

# **Sanitation Districts of Los Angeles County**

## **Recycled Water Users Handbook**

For Using Recycled Water  
Produced at Water Reclamation Plants  
of the Joint Outfall System or the Santa Clarita Valley Sanitation District

**September 2017**

**SANITATION DISTRICTS OF LOS ANGELES COUNTY**



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## LIST OF ABBREVIATIONS

CEQA	California Environmental Quality Act
County	Los Angeles County, California
DDW	California State Water Resources Control Board, Division of Drinking Water (formerly the California Department of Public Health, Drinking Water Program)
EIR	Environmental Impact Report
Handbook	Recycled Water Users Handbook
JOS	Joint Outfall System
LACDPH or County Health	Los Angeles County Department of Public Health
mgd	million gallons per day
Regional Water Board or RWQCB	California Regional Water Quality Control Board
Sanitation Districts or LACSD	Sanitation Districts of Los Angeles County
SCVSD	Santa Clarita Valley Sanitation District
State Water Board or SWRCB	California State Water Resources Control Board
WRP	Water Reclamation Plant

## Introduction

Recycled water is safe and cost effective to use in lieu of drinking water for most non-potable applications, but there are common sense rules that need to be followed to protect public health and to comply with regulations. This Recycled Water Users Handbook (Handbook) provides information on the general rules, regulations, and guidelines regarding the safe use of tertiary recycled water produced by the Sanitation Districts of Los Angeles County (Sanitation Districts) for projects within the Los Angeles Basin and the Santa Clarita Valley. The Handbook complements the Sanitation Districts' *Requirements for Recycled Water Users*, which is provided in Tab 1 of this Handbook. This Handbook includes:

- General information about the Sanitation Districts' recycled water program.
- State and local standards, regulations, and guidelines for the use of recycled water.
- Information on the duties and responsibilities of recycled water purveyors and users.
- Information on operational requirements at reuse sites.
- Information on notification requirements.

The Handbook should be used along with the Los Angeles Chapter of the California WateReuse Association's *Recycled Water Urban Irrigation User Manual*, which has more detailed information on water recycling. The *Recycled Water Urban Irrigation User Manual* is available at: <http://www.lacsd.org/civicax/filebank/blobdload.aspx?blobid=11118>. A list of important agency contacts for recycled water use is provided in Tab 2.

## Background on the County Sanitation Districts of Los Angeles County

The Sanitation Districts protect public health and the environment through innovative and cost-effective wastewater and solid waste management, and in doing so, convert waste into resources such as recycled water, energy, and recycled materials. The Sanitation Districts are a partnership of 24 independent special districts serving over five and a half million people in Los Angeles County, California (County). The Sanitation Districts' service area covers more than 800 square miles and encompasses 78 cities and unincorporated territory within the County.

The Sanitation Districts construct, operate, and maintain facilities to collect, treat, recycle, and dispose of wastewater and industrial wastes. Individual sanitation districts operate and maintain their own portions of the collection system. The Sanitation Districts also provide for the management of solid wastes including disposal, transfer operations, materials recovery, and energy recovery. Local jurisdictions are responsible for the collection of wastewater through local sewers and the collection of solid waste. The 24 Sanitation Districts work cooperatively under a Joint Administration Agreement with one administrative staff headquartered near the City of Whittier. Each Sanitation District has a separate Board of Directors consisting of the mayor of each city within that Sanitation District and the Chair of the Board of Supervisors for County unincorporated territory. Each Sanitation District pays its proportionate share of joint administrative costs.

## Wastewater Management System

The Sanitation Districts' 1,400 miles of main trunk sewers and 11 wastewater treatment plants convey and treat approximately 400 million gallons per day (mgd) of wastewater, from which approximately 135 mgd of recycled water are available for reuse in the dry Southern California climate. More information on the Sanitation Districts' wastewater management system is available at: <http://www.lacsd.org/wastewater/wwfacilities/moresanj.asp>.

### ***Joint Outfall System***

Seventeen of the Sanitation Districts that provide sewerage services in the metropolitan Los Angeles area south of the San Gabriel Mountains are signatory to a Joint Outfall Agreement that provides for operation and maintenance of a regional, interconnected system of facilities known as the Joint Outfall System (JOS). The service area of the JOS encompasses 73 cities and unincorporated territory, and includes some areas within the City of Los Angeles and Orange and San Bernardino counties.

The JOS includes the following treatment plants:

- Joint Water Pollution Control Plant in the City of Carson.
- La Cañada Water Reclamation Plant (WRP) in the City of La Cañada Flintridge.
- Long Beach WRP in the City of Long Beach.
- Los Coyotes WRP in the City of Cerritos.
- Pomona WRP in the City of Pomona.
- San Jose Creek WRP adjacent to the City of Industry.
- Whittier Narrows WRP near the City of South El Monte.

### ***Santa Clarita and Antelope Valleys***

The Santa Clarita Valley Sanitation District (SCVSD) serves an area encompassing the City of Santa Clarita and nearby unincorporated territory and operates the Saugus and Valencia WRPs. The recently formed Newhall Ranch Sanitation District of Los Angeles County will serve the proposed residential development to the west of the SCVSD.

Sanitation Districts Nos. 14 and 20 serve areas in the Antelope Valley. Sanitation District No. 14 serves the City of Lancaster, parts of the City of Palmdale, and nearby unincorporated territory and operates the Lancaster WRP. Sanitation District No. 20 serves the City of Palmdale and nearby unincorporated territory and operates the Palmdale WRP.

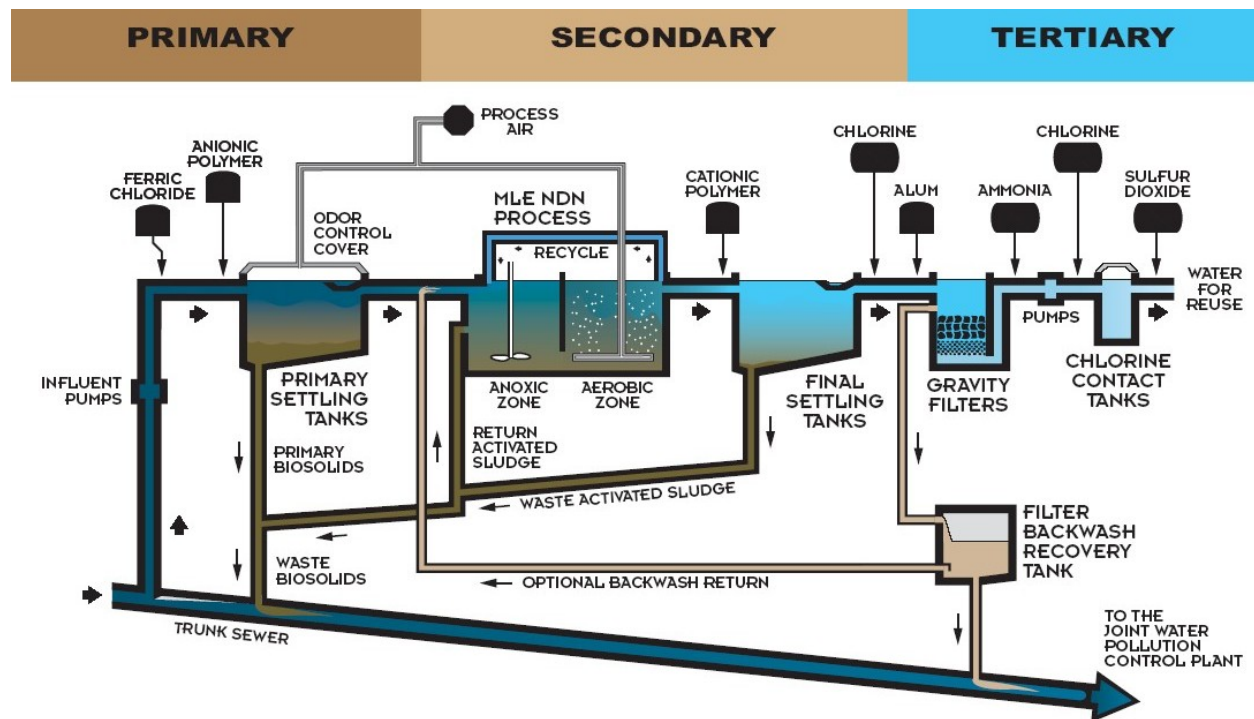
### **Recycled Water Reuse**

Water recycling provides a vital water supply in arid Southern California where water must be imported from other parts of the state to meet local water demands. One goal of the Sanitation Districts is to recycle as much water from its treatment plants as possible to help meet the region's water needs. The Sanitation Districts are pioneers in using recycled water with projects launched as early as 1962. Recycled water is used at more than 880 sites throughout the County for uses such as landscape irrigation, agricultural irrigation, industrial processes, construction applications, recreational impoundments, wildlife habitat maintenance, and groundwater replenishment. The actual amount of recycled water used and the percentages associated with specific applications vary from year to year depending on annual rainfall and other factors. More information on specific uses and reuse volumes is available at: <http://www.lacsd.org/waterreuse/>.

This Handbook is for anyone who obtains and/or uses tertiary recycled water produced by the Sanitation Districts for reuse applications within the JOS and SCVSD. Tertiary recycled water undergoes treatment to meet standards established by the California State Water Resources Control Board's Division of Drinking Water (DDW) and the Los Angeles Regional Water Quality Control Board (Regional Water Board).

## Recycled Water Treatment Process

A water reclamation plant is like a natural river but in a concrete box. First, materials settle to the bottom or float to the top and are removed (primary treatment). Second, microbes use air to breathe while they consume organic material, then the microbes settle out (secondary treatment). Third, sand and coal filter out leftover particles (tertiary treatment) like sand in the bottom of a river.



### Primary Treatment

Just as in nature, when runoff first enters a river, heavier solid particles settle to the bottom while lighter materials float to the top and are carried away. At the treatment plants, long concrete tanks substitute for the river. The heavier solids, which settle to the bottom, and the lighter materials, like plastic and grease, which float to the top, are respectively called primary sludge and skimmings. The primary sludge and skimmings are removed and undergo further treatment either on-site or at a larger treatment facility downstream. The remaining wastewater containing dissolved and suspended material (mostly organic) moves to the second phase of treatment in aeration tanks and secondary settling basins.

### Secondary Treatment

As dirty water in a river flows downstream, naturally occurring microorganisms feed on the suspended and dissolved organic material, using oxygen that naturally enters the water. In the secondary treatment aeration tanks at the treatment plants, air is bubbled through the water to supply oxygen. The same microorganisms in the wastewater grow as they feed on the organic materials in these tanks. In the secondary treatment settling tanks, the water is slowed down so that the microorganisms can clump together and settle to the bottom, where they are either removed from the process for solids treatment or returned back into the secondary treatment aeration tanks to go through the process again.

### ***Tertiary Treatment***

Finally, in a natural river, the clean water soaks into the ground beneath the river and joins the underground water supply. At treatment plants, filters typically contain layers of anthracite coal, sand, and gravel that substitute for the ground and remove any remaining suspended materials from the water. The recycled water is then disinfected using chlorine, chloramines, or ultraviolet light to kill any remaining microorganisms, especially harmful bacteria and viruses. The water is now safe for human contact, recharging groundwater, and a wide variety of other uses.

### **Approved Uses**

Recycled water has been proven to be a safe source of water for many different kinds of reuse applications. Because of its high level of treatment, tertiary recycled water can be used for a broad category of reuse applications as listed below. However, it is important to remember that the State or Regional Water Board issues each recycled water permit issued to the Sanitation Districts and authorizes the specific uses that are approved for the recycled water produced at each treatment plant. Therefore, it is important to check with the Sanitation Districts' Water Recycling Coordinator at 877-REUSE-83 (877-738-7383) or [reuse@lacsdc.org](mailto:reuse@lacsdc.org) to find out which uses are allowed in your area.

### **Approved Uses of Tertiary Recycled Water in California**

#### *Irrigation:*

- Food crops
- Parks and playgrounds
- School yards
- Residential landscaping
- Golf courses
- Cemeteries
- Freeway landscaping
- Ornamental nurseries
- Pasture for milk animals
- Orchards
- Vineyards
- Fodder and fiber crops

#### *Supply for Impoundments:*

- Recreational impoundments
- Landscape impoundments

#### *Supply for Cooling and Air Conditioning*

- Industrial cooling towers and evaporative condensers
- Commercial cooling towers and evaporative condensers

#### *Other Uses:*

- Groundwater recharge (case-by-case basis)
- Flushing toilets and urinals
- Priming drain traps
- Industrial processing
- Industrial boiler feed



- Fire fighting
- Decorative fountains
- Commercial laundries
- Consolidation of backfill material around pipelines
- Artificial snow making
- Commercial car washes
- Soil compaction
- Mixing concrete
- Dust control on roads and streets
- Cleaning roads, sidewalks, and outdoor work areas
- Flushing sanitary sewers

### **State and Local Standards, Regulations and Guidelines**

A number of regulatory agencies have adopted requirements that must be followed when producing, distributing, or using recycled water.

- The California State Water Resources Control Board's (State Water Board) Division of Drinking Water (DDW; formerly the Drinking Water Program of California Department of Public Health) has adopted strict public health and safety requirements and guidelines to help protect the public from any potential risk associated with recycled water. These requirements include Title 17 and Title 22 of the California Code of Regulations, which can be viewed online at the State Water Board website at: [http://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/RecycledWater.shtml](http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/RecycledWater.shtml). Key excerpts are provided in Tab 10 of this Handbook, including the Water Recycling Criteria that establish specific requirements for approved uses of recycled water.
- The State Water Board also oversees the production, conveyance, and use of recycled water in California through its nine Regional Water Quality Control Boards (Regional Water Boards). Currently, use of recycled water produced by the Sanitation Districts' JOS and SCVSD WRPs is regulated by individual permits issued to each WRP (with the exception of Whittier Narrows WRP); copies of these permits are provided in Tab 11. Coverage can also be obtained under general permits issued by the State or Regional Water Board, as is the case for the Whittier Narrows WRP.
- The Sanitation Districts have adopted Water Recycling Ordinances and a *Recycled Water Use Control Program* which contains *Requirements for Recycled Water Users*. Anyone who obtains and/or uses recycled water produced by the Sanitation Districts must ensure that the use meets all regulations and complies with the conditions in the recycled water permits issued to the Sanitation Districts by the State or Regional Water Board and the water recycling Ordinances adopted by the Sanitation Districts. The *Recycled Water Use Control Program* and *Requirements for Recycled Water Users* contain rules on what can and cannot be done with recycled water, how to obtain permission to use recycled water, how to operate and manage reuse sites, information on reuse site inspections and site access, corrective actions, notification and reporting, and record keeping. Copies of the Water Recycling Ordinances are provided in Tab 12. A copy of the *Recycled Water Use Control Program* and *Requirements for Recycled Water Users* is provided in Tab 1.
- The Los Angeles County Department of Public Health (County Health) has construction and on-site retrofit guidelines and inspection requirements for the use of recycled water, which

are provided in Tab 9. The cities of Long Beach, Pasadena, and Vernon in the Sanitation Districts' service area have their own local health departments. Users in these cities should contact the local health department (instead of County Health) for the requirements that must be met.

## **Duties and Responsibilities**

### **Complying with Regulations**

It is important for anyone who obtains and/or uses recycled water to be familiar with all relevant regulatory and permitting requirements and to take all necessary steps to comply with those requirements.

### **How to Obtain Permission to Use Recycled Water**

The step-by-step processes for obtaining permission to use recycled water are presented in Tab 3 of this Handbook. One process is intended for anyone who receives recycled water directly from the Sanitation Districts and the other process is intended for anyone who receives recycled water from a recycled water purveyor. Each process indicates the agencies you will interact with, documents that must be completed, and who must receive the documents.

**User Agreement.** Anyone who obtains recycled water directly from the Sanitation Districts must enter into a User Agreement for the use of recycled water or an amendment to an existing User Agreement with either Sanitation District No. 2 (for reuse sites within the JOS) or the SCVSD (for reuse sites within the Santa Clarita Valley). Recycled water purveyors who provide recycled water from the Sanitation Districts to users, must enter into a User Agreement with either Sanitation District No. 2 (for reuse sites within the JOS) or the SCVSD (for reuse sites within the Santa Clarita Valley).

**User Application.** Prior to obtaining permission to use recycled water, a User Application Form (Application) must be completed and submitted to the Sanitation Districts (see Tab 4). Anyone who directly obtains recycled water from the Sanitation Districts must fill out the Application. If you plan to obtain recycled water from a recycled water purveyor, contact the applicable purveyor for completing their application process. In the latter case, the water purveyor is responsible for completing the Sanitation Districts' Application and submitting it to the Sanitation Districts.

To fill out the Application you will need information on the reuse site(s), uses of the recycled water, staffing and training, outlets and plumbing fixtures, and backflow prevention measures.

As a user, if you started using recycled water prior to July 1, 2008, you do not have to file an Application until the use of recycled water or reuse site is changed or modified, unless requested by the Sanitation Districts. However, if you are exempt from filing an Application, you will have to provide proof that the Site Supervisor has received training, and an Emergency Cross-Connection Response Plan will have to be submitted.

**Emergency Cross-Connection Response Plan.** As part of the Application, you are asked to prepare an Emergency Cross-Connection Response Plan (Response Plan) should cross-connections between the recycled water and potable water systems occur. If the Response Plan cannot be provided with the Application, then you will need to indicate the date it will be submitted. The Response Plan should provide a narrative description or a checklist of how you

will comply with the guidelines established by County Health or local health department. The County Health guidelines are provided in Tab 9. A form to use to prepare the Response Plan is provided in Tab 5.

**Operations Manual.** Although not specifically required, it is recommended that you also prepare a recycled water system operations manual. The operations manual should provide a description or a checklist of how the reuse site will be operated and maintained to comply with the Sanitation Districts' *Requirements for Recycled Water Users*. This operations manual will be valuable in training new employees who will be working on the recycled water system.

**Plans and Specifications.** Detailed plans and specifications for the recycled water system and connections to the potable water system must be given to and approved by County Health and/or the local health department. Plans and specifications for dual plumbed projects must also be submitted to and approved by the DDW.

**Engineering Report.** Prior to approval of the reuse project, it is important to make sure that an Engineering Report has been sent to the Regional Water Board and DDW, and that the Sanitation Districts also receive a copy. The Regional Water Board and DDW determine if the Engineering Report is complete. The Engineering Reports are typically prepared by your water purveyor or in some cases by the user. The Sanitation Districts will contribute information on the treatment plants. Please check with your water purveyor on the status of the Engineering Report for your project. In some cases, an Engineering Report that covers the project may have already been submitted and approved, so no further action is needed. For projects with existing Engineering Report(s) that propose to either expand their service area or add new recycled water uses, the existing Engineering Report needs to be amended through a letter sent to the Regional Water Board and DDW. For more information on what must be included in the Engineering Report, refer to the State Water Board guidance document at: [http://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/Documents/Recharge/ERG UIDE2001.pdf](http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Documents/Recharge/ERG UIDE2001.pdf).

**California Environmental Quality Act.** Prior to approval of the reuse project, it is important to make sure that all the requirements of the California Environmental Quality Act (CEQA) have been met for your project. The agency responsible for completing the CEQA process will typically be the recycled water purveyor or in some cases the Sanitation Districts. As part of the CEQA process, a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report (EIR) may need to be completed. For more information on CEQA requirements, go to the California Natural Resources Agency website at: <http://resources.ca.gov/ceqa/>.

**Pre- and Post-Construction Inspections.** Prior to project construction and start-up, County Health and/or the local health department must be contacted to arrange for a preconstruction meeting, site inspections, initial cross-connection and backflow prevention device testing. For recycled water site conversions in its jurisdiction, County Health must review and approve all design drawings and specs prior to construction, must be present during the cross-connection test, and must issue final approval before the site is fully converted over to the recycled water supply.

**Project Start-up.** Once a project has cleared all of its Regional Water Board, State Water Board, County Health or local health department, and CEQA obligations, and the recycled water purveyor (or direct user) has notified the Sanitation Districts that these obligations have been met, a project may begin recycled water use provided that County Health has granted approval. The start date of recycled water delivery shall be arranged with the Sanitation Districts or

recycled water purveyor, as applicable.

The actual start date for recycled water delivery will also depend upon completing the User Agreement or amendment with the Sanitation Districts, and completing the Sanitation Districts User Application by:

- Providing proof that the Site Supervisor has received training.
- Submitting the Emergency Cross-Connection Response Plan.
- Submitting other information indicated in the Sanitation Districts' conditional approval letter.

### **Designate a Site Supervisor**

Each reuse site must have a designated Site Supervisor. This person is responsible for:

- The proper installation, operation, and maintenance of the recycled water system and all backflow prevention devices on the potable water system;
- Compliance with all recycling requirements in the Sanitation Districts' recycled water permits issued by the State or Regional Water Board, applicable laws and regulations, State Water Board and local health department guidelines, and the Sanitation Districts' Ordinances and *Requirements for Recycled Water Users*;
- Preventing potential hazards;
- Minimizing the potential for runoff and overwatering;
- Minimizing fertilizer use by taking into account the nutrient value of the recycled water;
- Coordinating with the cross-connection control program; and
- Preserving the recycled water system design drawings in "as-built" form.
- Supervising work done by other site employees on the on-site recycled water system.

The Site Supervisor should be someone who is knowledgeable about recycled water practices and the on-site recycled water and potable water plumbing system, and has the authority to make sure that operations personnel and contractors comply with all requirements. The Site Supervisor is the primary means for ensuring safe and appropriate use of recycled water at the reuse site and is the 24-hour contact person for the reuse site.

### **Participate in Training**

The Site Supervisor must receive appropriate training to assure proper operation of recycling facilities, operations personnel protection, and that the reuse site meets all applicable requirements. It is recommended that training be provided to all operation and maintenance staff for projects receiving recycled water. The Sanitation Districts provides such training. Your water purveyor may also provide training, and there may also be training classes offered in the area. Please contact the Sanitation Districts' Water Recycling Coordinator for information on training opportunities, or visit the Sanitation Districts' website for a schedule and registration form at <http://www.lacsd.org/waterreuse/recycledresources.asp>.

### **Familiarity with On-site Recycled Water System and Regulations**

There are specific provisions in the *Requirements for Recycled Water Users* that must be followed when installing and operating a recycled water system. County Health may have additional requirements that will be discussed during their required pre-construction meeting. Each Site Supervisor must be familiar with the entire on-site recycled water system and with applicable regulations. Some general practices to follow are:

Do's:

- Educate/train operations personnel on the safe use and restrictions of recycled water.
- Apply recycled water only at agronomic rates (i.e., no more water than the plant material needs and the soil can handle).
- Reduce fertilizer application rates due to nutrients in the recycled water.
- Install and maintain signs at all points of entry (both pedestrian and vehicular).
- Install and maintain labels and tags on recycled and potable water appurtenances.
- Use quick couplers instead of hose bibbs in public access areas.
- Operate irrigation system:
  - Between 10 p.m. – 6 a.m., if automatically controlled (unless other restrictions apply).
  - At other times, if manually controlled and supervised (i.e., site employee present) to make sure the public does not come in contact with the recycled water.
  - At any time, if public access to the reuse site is restricted.
- Prevent runoff from reuse sites due to over-spray from sprinklers, overflow of ponds that contain recycled water, over watering, or broken sprinklers or pipelines.
- Quickly repair any breaks in recycled water irrigation or distribution lines and broken sprinklers.
- Be familiar with all of the notification requirements if any of the following has occurred:
  - A recycled water line break, spill, or off-site discharge of recycled water.
  - A noncompliance of the Sanitation Districts' *Requirements for Recycled Water Users* or recycled water use permits.
  - A cross-connection between the recycled water and potable water systems.
  - Any safety or health issues.
- Schedule all required backflow prevention and cross-connection testing.
- Assist and cooperate during periodic backflow prevention and cross-connection testing.
- Develop an Emergency Cross-Connection Response Plan.
- Assist and cooperate during periodic site inspections conducted by the Sanitation Districts or the water purveyor.
- Thoroughly wash tools used for the recycled water system if used for the potable water system.
- Contact the Sanitation Districts if any water system (recycled or potable) modifications are anticipated.
- Keep records and as-built drawings up-to-date and accessible.
- Submit all required information and reports.

Don'ts:

- Don't drink recycled water.
- Don't use recycled water to wash hands or any other part of body.
- Don't remove recycled water identification signs, tags, or labels.
- Don't cross-connect two dissimilar water systems (recycled to potable).
- Don't allow recycled water to contact drinking fountains or eating areas.
- Don't overwater.
- Don't over-fertilize.
- Don't allow recycled water to pond or run off-site.
- Don't use recycled water on an unauthorized site or for an unapproved use.
- Don't install hose bibbs on recycled water systems (unless public access is restricted).
- Don't use the same equipment on both recycled water and potable water systems (i.e., quick couplers, etc.).
- Don't significantly modify the recycled water system without prior approval of the

Sanitation Districts, your recycled water purveyor, and County Health or local health department.

### **Cross-Connection Testing and Backflow Prevention**

A major concern when recycled water is used on sites served with potable water is a cross-connection. A cross-connection is any actual or potential connection between the recycled water and potable water systems, even when separated by an approved backflow prevention device. There are specific requirements for backflow prevention in the State Water Board's recycled water regulations (see Tab 10).

Anyone who obtains and/or uses tertiary recycled water must be sure that an initial and final cross-connection test is conducted based on the requirements set by County Health (see Tab 9) or local health department prior to connecting the recycled water distribution system. This involves submitting a Cross-Connection Plan Approval Application to County Health, and conducting the testing in the presence of both your water purveyor and County Health or the local health department, utilizing a specialist who has been certified by the American Water Works Association or a group with equivalent certification requirements. Follow-up cross-connection testing should be conducted when significant modifications have been made to either the recycled water or potable water systems or if problems are discovered during site inspections. For dual plumbed systems (see Glossary of Terms for definition), cross-connection inspections must be conducted annually, with actual testing of the recycled water system every four (4) years.

County Health utilizes the following protocol for cross-connection testing. First, the recycled water system (e.g., irrigation, industrial process, etc.) is completely drained and depressurized for a period of time determined by County Health – this is called the shutdown period. At the end of the shutdown period and while the potable water system is still pressurized to the domestic outlets, all of the recycled water devices or stations are checked for flow and then the recycled water inlet is checked for back pressure or significant backflow. The domestic water system is then shut down, drained, and depressurized for a period of time determined by County Health. At the end of this second shutdown period, all of the domestic water fixtures are operated and tested for flow, after which the potable water inlet is tested for pressure or significant backflow of water. If no cross-connections are discovered, potable water system is reactivated and the irrigation or industrial water system is permanently disconnected and capped followed by the permanent recycled water system connection. A temporary potable water source with backflow prevention is required for all testing and flushing of the system prior to final project approval.

Every recycled water use site that will continue to maintain a potable water service must have the potable water supply protected by, at minimum, a reduced pressure backflow prevention device. All approved backflow prevention devices must be maintained and inspected annually by a certified backflow device inspector. This is typically done using a pressure test to verify physical separation between the recycled water and potable water systems. Dye tests can also be used.

### **Site Inspections**

Each reuse site must be inspected periodically by the recycled water purveyor. The purpose of the site inspection is to make sure the reuse site is in compliance with all requirements. Site inspections must take place at least once every three (3) years per site or more frequently if requested by the Sanitation Districts. In addition, the Sanitation Districts will also conduct

periodic inspections. To help with site inspection coordination, your recycled water purveyor must email or fax the Sanitation Districts' Water Recycling Coordinator at least one (1) week prior to conducting a site inspection.

A site inspection report should be filled out for each inspection. Tab 6 includes a sample inspection report, which will be used by the Sanitation Districts. The site inspection report must be signed by the Site Supervisor and inspector, with copies provided to the Sanitation Districts within thirty (30) days following the end of the quarter in which the site inspection was conducted. The Site Supervisor should also keep copies of the site inspection reports.

If an inspector finds a violation or reuse site operations personnel discover a violation during routine operations, the Site Supervisor must be notified immediately. The Site Supervisor must immediately take corrective actions and notify the Sanitation Districts by phone, fax, or email of the violation, if discovered by a non-Sanitation Districts inspector. The Site Supervisor must provide written verification to the Sanitation Districts within three (3) business days from the date of confirmation of the violation. The recycled water purveyor must also provide written follow-up documentation to the Sanitation Districts that the necessary corrective actions have been taken.

### **Notifications and Reporting**

The Site Supervisor is responsible for reporting specific information to the Sanitation Districts – in some cases this must be done immediately and requires follow-up information in writing. Notifications and reporting are required to the Sanitation Districts for the following types of situations.

#### ***Public Health***

1. If you become aware of a complaint concerning recycled water use that may involve illness.
2. If the potable water system has been contaminated due to a cross-connection with the recycled water system.

**Actions for #1 and #2** – Immediately (but no later than two (2) hours) notify the Sanitation Districts' Water Recycling Coordinator by telephone at 877-REUSE-83, DDW, and County Health or your local health department (for Long Beach, Pasadena, and Vernon) by telephone, email, or fax after you are aware of the complaint. **See Tab 2 for agency contact information.** You must also provide written confirmation within three (3) business days to each agency.

