCLED WATER - DO NOT DRINK"**.
4. All above ground recycled water facilities (controllers, valves, risers, heads, quick couplers, etc.) must have identifying colors and labels for recycled water.
5. Signs shall be posted at the entrances to the site and at other locations on the site as required, noting that recycled water is being used for irrigation purposes.

System Management

1. The property owner must designate a "Recycled Water Use Site Supervisor", and advise the District if the Site Supervisor, as named on the "Permit for Recycled Water Service" is changed.
 - A. The Site Supervisor should be familiar with the entire system within his or her responsibility and of all applicable conditions of non-potable water use. The Site Supervisor shall be responsible for the installation, operation and maintenance of pipelines and cross-connection equipment.
 - B. The Owner and the Site Supervisor shall be jointly responsible for the surveillance over and proper operation of on-site recycled water distribution facilities to avoid cross-connections both on-site and with adjoining properties. Cross connection of the potable water system and the recycled water system is not to take place under any circumstances.
 - C. If there is a suspected cross connection on the property the Owner or Site Supervisor will notify the District immediately. The District will conduct an immediate inspection to confirm the conditions and contact all appropriate agencies with 24 hours if a cross connection exists and isolate the suspected services required by Title 22, Division 4, Chapter 3, Article 5. 60316(b) of the California Code
2. Complete site inspections, to confirm proper system operation and the absence of any cross connections, shall be made by the Site Supervisor at a minimum of once per year. The Site Supervisor will then certify in writing to LVMWD that an inspection has been made, the system is operating properly and no cross connections exist. The district will conduct random inspections to confirm proper operation of the system and conduct a full cross connection inspection at a minimum of every four years per the above mentioned Title 22 code.
3. LVMWD personnel will be permitted access to the site at all times to perform independent site inspections.

System Operation / Maintenance

1. Reduced pressure principle assembly backflow prevention devices, where required as set forth above, shall be tested once every year by a certified backflow prevention device tester currently licensed by the Los Angeles County Department of Health Services.
2. Sprinklers shall be adjusted to avoid recycled water spray on picnic tables, benches, decks, patios, sidewalks and roads.
3. Areas of human contact - parks, playgrounds, school yards, shall be irrigated during the late night/early morning hours (10:00 P.M. - 6:00 A.M.).
4. Areas of minimal human contact shall be irrigated when convenient. Slopes adjacent to pedestrian walkways are considered areas where there *is* human contact.
5. Irrigate in a manner that will minimize ponding, and runoff of water. If necessary, use the "repeat" function of the irrigation controller to apply the required amount of water in several cycles of short duration.

6. If it is necessary to run the system manually, the site supervisor or their designated representative shall be onsite while the system is running.
7. Maintain the irrigation system properly to minimize failures, and repair breaks immediately.
8. Educate occupants, residents and maintenance personnel on a continuous basis to be sure they understand the proper use of recycled water.
9. Prevent people from using recycled water for drinking and washing food.
10. Where quick couplers are allowed, remove the hand wheels.



RECYCLED WATER SERVICE PERMIT

Pursuant to LVMWD Resolution 2-82-1078, the District hereby permits the use of recycled water by Applicant under the following terms and conditions:

1. RULES AND REGULATIONS REGARDING THE USE OF RECYCLED WATER

Applicant shall comply with the latest editions of the District's "Recycled Water Service Requirements", except as modified below.

Applicant agrees to allow the District periodic access to the facilities during reasonable hours for the purpose of verifying that the applicant's use of recycled water is in conformance with District rules and regulations.

2. POTENTIAL USE OF RECYCLED WATER

Applicant states that recycled water shall be used for the following purposes only:

3. LOCATION OF SITE (S) WHERE RECYCLED WATER WILL BE USED

Applicant shall provide a site map indicating the property to be served, the meter location, the frontage road(s) up to and including all immediate side streets. The map shall indicate all buildings, sidewalks and parking areas on the property and shall show by shading those areas of the property that will be served with recycled water. If the site is considered a "Dual Plumbed System" as defined in Title 22, Division 4, Chapter 3, Article 1, 60301.250 of the California Code of Regulations then an engineering report shall be developed and submitted as required by Article 5 of this title.

4. SERVICE INSTALLATION

TEMPORARY SERVICE

Temporary Service. Indicate assigned water pick-up location.

NEW SERVICE

Applicant shall build or cause to be built, the following described facilities and agrees to pay all costs of installation, maintenance, operation and replacement thereof:

Applicant shall provide to the District, a complete set of plans of said facilities showing the following with request to the recycled water system:

- (a) The location, size and type of material of all water pipelines;
- (b) the location of all valves and other appurtenances; and
- (c) the location with respect to all structures relating to this Permit.

RETROFIT OF EXISTING POTABLE SERVICE

Applicant shall request that the District inspect facility plans as described above if provided for the retrofit project. If no plans are completed for the project, the District may waive the requirement to provide such plans.