#### ***Spills or Unauthorized Discharges of Recycled Water***

1. Any spill or unauthorized discharge of more than 50,000 gallons of tertiary recycled water.

**Action** – Immediately (but no later than two (2) hours) notify the Sanitation Districts by telephone at 866-484-1224 (spill hotline), Regional Water Board, and County Health or your local health department (for the cities of Long Beach, Pasadena, and Vernon) by telephone, email, or fax after you are aware of the spill or unauthorized discharge. The DDW must be contacted if a drinking water source is threatened by the spill. If the environment is endangered by the spill, the California State Department of Fish and Wildlife (State Park Dispatch 951-443-2969) must be contacted. **See Tab 7 for agency contact information.** You must provide information on the date/time the spill began and ended, the location of the spill, if the spill entered a storm drain or receiving water, the estimated volume or flow if the

spill is ongoing, the estimated time of repair, cause of the spill, agencies involved with repair and clean-up, and corrective actions taken or plans for corrective actions. You must also provide written confirmation electronically (e.g., email or fax) within three (3) business days to each agency. **See Tab 7 for the form to report spills or unauthorized discharges.**

2. For volumes less than 50,000 gallons, any recycled water leaving the reuse site other than a minor amount of recycled water (minor amount is considered runoff due to overspray or over watering, minor breaks in the recycled water irrigation or distribution system, or broken or misdirected sprinklers).

**Action** – Immediately (but no later than two (2) hours) notify the Sanitation Districts by telephone at 866-484-1224 (spill hotline) after you are aware of the spill. You should provide information on the date/time the spill began and ended, the location of the spill, if the spill entered a storm drain or receiving water, the estimated volume or flow if the spill is ongoing, the estimated time of repair, cause of the spill, agencies involved with repair and clean-up, and corrective actions taken, or plans for corrective actions. You must also provide written confirmation electronically (e.g., email or fax) within three (3) business days to the Sanitation Districts. **See Tab 7 for the form to report spills or unauthorized discharges.**

### **Site Inspections**

1. Scheduling of site inspections.

**Action** – Your water purveyor must notify the Sanitation Districts' Water Recycling Coordinator by telephone at 877-REUSE-83, or email at [reuse@lacsdc.org](mailto:reuse@lacsdc.org) at least one (1) week prior to conducting a site inspection.

2. Results of site inspections.

**Action** – A site inspection report must be filled out and signed by the Site Supervisor and inspector, with copies provided to the Districts' Water Recycling Coordinator within thirty (30) days following the end of the quarter in which the site inspection was conducted. **See Tab 6 for Site Inspection Report Form.**

### **Noncompliance with Regulations**

1. Any noncompliance of applicable laws and regulations.
2. Any noncompliance of the Sanitation Districts' recycled water permits issued by the State and/or Regional Water Board.
3. Any noncompliance of the Sanitation Districts' *Requirements for Recycled Water Users*.

**Action for #1, #2 and #3** – Notify the Sanitation Districts' Water Recycling Coordinator by telephone at 877-REUSE-83 within two (2) hours after you are aware of the noncompliance. You must also provide written confirmation within three (3) business days to the Sanitation Districts.

4. Verification of corrective actions.

**Action** – Your water purveyor must provide written confirmation to the Sanitation Districts' Water Recycling Coordinator that corrective actions have been made within ninety (90) days of knowledge of the noncompliance.



### ***Changes at the Reuse Site***

1. If there are any planned modifications or additions to the recycled water system.

**Action** – Notify the Sanitation Districts' Water Recycling Coordinator by telephone at 877-REUSE-83, or email at [reuse@lacsdc.org](mailto:reuse@lacsdc.org) prior to any modifications to the recycled water system. Any significant changes or modifications must be reviewed and approved by the Sanitation Districts before they are made.

### ***Change in Site Supervisor***

1. Any proposed changes in the individual designated as the Site Supervisor.
2. Contact information for the Site Supervisor (including emergency information) or changes in information.

**Action for #1 and #2** – Notify the Sanitation Districts' Water Recycling Coordinator by telephone at 877-REUSE-83, or email at [reuse@lacsdc.org](mailto:reuse@lacsdc.org) as soon as possible. **See Tab 8 for the Reuse Site Contact Information Form.**

### ***Information for Contractors Using Recycled Water***

1. If you hire a contractor that will use recycled water, such as a truck hauler.

**Action** – You must provide contractors with information (preferably in writing) about the Sanitation Districts' *Requirements for Recycled Water Users*. It is highly recommended that the Site Supervisor review the requirements with contractors and their staff.

### ***Monitoring and Reporting Requirements***

1. In the conditional approval letter, the Sanitation Districts will specify the required information that must be submitted to the Sanitation Districts to comply with monitoring and reporting requirements specified in the Sanitation Districts' recycled water permits. Such information may include the volume of recycled water used, uses of recycled water, and other information.

**Action** – You must provide this information to the Sanitation Districts as requested.

### **Record Keeping**

The Site Supervisor or water purveyor must keep copies of the following that are available to employees at all times:

- Recycled water system operations manual (optional)
- Emergency Cross-Connection Response Plan
- Sanitation Districts' *Requirements for Recycled Water Users*
- Sanitation Districts' recycled water permits
- Site inspection reports
- As-built drawings
- Operations and maintenance logs

When you receive your conditional approval letter from the Sanitation Districts, the letter will include instructions on the specific type of information to be kept in the log such as the monthly volumes of recycled water used at each reuse site and the dates of site inspections and cross-

connection and backflow prevention testing, etc. From time to time, the Sanitation Districts may ask for additional information to be kept in the log.

## **Recycled Water Websites and Resources**

- Sanitation Districts of Los Angeles County  
<http://www.lacsd.org/waterreuse/>
- State Water Resources Control Board  
[http://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/RecycledWater.shtml](http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/RecycledWater.shtml)
- EPA Guidelines for Water Reuse  
<http://www3.epa.gov/region9/water/recycling/>
- California Department of Water Resources  
<http://www.dwr.water.ca.gov>
- City of Long Beach Department of Health and Human Services  
<http://www.longbeach.gov/health/>
- City of Pasadena Public Health Department  
<http://www.cityofpasadena.net/PublicHealth/>
- City of Vernon Environmental Health Services  
<http://www.cityofvernon.org/departments/health>
- Los Angeles County Department of Public Health  
<http://publichealth.lacounty.gov/eh>
- Los Angeles Regional Water Quality Control Board  
<http://www.waterboards.ca.gov/losangeles>
- Recycled Water Urban Irrigation User's Manual  
<http://www.lacsd.org/civicax/filebank/blobdload.aspx?blobid=11118>
- California Recycled Water Task Force  
<http://www.water.ca.gov/recycling/TaskForce/index.cfm>
- WateReuse Association  
<http://www.watereuse.org>

## Glossary of Terms

**Agronomic Rate** - The rate of application of recycled water to plants necessary to satisfy the plants' evapotranspiration requirements, considering allowances for precipitation, irrigation distribution uniformity, and leaching requirement, minimizing the movement of nutrients below the plants' root zone. Application of recycled water at agronomic rates does not exceed vegetative water and nutrient demand and prevents overwatering, water ponding and runoff.

**Applicant** - An Owner or authorized representative of a potential reuse site who applies for recycled water service under terms of the appropriate regulations. An approved Applicant becomes a User.

**Approved Use** - An application of recycled water in a manner, and for a purpose, designed in a User Agreement entered into with the Sanitation Districts and in compliance with all applicable regulatory requirements.

**Backflow Prevention Device** - A device installed to protect the potable water supply from contamination by non-potable water. The backflow prevention device must be approved by the State Water Board's DDW.

**Cooling Tower** - A device used to cool water and dissipate unwanted heat into the atmosphere through evaporation of a portion of the water being cooled.

**County or Local Health Department** - This is the health protection agency for the municipality in question. These are city health departments in cities of Long Beach, Pasadena and Vernon, and the Los Angeles County Department of Public Health for all other areas of the County.

**Cross-Connection** - Any physical connection between any part of a water system used or intended to supply water for drinking purposes and any source or system containing water or substance that is not or cannot be approved as safe, wholesome, and potable for human consumption.

**Disinfection** - A process that uses chemical or physical means to inactivate pathogenic (disease-causing) organisms in water or wastewater.

**Dual-Plumbed Site** - A reuse site that utilizes separate piping systems for recycled and potable water within a facility and where the recycled water is used to 1) serve plumbing outlets (such as toilets and urinals, but excluding fire suppression systems) within a building or 2) serve outdoor landscape irrigation at individual residences.

**Filter** - A treatment unit for the removal of particulate material that consists of the combination of a filter medium and suitable hardware for constraining and supporting the filter medium in the path of the water. For example, in the case of a cartridge filter, the filter includes both the cartridge and the housing.

**Groundwater** - Water that is found in fully saturated soils, sediments, and rocks below the surface of the ground.

**Hose Bibb** - A faucet or similar device to which a common garden hose can be readily attached and water accessed.

**Industrial Cooling** - Cooling of material or air for industrial processes or energy generation and does not include air conditioning for comfort of persons in a building.

**Inspector** - Any person authorized by the Sanitation Districts to perform inspections on or off the reuse site before construction, during construction, after construction, and during operation.

**Irrigation Use** - The application of recycled water by spray or other method for the support and maintenance of landscaping and/or agricultural plant material (as defined for recycled water under Title 22, Chapter 3 of the California Code of Regulations).

**Landscape Impoundment** - An open body of recycled water on a reuse site that is utilized for aesthetic enjoyment or which otherwise serves a function not intended to include public contact.

**Non-potable** - Water that is not suitable for drinking by humans (includes recycled water).

**Operations Personnel** - Any employee of a User, whether permanent or temporary, or any contracted worker whose regular or assigned work involves the supervision, operation, or maintenance of equipment on any portion of on-site facilities using recycled water.

**Operator** - Any person, persons, or firm, who by entering into an agreement with a User is responsible for operating on-site facilities.

**Overspray** - Water that is transmitted through the air to a location other than where the direct application of recycled water is intended.

**Owner** - Any holder of legal title, contract purchaser, or lessee under a lease with an unexpired term of more than one (1) year, for property for which recycled water service has been requested or established.

**Pathogen** - Any agent, especially a microorganism, capable of causing disease.

**Ponding** - Unintentional retention of recycled water on the surface of the ground or other natural or manmade surface for a period following the cessation of an approved recycled water use activity such that a hazard or potential hazard to the public health results.

**Potable Water** - Water that is suitable for drinking and conforms to California drinking water standards and other applicable standards.

**Public** - Any person or persons at large and not associated with the operation of the site who may come in contact with facilities and/or areas where recycled water is approved for use.

**Purveyor** - Any public, private, investor-owned, or other water utility that is legally permitted to distribute water and that obtains recycled water from the Sanitation Districts for distribution to Users.

**Recreational Impoundment** - An open body of recycled water located on a reuse site that may be used for unrestricted body contact (e.g., swimming, wading) or restricted non-body contact (e.g., boating, fishing) recreation.

**Recycled Water** - Water produced by a municipal water reclamation facility that is suitable for a beneficial use.

**Reuse Site** - A site with well-defined boundaries authorized for the use of recycled water; the uses of recycled water and the site location must comply with permits as issued by the applicable Regional Board.

**Runoff** - When recycled water is intentionally or unintentionally allowed to drain outside the approved recycled water irrigation area. Runoff is considered “incidental” when it occurs in small amounts due to over-spray or minor leakage from sprinklers, over-watering, breaks in lines or overflow of ponds that contain recycled water during storms.

**Site Supervisor** - The person designated by the owner or manager of the property upon which recycled water will be or is applied, who will carry out the responsibility of the owner or manager of the property for: (a) installation, operation, and maintenance of the system that enables recycled water to be used; (b) prevention of potential hazards; (c) implementation and compliance with provisions of these guidelines and other associated documents; and (d) coordination with the cross-connection control program of the water supplier. This person should be available to the Sanitation Districts at all times and should have the knowledge and authority to carry out any requirements.

**Tertiary Treatment** - The treatment of wastewater beyond the secondary, or biological, stage. Normally implies the removal of a high percentage of pathogens and of suspended solids through filtration and disinfection.

**Unauthorized Discharge** - Any release or spill of recycled water that violates the rules and regulations of the Sanitation Districts or applicable Federal, State, or local statutes, regulations, ordinances, contracts, or other requirements.

**User** - Any person to whom the Sanitation Districts distributes recycled water under the permits issued to the Sanitation Districts by the Regional Water Board, including end users to whom recycled water is conveyed through an intermediate party. User does not include persons who have been independently issued permits from the Regional Water Board.

**User Agreement** - A contractual agreement between the User and/or water purveyor and the Sanitation Districts that establishes the conditions for recycled water service and use.

**Water Reclamation Facility** - An arrangement of devices, structures, equipment, processes, and controls that produce a recycled water supply suitable for the intended reuse.

**Windblown Spray** - Dispersed, airborne particles of recycled water that can be transmitted through the air to locations other than those approved for the direct use of recycled water.

## **Tab 1**

# **Recycled Water Use Control Program**

## **Requirements for Recycled Water Users**

# **Recycled Water Use Control Program**

## **Requirements for Recycled Water Users**

### **County Sanitation Districts of Los Angeles County Joint Outfall System and Santa Clarita Valley Sanitation District**

#### **Introduction**

This Recycled Water Use Control Program establishes requirements including operational guidelines and regulations (Requirements) pertaining to the administration of waste discharge requirements (WDRs) issued to the County Sanitation Districts of Los Angeles County (Sanitation Districts) pursuant to California Water Code (Water Code) section 13263, water reclamation requirements (WRRs) issued pursuant to section 13523, or master reclamation permits (Master Permits) issued pursuant to section 13523.1 by the California State Water Resources Control Board and/or Regional Water Quality Control Board, Los Angeles Region (Regional Board). The Requirements are in conformance with Ordinances adopted by County Sanitation District No. 2 of Los Angeles County (District No. 2) for the Joint Outfall System<sup>1</sup> (JOS), and by the Santa Clarita Valley Sanitation District of Los Angeles County (SCVSD).

#### **Background**

The California Water Code (Water Code) section 13523.1(a) authorizes the issuance of Master Permits to suppliers or distributors, or both, of recycled water in lieu of issuing individual water reclamation requirements to each recycled water user. Water Code section 13523.1(b) sets forth the requirements for Master Permits issued by the Regional Water Quality Control Boards, including a condition that the permittee establish and enforce rules or regulations for recycled water users, governing the design and construction of recycled water use facilities and the use of recycled water, in accordance with the uniform statewide recycling criteria established pursuant to Water Code section 13521. Master Permits have been adopted by the Regional Board for the following Sanitation Districts' Water Reclamation Plants (WRPs): Long Beach WRP (Order No. 97-07206), Los Coyotes WRP (Order No. 97-07204), San Jose Creek WRP (Order No. 97-07207), Pomona WRP (Order No. 97-07201), Saugus WRP (Order No. 97-07202), and Valencia Water WRP (Order No. 97-07205). As of September 1, 2017, use of recycled water produced by the Whittier Narrows WRP is covered under the State Water Resources Control Board's (State Board's) Water Reclamation Requirements for Recycled Water Use, Water Quality Order 2016-0068-DDW (General Order).

Should the Regional Board issue individual WDRs or WRRs to the Sanitation Districts for the use of tertiary recycled water for non-potable reuse applications, or should coverage be obtained under the General Order or a successor order, it is the Sanitation Districts' intent that the Recycled Water Use Control Program and Requirements established herein will apply to those uses. These Requirements may be updated, as necessary, to comply with revisions to the permits or applicable laws and regulations.

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<sup>1</sup> Ownership and operation of the Joint Outfall System is proportionally shared among the signatory parties to the amended Joint Outfall Agreement effective July 1, 1995. These parties include County Sanitation Districts of Los Angeles County Nos. 1, 2, 3, 5, 8, 15, 16, 17, 18, 19, 21, 22, 23, 28, 29, and 34, and South Bay Cities Sanitation District of Los Angeles County.

## **Findings**

The Requirements are in conformance with the following:

- Provisions established by the General Order, WDRs, WRRs, or Master Permits issued by the State and/or Regional Board to the Sanitation Districts.
- Applicable portions of the Water Code, including Water Code section 13523.1.
- Applicable portions of the California Health and Safety Code.
- California Code of Regulations (CCR), Title 22, Division 4, Chapter 3, Uniform Statewide Water Recycling Criteria.
- CCR, Title 17, Division 1, Chapter 5, Subchapter 1, Group 4, Article 1 & 2.
- Regulations established by the County of Los Angeles Department of Public Health (County Health) or any other applicable local health department for the use of recycled water.

The Requirements are consistent with the following:

- The *Guidelines for the Preparation of an Engineering Report for the Production, Distribution and Use of Recycled Water*, California Department of Public Health (now known as the State Water Resources Control Board's Division of Drinking Water, or DDW).
- Any measures that are deemed necessary for protection of public health, such as the American Water Works Association (AWWA) California/Nevada Section, *Guidelines for Distribution of Non-Potable Water* and *Guidelines for the On-Site Retrofit of Facilities Using Disinfected Tertiary Recycled Water* or alternate measures that are acceptable to DDW.
- Relevant user manuals such as the Los Angeles County Recycled Water Advisory Committee's, 2014, *Recycled Water User Manual*.
- Relevant guidance issued by County Health for the use of recycled water.

The effective date of these Requirements is July 1, 2017.

## **Requirements for Recycled Water Users**

### **1. Definitions that Apply to these Requirements.**

- 1.1. Authorized Recycled Water Use Site (Site) is a site authorized for use of recycled water; the uses of recycled water and the site location must comply with Permits as issued by the Regional Board and/or State Board to the Sanitation Districts.
- 1.2. Direct User is any person to whom the Sanitation Districts directly distributes recycled water under the Permits issued to the Sanitation Districts by the Regional Board/State Board.
- 1.3. Dual-Plumbed System or Dual-Plumbed means a system that utilizes separate piping systems for recycled water and potable water within a facility and where the recycled water is used (1) to serve plumbing outlets (such as toilets and urinals and excluding fire suppression systems) within a building or (2) to serve outdoor landscape irrigation at individual residences.
- 1.4. Incidental Runoff is any small amount of recycled water that leaves the Site as a result of over-spray or minor leakage from sprinklers, over-watering, breaks in lines, or overflow of impoundments that contain recycled water during storms.
- 1.5. Master Reclamation Permit (Master Permit) contains requirements established for the Sanitation Districts by the Regional Board pursuant to Water Code section 13523.1.
- 1.6. Permit means either the General Order or any Regional Board issued WDR, WRR, or Master Permit.



- 1.7. Person is any individual, partnership, corporation, governmental subdivision or unit of a governmental subdivision, or public or private organization or entity of any character.
- 1.8. Purveyor is any public, private, investor-owned, or other water utility that is legally permitted to distribute water and that obtains recycled water from the Sanitation Districts for distribution to Users.
- 1.9. Recycled water is water produced by a municipal water reclamation facility that is suitable for a beneficial use.
- 1.10. User is any person to whom the Sanitation Districts distribute recycled water under the Permits issued to the Sanitation Districts by the Regional Board or State Board, including end users to whom recycled water is conveyed through an intermediate party. User does not include persons who have been independently issued Permits by the Regional Board.
- 1.11. User Agreement is a contractual agreement between the User and/or Purveyor and the Sanitation Districts that establishes the conditions for recycled water service and use.
- 1.12. Waste Discharge Requirements (WDRs) are requirements established for the Sanitation Districts by the Regional Board or the State Board, pursuant to Water Code section 13263.
- 1.13. Water Recycling Criteria are the criteria established by DDW generally dealing with the quality of recycled water and the means for assurance of reliability under the design concept, which will result in safe recycled water usage from the standpoint of public health for specified applications. The criteria are established pursuant to Water Code Section 13521, and are contained in the CCR, Title 22, Division 4, Chapter 3; also referred to as the "Uniform Statewide Water Recycling Criteria".
- 1.14. Water Recycling Requirements (WRRs) are requirements established for the Sanitation Districts by the Regional Board or the State Board, pursuant to Water Code section 13523.

## **2. Applicability.**

- 2.1. Unless otherwise stated, these Requirements shall apply to any and all Users to whom the Sanitation Districts distribute tertiary recycled water, either directly or through an intermediate party. These Requirements shall also apply to Purveyors that act as intermediate parties in delivering recycled water to Users. These requirements do not apply to persons who have been independently issued Permits by the Regional Board.
- 2.2. These Requirements do not apply to the Sanitation Districts, when the Sanitation Districts are both the Purveyor and/or the User, receiving WDRs or WRRs issued by the Regional Board for the use of tertiary recycled water.

## **3. General Requirements.**

- 3.1. Use of recycled water must comply with all applicable state laws, regulations, Sanitation Districts' Permits, and any amendments thereto, the Ordinances, and these Requirements.

## **4. General Prohibitions.**

- 4.1. Use of recycled water for any purposes other than those explicitly approved in the effective User Agreement is strictly prohibited.

- 4.2. The User shall insure that the treatment, storage, distribution, and use of recycled water shall not create a nuisance as defined in Water Code section 13050(m).
- 4.3. The User shall not discharge recycled water from treatment facilities, irrigation holding tanks, storage ponds, or other containment, other than for permitted reuse, except in accordance with other Regional Board issued Permits, contingency plans authorized by the Regional Board, or for an approved discharge to a municipal sewage treatment system.

**5. Process to Obtain Permission to Use Recycled Water.**

- 5.1. Except as provided by the Ordinances, any Direct User or Purveyor who wishes to receive recycled water produced by the Sanitation Districts must enter into a User Agreement with District No. 2 or SCVSD depending on the location of the reuse project before the use of recycled water can begin. The User Agreement shall include the Sanitation Districts' terms and conditions for the use of recycled water.
- 5.2. Any User who wishes to directly receive recycled water produced by the Sanitation Districts (Direct User) must file a User Application Form (Application) with the Sanitation Districts and receive approval in writing from the Sanitation Districts before the use of recycled water can begin.
  - 5.2.1. Any Direct User that utilizes recycled water on or before the effective date of these Requirements for an authorized use at a Site is exempt from filing an Application for that site until such time as:
    - 5.2.1.1. The Direct User receives a written request from the Sanitation Districts.
    - 5.2.1.2. The Direct User intends to modify the existing use, add a new authorized use, or make modifications to the Site. In this case, the Direct User must file an Application with the Sanitation Districts and receive approval before the use of recycled water can begin for that use and Site.
    - 5.2.1.3. A Direct User that is exempt from filing an Application must provide documentation to the Sanitation Districts that the Site Supervisor has received training and must submit to the Sanitation Districts an Emergency Cross-Connection Response Plan.
  - 5.2.2. Any Direct User that intends to utilize recycled water after the effective date of these Requirements for an authorized use at a Site must file an Application with the Sanitation Districts and receive approval before the use of recycled water can begin for that use and Site.
- 5.3. Any Purveyor with a User who wishes to receive recycled water produced by the Sanitation Districts through that Purveyor must file an Application with the Sanitation Districts and receive approval in writing from the Sanitation Districts before the use of recycled water can begin.
  - 5.3.1. Any Purveyor with a User that utilizes recycled water on or before the effective date of these Requirements for an authorized use at a Site is exempt from filing an Application for that site until such time as:
    - 5.3.1.1. The Purveyor or User receives a written request from the Sanitation Districts.
    - 5.3.1.2. The Purveyor or User intends to modify the existing use, add a new authorized use, or make modifications to the Site. In this case, the Purveyor must file an

Application with the Sanitation Districts and receive approval before the use of recycled water can begin for that use and Site.

- 5.3.1.3. A Purveyor that is exempt from filing an Application must provide documentation to the Sanitation Districts that the Site Supervisor for each site has received training and must submit to the Districts an Emergency Cross-Connection Response Plan for each site.
- 5.3.2. Any Purveyor with a User that intends to utilize recycled water after the effective date of these Requirements for an authorized use at a Site must file an Application with the Sanitation Districts and receive approval before the use of recycled water can begin for that use and Site.
- 5.4. The Application filed by the Direct User or Purveyor shall include:
  - 5.4.1. A detailed description of the proposed Site with: (a) a map showing the specific boundaries of the proposed Site; (b) the name of the person designated as the Site Supervisor and contact information; (c) evidence that the Site Supervisor has received appropriate training from the Sanitation Districts or an equivalent training program or the date by which training will occur prior to delivery of recycled water such that the Site is operated and maintained in compliance with applicable laws and regulations, the Sanitation Districts' Permits, and these Requirements; and (d) the specific use to be made of the recycled water at each Site.
  - 5.4.2. Plans and specifications describing: (a) proposed piping systems to be used; (b) pipe locations for both recycled water and potable water systems; (c) type and location of the outlets and plumbing fixtures that will be accessible to the public; and (d) the methods and devices to be used to prevent backflow of recycled water into the potable water system.
  - 5.4.3. Emergency Cross-Connection Response Plan in accordance with the guidelines established by County Health or local health department or the date by which the Emergency Cross-Connection Response Plan will be submitted prior to delivery of recycled water.

## **6. Operational Requirements.**

- 6.1. Each User shall designate a Site Supervisor who is responsible for the recycled water system at Site(s) under the User's control. Specific responsibilities of the Site Supervisor include the proper installation, operation, and maintenance of the recycled water system; compliance with the Sanitation Districts' Permits, applicable laws and regulations, local health department guidelines, and these Requirements; prevention of potential hazards; coordination with the cross-connection control program in accordance with CCR, Title 17 and County Health or local health department guidelines; and preservation of the recycled water system in "as-built" form.
- 6.2. The Site Supervisor shall receive appropriate training to assure proper operation of recycled water facilities, worker protection, and compliance with all applicable laws and regulations, the Sanitation Districts' Permits, and these Requirements.
- 6.3. The Site Supervisor shall instruct any person at the Site involved with the use of recycled water on its proper use and precautions.
- 6.4. All recycled water facilities and control systems shall be maintained in good working order and operated as efficiently as possible to achieve compliance with all applicable laws and regulations, the Sanitation Districts' Permits, and these Requirements.

- 6.5. Except as allowed under CCR, Title 17, section 7604, no physical connection shall be made nor shall a connection be allowed to exist between any recycled water system and potable water system.
- 6.6. A cross-connection test shall be performed as necessary to ensure the absolute separation of the recycled water system and potable water system, in accordance with the requirements of County Health or local health department.
  - 6.6.1. A cross-connection test shall be performed following any significant modifications to the recycled water system or potable water system, construction of new buildings, or any activity that may impact, or has impacted these systems.
  - 6.6.2. An initial cross-connection test shall be performed to determine if there are any unknown connections between potable piping and existing piping to be used for recycled water prior to construction of retrofit work.
  - 6.6.3. Prior to connection with the recycled water system, a final cross-connection test shall be performed to verify that construction of retrofit work was performed correctly.
  - 6.6.4. For dual-plumbed systems, prior to the initial operation and annually thereafter, the dual plumbed system within each facility and Site shall be inspected for possible cross-connections with the potable water system.
    - 6.6.4.1. The recycled water system shall be tested for possible cross-connections at least once every four (4) years.
    - 6.6.4.2. Cross-connection inspection and testing of dual plumbed systems shall be reported pursuant to Section 9.4.
    - 6.6.4.3. As stated in Section 1.3 above, dual-plumbed sites are limited by statutory definition to 1) buildings with internal plumbing fixtures (e.g., toilets, urinals) connected to the recycled water supply and 2) individual residences irrigating the landscaping with recycled water. All other Sites supplied with both recycled and potable water are not subject to the mandatory four-year cross-connection test.
  - 6.6.5. Cross-connection testing shall be performed by a specialist who has been certified by AWWA or a group with equivalent certification requirements.
- 6.7. The potable water supply shall not be used as a backup or supplemental source of water for a recycled water system unless the connection between the two systems is protected by an air gap separation which complies with the requirements of CCR, Title 17, section 7602, Subdivision (a) and CCR, Title 17, section 7603, Subdivision (a), and that such connection has been approved by DDW and/or its delegated local agency.
- 6.8. Any backflow prevention device installed to protect the potable water system shall be annually inspected and maintained in accordance with CCR, Title 17, section 7605.
  - 6.8.1. Backflow inspections shall be conducted by a person who has demonstrated competency in testing to the User, Purveyor, and/or County Health or local health department.
- 6.9. Hose bibbs shall not be used in the recycled water system, except in the recycled water system for Sites for which there is restricted public access. Quick couplers that are different from those used on the potable water system should be used in place of hose bibbs.

- 6.10. All recycled water piping and appurtenances in new installations and appurtenances in retrofit installations shall be colored purple or distinctively marked with purple tape in accordance with Health and Safety Code section 116815 and County Health or local health department requirements.
  - 6.10.1. Existing underground piping that does or will convey recycled water does not have to be replaced or marked with purple pipe or tape in order for the Site to begin receiving recycled water. However, if any pipeline conveying recycled water is replaced, it must be replaced with purple pipe or marked with purple tape per Section 6.10 above.
- 6.11. All Sites shall be designed and operated to prevent direct human consumption of recycled water or use of recycled water for processing of food or drink intended for human consumption.
  - 6.11.1. Where recycled water could potentially be accessed for human consumption, conspicuous signs shall be posted that include the wording "RECYCLED WATER – DO NOT DRINK".
    - 6.11.1.1. Each sign shall display an international symbol similar to that shown in CCR, Title 22, section 60310, Subdivision (g), Figure 60310-A.
    - 6.11.1.2. The sign(s) shall be of a size easily readable by the public (no less than 4 inches high by 8 inches wide).
    - 6.11.1.3. The prescribed wording included on the sign(s) should be translated into Spanish and any other appropriate languages.
- 6.12. Sites shall be designed and operated to prevent water spray, mist, or surface flow from leaving the Site or reaching: (a) any perennial surface waters located adjacent to the Site; (b) dwellings, designated outdoor eating area, or food handling facilities; or (c) drinking fountains unless specifically protected with a shielding device.
- 6.13. Runoff due to over-spray from sprinklers, overflow of ponds that contain recycled water, over watering, or broken sprinklers or irrigation pipelines is prohibited.
- 6.14. Application of recycled water to saturated soil is prohibited.
- 6.15. The application of recycled water shall be discontinued during precipitation events that are of sufficient magnitude to generate surface flow or significant ponding within the Site.
- 6.16. Irrigation with recycled water shall occur during periods of minimal human use of the irrigated area and timing of irrigation shall allow an adequate dry-out time of the irrigated area before use by the public. Irrigation with recycled water may take place in areas and at times where the general public has access to the irrigated areas only if irrigation is manually controlled and supervised to ensure there is no contact of members of the public with the recycled water.
- 6.17. Irrigation with disinfected tertiary recycled water shall not take place within 50 feet of any domestic water supply well.
- 6.18. Irrigation with disinfected tertiary recycled water shall not take place within 50 feet of any uncovered reservoir or stream currently used as a source of domestic water.
- 6.19. Impoundment of disinfected tertiary recycled water shall not occur within 100 feet of any domestic water supply well.

- 6.20. All recycled water impoundments shall be adequately protected from erosion, washout, and flooding from a 24-hour rainfall event having a predicted frequency of once in 100 years.
- 6.21. Any storage facility or impoundment containing recycled water for reuse applications shall be managed in a manner to control odors, nuisance conditions or vectors such as mosquitoes. Should such problems develop, a management plan shall be devised and implemented to monitor, correct, and control future occurrences.
- 6.22. Recycled water shall be applied at such a rate and volume as not to exceed vegetative demand and soil moisture conditions, referred to as the “agronomic rate”. All recycled water use for landscape and agricultural irrigation shall be limited to agronomic rates. In practice, recycled water use shall be limited to the amount of water that the plant material requires to maintain proper growth and health, as well as the amount of water the soil can absorb without ponding or running off-site. Irrigation sites shall only apply recycled water in quantities required by their specific plant material, and must avoid creating standing water or runoff from excess irrigation. Overwatering will ultimately cost the Site more money by having to potentially treat plant disease, replace turf, eradicate weeds, and increase the labor intensity of landscape management, as well as pay for increased water costs. The application of recycled water in excess of agronomic rates is not only costly to the User and a waste of this resource, but is a violation of these Requirements. If, at any time during a scheduled Site inspection or during an unscheduled visit by Sanitation Districts’ staff performing mandated “site observations”, ponding, run-off, overspray or other indication that over-irrigation is occurring, the Sanitation Districts will require that the User conduct an audit of their Sites’ irrigation system and practices. The results of this audit will be used to modify the User’s irrigation practices as necessary to ensure compliance with agronomic rates.
- 6.23. Agronomic rates also apply to nutrient application. The Sanitation Districts’ recycled water supplies nutrients for landscape plantings and agricultural crops during irrigation in the form of trace amounts of nitrogen, phosphorous, and potassium. On a calendar year basis, the Sanitation Districts will determine the nutrient value of its various recycled water supplies, and make this information available to the Users of the recycled water. Experience has shown that although the residual amounts of nutrients in the recycled water are lower than the needs of most landscape and agricultural plants, in actual practice most large turf areas do not require additional fertilizer and generally are not artificially fertilized. Nitrogen fertilizer shall only be applied to the Site if levels of nitrogen in the recycled water are not sufficient for plant growth.
- 6.24. Vehicles used for distributing recycled water for soil compaction and dust control or other uses shall have an adequate tank and plumbing system to ensure that leaks and ruptures will not occur in the course of normal use.
  - 6.24.1. Control valves shall be provided and configured such that recycled water can be applied on the Site in a controlled fashion and completely retained during transit to all other Sites.
  - 6.24.2. Spray heads or nozzles shall be provided and configured such that the recycled water is applied on the Site to prevent runoff, ponding, or windblown spray conditions.
  - 6.24.3. Each tank shall be equipped with an approved air-gap separation between the filler tube and the tank to prevent back-siphonage.

- 6.24.4. Each tank used to store and/or transport recycled water must be flushed and disinfected prior to storage and/or transport of potable water or recycled water of better quality.
- 6.24.5. The vehicle shall be clearly labeled in accordance with Section 6.11.1.
- 6.24.6. Any and all vehicles hauling recycled water shall follow the requirements and precautions for such use found on the Sanitation Districts' website at:  
<http://www.lacsd.org/civicax/filebank/blobdload.aspx?blobid=10639>.

## **7. Site Inspections and Site Access.**

- 7.1. The Sanitation Districts will ensure inspection of all recycled water use sites at a minimum frequency of every three (3) years, and once a year if a User is found not in compliance with the rules and regulations of the program. Site inspections will include observation of recycled water application practices to ensure that no over-irrigation or runoff is occurring. In addition to these site inspections, Sanitation Districts' staff or designated staff from the Purveyor will conduct observations that will consist of looking for soil saturation/ponding, off-site discharge, nuisance odors/vectors, and required signage. An inspection report shall be prepared for each site inspection pursuant to Section 9.5.
  - 7.1.1. Site inspections must be conducted at a minimum once every three (3) years per site or more frequently at the request of the Sanitation Districts.
  - 7.1.2. In the event of identification of non-compliance or violation(s) of these requirements during site inspections, notification shall be provided pursuant to Section 9.6 and corrective actions must be taken pursuant to Section 8.1.
- 7.2. The User shall allow an authorized representative of the following agencies the right to enter, inspect the Site, and conduct testing upon presentation of proper credentials: the Sanitation Districts, State Board, Regional Board, and County Health or local health department.
- 7.3. In cooperation with the User and/or Purveyor, the Sanitation Districts will make periodic inspections of the Site.

## **8. Corrective Action.**

- 8.1. The Site Supervisor must immediately initiate corrective action to eliminate violation of any applicable laws or regulations, the Sanitation Districts' Permits, or these Requirements and make the appropriate notifications pursuant to Section 9.8. Verification of corrective action must be made by the Purveyor or Direct User and reported to the Districts pursuant to Section 9.8.1
- 8.2. In the event of contamination of a potable water system due to a cross-connection with the recycled water system, the Site Supervisor shall immediately invoke the Emergency Cross-Connection Response Plan and make the appropriate notifications pursuant to Section 9.1.

## **9. Notifications and Reporting.**

### Public Health

- 9.1. Upon being notified or determining that one of the following events has occurred, the Site Supervisor shall immediately notify the Sanitation Districts by telephone, and DDW, and County Health or the local health department, if applicable, by telephone or

electronic means. Written confirmation must be provided to all agencies within three (3) business days from the date of notification.

- 9.1.1. There is a complaint (or other source of information) concerning recycled water use that may involve illness.
- 9.1.2. The potable water system has been contaminated due to a cross-connection with recycled water.

#### Spills or Unauthorized Discharges

- 9.2. Upon being notified or determining that an unauthorized discharge of more than fifty thousand (>50,000) gallons of tertiary recycled water has occurred, the Site Supervisor shall immediately notify the Sanitation Districts by telephone, and the Regional Board and County Health or the local health department, if applicable, by telephone or electronic means. The DDW must be contacted if a drinking water source is threatened by the spill. If the environment is endangered by the spill, the California State Department of Fish and Wildlife must be contacted. Written confirmation must be provided electronically (e.g., email or fax) to all agencies within three (3) business days from the date of notification.
  - 9.2.1. Information provided shall include the date and time the spill began and ended, the location of the spill, if the spill entered a storm drain or receiving water, the estimated volume of the spill or flow if the spill is ongoing, the estimated time of repair, the cause of the spill, the agencies involved with repair and clean-up, and corrective actions taken or plans for corrective actions.
- 9.3. Upon being notified or determining that a spill or other release of recycled water from a Site, other than incidental or minor runoff (minor runoff is considered runoff due to overspray or over watering, minor breaks in the recycled water irrigation or distribution system, or broken or misdirected sprinklers), of less than fifty thousand (<50,000) gallons of tertiary recycled water has occurred, including, but not limited to, notable breaks in the recycled water irrigation or distribution systems, the Site Supervisor shall immediately notify the Sanitation Districts by telephone. Written confirmation must be provided electronically (e.g., email or fax) within three (3) business days from the date of notification.
  - 9.3.1. Information provided shall include the date/time the spill began and ended, the location of the spill, if the spill entered a storm drain or receiving water, the estimated volume or flow if the spill is ongoing, the estimated time of repair, cause of the spill, agencies involved with repair and clean-up, and corrective actions taken or plans for corrective actions.

#### Cross-Connection Testing

- 9.4. The Site Supervisor shall submit a written report documenting the result of the cross-connection inspections and tests conducted for dual-plumbed systems to DDW within thirty (30) days following completion of the test.

#### Site Inspections

- 9.5. The site inspection report shall be signed and dated by the Site Supervisor and the inspector, and provided to the Sanitation Districts within thirty (30) days following the end of the quarter in which the site inspection was conducted.
- 9.6. The inspector shall immediately notify the Site Supervisor of non-compliance or violation(s) identified during site inspections and what corrective actions must be taken.



- 9.7. The Purveyor or User shall notify the Sanitation Districts by electronic means at least one (1) week prior to conducting a site inspection.

Noncompliance with Regulations

- 9.8. The Site Supervisor shall notify the Sanitation Districts by telephone or electronic means upon knowledge of any noncompliance of applicable laws and regulations, the Sanitation Districts' Permits, and these Requirements. Written confirmation shall be provided within three (3) business days from the date of notification.

- 9.8.1. The Purveyor or Direct User shall provide written verification to the Sanitation Districts within ninety (90) days from the date of knowledge of the violation that corrective actions have been made.

Miscellaneous

- 9.9. If someone other than the User is responsible for applying the recycled water (e.g., a truck hauler), then the User shall inform them of these Requirements in a written permit or other suitable manner.
- 9.10. The Site Supervisor is required to provide the Sanitation Districts with an address and phone number(s) where he or she can be contacted at all times. The Site Supervisor is responsible for maintaining current pertinent information regarding the Site and Sanitation Districts' contacts.
- 9.11. The Sanitation Districts shall be notified in writing of any proposed changes in the individual designated as the Site Supervisor in writing.
- 9.12. The Sanitation Districts shall be notified in writing of any planned significant modifications or additions to the recycled water system (e.g., construction of new buildings on-site, replacement of potable or recycled water pipelines, etc.). Any such modifications or additions to the recycled water system shall be reviewed and approved by the Sanitation Districts before being made. Minor changes, such as replacement of sprinkler heads, do not require notification.
- 9.13. The User or Purveyor shall provide information as requested by the Sanitation Districts in order for the Sanitation Districts to comply with the Monitoring and Reporting Requirements issued by the Regional Board or State Board.

**10. Record Keeping.**

- 10.1. Current as-built drawings and other design plans of the recycled water system and potable water system and any forms or reports as required by the Sanitation Districts including, but not limited to, site inspection reports, cross-connection tests, etc. shall be maintained by the Site Supervisor or Purveyor.
- 10.2. A copy of these Requirements, the Emergency Cross-Connection Response Plan, and the Sanitation Districts' Permits shall be maintained by the Site Supervisor so that they are available to operating personnel at all times.
- 10.3. For each Site, the Site Supervisor or Purveyor must keep operation and maintenance logs that are available to the Sanitation Districts. The logs shall include information specified by the Sanitation Districts in the approval letter, such as fertilizer use (if any), the monthly volumes of recycled water used at each Site, and the dates of site inspections and cross-connection and backflow prevention testing.

## **Tab 2**

# **Agency Contacts**

## Agency Contact Information for Water Recycling

**For Agency Contacts for Spills of Recycled Water – Go to Tab 7**

 <p>SANITATION DISTRICTS OF LOS ANGELES COUNTY</p>	<p><b>Sanitation Districts</b>          Contact: Water Recycling Coordinator          Phone: 877-REUSE83 (877-738-7383)          Email: <a href="mailto:reuse@lacsdc.org">reuse@lacsdc.org</a>          Website: <a href="http://www.lacsdc.org/waterreuse/">http://www.lacsdc.org/waterreuse/</a></p>
 <p>CALIFORNIA  <b>Water Boards</b>          STATE WATER RESOURCES CONTROL BOARD          REGIONAL WATER QUALITY CONTROL BOARD</p>	<p><b>State Water Resource Control Board,          Division of Drinking Water          Recycled Water Unit</b>          Contact: Randy Barnard          Phone: (619) 525-4022          Email: <a href="mailto:Randy.Barnard@waterboards.ca.gov">Randy.Barnard@waterboards.ca.gov</a>          Website: <a href="http://www.swrcb.ca.gov/drinking_water/certlic/drinkingwater/RecycledWater.shtml">http://www.swrcb.ca.gov/drinking_water/certlic/drinkingwater/RecycledWater.shtml</a></p> <p><b>Los Angeles Regional Water Quality Control Board</b>          Contact: Cris Morris          Phone: (213) 620-2083          Email: <a href="mailto:cris.morris@waterboards.ca.gov">cris.morris@waterboards.ca.gov</a>          Website: <a href="http://www.waterboards.ca.gov/losangeles/">http://www.waterboards.ca.gov/losangeles/</a></p>
 <p>COUNTY OF LOS ANGELES  <b>Public Health</b></p>	<p><b>Los Angeles County Department of Public Health</b>          Contact: Carlos Borja          Phone: (626) 430-5295          Email: <a href="mailto:caborja@ph.lacounty.gov">caborja@ph.lacounty.gov</a>          Website: <a href="http://www.publichealth.lacounty.gov/eh/EP/cross_con/cross_con_recycle.htm">http://www.publichealth.lacounty.gov/eh/EP/cross_con/cross_con_recycle.htm</a></p>
	<p><b>Long Beach Department of Health and Human Services</b>          Contact: Vanna Kho          Phone: (562) 570-4306          Email: <a href="mailto:stnakau@ci.long-beach.ca.us">stnakau@ci.long-beach.ca.us</a>          Website: <a href="http://www.longbeach.gov/health/inspections-and-reporting/inspections/water-quality/">http://www.longbeach.gov/health/inspections-and-reporting/inspections/water-quality/</a></p>
 <p><b>PASADENA</b></p>	<p><b>Pasadena Public Health Department</b>          Contact: Rachel Janbek          Phone: (626) 744-6067          Email: <a href="mailto:rjanbek@cityofpasadena.net">rjanbek@cityofpasadena.net</a>          Website: <a href="http://www.cityofpasadena.net/PublicHealth/">http://www.cityofpasadena.net/PublicHealth/</a></p>
	<p><b>Vernon Health &amp; Environmental Control Department</b>          Contact: David LeDuff, Chief Deputy Director          Phone: (323) 583-8811 ext. 256          Email: <a href="mailto:dleduff@ci.vernon.ca.us">dleduff@ci.vernon.ca.us</a>          Website: <a href="http://www.cityofvernon.org/departments/health">http://www.cityofvernon.org/departments/health</a></p>

## **Tab 3**

# **Process to Obtain Permission to Use Recycled Water**

**A. How to Obtain Recycled Water Directly From the Districts  
(Steps for Direct Users or Purveyors)**

<b>Process</b>	<b>Applicable Recycled Water Program Document or Actions Required</b>	<b>Responsible Entity</b>
<i>Step 1</i> – Consult with Districts and review Recycled Water Users Handbook	Districts’ Recycled Water Users Handbook	Direct User or Purveyor
<i>Step 2</i> – Identify your local health department	Contact Los Angeles County Department of Public Health (LACDPH); or for Cities of Vernon, Pasadena, Long Beach, contact the local health department.	Direct User or Purveyor
<i>Step 3</i> - Prepare draft plans and specifications	California Department of Public Health (CDPH) requirements in California Code of Regulations (CCR) Title 17 and 22 <sup>1</sup> , Los Angeles County Department of Public Health (LACDPH) Guidelines or local health department requirements	Direct User or Purveyor
<i>Step 4</i> - Draft User Agreement or Amendment (if site is not covered under existing agreement)	Districts’ User Agreement	Districts / Direct User or Purveyor
<i>Step 5</i> - Approve User Agreement or Amendment	Present Agreement or Amendment to Districts’ Board and governing body of Direct User or Purveyor for approval.	Districts / Direct User or Purveyor
<i>Step 6</i> - Submit Application for recycled water use	Districts’ User Application Form	Direct User or Purveyor
<i>Step 7</i> - Identify distribution issues, verify allowed uses, estimate quantity of water and delivery schedule	Verification of information provided in the Application Form. Send conditional approval in writing with caveat that project commencement is contingent upon Direct User or Purveyor receiving all regulatory approvals.	Districts
<i>Step 8</i> – Complete California Environmental Quality Act (CEQA) Process	Make sure you have proper CEQA documentation for the site.	Direct User or Purveyor
<i>Step 9</i> – Consult with health agencies ( <i>recommended</i> )	Describe project and show draft plans to CDPH and LACDPH or local health department.	Direct User or Purveyor

<sup>1</sup> Links to adopted regulations and be found at:  
<http://www.cdph.ca.gov/healthinfo/envirohealth/water/Pages/Waterrecycling.aspx>

Process	Applicable Recycled Water Program Document or Actions Required	Responsible Entity
<i>Step 10</i> – Finalize and submit plans and specifications	Plans and specifications submitted to LACDPH or local health department; LACDPH Cross-Connection Plan Approval Application and fee or applications/fees required by local health department.	Direct User or Purveyor
<i>Step 11</i> - Provide materials and/or training to User on proper operation of a recycled water system	Districts' Recycled Water Users Handbook to be provided by Districts; training to be provided by Districts and/or Purveyor (or another equivalent program can be substituted).	Districts or Purveyor
<i>Step 12</i> – Final plans and specifications	Obtain approval of final plans and specifications from LACDPH or local health department.	Direct User or Purveyor
<i>Step 13</i> – Prepare/Amend Engineering Report	CDPH <i>Guidelines for Preparation of an Engineering Report for the Production, Distribution and Use of Recycled Water<sup>2</sup></i> ; Direct User or Purveyor completes the Engineering Report; the Districts provide information related to treatment facilities; the report must be prepared and stamped by a professional engineer registered in California.	Direct User or Purveyor, and Districts
<i>Step 14</i> – Submit Engineering Report (including as-built drawings of the recycled water distribution system) to CDPH and Los Angeles Regional Water Quality Control Board (LARWQCB), with copy to Districts	Completed Engineering Report and copies of as-built drawings of recycled water distribution system.	Direct User or Purveyor
<i>Step 15</i> – If applicable, submit revised Engineering Report, with copy to Districts	Revisions/additional information may be requested by CDPH and/or LARWQCB.	Direct User or Purveyor
<i>Step 16</i> – Authorization of project under existing or new LARWQCB permit	Letter or permit	LARWQCB; possibly CDPH, LACDPH, and/or local health department

<sup>2</sup> <http://www.cdph.ca.gov/certlic/drinkingwater/Documents/Recharge/ERGUIDE2001.PDF>

<b>Process</b>	<b>Applicable Recycled Water Program Document or Actions Required</b>	<b>Responsible Entity</b>
<i>Step 17</i> – Notify Districts of Final Regulatory Approvals	Direct User or Purveyor sends copy of LARWQCB letter or permit to Districts and any other applicable CDPH, LACDPH or local health department documents.	Direct User or Purveyor
<i>Step 18</i> – Pre- and post-construction inspections	Contact LACDPH or local health department prior to construction to arrange for site inspections, initial cross-connection and backflow prevention device testing; LACDPH Guidelines and Recycled Water System Inspection Report or report required by local health department.	Direct User or Purveyor
<i>Step 19</i> – Approval of final construction	By LACDPH or local health department	Direct User or Purveyor
<i>Step 20</i> – Begin project implementation		Direct User or Purveyor
<i>Step 21</i> – Submit revised as-built drawings of recycled water distribution system if necessary	Must be provided to LACDPH or local health department and Districts if any modifications have been made to original drawings.	Direct User or Purveyor





**B. How to Obtain Recycled Water From Your Water Purveyors  
(Steps for Users and Purveyors)**

<b>Process</b>	<b>Applicable Recycled Water Program Document or Actions Required</b>	<b>Responsible Entity</b>
<i>Step 1</i> – Consult with Purveyor and review Recycled Water Users Handbook	Districts’ Recycled Water Users Handbook	User and Purveyor
<i>Step 2</i> – Identify your local health department	Contact Los Angeles County Department of Public Health (LACDPH); or for Cities of Vernon, Pasadena, Long Beach, contact the local health department.	User and Purveyor
<i>Step 3</i> – Prepare draft plans and specifications	California Department of Public Health (CDPH) requirements in California Code of Regulations (CCR) Title 17 and 22 <sup>3</sup> , Los Angeles County Department of Public Health (LACDPH) Guidelines or local health department requirements.	User or Purveyor
<i>Step 4</i> – Request for recycled water service	Use recycled water Purveyor’s application process.	User
<i>Step 5</i> – Draft User Agreement or amendment (if site is not covered under existing agreement)	Districts’ User Agreement or Amendment	Districts / Purveyor
<i>Step 6</i> – Approve User Agreement or Amendment	Present Agreement or Amendment to Districts’ Board and governing body of Purveyor for approval.	Districts / Purveyor
<i>Step 7</i> – Submit Application for recycled water use to Districts	Districts’ User Application Form	Purveyor
<i>Step 8</i> – Identify distribution issues, verify allowed uses, estimate quantity of water and delivery schedule	Verification of information provided in the Districts’ User Application Form.  Send conditional approval in writing with caveat that project commencement is contingent upon Purveyor receiving all regulatory approvals.	Districts
<i>Step 9</i> – Draft contract or amendment or other legal control mechanism (if site is not covered under existing contract or control mechanism)	Contract, contract amendment, or control mechanism between Purveyor and User.	Purveyor and User

<sup>3</sup> Links to adopted regulations and be found at:  
<http://www.cdph.ca.gov/healthinfo/envirohealth/water/Pages/Waterrecycling.aspx>

Process	Applicable Recycled Water Program Document or Actions Required	Responsible Entity
<i>Step 10</i> – Approve contract or amendment or other legal control mechanism (if site is not covered under existing contract or control mechanism)	Purveyor and User authorize contract, contract amendment, or control mechanism.	Purveyor and User
<i>Step 11</i> – Complete California Environmental Quality Act (CEQA) process	Make sure you have proper CEQA documentation for the site.	Purveyor
<i>Step 12</i> – Consult with health agencies ( <i>recommended</i> )	Describe project and show draft plans to CDPH and LACDPH or local health department.	Purveyor
<i>Step 13</i> – Finalize and submit plans and specifications	Plans and specifications submitted to LACDPH or local health department; LACDPH Cross-Connection Plan Approval Application and fee or applications/fees required by local health department.	Purveyor
<i>Step 14</i> - Provide materials and/or training to User on proper operation of a recycled water system	Districts' Recycled Water Users Handbook and training to be provided by Purveyor (the Districts' training program or another equivalent program can be substituted).	Purveyor
<i>Step 15</i> – Final plans and specifications	Obtain approval of final plans and specifications from LACDPH or local health department.	Purveyor
<i>Step 16</i> – Prepare/Amend Engineering Report	CDPH <i>Guidelines for Preparation of an Engineering Report for the Production, Distribution and Use of Recycled Water</i> <sup>4</sup> ; Purveyor completes the Engineering Report; the Districts provide information related to treatment facilities; the report must be prepared and stamped by a professional engineer registered in California.	Purveyor and Districts
<i>Step 17</i> – Submit Engineering Report (including as-built drawings of the recycled water distribution system) to CDPH and Los Angeles Regional Water Quality Control Board (LARWQCB), with copy to the Districts	Completed Engineering Report and copies of as-built drawings of recycled water distribution system.	Purveyor

<sup>4</sup> <http://www.cdph.ca.gov/certlic/drinkingwater/Documents/Recharge/ERGUIDE2001.PDF>

<b>Process</b>	<b>Applicable Recycled Water Program Document or Actions Required</b>	<b>Responsible Entity</b>
<i>Step 18</i> – If applicable, submit revised Engineering Report, with copy to Districts	Revisions/additional information may be requested by CDPH and/or LARWQCB.	Purveyor
<i>Step 19</i> – Authorization of project under existing or new LARWQCB permit	Letter or permit	LARWQCB; possibly CDPH, LACDPH, and/or local health department
<i>Step 20</i> – Notify Districts of Final Regulatory Approvals	Purveyor sends copy of LARWQCB letter or permit to Districts and any other applicable CDPH, LACDPH or local health department documents.	Purveyor
<i>Step 21</i> – Pre- and post-construction inspections	Contact LACDPH or local health department prior to construction to arrange for site inspections, initial cross-connection and backflow prevention device testing; LACDPH Guidelines and Recycled Water System Inspection Report or report required by local health department.	Purveyor
<i>Step 22</i> – Approval of final construction	By LACDPH or local health department	Purveyor
<i>Step 23</i> – Begin project implementation		Purveyor and User
<i>Step 24</i> – Submit revised as-built drawings of recycled water distribution system if necessary	Must be provided to LACDPH or local health department and Districts if any modifications have been made to original drawings.	Purveyor

## **Tab 4**

# **Recycled Water User Application Form**



JOS/SCV Sanitation Districts  
**Application for Recycled Water Use**

Date:	Site/Project Name:
Site Location (address, city):	
Type of site or development:	
Proposed use of recycled water (e.g., irrigation, dust control, street sweeping, etc.):	
Area of recycled water use (in acres or square feet):	
Requested recycled water service start date:	
Estimated water requirements (in acre-feet per year, gallons per day, etc.):	
Average peak demand (in gallons per minute):	
Water purveyor:	
Recycled Water User: Contact: Title: Phone: Email:	
Site Supervisor: Title: Phone: Date of training: Mobile phone: Address: Email:	
Back-up contact: Title: Phone: Address: Mobile phone: Email:	

Please include the following items with this application:		
1	A map showing the specific boundaries of the proposed Site(s). For irrigation sites, include the total area (in acres or square feet) to be irrigated with recycled water.	<input type="checkbox"/> included <input type="checkbox"/> n/a
2	Evidence that the Site Supervisor has received the appropriate and sufficient training (or the date when training will occur prior to delivery of recycled water).	<input type="checkbox"/> included <input type="checkbox"/> n/a Date:
3	Design plans and specifications that include the type and location of the outlets and plumbing fixtures that will be accessible to the public.	<input type="checkbox"/> included <input type="checkbox"/> n/a
4	The methods and devices to be used to prevent backflow of recycled water into the potable water system.	<input type="checkbox"/> included <input type="checkbox"/> n/a
5	A copy of the Emergency Cross-Connection Response Plan or the date by which it will be submitted (prior to delivery of recycled water).	<input type="checkbox"/> included <input type="checkbox"/> n/a Date:
6	A copy of a Recycled Water System Operation & Maintenance Manual or the date by which it will be submitted.	<input type="checkbox"/> included <input type="checkbox"/> n/a Date:

**Tab 5**

**Emergency Cross-Connection Response Plan**

**COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY  
EMERGENCY CROSS-CONNECTION RESPONSE PLAN**  
Sanitation District No. 2 and Santa Clarita Valley Sanitation District

**In the event that a cross-connection is discovered, you should immediately notify the Districts by telephone, and the Los Angeles Regional Water Quality Control Board, the California Department of Public Health, the Los Angeles County Department of Public Health or for Long Beach, Pasadena, and Vernon – the local health department, and your purveyor. The following procedures will be implemented immediately:**

Site Name:

Site Address:

Date of Procedure:

Names of People Present During Procedure:

Name

Affiliation /Title

- 1.
- 2.
- 3.
- 4.

<b>PROCEDURE</b>	<b>Check When Completed</b>	<b>✓</b>
Step 1. Keep potable water system pressurized and post "Do Not Drink" signs at all potable water fixtures and outlets.		
Step 2. Immediately shut down the recycled water system to the facility at the meter.		
Step 3. Contact the water purveyor for collection of water samples and perform a 24-hour bacteriological analysis. Water samples should be collected from the closest acceptable point to the cross-connection.		
Step 4. Identify the cause and location of backflow and eliminate the cross-connection.		
Step 5. Conduct a cross-connection pressure test to verify that all cross-connections were eliminated.		
Step 6. If the bacteriological analysis conducted in Step 3 is positive, chlorinate the potable water system maintaining a chlorine residual of at least 50 mg/L for 24 hours. Otherwise proceed to Step 9.		
Step 7. Flush the potable water system after 24 hours and perform standard bacteriological analysis.		
Step 8. If the results from Step 7 are acceptable, proceed to Step 9. Otherwise repeat Steps 6-7.		
Step 9. Remove warning signs and reactivate system.		