5. WATER SUPERVISOR

Applicant designates the person named below as "**Recycled Water Use Site Supervisor**" having responsibility of insuring the proper use of the on-site recycled water system.

Name:

Position:

Twenty-four Hour Telephone Number:

6. HOLD HARMLESS

Applicant shall hold the District, its officers, agents, and employees, free and harmless from any costs liabilities or damages (including reasonable attorney's fees) which may arise or is claimed to have arisen as a result of any act or omission to act, including any negligent act or omission to act by Applicant or on behalf of Applicant with respect to the construction, installation or repair of such facilities.

7. Procedures to Modify On-site Recycled Water Systems

Applicant shall not change or modify the approved on-site recycled water distribution system without prior written District approval. If Applicant changes or modifies the approved system or fails to maintain the approved system in a state of good repair, the District may, in addition to its other legal remedies, terminate recycled water service.

8. Fees

Prior to commencement of service, Applicant shall pay to the District all applicable fees and service charges in effect as of the date of issuance of the permit of said service.

9. Request for Recycled Water Service

This permit is submitted for approval by the District on this _____ day of _____, 20___, by the undersigned.

By: _____
(Signature)

(Print Name)

Title: _____

Company
Name: _____

Mailing
Address: _____

Phone
Number: _____

This permit is hereby recommended for issuance on this _____ day _____

Customer Service Programs Supervisor

This Permit is hereby issued for recycled water use, as described herein.

Change of ownership of the property shall void this permit.

The Permit is hereby issued this _____ day of _____, 20___.

Director of Resource Conservation and Public Outreach



RECYCLED WATER SERVICE GENERAL NOTES

- A. These Recycled Water Service General Notes must appear on all original and “As-built” copies of the Irrigation System Plan.
- B. The recycled water system shall meet the “Guidelines for Pipeline Construction and Installation-For Safe Use of Recycled / Reclaimed Wastewater” from the Los Angeles County Department of Health- Environmental Health.
- C. A set of **original irrigation system design drawings** must be supplied to the Las Virgenes Municipal Water District (LVMWD) **before system construction begins**. If the site is considered a “Dual Plumbed System” as defined in Title 22, Division 4, Chapter 3, Article 1, 60301.250 of the California Code of Regulations then an engineering report shall be developed and submitted as required by Article 5 of this title.

A set of “As-built” irrigation system drawings must be supplied to LVMWD upon completion of the installation.

- D. The Las Virgenes Municipal Water District shall be notified 48 hours prior to the start of construction or pipeline installation by calling (818) 251-2100, to schedule an inspection. **Inspection must be made before trenching for below ground piping is back-filled.**

- E. Pipe materials:

All on-site potable water lines must be copper, and identified with a warning tape with a blue background and the words: **“CAUTION: POTABLE WATER LINE”**.

All newly constructed, buried recycled water distribution piping, including main and lateral lines, valves and other appurtenances should be color extruded **purple, Pantone 512**, and embossed or integrally stamped/marked by the manufacturer every 24 inches on two (2) sides: **“CAUTION: RECYCLED WATER – DO NOT DRINK”**.

When, due to pre-existing conditions, recycled and potable water lines are of the same material and color, as in the case of sites where the irrigation system was converted to recycled water use, when the potable system is expanded, copper will be used.

- F. All pressure main line piping from the recycled water system shall be installed to maintain a ten (10) foot minimum horizontal separation from all potable water piping. Where recycled and potable water pressure main line piping crosses, the recycled water piping shall be installed below the potable water piping to provide a minimum vertical clearance of one (1) foot, and shall be installed in a PVC Class 200 pipe sleeve that extends a minimum of five (5) feet on either side of the potable water piping.

- G. Signage indicating that recycled water is being used for irrigation is located at points where the public may enter the use area.
- H. All above ground recycled water facilities (controllers, valves, risers, heads, quick couplers, etc.) must have identifying colors and labels for recycled water.
- I. Hose bibs are not permitted on the recycled water irrigation system. Quick couplers shall be used if hose connections are necessary.
- J. Backflow prevention devices shall not be included in newly constructed recycled water systems unless requested by the District.
- K. Backflow prevention devices on pre-existing potable irrigation systems being converted to use recycled water shall be removed, unless required by the District.
- L. A reduced pressure principle backflow assembly is required on any and all potable water services to a property where recycled water is being or will be used for irrigation.
- M. Drinking fountains and picnic tables should be placed to minimize exposure to direct and wind blown recycled water spray.
- N. Recycled water shall not be sprayed outside of the design area.
- O. Recycled water shall not be used to irrigate any enclosed private rear yard or patio. Exceptions can be made in the case of dual plumbed sites, where special rules take precedence.
- P. A physical separation (barrier – ie: fence, concrete mow strip, or equivalent, as determined by the District) is required between areas irrigated with recycled water and areas irrigated with potable water.
- Q. **Compliance with these notes is required for recycled water service.**