Step 10. Revise the drawings of the recycled water and potable water systems to reflect any changes made in eliminating the cross-connection.	
Step 11. Submit revisions to appropriate agencies.	
<p style="text-align: center;"><b>DESCRIBE NATURE AND LOCATION OF CROSS-CONNECTION AND MEANS OF CORRECTION</b></p>	



**Tab 6**

**Sanitation Districts' Reuse Site Inspection Report Form**

Date & Time of Inspection:
Recycled Water User/Site Name:
Location of Site:
Purveyor (if known):
Type of Use: <b>Irrigation</b> <b>Industrial Cooling</b> <b>other:</b>
Site Supervisor:
Site Supervisor Contact Info:
Name of User Representative/Title:
Name of Inspector:
GPS Coordinates of Meter:

**Verification of Compliance Inspection and Enforcement Program**

1	Is recycled water used for any purposes not listed in the Regional Water Quality Control Board permit(s)? If yes, explain.	<input type="checkbox"/> Yes <input type="checkbox"/> No Explain
2	Have there been any changes or modifications to the recycled water system? If yes, explain.	<input type="checkbox"/> Yes <input type="checkbox"/> No Explain
3	Has there been a change in the Site Supervisor? If yes, provide updated information.	<input type="checkbox"/> Yes <input type="checkbox"/> No Explain
4	Has on-site staff received appropriate training? If no, explain when training will be provided.	<input type="checkbox"/> Yes <input type="checkbox"/> No Explain
5	Are copies of the site operation manual, Emergency Cross-Connection Response Plan, and Districts' <i>Requirements for Recycled Water Users</i> available to employees at all times? If no, explain how and when this will be corrected.	<input type="checkbox"/> Yes <input type="checkbox"/> No Explain
6	Are there complete and up-to-date O&M records for the recycled water system? If no, explain how and when this will be corrected.	<input type="checkbox"/> Yes <input type="checkbox"/> No Explain

**Inspection of User Operations**

7	Is recycled water use limited to the authorized use(s) and area(s)? If no, explain how and when this will be corrected.	<input type="checkbox"/> Yes <input type="checkbox"/> No Explain
8	Is recycled water running off from the authorized use area through surface runoff or windblown spray? If yes, explain how and when this will be corrected, and indicate the source, volume, and destination of the runoff.	<input type="checkbox"/> Yes <input type="checkbox"/> No Explain
9	Are any unusual odors associated with the recycled water use, supply, or storage? If yes, explain how and when this will be corrected.	<input type="checkbox"/> Yes <input type="checkbox"/> No Explain
10	Is there any evidence of ponding of recycled water? If yes, explain how and when this will be corrected.	<input type="checkbox"/> Yes <input type="checkbox"/> No Explain
11	Is there any evidence of mosquito breeding? If yes, explain how and when this will be corrected.	<input type="checkbox"/> Yes <input type="checkbox"/> No Explain
12	Are signs legible, properly placed, and labeled with regard to not drinking recycled water? If no, explain how and when this will be corrected.	<input type="checkbox"/> Yes <input type="checkbox"/> No Explain
13	Are all of the following properly maintained and marked with tags that are visible and legible: pipes, valves, controllers, and points of connection? If no, explain how and when this will be corrected.	<input type="checkbox"/> Yes <input type="checkbox"/> No Explain
14	Are other recycled water facilities and control systems (e.g., pump stations, storage facilities, and pressure reducers) properly maintained? If no, explain how and when this will be corrected.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Explain

15	Are there any leaks or breaks in the system piping or evidence of plugged, broken, or otherwise faulty components? If yes, explain how and when this will be corrected.	<input type="checkbox"/> Yes <input type="checkbox"/> No Explain
16	Is recycled water being sprayed directly on people, dwellings, food-handling facilities, or drinking fountains? If yes, explain how and when this will be corrected.	<input type="checkbox"/> Yes <input type="checkbox"/> No Explain
17	Are there any hose bibs in the recycled water system? If yes, explain how and when this will be corrected.	<input type="checkbox"/> Yes <input type="checkbox"/> No Explain
18	Is backflow prevention in place, a schedule for testing backflow prevention, and is testing up to date? If no, explain how and when this will be corrected. Date of Last Test: _____	<input type="checkbox"/> Yes <input type="checkbox"/> No Explain
19	Is there a need for cross-connection testing due to major modifications to the system? If yes, explain when the testing will be conducted.	<input type="checkbox"/> Yes <input type="checkbox"/> No Explain
20	Is the irrigation system being operated during periods of minimal human use with adequate time to dry-out before public use? If no, explain how and when this will be corrected.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Explain
21	Does irrigation take place within 50 feet of any domestic water supply well or any uncovered reservoir or stream currently used as a source of domestic water? If yes, explain how and when this will be corrected.	<input type="checkbox"/> Yes <input type="checkbox"/> No Explain <input type="checkbox"/> N/A
22	Are best management practices being used to irrigate at agronomic rates? If no, explain how and when this will be corrected.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Explain
23	Is fertilizer being used at the site?	<input type="checkbox"/> Yes <input type="checkbox"/> No
24	Is there any evidence of overflows, erosion, or improper management of impoundments? If yes, explain how and when this will be corrected.	<input type="checkbox"/> Yes <input type="checkbox"/> No Explain
25	Are all impoundments properly maintained and adequately protected from erosion, washout, and flooding from a 24-hour rainfall event having a predicted frequency of once in 100 years? If no, explain how and when this will be corrected.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Explain
26	Does impoundment of disinfected tertiary recycled water occur within 100 feet of any domestic water supply well? If yes, explain how and when this will be corrected.	<input type="checkbox"/> Yes <input type="checkbox"/> No Explain

In the space below, provide the Question # and any comments/explanations required.

**Required action or follow-up action?**  No  Yes – list below: 1) Action, 2) Responsibility (User, Purveyor and/or Sanitation Districts), and 3) Compliance Date and/or Date Achieved

Inspector's signature

Date

Site Supervisor's signature

Date

**Tab 7**

**Recycled Water Spill Reporting Form**

## Recycled Water Spill Notification

The Sanitation Districts' Requirements for Recycled Water Users contain specific provisions for reporting spills or unauthorized discharges.

**Timely notifications must be made even if all the information is not available!**

**Spills >50,000 gallons: For any unauthorized discharge of more than 50,000 gallons of tertiary recycled water, the Site Supervisor must:**

- Immediately (but not later than two (2) hours after becoming aware of the discharge) notify the Sanitation Districts by telephone and notify the following agencies by telephone or electronic means (e.g., email or fax):
  - Los Angeles Regional Water Quality Control Board (Regional Board)
  - Los Angeles County Department of Public Health (County Health); or for Long Beach, Pasadena and Vernon, contact your local health department
  - State Water Board's Division of Drinking Water (DDW) must be contacted if a drinking water source is threatened by the spill
  - California State Department of Fish and Wildlife must be contacted if the environment is endangered by the spill
- Provide the following information to all agencies being notified:
  - Date/time the spill began and ended
  - Location of the spill
  - If the spill entered a storm drain or receiving water
  - Estimated volume or flow if the spill is ongoing
  - Estimated time of repair
  - Cause of the spill
  - Agencies involved with repair and clean-up
  - Corrective actions taken or plans for corrective actions.
- Provide written confirmation electronically (e.g., email or fax) to the same agencies within three (3) business days from the date of notification using the form below or by providing the same information in a letter or memo.

**Spills <50,000 gallons: For any spills or other release of recycled water from a use site (other than minor runoff),<sup>1</sup> the Site Supervisor must:**

- Immediately (but not later than two (2) hours after becoming aware of the spill) notify the Sanitation Districts by phone and provide the following information: date/time the spill began and ended, the location of the spill, if the spill entered a storm drain or receiving water, the estimated volume or flow if the spill is ongoing, the estimated time of repair, cause of the spill, agencies involved with repair and clean-up, and corrective actions taken or plans for corrective actions.
- Provide written confirmation electronically (e.g., email or fax) to the Sanitation Districts within three (3) business days from the date of notification using the form below or by providing the same information in a letter or memo.

---

<sup>1</sup> Minor runoff is considered runoff due to overspray or over watering, minor breaks in the recycled water irrigation or distribution system, or broken or misdirected sprinklers.

## **Spill Contact Information**

### **Sanitation Districts**

Name: Water Recycling Coordinator  
**Spill Reporting Hotline: 866-484-1224**  
Email: [reuse@lacsdsd.org](mailto:reuse@lacsdsd.org)

### **Los Angeles Regional Water Quality Control Board**

Name: Augustine Anijielo  
Phone: 213-576-6657  
Email: [augustine.anijielo@waterboards.ca.gov](mailto:augustine.anijielo@waterboards.ca.gov)

### **Los Angeles County Department of Public Health**

Name: Nick Brakband  
Phone: 626-430-5360 or 213-974-1234 (after business hours)  
Email: [nbrakband@ph.lacounty.gov](mailto:nbrakband@ph.lacounty.gov)

### **Local Health Departments**

Long Beach Department of Health and Human Services  
Name: Vanna Kho  
Phone: 562-570-4306, (cell) or 562-254-8084 (after hours)  
Email: [Vanna.kho@longbeach.gov](mailto:Vanna.kho@longbeach.gov)

Pasadena Public Health Department

Name: Rachel Janbek  
Phone: 626-744-6067 or 626-744-6043 (after hours)  
Email: [rjanbek@cityofpasadena.net](mailto:rjanbek@cityofpasadena.net)

Vernon Environmental Health Services

Name: Keith Allen, Director/Health Officer  
Phone: 323-583-8811 x231  
Email: [kallen@ci.vernon.ca.us](mailto:kallen@ci.vernon.ca.us)

### **State Division of Drinking Water**

Name: Chi Diep  
Phone: 818-551-2016 or 818-551-2004  
Email: [chi.diep@waterboards.ca.gov](mailto:chi.diep@waterboards.ca.gov)

### **California State Department of Fish and Wildlife**

Name: State Park Dispatch  
Phone: 951-443-2969

**COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY  
RECYCLED WATER SPILL REPORT**  
Sanitation District No. 2 and Santa Clarita Valley Sanitation District

Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Agency: \_\_\_\_\_

Site Name: \_\_\_\_\_

Location: \_\_\_\_\_

Date: \_\_\_\_\_

Contact for Follow-up (Name/Phone): \_\_\_\_\_

**INFORMATION ON SPILL OR UNAUTHORIZED DISCHARGE**

Date/time spill or discharge began: \_\_\_\_\_

Date/time spill or discharge ended: \_\_\_\_\_

Location of spill or discharge: \_\_\_\_\_

Did the recycled water enter or will it enter storm drains or receiving waters (e.g., rivers, creeks, lakes, or ocean); if so identify.

Estimated volume of spill or discharge (gallons): \_\_\_\_\_

Estimated time of repair: \_\_\_\_\_

If still ongoing, estimate flow rate (gallons/minute): \_\_\_\_\_

Agencies/entities involved with repair and/or clean-up: \_\_\_\_\_

Cause of the spill or discharge: \_\_\_\_\_

Corrective actions taken and when, or plan to correct spill/discharge: \_\_\_\_\_

**Tab 8**

**Reuse Site Contact Information Form**





# Recycled Water Site Contact Information Form

**Name of Recycled Water User/Site:** \_\_\_\_\_

Site Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

**Recycled Water Site Supervisor:** \_\_\_\_\_

Site Supervisor Training Date (month/year): \_\_\_\_\_ Training Location: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Cell: \_\_\_\_\_ Pager: \_\_\_\_\_

Home Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Work Schedule: \_\_\_\_\_

**Assistant Site Supervisor (if applicable):** \_\_\_\_\_

Title: \_\_\_\_\_

Phone: \_\_\_\_\_ Pager: \_\_\_\_\_

Cell: \_\_\_\_\_ Email: \_\_\_\_\_

**Property Management Company (if applicable):** \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Contact Phone: \_\_\_\_\_

Site Supervisor Training Date (month/year): \_\_\_\_\_ Training Location: \_\_\_\_\_

**\*\*\*Immediately notify the Sanitation Districts of any changes\*\*\***

**Please email this form to: [reuse@lacsdc.org](mailto:reuse@lacsdc.org)**

**Tab 9**

**Los Angeles County Department of Public Health  
Forms and Guidelines**



LOS ANGELES COUNTY ♦ DEPARTMENT OF PUBLIC HEALTH  
ENVIRONMENTAL HEALTH



CROSS CONNECTIONS AND WATER POLLUTION CONTROL PROGRAM  
5050 Commerce Drive, Baldwin Park, CA 91706-1423  
Tel (626) 430-5290 FAX (626) 813-3025

**GUIDELINES FOR PIPELINE CONSTRUCTION AND INSTALLATION -  
FOR THE SAFE USE OF RECYCLED / RECLAIMED WASTEWATER**

**PURPOSE:** As a result of increasing availability of recycled / reclaimed wastewater and an increased need for the transmission and use thereof, the Department of Public Health – Environmental Health (the Department) has found it necessary to establish the following regulations for pipeline construction and installation as well as for the safe use of recycled / reclaimed wastewater. These regulations are intended to protect public health by ensuring the safety of our domestic potable water supplies.

**BACKGROUND:** A recent increase in the number of inquiries and interest displayed regarding the use of recycled / reclaimed water, in the ongoing efforts to conserve water, have necessitated the need to establish definitions, standards and regulation for the uniform review and approval of recycled / reclaimed wastewater. Recycled / reclaimed water may be used for surface irrigation of the following: food crops; parks and playgrounds; school yards; residential landscaping; and unrestricted access golf courses.

**DEFINITIONS:**

**Gray Water** means untreated wastewater that has not come into contact with toilet waste, kitchen sink waste, dishwasher waste or similarly contaminated sources. Gray water includes water from bathtubs, showers, bathroom wash basins, clothes-washers and laundry tubs.

**Non-Potable Water** means water which is unfit for human or animal consumption due to contaminants that exceed the current permissible Maximum Contaminant Level (MCL) in drinking water.

**Potable Water** means water which is fit for consumption by humans and other animals. The U.S. Environmental Protection Agency (EPA) identifies contaminants that may adversely affect public health and occur in drinking water with a frequency and at levels that pose a threat to public health. The EPA establishes (MCLs) for both biological and chemical contaminants permissible in drinking water. These MCLs become enforceable standards that determine the potability of water.

**Recycled / Reclaimed Water** means non-potable water that meets or as a result of treatment, meets federal requirements for its intended uses. The level of treatment and quality of the reclaimed / recycled water shall be approved by the Authority Having Jurisdiction. Reclaimed / recycled water systems shall have no connection to any potable water system, with or without mechanical backflow prevention devices.

**RECYCLED / RECLAIMED WASTEWATER SYSTEMS SHALL BE CONSTRUCTED IN COMPLIANCE WITH APPLICABLE POTABLE WATER SYSTEM CONSTRUCTION STANDARDS AS WELL AS THOSE SPECIFIED IN “THE PURPLE BOOK”, CALIFORNIA HEALTH LAWS RELATED TO RECYCLED WATER, (CALIFORNIA HEALTH AND SAFETY CODE, WATER CODE, TITLES 22 AND 17 OF THE CALIFORNIA CODE OF REGULATIONS) AND THE LOS ANGELES COUNTY CODE (LACC), TITLE 28 – PLUMBING, APPENDIX J.**

**PRELIMINARY REQUIREMENTS**

- Plans and specifications for recycled / reclaimed wastewater distribution systems, as well as the use and operation of such systems shall be submitted to the Department for review and approval prior to construction or implementation.
- Prior to commencing construction, the Contractor shall contact the Department to schedule an inspection of the proposed on-site recycled / reclaimed and potable water work.
- No piping for potable or recycled / reclaimed water in conjunction with a specified project shall be installed prior to plan check approval and preliminary inspection.
- Upon completion of construction, no excavation or open trench may be backfilled without first securing the Department approval. Any areas backfilled without prior approval will be required to be exposed and corrected as necessary.
- Only a Department approved temporary water connection, to a potable water supply via a dedicated, approved, reduced-pressure-principle backflow prevention device shall be permitted to be utilized for the purpose of flushing, pressure testing, construction, landscape use or the final cross-connection testing.

**SEPARATION REQUIREMENTS**

The maximum attainable separation of recycled / reclaimed wastewater lines and potable water lines shall be enforced in order to minimize potential risks associated with pipeline breaks resulting in infiltration of wastewater from leaking wastewater lines into domestic water lines, or accidental cross-connections between recycled wastewater and potable water systems.

- Parallel Construction: A horizontal separation of at least ten feet (10') shall be required between pressurized, buried, recycled / reclaimed and potable water piping (all distance to be measured from pipeline outside diameter).

- Cross-Over Construction: Buried potable water pipes crossing over pressurized recycled / reclaimed water pipes shall be laid not less than twelve inches (12") above the reclaimed water pipes. Reclaimed water pipes laid in the same trench or crossing-over building sewer or drainage piping shall be installed in compliance with the LACC – Title 28, Plumbing, Sections 609.0 and 720.0.
- Unused or Abandoned Potable Water Lines: These lines are to be severed as close to water mains as practical, capped, and a ten foot (10') section of abandoned line removed and cemented under direct supervision by the Department.
- Existing On-site Piping: Maximum separation of recycled / reclaimed wastewater lines and potable water lines shall be maintained upon system additions or modification.

### **PIPELINE MATERIALS AND IDENTIFICATION**

All recycled / reclaimed water pipe materials, valves and fittings shall conform to the requirements of the LACC – Title 28, Plumbing, Sections 604.0, 605.0 and 606.0.

All recycled / reclaimed wastewater lines (pressure / non-pressure), valve boxes, hydrants and appurtenances shall be identified to clearly distinguish between recycled / reclaimed wastewater, non-potable and potable water systems (as specified in LACC – Title 28, Plumbing, Appendix J).

- Recycled / Reclaimed Wastewater: All buried, recycled, wastewater systems (pressure / non-pressure) shall utilize purple pipe with black uppercase lettering "CAUTION: RECYCLED WATER – DO NOT DRINK" printed on opposite sides of the pipe. For limited application, the use of continuous lettering on three inch (3") minimum width purple tape with one inch black or white contrasting uppercase lettering "CAUTION RECYCLED WATER – DO NOT DRINK" permanently affixed at intervals not to exceed five feet, atop all horizontal piping, laterals and mains. Identification tape shall extend to all valve boxes and / or vaults, exposed piping, hydrants and quick couplers. All valves, except fixture supply control valves shall be equipped with a locking feature. All mechanical equipment that is appurtenant to the recycled / reclaimed water system shall be painted purple.
- Potable Water: All potable water lines shall be installed in accordance with the Uniform Plumbing Code and all other applicable potable water system construction standards. All buried potable water lines shall be clearly identified by continuous lettering on three inch (3") minimum width blue tape with one inch (1") white lettering bearing the repeated wording "POTABLE WATER" permanently affixed at ten foot intervals atop all horizontal piping, laterals and mains. Identification tape shall extend to all valve boxes and / or vaults, exposed piping and hydrants. Identification tape is not necessary for extruded colored PVC with continuous wording "POTABLE WATER" printed in contrasting lettering on opposite sides of the pipe.

- **Non-Potable Water:** All non-potable irrigation / industrial water lines (pressure / non-pressure) shall be identified by continuous lettering on three inch (3”) minimum width tape with one inch (1”) contrasting lettering bearing the continuous uppercase lettering “NON-POTABLE WATER – DO NOT DRINK” permanently affixed at ten foot (10’) intervals atop all horizontal piping, laterals and mains. Identification tape shall extend to all valve boxes and / or vaults, exposed piping, hydrants and quick couplers. Exposed piping, valve boxes, vaults, control valves, quick coupling valves, outlets and related appurtenances shall be color-coded and labeled / tagged to differentiate between recycled / reclaimed wastewater, potable water and non-potable water systems. Tags identifying recycled / reclaimed water shall have the appropriate identification on both sides (wording on one side and symbol on the opposite side).



### **THE SAFE USE OF RECYCLED / RECLAIMED WATER PROTECTS POTABLE WATER**

- Deteriorated or inadequately-protected well water casings shall be repaired or replaced to protect aquifers against contamination from recycled / reclaimed wastewater systems.
- An On-Site Water Supervisor shall be appointed, having the responsibility of oversight for the protection of the potable water system (provided for under Title 17, Section 7586, and California Code of Regulations). The name and position of the On-Site Water Supervisor shall be reported to the water purveyor and to the Department. This position will be responsible for the installation, operation and maintenance of the recycled / reclaimed wastewater and potable water systems; authorization of any piping changes or additions to either the potable or recycled systems; prevention of potential hazards; implementation of the regulations; and coordination with the Cross-Connection Program of the water purveyor and of this Department.
- Hose bibbs shall not be permitted in any areas of public access to recycled / reclaimed wastewater systems, to prevent unauthorized use of recycled wastewater. Quick-couplers are permitted in lieu of hose-bibb outlets but shall only be connected to recycled / reclaimed wastewater lines. Hose bibbs may be permitted in areas that are not accessible to the public, provided they are properly identified with permanently affixed tags, labels, or plates with uppercase lettering “RECYCLED WATER – DO NOT DRINK” in English.

- The use of recycled / reclaimed wastewater for irrigation purposes shall minimize exposure of the wastewater spray to drinking fountains and picnic tables through selective location of equipment and by appropriate irrigation system design. Additionally, the following measures should be taken: recycled wastewater spraying shall be done during hours of least public exposure; any area where recycled wastewater is released, used or impounded should be posted, informing the public that recycled water is being used; and irrigation practices utilizing recycled water shall be controlled to prevent surface runoff.

### **BACKFLOW PROTECTION**

- There shall be no interconnection between a potable water system and a recycled / reclaimed water system within the user's premises.
- A dye or pressure test shall be utilized to confirm the physical separation of a recycled wastewater system and a potable water system. Testing shall be performed in conjunction with the Water Purveyor and this Department and conducted before the introduction of recycled wastewater.
- An approved backflow prevention device shall be installed at the potable water service connection.
- In a recycled / reclaimed wastewater distribution system, a backflow prevention device may be required at the recycled wastewater meter or at specific on-site locations where said use could degrade the quality of the recycled wastewater supply.





**COUNTY OF LOS ANGELES - DEPARTMENT OF PUBLIC HEALTH  
BUREAU OF ENVIRONMENTAL PROTECTION  
CROSS CONNECTION AND WATER POLLUTION CONTROL PROGRAM  
5050 Commerce Drive, Rm 116, Baldwin Park, CA. 91706-1423  
(626) 430-5290 Program Email: ccwpcp@ph.lacounty.gov**



**CROSS CONNECTION PLAN APPROVAL APPLICATION**

**Plan Approvals invalid after one year from the date of plan approval**

**Approval of submitted plan does not supersede other Department requirements**

Fill in all appropriate blanks (incomplete applications will delay the approval process)

Project Name:		Date
Job Address:	City:	Zip:
Owner:	Phone:	
Address:	City:	Zip:
Email:		
Contractor:	Phone:	
Address:	City:	Zip:
Domestic Water Purveyor:	Recycled Water Purveyor:	
Plans submitted by:	Email:	
Company Name:		
Address & Phone #:		

Project Description/Supply to/Type: (Recycled, Gray and/or Cistern Water System, Industrial, Dental, Dialysis, Manufacturing, etc.)

A minimum of 2 full size, scale copies required and digital copy. A letter of approval/denial is issued to the persons submitting the plans and owner, water purveyor, State DPH, RWQCB and local Building & Safety Departments. Fee Schedule below is subject to change without prior notice.

- Rainwater Harvesting: Residential (SFD) Outdoor Use \$387 Non-Residential Outdoor Use \$645**
- Rainwater Harvesting: Residential (SFD) Indoor Use \$516 Non-Residential Indoor Use \$1032**
- Untreated Graywater Collection for Subsurface Irrigation \$387**
- Graywater Collection & Treatment: Residential (SFD) Surface Irrigation \$516 Non-Residential Surface Irrigation \$1032**
- Graywater Collection & Treatment: Residential (SFD) Indoor Use \$645 Non-Residential Indoor Use \$1032**
- Stormwater/Urban Runoff Collection & Treatment for Non-Residential: Outdoor Use \$774 Indoor Use \$1290**
- Recycled Water (Title 22) \$1,557.00**

INSTRUCTIONS FOR SUBMISSION OF PLANS

- Plan submittals shall include plumbing, landscaping, utility/civil, grading and overall site plans.
- Make check or money order (cash not accepted) payable to: **LOS ANGELES COUNTY PUBLIC HEALTH**
  - Checks and money orders must be made out for the exact amount of the fee.
  - Personal checks must bear a name, address, and telephone number.
  - This fee is not refundable nor is the application transferable.
  - Your plans will not be reviewed or approved until a fee is paid.
  - Attach the TOP copy of this form with your plans; keep the second copy of this form for your records.

PLANS ARE APPROVED IN THE ORDER THEY ARE RECEIVED. MISSING INFORMATION OR IMPROPERLY PREPARED PLANS WILL DELAY THE APPROVAL PROCESS.

FOR OFFICE USE ONLY

Date \_\_\_\_\_ Amount paid \_\_\_\_\_

(Rev. \_\_\_\_\_)



**To Prevent Plan Review Delay, your Plans need to include the following Information**

If applicable, submit Utility, Civil, Plumbing, Landscape and/or Cistern and Treatment details

All water connections (potable, fire, recycled water) in the street to the meter(s) and to use (building, drinking fountain, irrigation, etc.). Provide location of each lines.

All irrigation connections, i.e. quick couplers, valve boxes, controllers, sprinklers, backflow devices, etc. Provide details in Landscape Plans

Backflow device(s) used for meter service protection shall be installed as close to the meter(s) as possible. Provide all backflow device information / details and locations (including make-up lines).

All plans with alternative water systems shall have water lines identified with continuous tape and direction of flow. (CA UPC, Section 601.2.2.1) See below for sample wordings:

Potable (blue or green background w\ white uppercase letterings) **“POTABLE WATER”**

Recycled (CCR Title 22 water, purple background w\ black uppercase letterings)  
**“CAUTION – RECYCLED WATER, DO NOT DRINK”**

Non-potable (Irrigation, from potable source, yellow background w\ black uppercase letterings)  
**“CAUTION-NON-POTABLE WATER”**

Rainwater\Cistern Water (yellow or purple background w\ black uppercase letterings)  
**“CAUTION- NON-POTABLE CISTERN WATER, DO NOT DRINK”**

Graywater (gray or purple background w\ yellow uppercase letterings)  
**“CAUTION: UNTREATED GRAYWATER, DO NOT DRINK”**

Fire Line (red background w\ white uppercase letterings) **“FIRE”**

Signs shall be installed at all entrances and other public gathering areas stating the use of recycled for landscape irrigation. Signs are required in areas where recycled, cistern or graywater are used indoors. Provide details and/or submit samples.

Recycled water projects: the Los Angeles County DPH *“Guidelines for Proposed Recycled Water Systems”* shall be included in the contractors working plans as an addendum to the General Notes. State DPH has authorized this Department to conduct recycled water project reviews within Los Angeles County.

Rainwater\cistern water projects: the Los Angeles County DPH *“Guidelines to safe stormwater/Rainwater/Cistern water reuse, pipeline construction and installation”* shall be included in the plan proposal. Provide all components related to system.

Graywater systems shall obtain approvals from the administrative authority as per UPC, i.e. Building & Safety Department and/or County DPH – Land Use Program. Include approval documentation with application. Joint approval is required due to cross-connection requirements regulated by this Department. Provide all components related to system.

Refer to the “Guidelines for Alternate Water Sources: Indoor and Outdoor Non-Potable Uses” for alternative water system minimum treatment requirements and uses.

Helpful Links:

[http://publichealth.lacounty.gov/eh/docs/ep\\_cross\\_con\\_AltWaterSourcesGuideline.pdf](http://publichealth.lacounty.gov/eh/docs/ep_cross_con_AltWaterSourcesGuideline.pdf)

[http://publichealth.lacounty.gov/eh/docs/ep\\_cross\\_con\\_recycle.pdf](http://publichealth.lacounty.gov/eh/docs/ep_cross_con_recycle.pdf)

[http://publichealth.lacounty.gov/eh/docs/ep\\_cross\\_con\\_cistern.pdf](http://publichealth.lacounty.gov/eh/docs/ep_cross_con_cistern.pdf)

[http://publichealth.lacounty.gov/eh/docs/ep\\_cross\\_con\\_bfnotice.pdf](http://publichealth.lacounty.gov/eh/docs/ep_cross_con_bfnotice.pdf)

**Guidelines for Alternate Water Sources:  
Indoor and Outdoor  
Non-Potable Uses**

**Los Angeles County Department of Public Health  
February 2016**

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# BASIS FOR DEVELOPING THESE GUIDELINES

In moving toward a safe and sustainable water future for Los Angeles County we must learn to conserve water, replenish groundwater, and safely reuse water so that there is net zero water waste. There are many ways to approach this goal. Thanks to recent changes in State law, many opportunities now exist to reuse water safely. It is clear that if Los Angeles is to be successful in building a sustainable water future, we must learn to reduce the use of potable water (i.e. drinking water) for purposes such as flushing toilets, landscape irrigation, and washing clothes. One method to reduce the use of potable water for these tasks is to promote the safe use of alternate, non-potable water sources, such as rainwater, graywater, and stormwater. These alternate water sources can be used safely for a variety of indoor and outdoor uses, as long as public health requirements are met. To assist the public with information on how to collect and safely use alternate water sources, the Los Angeles County Department of Public Health (DPH), Environmental Health Division (EH) prepared this document, in collaboration with stakeholders, as a guide for the safe use of alternate water sources in indoor and outdoor settings. These guidelines are intended to provide a user-friendly roadmap for alternate water use; however, it is ultimately the responsibility of the system owner and operator to ensure that non-potable water sources are used appropriately and monitored for safety throughout the life of the project.

This document expands the work begun in 2011, when DPH published its guidance document on outdoor uses of alternate water sources and seeks to build on that work by incorporating the expanded types and uses of alternate water now permitted under State law. These Guidelines are divided into two sections; indoor use and outdoor use of alternate water sources. Under each of these two sections, the four alternate water sources are discussed: rainwater, graywater, stormwater, and recycled water. Each of these alternate water sources is represented in terms of a “tier.” Tier 1 represents rainwater; Tier 2, graywater; Tier 3, stormwater; and Tier 4, recycled water. Each tier has specific guidelines and requirements. The guidelines and requirements shall be reviewed annually and updated accordingly based on pertinent studies and research, or until the current federal, State or local regulations are superseded.

In reading this document, you will notice that Tier 1A systems intended for outdoor uses do not require the approval of DPH. However, please take note that all other systems, including Tier 1A systems intended to support indoor uses, do require the review and approval of DPH. Prior to final approval of Tier 1B, 2, 3, and 4 systems, DPH shall conduct project reviews to evaluate possible cross connection hazards between the domestic potable water supply and any alternate non-potable water systems, i.e., rainwater, graywater, stormwater and recycled water. These projects will be reviewed in conjunction with local building & safety departments and/or public works departments as these departments are the administrative authority referenced in the California Plumbing Code for such construction, and as such, EH recognizes their authority in granting joint approval for these types of projects.

If you have any questions regarding the approval process or these requirements, please contact the DPH EH Cross Connection and Water Pollution Control Section for additional information at (626) 430-5290 or visit our website [www.publichealth.lacounty.gov/eh/](http://www.publichealth.lacounty.gov/eh/).

# Indoor Water Uses

## INDOOR USES

# TIER 1: RAINWATER

Rainwater capture systems may be used at single family dwellings, apartments (R1), hotels (R2), commercial, institutional, and municipal facilities. If the system will combine rainwater and graywater, it will be classified as Tier 2: Graywater.

**Includes:** Rainwater that is collected and used onsite.

**Excludes:** Stormwater, dry weather runoff, recycled water, and rainwater collected from locations zoned for manufacturing or industrial use.

## Tier 1A: Non-Pressurized Rain Barrels/Cisterns

Indoor use of rainwater requires a specially designed gravity feed system in addition to a supplemental supply of potable water. Therefore, the guidelines for Tier 1B, below, need to be followed for indoor uses of rainwater.

## Tier 1B: Pressurized Rainwater Catchment Systems

Allowed Uses	Min. Water Quality Standard	Treatment Process	Monitoring & Reporting*
<ul style="list-style-type: none"> <li>Toilet and urinal flushing</li> <li>Laundry washing</li> <li>Trap primers and cooling tower make-up</li> </ul>	<ul style="list-style-type: none"> <li>Ch. 17 CPC E. coli &lt; 100 CFU/100 ml, turbidity &lt; 10 NTU</li> <li>or</li> <li>NSF 350</li> <li>or</li> <li>CCR Title 22 Recycled Water Quality Equivalence at the point of use</li> </ul>	<ul style="list-style-type: none"> <li>Ch. 17 CPC Table 1702.9.4 Prescreening &amp; 100 µm filtration w/ disinfection</li> <li>Evaluated on a case-by-case basis per project</li> </ul>	<ul style="list-style-type: none"> <li>Owner-Occupied Single Family Dwelling: Upon installation and change of ownership</li> <li>R1 &amp; R2: Annually (Quarterly if used for laundry washing)</li> <li>Commercial/institutional/industrial: Annually (Quarterly if used for laundry washing)</li> </ul> <p>*May suspend monitoring, report as non-operational, during quarters when dry.</p>
Requirements			
<ul style="list-style-type: none"> <li><input type="checkbox"/> Permits/approvals:               <ul style="list-style-type: none"> <li>○ Shall obtain a Building &amp; Safety Building Permit from the local building authority</li> <li>○ Shall undergo a Public Health Review and Approval, including a Cross Connection Test, by DPH EH</li> </ul> </li> <li><input type="checkbox"/> Shall follow all applicable regulations governing dual plumbing systems</li> <li><input type="checkbox"/> Shall incorporate failsafe designs and diversion to a protected potable source when treated water is out of specification<sup>1</sup></li> <li><input type="checkbox"/> Shall not be connected to any unprotected conveyance of potable water systems<sup>1</sup></li> <li><input type="checkbox"/> Shall be installed in accordance with manufacturer's instructions and installation requirements of the local building authority and of DPH.</li> </ul>			

Graywater systems may be used at single family dwellings, apartments (R1), hotels (R2), commercial, institutional, and municipal facilities.

**Includes:** “Graywater” that is collected and used onsite. Graywater systems may also use water from swimming pool backwash operations, air conditioner condensate, cooling tower-blow-down, steam system condensate, fluid cooler discharge water, food steamer discharge water, combination oven discharge water, industrial process water, fire pump test water, theme park recreation water operations, and foundation drainage. Systems that combine rainwater and graywater are classified as graywater systems.

**Excludes:** Stormwater, dry weather runoff (see instead Tier 3: Stormwater), and wastewater from kitchen sinks or toilets (see instead Tier 4: Recycled Water).

Allowed Uses	Min. Water Quality Standard	Treatment Process	Monitoring & Reporting
<ul style="list-style-type: none"> <li>Toilet and urinal flushing</li> <li>Laundry washing</li> <li>Trap primers and cooling tower make-up</li> </ul>	<ul style="list-style-type: none"> <li>NSF 350 with disinfection <i>or</i></li> <li>CCR Title 22 Recycled Water Quality Equivalence at the point of use <i>or</i></li> <li>Other standard matching or exceeding presently accepted standards</li> </ul>	<ul style="list-style-type: none"> <li>Packaged Units and/or Design Build Units – evaluated and complying with NSF 350 certification standard as a complete system</li> <li>Evaluated on a case-by-case basis per project</li> </ul>	<ul style="list-style-type: none"> <li>Owner-Occupied, Single Family Dwelling: Upon installation and change of ownership</li> <li>R1 &amp; R2: Annually (Quarterly if used for laundry washing)</li> <li>Commercial/institutional/industrial: Annually (Quarterly if used for laundry washing)</li> </ul>

Requirements
<ul style="list-style-type: none"> <li><input type="checkbox"/> Permits/approvals:                             <ul style="list-style-type: none"> <li><input type="checkbox"/> Shall obtain Building &amp; Safety Building Permit from the local building authority</li> <li><input type="checkbox"/> Shall undergo Public Health Plan Review and Approval of the piping system, tanks, and pump, in order to reduce risk of cross connection with potable water supplies<sup>2</sup></li> <li><input type="checkbox"/> Non-NSF certified systems shall complete a 6 month demonstration phase showing water continually meets standard prior to treated graywater being used for any purpose other than subsurface irrigation</li> </ul> </li> <li><input type="checkbox"/> Non-NSF certified systems shall be certified to meet NSF 350 or other applicable water quality standard by a 3<sup>rd</sup> party tester approved by DPH EH</li> <li><input type="checkbox"/> R1, R2, Commercial, Institutional, and Industrial systems including spray irrigation, outdoor water features, and vehicle washing must have manual developed by the engineer who designed the system identifying operation and maintenance of the system, online water quality</li> <li><input type="checkbox"/> Shall be screened or be otherwise equipped to prevent vector intrusion</li> <li><input type="checkbox"/> Shall incorporate failsafe designs to comply with failure sensing and signaling equipment standards in NSF 350<sup>3</sup></li> </ul>

- Shall incorporate diversion to a protected potable source when treated water is out of specification<sup>4</sup>
- Shall be equipped with an applicable overflow to an approved drainage system: wastewater typically draining to a sewer (e.g.) shall be plumbed to sewer, while wastewater typically draining to a storm drain, (e.g., foundation drainage) shall be plumbed to the storm drain
- Design and Build systems shall incorporate systems for the online monitoring of turbidity, pH, and Total Suspended Solids (TSS)
- Design and Build systems must have manual developed by the engineer who designed the system identifying operation and maintenance of the system, online water quality monitoring requirements, the water quality standards, sampling frequency, and procedures for response to different system failures
- Shall follow the same requirements as listed in Tier 1B
- Shall be installed in accordance with the manufacturer's instructions and installation requirements of local agencies



## INDOOR USES

# TIER 3: STORMWATER

Stormwater may be used at commercial, institutional, municipal, and industrial facilities only.

**Includes:** Stormwater and dry weather runoff collected from non-point sources. Stormwater may contain various contaminants: excess fertilizers, herbicides and insecticides from agricultural lands and residential areas; oil, grease and toxic chemicals from urban runoff and energy production; sediment from improperly managed construction sites, crop and forest lands, and eroding stream banks; salt from irrigation practices and acid drainage from abandoned mines; bacteria and nutrients from livestock, pet wastes and faulty septic systems; atmospheric deposition and hydromodification.

**Excludes:** Any water that has not entered a municipal stormwater system.

Allowed Uses	Min. Water Quality Standard	Treatment Process	Monitoring & Reporting
<ul style="list-style-type: none"> <li>Toilet and urinal flushing</li> <li>Trap primers and cooling tower make-up</li> </ul>	<ul style="list-style-type: none"> <li>NSF 350 <i>or</i></li> <li>CCR Title 22 Recycled Water Quality Equivalence at the point of use <i>or</i></li> <li>Other standard matching or exceeding presently accepted standards <b>and</b> Meets all bacterial limits at point of use when distributed offsite <b>and</b> Meets California Maximum Contamination Levels, and the California Toxics Rule Standards</li> </ul>	<ul style="list-style-type: none"> <li>Packaged Units and/or Design Build Units – evaluated and complying with NSF 350 certification standard as a complete system</li> <li>Specific treatment components shall be based on classification of chemical components during the first two years of operation</li> <li>Evaluated on a case-by-case basis per project</li> </ul>	<ul style="list-style-type: none"> <li>Stormwater influent shall be tested to characterize chemical components after the first rain event of the rainfall year and at least two additional times during each rainfall year.<sup>5</sup> Summary of stormwater analyses shall be maintained on premises</li> <li>Annual reporting of final water quality</li> </ul>
<b>Requirements</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Permits/approvals:               <ul style="list-style-type: none"> <li>Shall obtain Building &amp; Safety Building Permit from the local building authority</li> <li>Shall undergo Public Health Review and Approval<sup>6</sup></li> <li>Shall undergo review by Sanitation District for contaminants that may affect the wastewater treatment facility</li> </ul> </li> </ul>			

- Non-NSF certified systems shall complete a 6 month demonstration phase showing water continually meets standard prior to being used for any purpose other than sub-surface irrigation
- Non-NSF certified systems shall be certified to meet NSF 350 or other applicable water quality standard by a 3<sup>rd</sup> party tester approved by DPH EH
- R1, R2, Commercial, Institutional, and Industrial systems including spray irrigation, outdoor water features, and vehicle washing must have manual developed by the engineer who designed the system identifying operation and maintenance of the system, online water quality
- Shall be screened or be otherwise equipped to prevent vector intrusion
- Shall incorporate failsafe designs to comply with failure sensing and signaling equipment standards in NSF 350<sup>3</sup>
- Shall incorporate diversion to a protected potable source when treated water is out of specification<sup>4</sup>
- Shall be equipped with an applicable overflow to an approved drainage system: wastewater typically draining to a sewer (e.g.) shall be plumbed to sewer, while wastewater typically draining to a storm drain, (e.g., foundation drainage) shall be plumbed to the storm drain
- Design and Build systems shall incorporate systems for the online monitoring of turbidity, pH, and Total Suspended Solids (TSS)
- Shall be installed in accordance with the manufacturer's installation instructions and installation requirements of local agencies
- A typical Tier 3 system for offsite collection may also require any of the following:
  - Storm drain diversion
  - Pre-treatment screening/sedimentation device
  - Pump station (where applicable)
  - Underground retention facility and disinfection facility (where applicable)
  - Recirculation system
  - Connection to distribution system
  - A supplemental water supply from a domestic source via an approved dedicated backflow prevention device

Recycled water may be used at commercial, institutional, municipal, industrial facilities, and limited R1 and R2 sites including professionally managed apartment complexes, condominium complexes, and hotels. The use of recycled water indoors at single-family dwellings and non-professionally managed apartments is currently not permitted.

**Includes:** “Recycled water” provided by a regulated recycled water agency.

**Excludes:** Blackwater treated through an Onsite Wastewater Treatment System and domestic wastewater *not* treated through a three-stage process.

Allowed Uses	Min. Water Quality Standard	Treatment Process	Monitoring & Reporting
<ul style="list-style-type: none"> <li>Toilet and urinal flushing</li> <li>Laundry washing</li> <li>Trap primers and cooling tower make-up</li> <li>Other uses pending DPH review (e.g., industrial processes)</li> </ul>	<ul style="list-style-type: none"> <li>CCR Title 22 Recycled Water Quality Equivalence at point of use</li> </ul>	<ul style="list-style-type: none"> <li>CCR Title 22 Recycled Water Quality Equivalence</li> <li>Additional treatment onsite to bring into compliance with water quality standards</li> </ul>	<ul style="list-style-type: none"> <li>Permitted R1 &amp; R2: Annually</li> <li>Commercial/institutional/industrial: Annually</li> </ul>
Requirements			
<ul style="list-style-type: none"> <li><input type="checkbox"/> Permits/approvals:                             <ul style="list-style-type: none"> <li>Shall obtain Building &amp; Safety Building Permit from the local building authority</li> <li>Shall undergo Public Health Review and Approval</li> <li>Shall undergo review by the State Water Board</li> </ul> </li> <li><input type="checkbox"/> Shall incorporate failsafe designs to comply with failure sensing and signaling equipment standards in NSF 350<sup>3</sup></li> <li><input type="checkbox"/> R1, R2, commercial, institutional, and industrial systems shall incorporate systems for the online monitoring of turbidity, pH, and Total Suspended Solids (TSS)</li> <li><input type="checkbox"/> Shall incorporate diversion to a protected potable source when treated water is out of specification<sup>4</sup></li> <li><input type="checkbox"/> Shall comply with all regulations and ordinances as applicable to tertiary treated recycled water under permit from the Regional Water Quality Control Board</li> </ul>			

# Outdoor Water Uses

## OUTDOOR USES

# TIER 1: RAINWATER

Rainwater capture systems may be used at single-family dwellings, apartments (R1), hotels (R2), commercial, institutional, and municipal facilities.

**Includes:** Rainwater that is collected and used onsite.

**Excludes:** Stormwater, dry weather runoff, recycled water, and rainwater collected from locations zoned for manufacturing or industrial use.

## Tier 1A: Non-Pressurized Rain Barrels/Cisterns

Allowed Uses	Min. Water Quality Standard	Treatment Process	Monitoring & Reporting
<ul style="list-style-type: none"> <li>• Surface or subsurface landscape irrigation</li> <li>• Vehicle washing</li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>	<ul style="list-style-type: none"> <li>• None required</li> </ul>	<ul style="list-style-type: none"> <li>• None required</li> </ul>
Requirements			
<ul style="list-style-type: none"> <li><input type="checkbox"/> Permits/approvals:               <ul style="list-style-type: none"> <li>○ May need to obtain Building &amp; Safety Building Permit for stability issues</li> </ul> </li> <li><input type="checkbox"/> Shall have a screened inflow opening, a spigot and/or hose bib, and an overflow pipe or equivalent</li> <li><input type="checkbox"/> Shall be clearly labeled to indicate non-potable water use only</li> <li><input type="checkbox"/> Shall not be connected to indoor/outdoor municipal potable plumbing, and shall not be pressurized or sprayed</li> <li><input type="checkbox"/> Shall be installed in accordance with the rain barrel manufacturer's instructions, and installation requirements of local agencies</li> </ul>			

**Tier 1B: Pressurized Rainwater Catchment Systems**

Allowed Uses	Min. Water Quality Standard	Treatment Process	Monitoring & Reporting*
<ul style="list-style-type: none"> <li>• Drip and subsurface irrigation</li> <li>• Spray irrigation &lt; 360 gallons storage</li> <li>• Vehicle washing</li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>	<ul style="list-style-type: none"> <li>• Ch. 17 CPC Table 1702.9.4 pre-screening</li> <li>• 100 µm filtration for car washing and drip irrigation</li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>
<ul style="list-style-type: none"> <li>• Drip and subsurface irrigation</li> <li>• Vehicle washing</li> <li>• Spray irrigation ≥ 360 gallons storage</li> <li>• Non-interactive outdoor water feature</li> </ul>	<ul style="list-style-type: none"> <li>• Ch. 17 CPC E. coli &lt; 100 CFU/100 ml, turbidity &lt; 10 NTU</li> <li>• <i>or</i></li> <li>• NSF 350 with disinfection</li> <li>• <i>or</i></li> <li>• CCR Title 22 Recycled Water Quality Equivalence at the Point of Use</li> </ul>	<ul style="list-style-type: none"> <li>• Ch. 17 CPC Table 1702.9.4 prescreening and 100 µm filtration with disinfection</li> <li>• Evaluated on a case-by-case basis per project</li> </ul>	<ul style="list-style-type: none"> <li>• Owner-Occupied Single Family Dwelling: Upon installation and change of ownership</li> <li>• R1 (e.g. apartments) &amp; R2 (e.g. hotels): Annually</li> <li>• Commercial/institutional/industrial: Annually</li> </ul> <p><small>*Monitoring and reporting frequencies may be suspended during quarters when cisterns are dry and shall be reported as non-operational. Frequencies shall be reevaluated periodically.</small></p>

Requirements
<ul style="list-style-type: none"> <li><input type="checkbox"/> Permits/approvals:               <ul style="list-style-type: none"> <li>○ Shall obtain Building &amp; Safety Building Permit from the local building authority</li> <li>○ Shall undergo Public Health Review and Approval, including a Cross Connection Test, by DPH EH</li> </ul> </li> <li><input type="checkbox"/> Shall be equipped with an overflow device or rain diverter and be screened or otherwise equipped to prevent vector intrusion</li> <li><input type="checkbox"/> Shall be installed in accordance with the manufacturer’s instructions, and installation requirements of local agencies</li> </ul>

Graywater systems may be used at single-family dwellings, apartments (R1), hotels (R2), commercial, institutional, and municipal facilities.

**Includes:** “Graywater” refers to wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines, and laundry tubs. Must be collected and used onsite. Also includes water from swimming pool backwash operations, air conditioner condensate, cooling tower-blow-down, steam system condensate, fluid cooler discharge water, food steamer discharge water, combination oven discharge water, industrial process water, fire pump test water, theme park recreation water operations, and foundation drainage. Includes a system that combines rainwater and graywater.

**Excludes:** Stormwater, dry weather runoff (see instead: Tier 3: Stormwater), and wastewater from kitchen sinks or toilets (see instead: Tier 4: Recycled Water).

Allowed Uses	Min. Water Quality Standard	Treatment Process	Monitoring & Reporting
<b>UNTREATED</b> <ul style="list-style-type: none"> <li>Mulch basin or subsurface irrigation</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>	<ul style="list-style-type: none"> <li>Pre-screening</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>
<b>TREATED</b> <ul style="list-style-type: none"> <li>As above</li> <li>Spray and drip irrigation</li> <li>Non-interactive outdoor water feature</li> <li>Vehicle washing</li> </ul>	<ul style="list-style-type: none"> <li>NSF 350 with disinfection <i>or</i></li> <li>Title 22 Recycled Water Quality Equivalence</li> </ul>	<ul style="list-style-type: none"> <li>Packaged Units and/or Design Build Units shall be NSF 350 Certified as a complete system</li> <li>Evaluated on a case-by-case basis per project</li> </ul>	<ul style="list-style-type: none"> <li>Owner-Occupied Single-Family Dwelling: Upon installation and change of ownership</li> <li>R1 (apartments) &amp; R2 (hotels): Annually</li> <li>Commercial/institutional/industrial: Annually</li> </ul>

Requirements
<ul style="list-style-type: none"> <li><input type="checkbox"/> Permits/approvals:               <ul style="list-style-type: none"> <li><input type="checkbox"/> Shall obtain Building &amp; Safety Building Permit from the local building authority</li> <li><input type="checkbox"/> Shall undergo Public Health Review and Approval, or equivalent approval by the appropriate local agency of the piping system, tanks, and pump, where applicable, in order to reduce risk of cross connection with potable water supplies</li> </ul> </li> <li><input type="checkbox"/> Shall be screened or be otherwise equipped to prevent vector intrusion</li> <li><input type="checkbox"/> Shall incorporate failsafe designs to comply with failure sensing and signaling equipment standards in NSF 350<sup>7</sup></li> <li><input type="checkbox"/> Shall incorporate diversion to a protected potable source when treated water is out of specification<sup>4</sup></li> <li><input type="checkbox"/> Shall be equipped with an applicable overflow to an approved drainage system: wastewater typically draining to a sewer (e.g.) shall be plumbed to sewer, while wastewater typically draining to a storm drain, (e.g. foundation drainage) shall be plumbed to the storm drain</li> </ul>

- R1, R2, Commercial, Institutional, and Industrial systems including spray irrigation, outdoor water features, and vehicle washing shall include online monitoring for turbidity, pH, and TSS
- R1, R2, Commercial, Institutional, and Industrial systems including spray irrigation, outdoor water features, and vehicle washing must have manual developed by the engineer who designed the system identifying operation and maintenance of the system, online water quality monitoring requirements, the water quality standards, sampling frequency, and procedures for response to different system failures
- Shall follow the same requirements as listed in Tier 1B
- Shall be installed in accordance with the manufacturer's instructions and installation requirements of local agencies



Stormwater may be used at commercial, institutional, municipal, and industrial facilities only.

**Includes:** Stormwater and dry weather runoff collected from non-point sources. Stormwater may contain various contaminants: excess fertilizers, herbicides and insecticides from agricultural lands and residential areas; oil, grease and toxic chemicals from urban runoff and energy production; sediment from improperly managed construction sites, crop and forest lands, and eroding stream banks; salt from irrigation practices and acid drainage from abandoned mines; bacteria and nutrients from livestock, pet wastes and faulty septic systems; atmospheric deposition and hydromodification.

**Excludes:** Any water that has not entered a municipal stormwater system.

Allowed Uses	Min. Water Quality Standard	Treatment Process	Monitoring & Reporting
<ul style="list-style-type: none"> <li>Mulch basin, drip, and subsurface irrigation</li> </ul>	<ul style="list-style-type: none"> <li>California Maximum Contamination Levels, and the California Toxics Rule Standards</li> </ul>	<ul style="list-style-type: none"> <li>Package Units and/or Design Build Units evaluated on a case-by-case basis per project</li> </ul>	<ul style="list-style-type: none"> <li>Stormwater influent shall be tested to characterize chemical components after the first rain event of the rain fall year and at least two additional times during each rain fall year.<sup>5</sup> Summary of stormwater analyses shall be maintained on premises</li> <li>Annual reporting of final water quality</li> </ul>
<ul style="list-style-type: none"> <li>As above</li> <li>Spray irrigation</li> <li>Non-interactive outdoor water feature</li> <li>Vehicle washing</li> <li>Street sweeping</li> <li>Dust control</li> </ul>	<ul style="list-style-type: none"> <li>NSF 350, if sprayed or</li> <li>CCR Title 22 Recycled Water Quality Equivalence at the Point of Use <i>and</i> Meets all bacterial limits at point of use when distributed offsite <i>And</i> Meets California Maximum Contamination Levels, and the California Toxics Rule Standards</li> </ul>	<ul style="list-style-type: none"> <li>Packaged Units and/or Design Build Units shall be NSF 350 Certified as a complete system</li> <li>Evaluated on a case-by-case basis per project</li> </ul>	

### Requirements

- Permits/approvals:
  - Shall obtain Building & Safety Building Permit from the local building authority
  - Shall undergo Public Health Review and Approval
  - May require review by Regional Water Quality Control Board for contaminants that may affect the groundwater quality

- Non-NSF certified systems shall complete a 6 month demonstration phase showing water continually meets standard prior to being used for any purpose other than sub-surface irrigation
- Non-NSF certified systems shall be certified to meet NSF 350 or other applicable water quality standard by a 3<sup>rd</sup> party tester approved by the department
- R1, R2, Commercial, Institutional, and Industrial systems including spray irrigation, outdoor water features, and vehicle washing must have manual developed by the engineer who designed the system identifying operation and maintenance of the system, online water quality
- Shall be screened or be otherwise equipped to prevent vector intrusion
- Shall incorporate failsafe designs to comply with failure sensing and signaling equipment standards in NSF 350<sup>8</sup>
- Shall incorporate diversion to a protected potable source when treated water is out of specification<sup>4</sup>
- Shall be equipped with an applicable overflow device
- A typical Tier 3 system for offsite collection may also require any of the following:
  - Storm drain diversion
  - Pre-treatment screening/sedimentation device
  - Pump station (where applicable)
  - Underground retention facility and disinfection facility (where applicable)
  - Recirculation system
  - Connection to distribution system
  - A supplemental water supply from a domestic source via an approved dedicated backflow prevention device
- Shall be installed in accordance with the manufacturer's instructions and installation requirements of local agencies
- Additional requirements may apply. Check with local regulatory agencies for further information

## OUTDOOR USES

# TIER 4: RECYCLED WATER

Recycled water can be used by single-family dwellings, R1 (e.g. apartments), R2 (e.g. hotels), commercial, institutional, and industrial facilities.

**Includes:** “Recycled water” provided by a regulated recycled water agency.

**Excludes:** Blackwater treated through an onsite wastewater treatment system and domestic wastewater *not* treated through a three-stage process.

Allowed Uses	Min. Water Quality Standard	Treatment Process	Monitoring & Reporting
<ul style="list-style-type: none"> <li>• Drip, spray, and subsurface irrigation</li> <li>• Non-interactive outdoor water feature</li> <li>• Street sweeping<sup>8</sup></li> <li>• Dust control<sup>9</sup></li> <li>• Other uses pending DPH review (e.g., vehicle washing)</li> </ul>	<ul style="list-style-type: none"> <li>• CCR Title 22 Recycled Water</li> <li>• <i>and</i></li> <li>• All bacterial limits met at the point of use for spray irrigation</li> </ul>	<ul style="list-style-type: none"> <li>• CCR Title 22 Recycled Water</li> </ul>	<ul style="list-style-type: none"> <li>• Owner-Occupied Single-Family Dwelling: Annually</li> <li>• R1 &amp; R2: Annually</li> <li>• Commercial/institutional/industrial: Annually</li> </ul>
Requirements			
<ul style="list-style-type: none"> <li><input type="checkbox"/> Permits/approvals:               <ul style="list-style-type: none"> <li>○ Shall obtain Building &amp; Safety Building Permit from the local building authority</li> <li>○ Shall undergo Public Health Review and Approval by DPH EH</li> <li>○ Shall undergo review by the State Water Board</li> <li>○ Shall undergo review by other local agencies as applicable</li> </ul> </li> <li><input type="checkbox"/> Shall incorporate failsafe designs to comply with failure sensing and signaling equipment standards in NSF 350<sup>8</sup></li> <li><input type="checkbox"/> Shall incorporate diversion to a protected potable source when treated water is out of specification<sup>4</sup></li> <li><input type="checkbox"/> Shall comply with all regulations and ordinances as applicable to tertiary treated recycled water under permit from Regional Water Quality Control Board</li> </ul>			

# DEFINITIONS AND ACRONYMS

**Alternate non-potable water supply:** A non-potable source of water which includes graywater, rainwater, stormwater, dry weather runoff, onsite treated water (non-potable), and recycled/reclaimed water. Alternate water sources include but are not limited to swimming pool backwash operations, air conditioner condensate, cooling tower blow-down water, steam system condensate, fluid cooler discharge water, food steamer discharge water combination oven discharge water, industrial process water, and fire pump test water, theme park recreation water operations, foundation drainage, and onsite dry weather runoff.

**Blackwater:** Wastewater containing bodily or other biological wastes, as from toilets, dishwashers, or kitchen drains, and kept separate from graywater in wastewater recycling systems.

**Backflow:** The undesirable reversal of flow of water or mixtures of water and other liquids, gases or other substances into the distribution pipes of the potable supply of water from any source or sources

**CCR:** California Code of Regulations.

**CFU:** Colony Forming Units.

**Cistern:** A component of a rainwater/stormwater catchment system for storing rainwater/stormwater for the purpose of using the water for non-potable uses.

**CPC:** California Plumbing Code.

**Cross Connection:** Any actual or potential connection or structural arrangement between a public or a consumer's potable water system and any other source or system through which it is possible to introduce into any part of the potable system any used water, industrial fluid, gas, or substance other than the intended potable water with which the system is supplied.

**DPH EH:** Los Angeles County Department of Public Health, Environmental Health Division.

**Drip irrigation:** An irrigation method allowing water to drip slowly to the roots of plants, either onto the soil surface or directly onto the root zone, through a network of valves, pipes, tubing, and emitters.

**Dry weather runoff water:** Non-potable water, harvested from a municipal storm water system during dry weather from runoff which flows when potable water is wasted or used inefficiently, and that discharges to waters of the U.S. This does not include water from a combined sewer or from a Publicly Owned Treatment Works (POTW).

**Graywater:** Untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes.

**Graywater** includes, but not limited to, wastewater from domestic activities such as bathtubs, showers, bathroom washbasins, clothes washing machines, laundry tubs, but does not include wastewater from toilets, kitchen sinks and dishwashers.

**Harvested rainwater:** Rainwater that is collected from roofs of buildings and other (e.g. at grade) impervious surfaces, and does not leave the land parcel where it was collected.

**Health Officer:** The health officer of the county of Los Angeles, or his duly authorized representative.

**Hydromodification:** Alteration of the natural flow of water through a landscape, and often takes the form of channel modification or channelization. Hydromodification is one of the leading sources of impairment in streams, lakes, estuaries, aquifers, and other water bodies in the United States.

**Industrial process water:** Wastewater from industrial or commercial processes that has not been contaminated by any toilet discharge, infectious, bodily wastes, or by processing, manufacturing or operating wastes.

**MS4:** A municipal separate storm sewer system or of conveyances owned by a State, city, or other public entity that discharges to waters of the U.S. and is designed or used for collecting or conveying stormwater. MS4 does not include a combined sewer and is not part of a Publicly Owned Treatment Works (POTW).

**Non-interactive outdoor water feature:** Fountains, waterfalls, or other features not intended to act as play zones for children.

**Non-point source:** A source of pollution that issues from widely distributed or pervasive environmental elements, and does not have a distinct point of production or origin, such as a storm drain outlet at the beach, part of the storm drain system. Point sources include POTWs and power plants.

**Non-potable cistern catchment system:** A system using cisterns to collect harvested rainwater/stormwater from a rain event or from dry weather runoff. Cisterns in Los Angeles County may serve as a secondary source of non-potable water for applications that do not require potable water, such as landscape irrigation and indoor flushing, which can dramatically lower potable water demand and reduce offsite rainfall runoff.

**Non-potable water:** Water which is not intended for human or animal consumption.

**NSF:** National Sanitation Foundation.

**NTU:** Nephelometric Turbidity Units

**Onsite treated non-potable water:** Non-potable water that has been collected, treated, and intended to be used onsite and is suitable for direct beneficial use. Sources for onsite treated non-potable water include, but are not limited to, graywater, rainwater, stormwater, recycled water, reclaimed water, cooling tower blow-down water, condensate, and foundation drainage.

**Potable water:** Water which is fit for consumption by humans. The United States Environmental Protection Agency (EPA) identifies biological and chemical contaminants in drinking water that occur at levels that may adversely affect public health. The EPA establishes Maximum Contaminant Levels (MCLs) permissible in drinking water, which become enforceable standards.

**Publicly Owned Treatment Works:** A system owned and operated by a State, County or local government designed to provide secondary or tertiary treatment to sewage in order to reduce the number of pathogenic bacteria, and the components of the sewage that promote bacterial growth, such as Nitrogen, Biological Oxygen demand, and Total Suspended Solids to allow the waste effluent to be disposed of safely in the environment.

**R1 & R2:** Multi-unit residential occupancies. R1 – minimal stay (i.e., hotels, motels, bed and breakfast homes); R2 – long-term stay (i.e., dormitories, employee use, apartment houses).

**Rain barrel:** A container that collects rainwater that falls directly into the container or that is collected by an above ground collection system that prevents the collected water from contacting the ground. Rain barrels are connected to gravity flow systems only, and typically each rain barrel contains 55 gallons of water, more or less, but multiple rain barrels may be connected to increase water collection volume.

**Rainwater:** Precipitation on any public or private parcel that has not entered an offsite storm drain system or channel, a flood control channel, or any other stream channel.

**Recycled water:** Treated wastewater from sewage treatment plants to produce high quality non-potable water that is suitable for a range of non-drinking purposes. Recycled water meets California Department of Public Health statewide uniform criteria for disinfected tertiary treated wastewater.

**Stormwater:** Rainwater that has left a distinct parcel and entered a municipal storm water system or conveyances owned by a State, city, or other public entity that collects rainwater that discharges to waters of the U.S. This water does not include water from a combined sewer or from a Publicly Owned Treatment Works (POTW).

**Subsurface irrigation:** Irrigation field installed either below finish grade within the top soil, in a trench below the layer of top soil, or below a mulch bed at least two (2) inches deep.

**VOCs:** Volatile organic compounds.

# REFERENCES

## Referenced code sections:

- California Code of Regulations Title 22, Chapter 15, Article 4; Chapter 3 and Title 24 (California Plumbing Code), Part 5, Chapters 2, 6, 16 and 17; as adopted by Los Angeles County as Title 28
- California Health & Safety Code, Section 116800
- California Health and Safety Code, Chapter 4, California Safe Drinking Water Act
- Federal Register: December 1992, Part 2. 40 Code of Federal Regulations Part 131 Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants; States' Compliance; Final Rule. A.K.A. California Toxics Rule

## Other references:

Chau, Haan-Fawn, "Green Infrastructure for Los Angeles: Addressing Urban Runoff and Water Supply Through Low Impact Development," University of California School of Public Affairs, April 17, 2009.

Bellomo, Angelo J., "Rainwater Harvesting Policy 515.07," Los Angeles County Department of Public Health, January 25, 2010.

"Rainwater Catchment Design and Installation Standards," American Rainwater Catchment Systems Association, 2010.

"Rainwater Harvesting Design Standard 63, ANSI/ASPE/ARCSA, 2013.

"Stormwater Harvesting Design Standard 78, ANSI/ASPE/ARCSA, 2015.

"Green Plumbing & Mechanical Code Supplement," International Association of Plumbing and Mechanical Officials, 2010 rev.

"Rainwater Collection Systems (Cisterns)," Ventura County Resource Management Agency, 2006.

"Capturing Rainwater from Rooftops: An Efficient Water Resource Management Strategy that Increases Supply and Reduces Pollution," NRDC, 2011.

---

# ENDNOTES

- <sup>1</sup> A dedicated supply of potable water protected by an approved backflow assembly is allowed to be connected downstream of the cistern pump to supply water to the designed application.
- <sup>2</sup> Manufacturer's instructions are written to apply to a general clientele and may require additional conditions for approval, therefore a plan review by Public Health and the local Building & Safety Department is also necessary.
- <sup>3</sup> Specifically: NSF 350 sections 5.8.1, 5.8.2, 5.8.3, and 5.8.4, and flow design standards in sections 5.9. NSF 350 standards require a mechanism or process capable of detecting failures of electrical or mechanical components critical to the treatment processes and detecting high water condition. In the event of a detected failure or high water condition, a visual and audible alarm is required that operate even in the event of an electrical, mechanical, or hydraulic malfunction of the system. In addition, commercial systems require telemetric alarms by phone or email to the owner operator. For reuse treatment systems a bypass for discharge of untreated wastewater to the sewer system shall be present and shall be activated automatically in the event of a malfunction. The system shall also possess a means to control the volume of water in the systems and prevent the overflow to any location other than a locally approved water treatment and disposal system.
- <sup>4</sup> A dedicated supply of potable water protected by an approved Reduced Pressure Principle Backflow Assembly (RP) is allowed to be connected to the non-pressurized storage tank (treated) and/or surge tank.
- <sup>5</sup> A rainfall event is defined as 1/10<sup>th</sup> of an inch, as measured at the University of Southern California Monitoring Station, information available at Los Angeles County Department of Public Works webpage <http://www.ladpw.org/wrd/precip/>. The rainfall year is from July 1 through June 30, per the National Weather Service.
- <sup>6</sup> The Tier 3 water qualities will be reviewed case by case by Los Angeles County Department of Public Health, Los Angeles Regional Water Quality Control Board, and other local agencies as applicable. Other water quality standards being developed at the time of the writing of this guidance document shall be considered once the standard has been accepted by the Public Health Agency having Jurisdiction, i.e. IAPMO Z1002 and IAPMO Z1207.
- <sup>7</sup> Specifically: NSF 350 sections 5.8.1, 5.8.2, 5.8.3, and 5.8.4.
- <sup>8</sup> Both commercial and industrial allowed.



# ACKNOWLEDGEMENTS

The Los Angeles County Department of Public Health would like to thank the following organizations that contributed to the development of these guidelines:

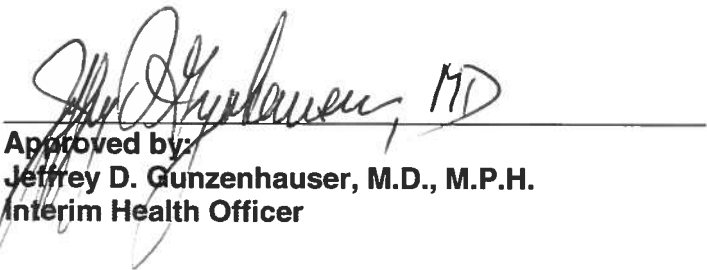
City of Los Angeles Bureau of Sanitation/WPD  
City of Santa Monica Office of Sustainability & the Environment  
Heal the Bay  
Natural Resources Defense Council  
State Water Board Drinking Water Division  
TreePeople



Approved by:  
Terri S. Williams, REHS  
Acting Director of Environmental Health

\_\_\_\_\_

Date



Approved by:  
Jeffrey D. Gunzenhauser, M.D., M.P.H.  
Interim Health Officer

\_\_\_\_\_

Feb 11, 2016

Date



**COUNTY OF LOS ANGELES-DEPARTMENT OF HEALTH SERVICES**  
 PUBLIC HEALTH PROGRAMS AND SERVICES - ENVIRONMENTAL HEALTH  
 CROSS-CONNECTION & WATER POLLUTION CONTROL PROGRAM  
 5050 Commerce Drive, Baldwin Park, CA 91706 (626) 430-5290



**Recycled Water System Inspection Report**

SITE NAME	PC #	DATE																								
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OWNER'S NAME		TELEPHONE #																								
OWNER'S ADDRESS																										
WATER PURVEYOR																										
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PRESSURE TESTS PERFORMED: YES NO

RESULTS OF PRESSURE TESTS: \_\_\_\_\_

1. Recycled water system off, potable water system on. No flow to recycled water irrigation system.

2. Potable water system off, recycled water system on. No flow to potable water usage.

RECYCLED WATER SYSTEM APPROVED: YES NO

COMMENTS: \_\_\_\_\_

INSPECTED BY	TITLE REHS III	AGENCY Los Angeles County DHS
INSPECTED BY	TITLE	AGENCY
INSPECTED BY	TITLE	AGENCY
INSPECTED BY	TITLE	AGENCY
INSPECTED BY	TITLE	AGENCY

SIGNED \_\_\_\_\_ TITLE Program Director \_\_\_\_\_ DATE \_\_\_\_\_

cc: WATER SUPERVISOR  
 WATER PURVEYOR  
 COUNTY HEALTH DEPARTMENT  
 STATE HEALTH DEPARTMENT

**Tab 10**

**Excerpts of California Department of Public  
Health Regulations –  
California Code of Regulations, Titles 22 and 17**

NOTE: These excerpts are meant to be an aid and cannot be relied upon as the State of California's representation of the law. The published codes are the only official representation of the law. Refer to the published codes—in this case, Title 17 and 22 CCR— whenever specific citations are required.

# **California Regulations Related to Recycled Water**

*Excerpts from Titles 22 and 17 California Code of Regulations  
State Board, Division of Drinking Water, Recycled Water Regulations  
Last updated July 16, 2015*

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NOTE: This publication is meant to be an aid to the staff of the State Board's Division of Drinking Water and cannot be relied upon by the regulated community as the State of California's representation of the law. The published codes are the only official representation of the law. Refer to the published codes—in this case, Title 17 and 22 CCR— whenever specific citations are required.

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# TITLE 17 CODE OF REGULATIONS

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## Division 1. State Department of Health Services

### Chapter 5. Sanitation (Environmental)

#### Group 4. Drinking Water Supplies

##### *Article 1. General.*

###### **§7583. Definitions.**

In addition to the definitions in Section 4010.1 of the Health and Safety Code, the following terms are defined for the purpose of this Chapter:

- (a) **“Approved Water Supply”** is a water supply whose potability is regulated by a State of local health agency.
- (b) **“Auxiliary Water Supply”** is any water supply other than that received from a public water system.
- (c) **“Air-gap Separation (AG)”** is a physical break between the supply line and a receiving vessel.
- (d) **“AWWA Standard”** is an official standard developed and approved by the American Water Works Association (AWWA).
- (e) **“Cross-Connection”** is an unprotected actual or potential connection between a potable water system used to supply water for drinking purposes and any source or system containing unapproved water or a substance that is not or cannot be approved as safe, wholesome, and potable. By-pass arrangements, jumper connections, removable sections, swivel or changeover devices, or other devices through which backflow could occur, shall be considered to be cross-connections.
- (f) **“Double Check Valve Assembly (DC)”** is an assembly of at least two independently acting check valves including tightly closing shut-off valves on each side of the check valve assembly and test cocks available for testing the watertightness of each check valve.
- (g) **“Health Agency”** means the California Department of Health Services, or the local health officer with respect to a small water system.
- (h) **“Local Health Agency”** means the county or city health authority.
- (i) **“Reclaimed Water”** is a wastewater which as a result of treatment is suitable for uses other than potable use.
- (j) **“Reduced Pressure Principle Backflow Prevention Device (RP)”** is a backflow preventer incorporating not less than two check valves, an automatically operated differential relief valve located between the two check valves, a tightly closing shut-off valve on each side of the check valve assembly, and equipped with necessary test cocks for testing.
- (k) **“User Connection”** is the point of connection of a user’s piping to the water supplier’s facilities.
- (l) **“Water Supplier”** is the person who owns or operates the public water system.
- (m) **“Water User”** is any person obtaining water from a public water supply.

###### **§7584. Responsibility and scope of program.**

The water supplier shall protect the public water supply from contamination by implementation of a cross-connection control program. The program, or any portion thereof, may be implemented directly by the water supplier or by means of a contract with the local health agency, or with



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another agency approved by the health agency. The water supplier's cross-connection control program shall for the purpose of addressing the requirements of Sections 7585 through 7605 include, but not be limited to, the following elements:

- (a) The adoption of operating rules or ordinances to implement the cross-connection program.
- (b) The conducting of surveys to identify water user premises where cross-connections are likely to occur,
- (c) The provisions of backflow protection by the water user at the user's connection or within the user's premises or both,
- (d) The provision of at least one person trained in cross-connection control to carry out the cross-connection program,
- (e) The establishment of a procedure or system for testing backflow preventers, and
- (f) The maintenance of records of locations, tests, and repairs of backflow preventers.

#### **§7585. Evaluation of hazard.**

The water supplier shall evaluate the degree of potential health hazard to the public water supply which may be created as a result of conditions existing on a user's premises. The water supplier, however, shall not be responsible for abatement of cross-connections which may exist within a user's premises. As a minimum, the evaluation should consider: the existence of cross-connections, the nature of materials handled on the property, the probability of a backflow occurring, the degree of piping system complexity and the potential for piping system modification. Special consideration shall be given to the premises of the following types of water users:

- (a) Premises where substances harmful to health are handled under pressure in a manner which could permit their entry into the public water system. This includes chemical or biological process waters and water from public water supplies which have deteriorated in sanitary quality.
- (b) Premises having an auxiliary water supply, unless the auxiliary supply is accepted as an additional source by the water supplier and is approved by the health agency.
- (c) Premises that have internal cross-connections that are not abated to the satisfaction of the water supplier or the health agency.
- (d) Premises where cross-connections are likely to occur and entry is restricted so that cross-connection inspections cannot be made with sufficient frequency or at sufficiently short notice to assure that cross-connections do not exist.
- (e) Premises having a repeated history of cross-connections being established or re-established.

#### **§7586. User supervisor.**

The health agency and water supplier may, at their discretion, require an industrial water user to designate a user supervisor when the water user's premises has a multipiping system that convey various types of fluids, some of which may be hazardous and where changes in the piping system are frequently made. The user supervisor shall be responsible for the avoidance of cross-connections during the installation, operation and maintenance of the water user's pipelines and equipment.

### **Article 2. Protection of Water System.**

#### **§7601. Approval of backflow preventers.**

Backflow preventers required by this Chapter shall have passed laboratory and field evaluation tests performed by a recognized testing organization which has demonstrated their competency to perform such tests to the Department.

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**§7602. Construction of backflow preventers.**

- (a) Air-gap Separation. An Air-gap separation (AG) shall be at least double the diameter of the supply pipe, measured vertically from the flood rim of the receiving vessel to the supply pipe; however, in no case shall this separation be less than one inch.
- (b) Double Check Valve Assembly. A required double check valve assembly (DC) shall, as a minimum, conform to the AWWA Standard C506-78 (R83) adopted on January 28, 1978 for Double Check Valve Type Backflow Preventive Devices which is herein incorporated by reference.
- (c) Reduced Pressure Principle Backflow Prevention Device. A required reduced pressure principle backflow prevention device (RP) shall, as a minimum, conform to the AWWA Standard C506-78 (R83) adopted on January 28, 1978 for Reduced Pressure Principle Type Backflow Prevention Devices which is herein incorporated by reference.

**§7603. Location of backflow preventers.**

- (a) Air-gap Separation. An air-gap separation shall be located as close as practical to the user's connection and all piping between the user's connection and the receiving tank shall be entirely visible unless otherwise approved in writing by the water supplier and the health agency.
- (b) Double Check Valve Assembly. A double check valve assembly shall be located as close as practical to the user's connection and shall be installed above grade, if possible, and in a manner where it is readily accessible for testing and maintenance.
- (c) Reduced Pressure Principle Backflow Prevention Device. A reduced pressure principle backflow prevention device shall be located as close as practical to the user's connection and shall be installed a minimum of twelve inches (12") above grade and not more than thirty-six inches (36") above grade measured from the bottom of the device and with a minimum of twelve inches (12") side clearance.

**§7604. Type of protection required.**

The type of protection that shall be provided to prevent backflow into the public water supply shall be commensurate with the degree of hazard that exists on the consumer's premises. The type of protective device that may be required (listed in an increasing level of protection) includes: Double check Valve Assembly--(DC), Reduced Pressure Principle Backflow Prevention Device--(RP) and an Air gap Separation--(AG). The water user may choose a higher level of protection than required by the water supplier. The minimum types of backflow protection required to protect the public water supply, at the water user's connection to premises with various degrees of hazard, are given in Table 1. Situations not covered in Table 1 shall be evaluated on a case-by-case basis and the appropriate backflow protection shall be determined by the water supplier or health agency.

**TABLE 1**  
TYPE OF BACKFLOW PROTECTION REQUIRED

Degree of Hazard	Minimum Type of Backflow Prevention
(a) Sewage and Hazardous Substances	
(1) Premises where there are waste water pumping and/or treatment plants and there is no interconnection with the potable water system. This does not	AG

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- include a single-family residence that has a sewage lift pump. A RP be provided in lieu of an AG if approved by the health agency and water supplier.
- (2) Premises where hazardous substances are handled in any manner in which the substances may enter the potable water system. This does not include a single-family residence that has a sewage lift pump. A RP may be provided in lieu of an AG if approved by the health agency and water supplier. AG
- (3) Premises where there are irrigation systems into which fertilizers, herbicides, or pesticides are, or can be, injected. RP
- (b) Auxiliary Water Supplies
- (1) Premises where there is an unapproved auxiliary water supply which is interconnected with the public water system. A RP or DC may be provided in lieu of an AG if approved by the health agency and water supplier. AG
- (2) Premises where there is an unapproved auxiliary RP water supply and there are no interconnections with the public water system. A DC may be provided in lieu of a RP if approved by the health agency and water supplier. RP
- (c) Recycled water
- (1) Premises where the public water system is used to supplement the recycled water supply. AG
- (2) Premises where recycled water is used, other than as allowed in paragraph (3), and there is no interconnection with the potable water system. RP
- (3) Residences using recycled water for landscape irrigation as part of an approved dual plumbed use area established pursuant to sections 60313 through 60316 unless the recycled water supplier obtains approval of the local public water supplier, or the Department if the water supplier is also the supplier of the recycled water, to utilize an alternative backflow protection plan that includes an annual inspection and annual shutdown test of the recycled water and potable water systems pursuant to subsection 60316(a). DC
- (d) Fire Protection Systems
- (1) Premises where the fire system is directly supplied from the public water system and there is an unapproved auxiliary water supply on or to the premises (not interconnected). DC
- (2) Premises where the fire system is supplied from the public water system and interconnected with an unapproved auxiliary water supply. A RP may be provided in lieu of an AG if approved by the health agency and water supplier. AG
- (3) Premises where the fire system is supplied from the public water system and where either elevated storage tanks or fire pumps which take suction from private reservoirs or tanks are used. DC
- (4) Premises where the fire system is supplied from the public water system and where recycled water is used in a separate piping system within the same building. DC
- (e) Dockside Watering Points and Marine Facilities
- (1) Pier hydrants for supplying water to vessels for any purpose. RP
- (2) Premises where there are marine facilities. RP
- (f) Premises where entry is restricted so that inspections for cross-connections RP

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cannot be made with sufficient frequency or at sufficiently short notice to assure that do not exist.

(g) Premises where there is a repeated history of crossconnections being established or re-established. RP

**§7605. Testing and maintenance of backflow preventers.**

- (a) The water supplier shall assure that adequate maintenance and periodic testing are provided by the water user to ensure their proper operation.
- (b) Backflow preventers shall be tested by persons who have demonstrated their competency in testing of these devices to the water supplier or health agency.
- (c) Backflow preventers shall be tested at least annually or more frequently if determined to be necessary by the health agency or water supplier. When devices are found to be defective, they shall be repaired or replaced in accordance with the provisions of this Chapter.
- (d) Backflow preventers shall be tested immediately after they are installed, relocated or repaired and not placed in service unless they are functioning as required.
- (e) The water supplier shall notify the water user when testing of backflow preventers is needed. The notice shall contain the date when the test must be completed.
- (f) Reports of testing and maintenance shall be maintained by the water supplier for a minimum of three years.

# TITLE 22 CODE OF REGULATIONS

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## Division 4. Environmental Health

### Chapter 1. Introduction

#### *Article 1. Definitions.*

##### **§60001. Department.**

Whenever the term “department” is used in this division, it means the State Department of Health Services, unless otherwise specified.

##### **§60003. Director.**

Whenever the term “director” is used in this division, it means the Director, State Department of Health Services, unless otherwise specified.

### Chapter 2. Regulations for the Implementation of the California Environmental Quality

#### *Article 1. General Requirements and Categorical Exemptions*

##### **§60100. General requirements.**

The Department of Health Services incorporates by reference the objectives, criteria, and procedures as delineated in Chapters 1, 2, 2.5, 2.6, 3, 4, 5, and 6, Division 13, Public Resources Code, Sections 21000 et seq., and the Guidelines for the Implementation of the California Environmental Quality Act, Title 14, Division 6, Chapter 3, California Administrative Code, Sections 15000 et seq.

##### **§60101. Specific activities within categorical exempt classes.**

The following specific activities are determined by the Department to fall within the classes of categorical exemptions set forth in Sections 15300 et seq. of Title 14 of the California Administrative Code:

(a) Class 1: Existing Facilities.

- (1) Any interior or exterior alteration of water treatment units, water supply systems, and pump station buildings where the alteration involves the addition, deletion, or modification of mechanical, electrical, or hydraulic controls.
- (2) Maintenance, repair, replacement, or reconstruction to any water treatment process units, including structures, filters, pumps, and chlorinators.

(b) Class 2: Replacement or Reconstruction.

- (1) Repair or replacement of any water service connections, meters, and valves for backflow prevention, air release, pressure regulating, shut-off and blow-off or flushing.
- (2) Replacement or reconstruction of any existing water supply distribution lines, storage tanks and reservoirs of substantially the same size.
- (3) Replacement or reconstruction of any water wells, pump stations and related appurtenances.

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(c) Class 3: New Construction of Small Structures.

- (1) Construction of any water supply and distribution lines of less than sixteen inches in diameter, and related appurtenances.
- (2) Construction of any water storage tanks and reservoirs of less than 100,000 gallon capacity.

(d) Class 4: Minor Alterations to Land.

- (1) Minor alterations to land, water, or vegetation on any officially existing designated wildlife management areas or fish production facilities for the purpose of reducing the environmental potential for nuisances or vector production.
- (2) Any minor alterations to highway crossings for water supply and distribution lines.

## Chapter 3. Water Recycling Criteria

### *Article 1. Definitions.*

#### **§60301.050. 24-hour Composite Sample.**

"24-hour Composite Sample" means an aggregate sample derived from no fewer than eight discrete samples collected at equal time intervals or collected proportional to the flow rate over the compositing period. The aggregate sample shall reflect the average source water quality covering the composite 24-hour sample period.

#### **§60301.080. Added Tracer.**

"Added Tracer" means a non-reactive substance, with measureable characteristics distinctly different from the receiving groundwater, intentionally added to the water applied at a Groundwater Replenishment Reuse Project (GRRP) for the purpose of being a tracer such that the tracer can be readily identified in the groundwater downgradient of the GRRP to determine the underground retention time of the applied water.

#### **§60301.100. Approved laboratory.**

"Approved laboratory" means a laboratory that has been certified by the Department to perform microbiological analyses pursuant to section 116390, Health and Safety Code.

#### **§60301.160. Coagulated wastewater.**

"Coagulated wastewater" means oxidized wastewater in which colloidal and finely divided suspended matter have been destabilized and agglomerated upstream from a filter by the addition of suitable floc-forming chemicals.

#### **§60301.170. Conventional treatment.**

"Conventional treatment" means a treatment chain that utilizes a sedimentation unit process between the coagulation and filtration processes and produces an effluent that meets the definition for disinfected tertiary recycled water.

#### **§60301.180. Department.**

"Department" means the California Department of Public Health or its successor with authority to regulate public water systems.

#### **§60301.190. Diluent Water.**

"Diluent Water" means water, meeting the diluent requirements of this Chapter, used for reducing the recycled municipal wastewater contribution over time.

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**§60301.200. Direct beneficial use.**

“Direct beneficial use” means the use of recycled water that has been transported from the point of treatment or production to the point of use without an intervening discharge to waters of the State.

**§60301.220. Disinfected secondary-2.2 recycled water.**

“Disinfected secondary-2.2 recycled water” means recycled water that has been oxidized and disinfected so that the median concentration of total coliform bacteria in the disinfected effluent does not exceed a most probable number (MPN) of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed, and the number of total coliform bacteria does not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30 day period.

**§60301.225. Disinfected secondary-23 recycled water.**

“Disinfected secondary-23 recycled water” means recycled water that has been oxidized and disinfected so that the median concentration of total coliform bacteria in the disinfected effluent does not exceed a most probable number (MPN) of 23 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed, and the number of total coliform bacteria does not exceed an MPN of 240 per 100 milliliters in more than one sample in any 30 day period.

**§60301.230. Disinfected tertiary recycled water.**

“Disinfected tertiary recycled water” means a filtered and subsequently disinfected wastewater that meets the following criteria:

- (a) The filtered wastewater has been disinfected by either:
  - (1) A chlorine disinfection process following filtration that provides a CT (the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow; or
  - (2) A disinfection process that, when combined with the filtration process, has been demonstrated to inactivate and/or remove 99.999 percent of the plaque forming units of F-specific bacteriophage MS2, or polio virus in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for purposes of the demonstration.
  
- (b) The median concentration of total coliform bacteria measured in the disinfected effluent does not exceed an MPN of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed and the number of total coliform bacteria does not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30 day period. No sample shall exceed an MPN of 240 total coliform bacteria per 100 milliliters.

**§60301.240. Drift.**

“Drift” means the water that escapes to the atmosphere as water droplets from a cooling system.

**§60301.245. Drift eliminator.**

“Drift eliminator” means a feature of a cooling system that reduces to a minimum the generation of drift from the system.



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### **§60301.250. Dual plumbed system.**

“Dual plumbed system” or “dual plumbed” means a system that utilizes separate piping systems for recycled water and potable water within a facility and where the recycled water is used for either of the following purposes:

- (a) To serve plumbing outlets (excluding fire suppression systems) within a building or
- (b) Outdoor landscape irrigation at individual residences.

### **§60301.300. F-Specific bacteriophage MS-2.**

“F-specific bacteriophage MS-2” means a strain of a specific type of virus that infects coliform bacteria that is traceable to the American Type Culture Collection (ATCC15597B1) and is grown on lawns of *E. coli* (ATCC 15597).

### **§60301.310. Facility.**

“Facility” means any type of building or structure, or a defined area of specific use that receives water for domestic use from a public water system as defined in section 116275 of the Health and Safety Code.

### **§60301.320. Filtered wastewater.**

“Filtered wastewater” means an oxidized wastewater that meets the criteria in subsection (a) or (b):

- (a) Has been coagulated and passed through natural undisturbed soils or a bed of filter media pursuant to the following:
  - (1) At a rate that does not exceed 5 gallons per minute per square foot of surface area in mono, dual or mixed media gravity, upflow or pressure filtration systems, or does not exceed 2 gallons per minute per square foot of surface area in traveling bridge automatic backwash filters; and
  - (2) So that the turbidity of the filtered wastewater does not exceed any of the following:
    - (A) An average of 2 NTU within a 24-hour period;
    - (B) 5 NTU more than 5 percent of the time within a 24-hour period; and
    - (C) 10 NTU at any time.
- (b) Has been passed through a microfiltration, ultrafiltration, nanofiltration, or reverse osmosis membrane so that the turbidity of the filtered wastewater does not exceed any of the following:
  - (1) 0.2 NTU more than 5 percent of the time within a 24-hour period; and
  - (2) 0.5 NTU at any time.

### **§60301.330. Food crops.**

“Food crops” means any crops intended for human consumption.

### **§60301.370. Groundwater.**

“Groundwater” means water below the land surface in a saturated zone.

### **§60301.390. Groundwater Replenishment Reuse Project or GRRP.**

“Groundwater Replenishment Reuse Project” or “GRRP” means a project involving the planned use of recycled municipal wastewater that is operated for the purpose of replenishing a groundwater basin designated in the Water Quality Control Plan [as defined in Water Code section 13050(j)] for use as a source of municipal and domestic water supply.



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**§60301.400. Hose bib.**

“Hose bib” means a faucet or similar device to which a common garden hose can be readily attached.

**§60301.450. Indicator Compound.**

“Indicator Compound” means an individual chemical in a GRRP's municipal wastewater that represents the physical, chemical, and biodegradable characteristics of a specific family of trace organic chemicals; is present in concentrations that provide information relative to the environmental fate and transport of those chemicals; may be used to monitor the efficiency of trace organic compounds removal by treatment processes; and provides an indication of treatment process failure.

**§60301.455. Intrinsic Tracer.**

“Intrinsic Tracer” means a substance or attribute present in the recharge water at levels different from the receiving groundwater such that the substance in the water applied at the GRRP can be distinctly and sufficiently detected in the groundwater downgradient of the GRRP to determine the underground retention time of the water.

**§60301.550. Landscape impoundment.**

“Landscape impoundment” means an impoundment in which recycled water is stored or used for aesthetic enjoyment or landscape irrigation, or which otherwise serves a similar function and is not intended to include public contact.

**§60301.575. Maximum Contaminant Level or MCL.**

“Maximum Contaminant Level” or “MCL” means the maximum permissible concentration of a contaminant established pursuant to sections 116275(c)(1) and (d) of the Health and Safety Code or established by the U.S. Environmental Protection Agency.

**§60301.600. Modal contact time.**

“Modal contact time” means the amount of time elapsed between the time that a tracer, such as salt or dye, is injected into the influent at the entrance to a chamber and the time that the highest concentration of the tracer is observed in the effluent from the chamber.

**§60301.620. Nonrestricted recreational impoundment.**

“Nonrestricted recreational impoundment” means an impoundment of recycled water, in which no limitations are imposed on body-contact water recreational activities.

**§60301.625. Notification Level or NL.**

“Notification Level” or “NL” means the concentration of a contaminant established by the Department pursuant to section 116455 of the Health and Safety Code.

**§60301.630. NTU.**

“NTU” (Nephelometric turbidity unit) means a measurement of turbidity as determined by the ratio of the intensity of light scattered by the sample to the intensity of incident light as measured by method 2130 B. in Standard Methods for the Examination of Water and Wastewater, 20th ed.; Eaton, A. D., Clesceri, L. S., and Greenberg, A. E., Eds; American Public Health Association: Washington, DC, 1995; p. 2-8.

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**§60301.650. Oxidized wastewater.**

“Oxidized wastewater” means wastewater in which the organic matter has been stabilized, is nonputrescible, and contains dissolved oxygen.

**§60301.660. Peak dry weather design flow.**

“Peak Dry Weather Design Flow” means the arithmetic mean of the maximum peak flow rates sustained over some period of time (for example three hours) during the maximum 24-hour dry weather period. Dry weather period is defined as periods of little or no rainfall.

**§60301.670. Project Sponsor.**

“Project Sponsor” means an entity subject to a Regional Water Quality Control Board’s (Regional Board’s) water recycling requirements for a Groundwater Replenishment Reuse Project (GRRP) and is, in whole or part, responsible for applying to the Regional Board for a permit, obtaining a permit, operation of a GRRP, and complying with the terms and conditions of the permit and the requirements of this Chapter.

**§60301.680. Public Water System.**

“Public Water System” has the same meaning as defined in section 116275(h) of the Health and Safety Code.

**§60301.685. Recharge Water.**

“Recharge Water” means recycled municipal wastewater, or the combination of recycled municipal wastewater and credited diluent water, which is utilized by a GRRP for groundwater replenishment.

**§60301.690. Recycled Municipal Wastewater.**

“Recycled Municipal Wastewater” means recycled water that is the effluent from the treatment of wastewater of municipal origin.

**§60301.700. Recycled water agency.**

“Recycled water agency” means the public water system, or a publicly or privately owned or operated recycled water system, that delivers or proposes to deliver recycled water to a facility.

**§60301.705. Recycled Municipal Wastewater Contribution or RWC.**

“Recycled Municipal Wastewater Contribution” or “RWC” means the fraction equal to the quantity of recycled municipal wastewater applied at the GRRP divided by the sum of the quantity of recycled municipal wastewater and credited diluent water.

**§60301.710. Recycling plant.**

“Recycling plant” means an arrangement of devices, structures, equipment, processes and controls which produce recycled water.

**§60301.740. Regulatory agency.**

“Regulatory agency” means the California Regional Water Quality Control Board(s) that have jurisdiction over the recycling plant and use areas.

**§60301.750. Restricted access golf course.**

“Restricted access golf course” means a golf course where public access is controlled so that areas irrigated with recycled water cannot be used as if they were part of a park, playground, or school

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yard and where irrigation is conducted only in areas and during periods when the golf course is not being used by golfers.

**§60301.760. Restricted recreational impoundment.**

“Restricted recreational impoundment” means an impoundment of recycled water in which recreation is limited to fishing, boating, and other non-body-contact water recreational activities.

**§60301.770. Regional Board.**

“Regional Board” means the Regional Water Quality Control Board.

**§60301.780. Saturated Zone.**

“Saturated Zone” means an underground region or regions in which all interstices in, between, and below natural geologic materials are filled with water, with the uppermost surface of the saturated zone being the water table.

**§60301.800. Spray irrigation.**

“Spray irrigation” means the application of recycled water from sprinklers to crops or vegetation.

**§60301.810. Spreading Area.**

“Spreading Area” means a natural or constructed impoundment with a depth equal to or less than its widest surface dimension used by a GRRP to replenish a groundwater basin with recharge water infiltrating and percolating through a zone that, in the absence of a GRRP, would be an unsaturated zone.

**§60301.830. Standby unit process.**

“Standby unit process” means an alternate unit process or an equivalent alternative process which is maintained in operable condition and which is capable of providing comparable treatment of the actual flow through the unit for which it is a substitute.

**§60301.840. Subsurface Application.**

“Subsurface Application” means the application of recharge water to a groundwater basin(s) by a means other than surface application.

**§60301.850. Surface Application.**

“Surface Application” means the application of recharge water to a spreading area.

**§60301.855. Surrogate Parameter.**

“Surrogate Parameter” means a measurable physical or chemical property that has been demonstrated to provide a direct correlation with the concentration of an indicator compound, can be used to monitor the efficiency of trace organic compounds removal by a treatment process, and/or provides an indication of a treatment process failure.

**§60301.860. Total Nitrogen.**

“Total Nitrogen” means the sum of concentrations of ammonia, nitrite, nitrate, and organic nitrogen-containing compounds, expressed as nitrogen.

**§60301.870. Total Organic Carbon or TOC.**

“Total Organic Carbon” or “TOC” means the concentration of organic carbon present in water.

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### **§60301.900. Undisinfected secondary recycled water.**

"Undisinfected secondary recycled water" means oxidized wastewater.

### **§60301.910. Unsaturated Zone.**

"Unsaturated Zone" means the volume between the land surface and the uppermost saturated zone.

### **§60301.920. Use area.**

"Use area" means an area of recycled water use with defined boundaries. A use area may contain one or more facilities.

## *Article 2. Sources of Recycled Water.*

### **§60302. Source specifications.**

The requirements in this chapter shall only apply to recycled water from sources that contain domestic waste, in whole or in part.

## *Article 3. Uses of Recycled Water.*

### **§60303. Exceptions.**

The requirements set forth in this chapter shall not apply to the use of recycled water onsite at a water recycling plant, or wastewater treatment plant, provided access by the public to the area of onsite recycled water use is restricted.

### **§60304. Use of recycled water for irrigation.**

- (a) Recycled water used for the surface irrigation of the following shall be a disinfected tertiary recycled water, except that for filtration pursuant to Section 60301.320(a) coagulation need not be used as part of the treatment process provided that the filter effluent turbidity does not exceed 2 NTU, the turbidity of the influent to the filters is continuously measured, the influent turbidity does not exceed 5 NTU for more than 15 minutes and never exceeds 10 NTU, and that there is the capability to automatically activate chemical addition or divert the wastewater should the filter influent turbidity exceed 5 NTU for more than 15 minutes:
- (1) Food crops, including all edible root crops, where the recycled water comes into contact with the edible portion of the crop,
  - (2) Parks and playgrounds,
  - (3) School yards,
  - (4) Residential landscaping,
  - (5) Unrestricted access golf courses, and
  - (6) Any other irrigation use not specified in this section and not prohibited by other sections of the California Code of Regulations.
- (b) Recycled water used for the surface irrigation of food crops where the edible portion is produced above ground and not contacted by the recycled water shall be at least disinfected secondary-2.2 recycled water.
- (c) Recycled water used for the surface irrigation of the following shall be at least disinfected secondary-2.3 recycled water:
- (1) Cemeteries,
  - (2) Freeway landscaping,
  - (3) Restricted access golf courses,

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- (4) Ornamental nursery stock and sod farms where access by the general public is not restricted,
  - (5) Pasture for animals producing milk for human consumption, and
  - (6) Any nonedible vegetation where access is controlled so that the irrigated area cannot be used as if it were part of a park, playground or school yard
- (d) Recycled wastewater used for the surface irrigation of the following shall be at least undisinfected secondary recycled water:
- (1) Orchards where the recycled water does not come into contact with the edible portion of the crop,
  - (2) Vineyards where the recycled water does not come into contact with the edible
  - (3) portion of the crop,
  - (4) Non food-bearing trees (Christmas tree farms are included in this category provided no irrigation with recycled water occurs for a period of 14 days prior to harvesting or allowing access by the general public),
  - (5) Fodder and fiber crops and pasture for animals not producing milk for human consumption,
  - (6) Seed crops not eaten by humans,
  - (7) Food crops that must undergo commercial pathogen-destroying processing before being consumed by humans, and
  - (8) Ornamental nursery stock and sod farms provided no irrigation with recycled water occurs for a period of 14 days prior to harvesting, retail sale, or allowing access by the general public.
- (e) No recycled water used for irrigation, or soil that has been irrigated with recycled water, shall come into contact with the edible portion of food crops eaten raw by humans unless the recycled water complies with subsection (a).

**§60305. Use of recycled water for impoundments.**

- (a) (a) Except as provided in subsection (b), recycled water used as a source of water supply for nonrestricted recreational impoundments shall be disinfected tertiary recycled water that has been subjected to conventional treatment.
- (b) (b) Disinfected tertiary recycled water that has not received conventional treatment may be used for nonrestricted recreational impoundments provided the recycled water is monitored for the presence of pathogenic organisms in accordance with the following:
  - (1) During the first 12 months of operation and use the recycled water shall be sampled and analyzed monthly for Giardia, enteric viruses, and Cryptosporidium. Following the first 12 months of use, the recycled water shall be sampled and analyzed quarterly for Giardia, enteric viruses, and Cryptosporidium. The ongoing monitoring may be discontinued after the first two years of operation with the approval of the department. This monitoring shall be in addition to the monitoring set forth in section 60321.
  - (2) The samples shall be taken at a point following disinfection and prior to the point where the recycled water enters the use impoundment. The samples shall be analyzed by an approved laboratory and the results submitted quarterly to the regulatory agency.
- (c) The total coliform bacteria concentrations in recycled water used for nonrestricted recreational impoundments, measured at a point between the disinfection process and the

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point of entry to the use impoundment, shall comply with the criteria specified in section 60301.230 (b) for disinfected tertiary recycled water.

- (d) Recycled water used as a source of supply for restricted recreational impoundments and for any publicly accessible impoundments at fish hatcheries shall be at least disinfected secondary-2.2 recycled water.
- (e) Recycled water used as a source of supply for landscape impoundments that do not utilize decorative fountains shall be at least disinfected secondary-23 recycled water.

#### **§60306. Use of recycled water for cooling.**

- (a) Recycled water used for industrial or commercial cooling or air conditioning that involves the use of a cooling tower, evaporative condenser, spraying or any mechanism that creates a mist shall be a disinfected tertiary recycled water.
- (b) Use of recycled water for industrial or commercial cooling or air conditioning that does not involve the use of a cooling tower, evaporative condenser, spraying, or any mechanism that creates a mist shall be at least disinfected secondary-23 recycled water.
- (c) Whenever a cooling system, using recycled water in conjunction with an air conditioning facility, utilizes a cooling tower or otherwise creates a mist that could come into contact with employees or members of the public, the cooling system shall comply with the following:
  - (1) A drift eliminator shall be used whenever the cooling system is in operation.
  - (2) A chlorine, or other, biocide shall be used to treat the cooling system recirculating water to minimize the growth of Legionella and other microorganisms.

#### **§60307. Use of recycled water for other purposes.**

- (a) Recycled water used for the following shall be disinfected tertiary recycled water, except that for filtration being provided pursuant to Section 60301.320(a) coagulation need not be used as part of the treatment process provided that the filter effluent turbidity does not exceed 2 NTU, the turbidity of the influent to the filters is continuously measured, the influent turbidity does not exceed 5 NTU for more than 15 minutes and never exceeds 10 NTU, and that there is the capability to automatically activate chemical addition or divert the wastewater should the filter influent turbidity exceed 5 NTU for more than 15 minutes:
  - (1) Flushing toilets and urinals,
  - (2) Priming drain traps,
  - (3) Industrial process water that may come into contact with workers,
  - (4) Structural fire fighting,
  - (5) Decorative fountains,
  - (6) Commercial laundries,
  - (7) Consolidation of backfill around potable water pipelines,
  - (8) Artificial snow making for commercial outdoor use, and
  - (9) Commercial car washes, including hand washes if the recycled water is not heated, where the general public is excluded from the washing process.
- (b) Recycled water used for the following uses shall be at least disinfected secondary-23 recycled water:
  - (1) Industrial boiler feed,



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- (2) Nonstructural fire fighting,
  - (3) Backfill consolidation around nonpotable piping,
  - (4) Soil compaction,
  - (5) Mixing concrete,
  - (6) Dust control on roads and streets,
  - (7) Cleaning roads, sidewalks and outdoor work areas and
  - (8) Industrial process water that will not come into contact with workers.
- (c) Recycled water used for flushing sanitary sewers shall be at least undisinfected secondary recycled water.

#### *Article 4. Use Area Requirements.*

##### **§60310. Use area requirements .**

- (a) No irrigation with disinfected tertiary recycled water shall take place within 50 feet of any domestic water supply well unless all of the following conditions have been met:
- (1) A geological investigation demonstrates that an aquitard exists at the well between the uppermost aquifer being drawn from and the ground surface.
  - (2) The well contains an annular seal that extends from the surface into the aquitard.
  - (3) The well is housed to prevent any recycled water spray from coming into contact with the wellhead facilities.
  - (4) The ground surface immediately around the wellhead is contoured to allow surface water to drain away from the well.
  - (5) The owner of the well approves of the elimination of the buffer zone requirement.
- (b) No impoundment of disinfected tertiary recycled water shall occur within 100 feet of any domestic water supply well.
- (c) (No irrigation with, or impoundment of, disinfected secondary-2.2 or disinfected secondary-23 recycled water shall take place within 100 feet of any domestic water supply well.
- (d) No irrigation with, or impoundment of, undisinfected secondary recycled water shall take place within 150 feet of any domestic water supply well.
- (e) Any use of recycled water shall comply with the following:
- (1) Any irrigation runoff shall be confined to the recycled water use area, unless the runoff does not pose a public health threat and is authorized by the regulatory agency.
  - (2) Spray, mist, or runoff shall not enter dwellings, designated outdoor eating areas, or food handling facilities.
  - (3) Drinking water fountains shall be protected against contact with recycled water spray, mist, or runoff.
- (f) No spray irrigation of any recycled water, other than disinfected tertiary recycled water, shall take place within 100 feet of a residence or a place where public exposure could be similar to that of a park, playground, or school yard.
- (g) All use areas where recycled water is used that are accessible to the public shall be posted with signs that are visible to the public, in a size no less than 4 inches high by 8 inches wide, that include the following wording: "RECYCLED WATER - DO NOT DRINK". Each sign shall

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display an international symbol similar to that shown in figure 60310-A. The Department may accept alternative signage and wording, or an educational program, provided the applicant demonstrates to the Department that the alternative approach will assure an equivalent degree of public notification.

- (h) Except as allowed under section 7604 of title 17, California Code of Regulations, no physical connection shall be made or allowed to exist between any recycled water system and any separate system conveying potable water.
- (i) Except for use in a cemetery that complies with the requirements of section 8118 of the Health and Safety Code, the portions of the recycled water piping system that are in areas subject to access by the general public shall not include any hose bibs. Only quick couplers that differ from those used on the potable water system shall be used on the portions of the recycled water piping system in areas subject to public access.



Water Recycling Criteria  
FIGURE 60310-A



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## Article 5. Dual Plumbed Recycled Water Systems.

### §60313. General requirements.

- (a) No person other than a recycled water agency shall deliver recycled water to a dual plumbed facility.
- (b) Except as allowed pursuant to section 13553(d) of the Water Code, a recycled water agency shall not deliver recycled water for any internal use to any individually- owned residential units including free-standing structures, multiplexes, or condominiums.<sup>1</sup>
- (c) No recycled water agency shall deliver recycled water for internal use except for fire suppression systems, to any facility that produces or processes food products or beverages. For purposes of this Subsection, cafeterias or snack bars in a facility whose primary function does not involve the production or processing of foods or beverages are not considered facilities that produce or process foods or beverages.
- (d) No recycled water agency shall deliver recycled water to a facility using a dual plumbed system unless the report required pursuant to section 13522.5 of the Water Code, and which meets the requirements set forth in section 60314, has been submitted to, and approved by, the regulatory agency.

### §60314. Report submittal.

- (a) For dual-plumbed recycled water systems, the report submitted pursuant to section 13522.5 of the Water Code shall contain the following information in addition to the information required by section 60323:
  - (1) A detailed description of the intended use area identifying the following:
    - (A) The number, location, and type of facilities within the use area proposing to use dual plumbed systems,
    - (B) The average number of persons estimated to be served by each facility on a daily basis,
    - (C) The specific boundaries of the proposed use area including a map showing the location of each facility to be served,
    - (D) The person or persons responsible for operation of the dual plumbed system at each facility, and
    - (E) The specific use to be made of the recycled water at each facility.
  - (2) Plans and specifications describing the following:
    - (A) Proposed piping system to be used,
    - (B) Pipe locations of both the recycled and potable systems,
    - (C) Type and location of the outlets and plumbing fixtures that will be accessible to the public, and
    - (D) The methods and devices to be used to prevent backflow of recycled water into the public water system.
  - (3) The methods to be used by the recycled water agency to assure that the installation and operation of the dual plumbed system will not result in cross connections between the recycled water piping system and the potable water piping system. This shall include a description of pressure, dye or other test methods to be used to test the system every four years.

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<sup>1</sup> AB 1406, Chapter 537, Statutes of 2007, Water Code 13553, et seq., allows condominiums to be plumbed with recycled water, subject to a number of provisions.

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- (b) A master plan report that covers more than one facility or use site may be submitted provided the report includes the information required by this section. Plans and specifications for individual facilities covered by the report may be submitted at any time prior to the delivery of recycled water to the facility.

#### **§60315. Design requirements.**

The public water supply shall not be used as a backup or supplemental source of water for a dual-plumbed recycled water system unless the connection between the two systems is protected by an air gap separation which complies with the requirements of sections 7602 (a) and 7603 (a) of title 17, California Code of Regulations, and the approval of the public water system has been obtained.

#### **§60316. Operation requirements.**

- (a) Prior to the initial operation of the dual-plumbed recycled water system and annually thereafter, the Recycled Water Agency shall ensure that the dual plumbed system within each facility and use area is inspected for possible cross connections with the potable water system. The recycled water system shall also be tested for possible cross connections at least once every four years. The testing shall be conducted in accordance with the method described in the report submitted pursuant to section 60314. The inspections and the testing shall be performed by a cross connection control specialist certified by the California-Nevada section of the American Water Works Association or an organization with equivalent certification requirements. A written report documenting the result of the inspection or testing for the prior year shall be submitted to the department within 30 days following completion of the inspection or testing.
- (b) (The recycled water agency shall notify the department of any incidence of backflow from the dual-plumbed recycled water system into the potable water system within 24 hours of the discovery of the incident.
- (c) Any backflow prevention device installed to protect the public water system serving the dual-plumbed recycled water system shall be inspected and maintained in accordance with section 7605 of Title 17, California Code of Regulations.

### *Article 5.5. Other Methods of Treatment.*

#### **§60320.5. Other methods of treatment.**

Methods of treatment other than those included in this chapter and their reliability features may be accepted if the applicant demonstrates to the satisfaction of the State Department of Health that the methods of treatment and reliability features will assure an equal degree of treatment and reliability.

### *Article 6. Sampling and Analysis.*

#### **§60321. Sampling and analysis.**

- (a) Disinfected secondary-23, disinfected secondary-2.2, and disinfected tertiary recycled water shall be sampled at least once daily for total coliform bacteria. The samples shall be taken from the disinfected effluent and shall be analyzed by an approved laboratory.
- (b) Disinfected tertiary recycled water shall be continuously sampled for turbidity using a continuous turbidity meter and recorder following filtration. Compliance with the daily

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average operating filter effluent turbidity shall be determined by averaging the levels of recorded turbidity taken at four-hour intervals over a 24-hour period. Compliance with turbidity pursuant to section 60301.320 (a)(2)(B) and (b)(1) shall be determined using the levels of recorded turbidity taken at intervals of no more than 1.2- hours over a 24- hour period. Should the continuous turbidity meter and recorder fail, grab sampling at a minimum frequency of 1.2-hours may be substituted for a period of up to 24-hours. The results of the daily average turbidity determinations shall be reported quarterly to the regulatory agency.

- (c) The producer or supplier of the recycled water shall conduct the sampling required in subsections (a) and (b).

## *Article 7. Engineering Report and Operational Requirements.*

### **§60323. Engineering report.**

- (a) No person shall produce or supply recycled water for reuse from a water reclamation plant without a Department-approved engineering report.
- (b) The report shall be prepared by a qualified engineer licensed in California and experienced in the field of wastewater treatment, and shall contain a description of the design of the proposed reclamation system. The report shall clearly indicate the means for compliance with these regulations and any other features specified by the regulatory agency.
- (c) The report shall contain a contingency plan which will assure that no untreated or inadequately treated wastewater will be delivered to the use area.

### **§60325. Personnel.**

- (a) Each reclamation plant shall be provided with a sufficient number of qualified personnel to operate the facility effectively so as to achieve the required level of treatment at all times.
- (b) Qualified personnel shall be those meeting requirements established pursuant to Chapter 9 (commencing with Section 13625) of the Water Code.

### **§60327. Maintenance.**

A preventive maintenance program shall be provided at each reclamation plant to ensure that all equipment is kept in a reliable operating condition.

### **§60329. Operating records and reports.**

- (a) Operating records shall be maintained at the reclamation plant or a central depository within the operating agency. These shall include: all analyses specified in the reclamation criteria; records of operational problems, plant and equipment breakdowns, and diversions to emergency storage or disposal; all corrective or preventive action taken.
- (b) Process or equipment failures triggering an alarm shall be recorded and maintained as a separate record file. The recorded information shall include the time and cause of failure and corrective action taken.
- (c) A monthly summary of operating records as specified under (a) of this section shall be filed monthly with the regulatory agency.

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- (d) Any discharge of untreated or partially treated wastewater to the use area, and the cessation of same, shall be reported immediately by telephone to the regulatory agency, the State Department of Health, and the local health officer.

#### **§60331. Bypass.**

There shall be no bypassing of untreated or partially treated wastewater from the reclamation plant or any intermediate unit processes to the point of use.

### *Article 8. General Requirements of Design.*

#### **§60333. Flexibility of design.**

The design of process piping, equipment arrangement, and unit structures in the reclamation plant must allow for efficiency and convenience in operation and maintenance and provide flexibility of operation to permit the highest possible degree of treatment to be obtained under varying circumstances.

#### **§60335. Alarms.**

- (a) Alarm devices required for various unit processes as specified in other sections of these regulations shall be installed to provide warning of:
  - (1) Loss of power from the normal power supply.
  - (2) Failure of a biological treatment process.
  - (3) Failure of a disinfection process.
  - (4) Failure of a coagulation process.
  - (5) Failure of a filtration process.
  - (6) Any other specific process failure for which warning is required by the regulatory agency.
- (b) All required alarm devices shall be independent of the normal power supply of the reclamation plant.
- (c) The person to be warned shall be the plant operator, superintendent, or any other responsible person designated by the management of the reclamation plant and capable of taking prompt corrective action.
- (d) Individual alarm devices may be connected to a master alarm to sound at a location where it can be conveniently observed by the attendant. In case the reclamation plant is not attended full time, the alarm(s) shall be connected to sound at a police station, fire station or other full time service unit with which arrangements have been made to alert the person in charge at times that the reclamation plant is unattended.

#### **§60337. Power supply.**

The power supply shall be provided with one of the following reliability features:

- (a) Alarm and standby power source.
- (b) Alarm and automatically actuated short-term retention or disposal provisions as specified in Section 60341.

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- (c) Automatically actuated long-term storage or disposal provisions as specified in Section 60341.

### *Article 9. Reliability Requirements for Primary Effluent.*

#### **§60339. Primary treatment.**

Reclamation plants producing reclaimed water exclusively for uses for which primary effluent is permitted shall be provided with one of the following reliability features:

- (a) Multiple primary treatment units capable of producing primary effluent with one unit not in operation.
- (b) Long-term storage or disposal provisions as specified in Section 60341.

### *Article 10. Reliability Requirements for Full Treatment.*

#### **§60341. Emergency storage or disposal.**

- (a) Where short-term retention or disposal provisions are used as a reliability feature, these shall consist of facilities reserved for the purpose of storing or disposing of untreated or partially treated wastewater for at least a 24-hour period. The facilities shall include all the necessary diversion devices, provisions for odor control, conduits, and pumping and pump back equipment. All of the equipment other than the pump back equipment shall be either independent of the normal power supply or provided with a standby power source.
- (b) Where long-term storage or disposal provisions are used as a reliability feature, these shall consist of ponds, reservoirs, percolation areas, downstream sewers leading to other treatment or disposal facilities or any other facilities reserved for the purpose of emergency storage or disposal of untreated or partially treated wastewater. These facilities shall be of sufficient capacity to provide disposal or storage of wastewater for at least 20 days, and shall include all the necessary diversion works, provisions for odor and nuisance control, conduits, and pumping and pump back equipment. All of the equipment other than the pump back equipment shall be either independent of the normal power supply or provided with a standby power source.
- (c) Diversion to a less demanding reuse is an acceptable alternative to emergency disposal of partially treated wastewater provided that the quality of the partially treated wastewater is suitable for the less demanding reuse.
- (d) Subject to prior approval by the regulatory agency, diversion to a discharge point which requires lesser quality of wastewater is an acceptable alternative to emergency disposal of partially treated wastewater.
- (e) Automatically actuated short-term retention or disposal provisions and automatically actuated long-term storage or disposal provisions shall include, in addition to provisions of (a), (b), (c), or (d) of this section, all the necessary sensors, instruments, valves and other devices to enable fully automatic diversion of untreated or partially treated wastewater to approved emergency storage or disposal in the event of failure of a treatment process and a manual reset to prevent automatic restart until the failure is corrected.

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#### **§60343. Primary treatment.**

All primary treatment unit processes shall be provided with one of the following reliability features:

- (a) Multiple primary treatment units capable of producing primary effluent with one unit not in operation.
- (b) Standby primary treatment unit process.
- (c) Long-term storage or disposal provisions.

#### **§60345. Biological treatment.**

All biological treatment unit processes shall be provided with one of the following reliability features:

- (a) Alarm and multiple biological treatment units capable of producing oxidized wastewater with one unit not in operation.
- (b) Alarm, short-term retention or disposal provisions, and standby replacement equipment.
- (c) Alarm and long-term storage or disposal provisions.
- (d) Automatically actuated long-term storage or disposal provisions.

#### **§60347. Secondary sedimentation.**

All secondary sedimentation unit processes shall be provided with one of the following reliability features:

- (a) Multiple sedimentation units capable of treating the entire flow with one unit not in operation.
- (b) Standby sedimentation unit process.
- (c) Long-term storage or disposal provisions.

#### **§60349. Coagulation.**

(a) All coagulation unit processes shall be provided with the following mandatory features for uninterrupted coagulant feed:

- (1) Standby feeders,
- (2) Adequate chemical stowage and conveyance facilities,
- (3) Adequate reserve chemical supply, and
- (4) Automatic dosage control.

(b) All coagulation unit processes shall be provided with one of the following reliability features:

- (1) Alarm and multiple coagulation units capable of treating the entire flow with one unit not in operation;
- (2) Alarm, short-term retention or disposal provisions, and standby replacement equipment;
- (3) Alarm and long-term storage or disposal provisions;
- (4) Automatically actuated long-term storage or disposal provisions, or
- (5) Alarm and standby coagulation process.



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### **§60351. Filtration.**

All filtration unit processes shall be provided with one of the following reliability features:

- (a) Alarm and multiple filter units capable of treating the entire flow with one unit not in operation.
- (b) Alarm, short-term retention or disposal provisions and standby replacement equipment.
- (c) Alarm and long-term storage or disposal provisions.
- (d) Automatically actuated long-term storage or disposal provisions. (e) Alarm and standby filtration unit process.

### **§60353. Disinfection.**

- (a) All disinfection unit processes where chlorine is used as the disinfectant shall be provided with the following features for uninterrupted chlorine feed:
  - (1) Standby chlorine supply,
  - (2) Manifold systems to connect chlorine cylinders,
  - (3) Chlorine scales, and
  - (4) Automatic devices for switching to full chlorine cylinders. Automatic residual control of chlorine dosage, automatic measuring and recording of chlorine residual, and hydraulic performance studies may also be required.
- (b) All disinfection unit processes where chlorine is used as the disinfectant shall be provided with one of the following reliability features:
  - (1) Alarm and standby chlorinator;
  - (2) Alarm, short-term retention or disposal provisions, and standby replacement equipment;
  - (3) Alarm and long-term storage or disposal provisions;
  - (4) Automatically actuated long-term storage or disposal provisions; or
  - (5) Alarm and multiple point chlorination, each with independent power source, separate chlorinator, and separate chlorine supply.

### **§60355. Other alternatives to reliability requirements**

Other alternatives to reliability requirements set forth in Articles 8 to 10 may be accepted if the applicant demonstrates to the satisfaction of the State Department of Health that the proposed alternative will assure an equal degree of reliability.

\* \* \* \* \*

**Tab 11**

**Santation Districts' Los Angeles Regional  
Water Quality Control Board Permits**





Ca/EPA

Los Angeles  
Regional Water  
Quality Control  
Board

101 Centre Plaza Drive  
Monterey Park, CA  
91754-2156  
(213) 266-7500  
FAX (213) 266-7600

May 14, 1997

ORIGINAL  
LOGGED



Pete Wilson  
Governor

**TO: COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY  
LAS VIRGENES MUNICIPAL WATER DISTRICT  
CITY OF LOS ANGELES, DEPARTMENT OF PUBLIC WORKS**

**RE: READOPTION OF EXISTING WATER RECLAMATION REQUIREMENTS  
(Files No: 54-70, 61-30, 61-156, 65-182, 65-86, 69-80, 77-50, 88-40, 64-104,  
55-85, 68-85, 70-117)**

Our letter dated April 9, 1997, informed you that this Regional Board would consider readopting your current water reclamation requirements of the subject facilities.

Pursuant to Division 7 of the California Water Code, this California Regional Water Quality Control Board, at a public meeting held on May 12, 1997, reviewed the current requirements, considered all factors in the cases, and adopted Order No. 97-072 (copy attached), relative to these waste discharges. This order readopts Orders previously adopted by the Board as listed below:

**COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY**

	<u>Order No.</u>	<u>CI No.</u>
Pomona Water Reclamation Plant	81-34	0755
Long Beach Water Reclamation Plant	87-47	6184
Valencia Water Reclamation Plant	87-48	6186
Saugus Water Reclamation Plant	87-49	6188
San Jose Creek Water Reclamation Plant	87-50	6372
Los Coyotes Water Reclamation Plant	87-51	6182
La Canada Water Reclamation Plant	88-37	3139
Whittier Narrows Water Reclamation Plant	88-107	6844

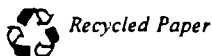
**LAS VIRGENES MUNICIPAL WATER DISTRICT**

Tapia Water Reclamation Facility	87-86	6189
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**CITY OF LOS ANGELES, DEPARTMENT OF PUBLIC WORKS**

Hyperion Treatment Plant	79-160	6369
Glendale Water Reclamation Plant	86-16	6183
Donald C. Tillman Water Reclamation Plant	86-39	6185

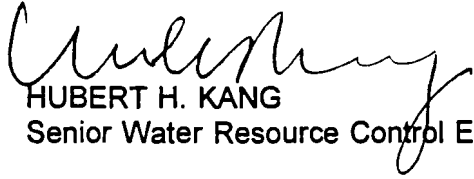
Your Current Monitoring and Reporting Program remains in effect. Please reference all technical and monitoring reports to each Compliance File as listed above and should be sent to the Regional Board, Att: Technical Support Unit.



*Our mission is to preserve and enhance the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations.*

## WATER RECLAMATION REQUIREMENTS

Please call me at (213) 266-7619 should you have any questions.



HUBERT H. KANG  
Senior Water Resource Control Engineer

Enclosures

cc:mailing list



Recycled Paper

*Our mission is to preserve and enhance the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations.*

cc: Mailing List

U.S. Environmental Protection Agency, Groundwater Protection  
Section (W-6-3)

Environmental Protection Agency, Region 9, Permit Section (W-5-1)  
Department of Interior, U.S. Fish and Wildlife Service

Tim Ulrich, U.S. Bureau of Reclamation, Southern California  
Section

U.S. Army Corps of Engineers

NOAA, National Marine Fisheries Services

John Youngerman, State Water Resources Control Board, Division of  
Water Quality

Jorge Leon, State Water Resources Control Board, Office of Chief  
Counsel

Department of Water Resources, Southern District, Water Recycling  
Programs

Gary Yamamoto, State Department of Health Services, Drinking  
Water Field Operations Branch

Michael Kiado, Environmental Management Branch, State Department  
of Health Services

Department of Fish and Game, Region 5

California Coastal Commission, South Coast District

California State Polytechnic University, Pomona

California Department of Transportation, District 7

Central and West Basin Water Replenishment District

Chino Basin Municipal Water District

Newhall County Water District

Santa Clarita County Water District

San Gabriel Municipal Water District

South Coast Air Quality Management District

Walnut Valley Water District

Walnut Valley Unified School District

Water Replenishment District of Southern California

Margaret Nellor, Supervising Engineer, Monitoring Section, County  
Sanitation District, Los Angeles County

Jack Petralia, Department of Health Services-Environmental  
Health, County of Los Angeles

Los Angeles County, Department of Public Works, Waste Management  
Division

Los Angeles County, Department of Public Works, Division of  
Hydrology/Water Conservation

Los Angeles County, Department of Public Works, Engineering  
Services Division

Los Angeles County Health Department

Los Angeles County Parks and Recreation Department

Ventura County Department of Environmental Health

City of Cerritos

City of El Monte

City of Glendale

City of La Canada Flintridge

City of Los Angeles, Department of Public Works, Bureau of  
Sanitation

City of Los Angeles, Department of Water and Power

City of Pomona, Water Department  
City of Pomona, Parks and Recreation Department  
City of Santa Fe Springs, Department of Public Works  
City of Santa Clarita  
City of Walnut  
City of West Covina  
City of Los Angeles, Department of Public Works, Wastewater  
Program Management Division  
Bookman-Edmonston Engineering, Inc.  
Friends of the Los Angeles River  
Garden State Paper Company, Inc.  
Glenn A. McPherson, Boyle Engineering Corporation  
Heal the Bay  
La Habra Heights Mutual Water Company  
Michael Bettiker, Senior Environmental Engineer, Tetra Tech Inc.  
Robert W. Birk, Plant Manager III, Donald C. Tillman Water  
Reclamation Plant  
Russ Leper, Owner, Sunshine Growers Nursery  
Santa Ana Watershed Project Authority (SAPA)  
Simpson Paper Company  
Surfriders Foundation  
Valencia Water Company

**STATE OF CALIFORNIA  
RESOURCES AGENCY  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION**

**ORDER NO. 97-072**

**READoption OF EXISTING  
WATER RECLAMATION REQUIREMENTS  
FOR**

**COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY**

Pomona Water Reclamation Plant	- File No. 54-70
Saugus Water Reclamation Plant	- File No. 61-30
La Canada Water Reclamation Plant	- File No. 61-156
Los Coyotes Water Reclamation Plant	- File No. 65-182
Valencia Water Reclamation Plant	- File No. 65-86
Long Beach Water Reclamation Plant	- File No. 69-80
San Jose Creek Water Reclamation Plant	- File No. 77-50
Whittier Narrows Water Reclamation Plant	- File No. 88-40

**LAS VIRGENES MUNICIPAL WATER DISTRICT**

Tapia Water Reclamation Facility	- File No. 64-104
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**CITY OF LOS ANGELES, DEPARTMENT OF PUBLIC WORKS**

Hyperion Treatment Plant	- File No. 55-85
Glendale Water Reclamation Plant	- File No. 68-85
Donald C. Tillman Water Reclamation Plant	- File No. 70-117

The California Regional Water Quality Control Board, Los Angeles Region, find:

1. County Sanitation Districts of Los Angeles County, Las Virgenes Municipal Water District, and City of Los Angeles, Department of Public Works reclaim the treated wastewaters from their wastewater treatment plants for various irrigational and industrial uses under Water Reclamation Requirements adopted, respectively, by this Board during the past years:

**COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY**

Pomona Water Reclamation Plant	- Order No. 81-34
Long Beach Water Reclamation Plant	- Order No. 87-47
Valencia Water Reclamation Plant	- Order No. 87-48
Saugus Water Reclamation Plant	- Order No. 87-49
San Jose Creek Water Reclamation Plant	- Order No. 87-50
Los Coyotes Water Reclamation Plant	- Order No. 87-51
La Canada Water Reclamation Plant	- Order No. 88-37
Whittier Narrows Water Reclamation Plant	- Order No. 88-107

## WATER RECLAMATION REQUIREMENTS

### **LAS VIRGENES MUNICIPAL WATER DISTRICT**

Tapia Water Reclamation Facility - Order No. 87-86

### **CITY OF LOS ANGELES, DEPARTMENT OF PUBLIC WORKS**

Hyperion Treatment Plant - Order No. 79-160

Glendale Water Reclamation Plant - Order No. 86-16

Donald C. Tillman Water Reclamation Plant - Order No. 86-39

2. The California Water Code, Section 13263(e) provides that all requirements shall be reviewed periodically and, upon such review, may be revised by the Regional Board. Regional Board staff had conducted site inspections and reviewed all monitoring reports. The discharges are currently in compliance with requirements.
3. Section 13523 of the California Water Code provides that a Regional Board, after consulting with, and receiving the recommendations of the State Department of Health Services, and after any necessary hearing, shall, if it determines such action to be necessary to protect the public health, safety, or welfare, prescribe Water Reclamation Requirements for water which is used, or proposed to be used, as reclaimed water.
4. The State Department of Health Services has been in the process of updating the California Code of Regulation, Title 22, Water Reclamation Criteria for years and will finalize these in the near future.
5. There have been no changes in the nature and conditions of the discharges.
6. Water Reclamation Requirements will be reviewed and revised upon the finalization of the updated Title 22 Water Reclamation Criteria by the State Department of Health Services.
7. These projects involve existing facilities, and, as such, are exempt from the provision of the California Environmental Quality Act (Public Resources Code, Section 2100 et seq.) in accordance with California Code of Regulations, Title 14, Chapter 3, Section 15301.

The Board has notified the dischargers and interested agencies and persons of its intent to readopt water reclamation requirements for these discharges and has provided them with an opportunity to submit their written views and recommendations.

The Board in a public meeting heard and considered all comments pertaining to the discharges and to the requirements.

**WATER RECLAMATION REQUIREMENTS**

**IT IS HEREBY ORDERED, THAT:**

The water reclamation requirements contained in the following Orders previously adopted by this Board are hereby readopted as water reclamation requirements:

<u>File No.</u>	<u>Adoption Date</u>	<u>Discharger</u>	<u>Order No.</u>
<b>COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY</b>			
54-70	July 27, 1981	Pomona Water Reclamation Plant	81-34
61-30	April 27, 1987	Saugus Water Reclamation Plant	87-49
61-156	March 28, 1988	La Canada Water Reclamation Plant	88-37
65-86	April 27, 1987	Valencia Water Reclamation Plant	87-48
65-182	April 27, 1987	Los Coyotes Water Reclamation Plant	87-51
69-80	April 27, 1987	Long Beach Water Reclamation Plant	87-47
77-50	April 27, 1987	San Jose Creek Water Reclamation Plant	87-50
88-40	October 24, 1988	Whittier Narrows Water Reclamation Plant	88-107
<b>LAS VIRGENES MUNICIPAL WATER DISTRICT</b>			
64-104	June 22, 1987	Tapia Water Reclamation Facility	87-86
<b>CITY OF LOS ANGELES, DEPARTMENT OF PUBLIC WORKS</b>			
55-85	October 22, 1979	Hyperion Treatment Plant	79-160
68-85	March 24, 1986	Glendale Water Reclamation Plant	86-16
70-117	June 23, 1986	Donald C. Tillman Water Reclamation Plant	86-39

I, Lawrence P. Kolb, Acting Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on May 12, 1997.

  
LAWRENCE P. KOLB,  
ACTING EXECUTIVE OFFICER

# **Long Beach Water Reclamation Plant Water Reclamation Requirements**



85-0.01-07/87

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—  
LOS ANGELES REGION

SOUTH BROADWAY, SUITE 4027  
LOS ANGELES, CALIFORNIA 90012-4596  
(213) 620-4460



REC JUL 21 AM 10:51

July 9, 1987

Mr. Robert W. Horvath  
Head, Monitoring and Research  
County Sanitation Districts of  
Los Angeles County  
P.O. Box 4998  
Whittier, CA 90607

WATER RECLAMATION REQUIREMENTS - LONG BEACH WATER RECLAMATION PLANT  
(FILE NO. 69-80; CI 6184)

Reference is made to our letter dated May 4, 1987 which transmitted the requirements for your reuse of treated effluent.

By mistake, the copy transmitted did not include the revisions made on April 10, 1987. Enclosed is the corrected copy of the requirements as adopted by the Board on April 27, 1987.

We regret any inconvenience this may have caused.

If you have any questions, please call Mr. Gregg Kwey at (213) 620-2784.

*[Handwritten signature]*  
J. E. ROSS  
Senior Water Resource  
Control Engineer

cc: See attached mailing list

Enclosures

*Middle  
Horvath  
7-21-87*

Doc #

*State*  
7-23-87  
C. W. CARBY

Mr. Robert W. Horvath  
Mailing List

State Water Resources Control Board, Division of Water  
Quality, Attn: Archie Matthews  
Department of Water Resources  
Department of Health Services, Sanitary Engineering Section  
Los Angeles County, Department of Health Services  
Los Angeles County, Department of Public Works, Hydraulic/Water  
Conservation Division  
Los Angeles County, Department of Public Works, Engineering  
Services Division  
City of Long Beach, Health Department  
Long Beach Water Department  
Long Beach Bureau of Parks and Recreation  
2760 Studebaker Rd., Long Beach, CA 90815  
American Golf Corporation  
641 North Sepulveda Bl, Los Angeles, CA 90049  
California Department of Transportation  
P.O. Box 2304, Los Angeles, CA 90806  
Long Beach Unified School District  
151 East 27th St., Long Beach, CA 90806  
California State University, Long Beach  
1331 Palo Verde Ave., Long Beach, CA 90840  
Seaside Lawn Bowls, Inc.  
2728 East 1st St., Long Beach, CA 90803  
Akira Kitano  
5431 East Spring St., Long Beach, CA 90808  
David Sasuga  
P.O. Box 4251, Long Beach, CA 90808

State of California  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

ORDER NO. 87-47

WATER RECLAMATION REQUIREMENTS  
FOR

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY  
(Long Beach Water Reclamation Plant)  
(File No. 69-80)

The California Regional Water Quality Control Board, Los Angeles Region, finds:

1. County Sanitation Districts of Los Angeles County (hereinafter referred to as "Reclaimer") operates Long Beach Water Reclamation Plant, located at 7400 East Willow Street, Long Beach, California, with a design flow of 25 million gallons per day, and discharges reclaimed water to the City of Long Beach reclaimed water line under requirements contained in Order No. 79-131 adopted by this Board on July 23, 1979.
2. The City of Long Beach Water Department, the primary user of this reclaimed water, recently completed Stage 5 of their reclaimed water system. Stage 5 involves delivery of reclaimed water to six new reuse sites within the City of Long Beach and is the final stage in the City of Long Beach's master plan for the use of reclaimed water. Reclaimed water from the Long Beach Water Reclamation Plant may be used for impoundment and landscape irrigation on about 1,325 acres of public land as proposed by the City of Long Beach's master plan for use of reclaimed water. The City's primary uses are irrigation of parks, golf courses, athletic fields, and landscaped area.
3. The treatment consists of primary sedimentation, activated sludge, secondary sedimentation, filtration and chlorination. The sludge is piped to, and processed in the County Sanitation Districts' Joint Water Pollution Control Plant in Carson.
4. The treated wastewater may also be discharged to Coyote Creek and San Gabriel River under separate waste discharge requirements and National Pollution Discharge Elimination System permit (NPDES Permit No. CA0054119) adopted by this Board.
5. The areas of reclaimed water use are located in Sections 24 and 25, T4S, R12W, SBB & M, within the Central Basin, Coastal Plain Subunit.

6. The Bellflower Aquiclude underlies the local area and separates the shallow ground water, or semiperched aquifer where it exists, from the deeper production aquifers. This aquiclude restricts deep percolation of reclaimed waters to the water supply aquifers.
7. The waters of the semiperched aquifer are of relatively poor mineral quality and are not beneficially used.
8. The Board adopted a Revised Water Quality Control Plan for Los Angeles River Basin on November 27, 1978. The Plan contains water quality objectives for ground water in Central Basin, Coastal Plain Subunit. The requirements contained in this Order, as they are met, will be in conformance with the goals of the Water Quality Control Plan.
9. Ground water in the Coastal Plain is beneficially used for municipal and domestic supply, agricultural supply, and industrial service and process supply.
10. Section 13523 of the California Water Code provides that a Regional Board, after consulting with and receiving the recommendations of the State Department of Health Services and after any necessary hearing, shall, if it determines such action to be necessary to protect the public health, safety, or welfare, prescribe water reclamation requirements for water which is used or proposed to be used as reclaimed water. Section 13523 further provides that such requirements shall include, or be in conformance with, the statewide reclamation criteria.
11. The use of reclaimed water for impoundments or for irrigation could affect the public health, safety, or welfare; requirements for such use are therefore necessary in accordance with Section 13523 of the Water Code.
12. This project involves an existing facility and as such is exempt from the provisions of the California Environmental Quality Act in accordance with California Administrative Code, Title 14, Chapter 3, Section 15301.

The Board has notified the Reclaimer and interested agencies and persons of its intent to prescribe water reclamation requirements and has provided them with an opportunity to submit their written views and recommendations.

The Board in a public meeting heard and considered all comments pertaining to the reclamation and to the tentative requirements.

IT IS HEREBY ORDERED, that County Sanitation Districts of Los Angeles County, shall comply with the following:

A. Reclaimed Water Limitations

1. Reclaimed water shall be limited to treated municipal wastewater only, as proposed.
2. Reclaimed water shall not contain constituents in excess of the following limits:

<u>Constituent</u>	<u>Unit</u>	<u>Maximum Limitations</u>
Total dissolved solids	mg/l	1,000
Chloride	mg/l	250
Sulfate	mg/l	250
Boron	mg/l	1.5

3. The pH of reclaimed water shall at all times be within the range 6.0 to 9.0.
4. Reclaimed water shall not contain trace constituents or other substances in concentrations exceeding the limits contained in the current edition of the California Department of Health Services Drinking Water Standards.
5. Radioactivity shall not exceed the limits specified in Title 22, Chapter 15, Article 5, Sections 64441 and 64443, California Administrative Code, or subsequent revisions.
6. Reclaimed water shall not cause the nitrogen content in the receiving ground water to exceed the objectives in the Water Quality Control Plan.
7. Reclaimed water, used for agricultural supply, shall not contain concentrations of chemical constituents in amounts that adversely affect such beneficial use.

B. Specifications for Use of Reclaimed Water

1. Reclaimed water used for the irrigation of golf courses, cemeteries, freeway landscapes, and landscapes in other areas where the public has similar access or

exposure shall be at all times an adequately disinfected, oxidized wastewater.

The wastewater shall be considered adequately disinfected if the median number of coliform organisms in the effluent does not exceed 23 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed, and the number of coliform organisms does not exceed 240 per 100 milliliters in any two consecutive samples.

Oxidized wastewater means wastewater in which the organic matter has been stabilized, is nonputrescible, and contains dissolved oxygen.

Disinfected wastewater means wastewater in which the pathogenic organisms have been destroyed by chemical, physical or biological means.

2. Reclaimed water used for the irrigation of parks, playgrounds, schoolyard, and other areas where the public has similar access or exposure shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater or a wastewater treated by a sequence of unit processes that will assure an equivalent degree of treatment and reliability.

The wastewater shall be considered adequately disinfected if the median number of coliform organisms in the effluent does not exceed 2.2 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed, and the number of coliform organisms does not exceed 23 per 100 milliliters in any sample.

A coagulated wastewater means an oxidized wastewater in which colloidal and finely divided suspended matter have been destabilized and agglomerated by the addition of suitable floc-forming chemicals or by an equally effective method.

A filtered wastewater means an oxidized, coagulated, clarified wastewater which has been passed through natural undisturbed soils or filter media, such as sand or diatomaceous earth, so that the turbidity as determined by an approved laboratory method does not exceed an average operating turbidity of 2 turbidity units and does not exceed 5 turbidity units more than 5 percent of the time during any 24-hour period.

3. Reclaimed water used as a source of supply in a nonrestricted recreational impoundment shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater.

The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 2.2 per 100 milliliters and the number of coliform organisms does not exceed 23 per 100 milliliters in more than one sample within any 30-day period. The median value shall be determined from the bacteriological results of the last 7 days for which analyses have been completed.

4. Reclaimed water used as a source of supply in a restricted recreational impoundment shall be at all times an adequately disinfected, oxidized wastewater.

The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 2.2 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed.

5. Reclaimed water used as a source of supply in a landscape impoundment shall be at all times an adequately disinfected, oxidized wastewater.

The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 23 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed.

6. Reclaimed water shall not be directly used for uses other than those enumerated above until requirements for these uses have been established by this Board in accordance with Section 13523 of the California Water Code, unless the Board waives such requirements or finds that the above cited standards are applicable to these uses.

7. Reclaimed water uses shall meet the requirements specified in the "Guidelines for Use of Reclaimed

Water" issued by the State Department of Health Services.

8. Reclaimed water used for irrigation shall be retained on the areas of use and shall not be allowed to escape as surface flow except as provided for in a National Pollutant Discharge Elimination System Permit.

For the purpose of this requirement, however, minor amounts of irrigation return water from peripheral areas shall not be considered a violation of this Order provided the discharge meets the requirements contained in a National Pollutant Discharge Elimination System Permit issued to the County Sanitation Districts of Los Angeles County (Long Beach Water Reclamation Plant).

9. Reclaimed water shall be applied at such a rate and volume as not to exceed vegetative demand and soil moisture conditions. Special precautions must be taken to prevent clogging of spray nozzles, to prevent overwatering and to exclude the production of runoff. Pipelines shall be maintained so as to prevent leaks.
10. Reclaimed water used for irrigation shall not be allowed to run off into recreational lakes unless it meets the criteria for such lakes.

C. General Requirements

1. The discharge or use of raw or inadequately treated sewage at any time is prohibited.
2. Reclaimed water shall not be used for irrigation during periods of rainfall and/or runoff.
3. Standby or emergency power facilities and/or sufficient capacity shall be provided for reclaimed water storage during rainfall or in the event of plant upsets or outages, and at times when spray irrigation cannot be practiced.
4. Reclaimed water use or disposal shall not result in earth movement in geologically unstable areas.
5. Adequate facilities shall be provided to protect the sewage treatment and reclamation facilities from damage by storm flows and runoff.



6. Adequate freeboard shall be maintained in reclaimed water storage pond to ensure that direct rainfall will not cause overtopping.
7. Neither treatment of waste nor any reclaimed water use or disposal shall cause pollution or nuisance.
8. Water reclamation and reuse or disposal shall not result in problems due to breeding of mosquitoes, gnats, midges, or other pests.
9. Reclaimed water use or disposal shall not impart tastes, odors, color, foaming, or other objectionable characteristics to receiving ground waters.
10. Reclaimed water use or disposal which could affect receiving ground waters shall not contain any substance in concentrations toxic to human, animal, or plant life.
11. Odors of sewage origin shall not cause a nuisance.

D. Provisions

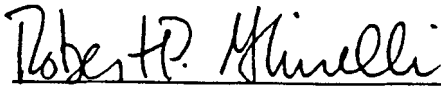
1. A copy of these requirements shall be maintained at the reclamation facility so as to be available at all times to operating personnel.
2. In the event of any change in name, ownership, or control of these waste treatment and reclamation facilities, the Reclaimer shall notify this Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, copy of which shall be forwarded to the Board.
3. In accordance with Section 13522.5 of the Water Code and Section 60323 of the Wastewater Reclamation Criteria, the Reclaimer shall file an engineering report, prepared by a properly qualified engineer registered in California, of any material change or proposed change in character, location or volume of the reclaimed water or its uses to the Board and State Department of Health Services.
4. The Reclaimer shall file with the Board technical reports on self monitoring work performed according to the detailed specifications contained in the Monitoring and Reporting Programs, as directed by the Executive Officer.

5. The Reclaimer shall notify this Board by telephone within 24 hours of any violations of reclaimed water use conditions or any adverse conditions as a result of the use of reclaimed water from this facility; written confirmation shall follow within one week.
6. The Reclaimer shall notify Board staff by telephone immediately of any confirmed coliform counts that could cause a violation of the 7-day median limit, including the date(s) thereof. This information shall be confirmed in the next monitoring report; in addition, for any actual coliform limit violations that occurred, the report shall also include the reasons for the high coliform results, the steps being taken to correct the problem (including dates thereof), and the steps being taken to prevent a recurrence.
7. These requirements do not exempt the Reclaimer from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this reclamation facility, and they leave unaffected any further restraint on the use of reclaimed water at this site which may be contained on other statutes or required by other agencies.
8. The Reclaimer shall be responsible to insure that all users of reclaimed water comply with the specifications and requirements for such use.
9. This Order does not alleviate the responsibility of the Reclaimer to obtain other necessary local, state, and federal permits to construct facilities necessary for compliance with this Order; nor does this Order prevent imposition of additional standards, requirements, or conditions by any other regulatory agency. Expansion of this facility from its current capacity shall be contingent upon issuance of all necessary permits, including a conditional use permit.
10. Supervisors and operators of this publicly owned wastewater treatment plant shall possess a certificate of appropriate grade as specified in California Administrative Code, Title 23, Chapter 3, Subchapter 14, Section 2455 and 2460.
11. The Reclaimer shall provide to each user of reclaimed water from Long Beach Water Reclamation Plant a copy of these requirements, to be maintained at the user's

facility as to be available at all times to operating personnel.

12. For any extension of the reclaimed water system, the Reclaimer shall submit a report detailing the extension for the approval of the Executive Officer. Following construction, as built drawings shall be submitted to the Executive Officer for approval prior to use of reclaimed water.
13. The Reclaimer shall submit to the Board within 60 days of the adoption of this Order, a fail-safe procedure for approval by the Executive Officer.
14. Order No. 79-131 adopted by this Board on July 23, 1979, is hereby rescinded.

I, Robert P. Ghirelli, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on April 27, 1987.



ROBERT P. GHIRELLI, D.Env.  
Executive Officer

GK/

State of California  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. 6184  
FOR

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY  
(Long Beach Water Reclamation Plant)  
(File No. 69-80)

The Reclaimer shall implement this monitoring program on the effective date of this Order.

Monitoring reports shall be submitted by the dates in the following schedule:

<u>Reporting period</u>	<u>Report Due</u>
January - March	May 15
April - June	August 15
July - September	November 15
October - December	February 15

The first monitoring report under this program shall be submitted by August 15, 1987.

By March 1 of each year, the Reclaimer shall submit an annual report to the board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the Reclaimer shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the Requirements.

Values obtained for the NPDES monitoring report during periods of discharge to surface waters may be reported here in lieu of duplicate testing, if representative. However, non-NPDES self-monitoring reports shall be submitted separately from the NPDES monitoring reports.

Reclaimed Water Monitoring

A sampling station shall be established where representative samples of reclaimed water can be obtained. Reclaimed water samples may be obtained at a single station provided that station is representative of the quality at all discharge points. Each sampling station shall be identified. The following shall constitute the reclaimed water monitoring program:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Turbidity <sup>1</sup>	NTU	continuous	-----
Total flow <sup>2</sup>	gallon	continuous	-----
Coliform group <sup>3</sup>	MPN/100ml	grab	daily
pH	pH units	grab	daily
Total dissolved solids	mg/l	24-hr composite	monthly
Chloride	mg/l	24-hr composite	monthly
Boron	mg/l	24-hr composite	monthly
Sulfate	mg/l	24-hr composite	monthly
Arsenic	mg/l	24-hr composite	quarterly
Barium	mg/l	24-hr composite	quarterly
Cadmium	mg/l	24-hr composite	quarterly
Chromium	mg/l	24-hr composite	quarterly
Lead	mg/l	24-hr composite	quarterly
Mercury	mg/l	24-hr composite	quarterly
Selenium	mg/l	24-hr composite	quarterly
Silver	mg/l	24-hr composite	quarterly
Cyanide	mg/l	24-hr composite	quarterly
Nitrate	mg/l	24-hr composite	quarterly

<sup>1</sup>Required only for applications having a turbidity limit. The average value recorded each day and amount of time that 5 NTU was exceeded each day shall be reported. Turbidity samples may be obtained anywhere in the treatment process subsequent to the filtration procedure.

<sup>2</sup>Shall report the daily volume of reclaimed water and the monthly volume used at each site.

<sup>3</sup>Samples shall be obtained at some point in the treatment process at a time when wastewater flow and characteristics are most demanding on the treatment facility and disinfection procedures. The location(s) of the sampling point(s) and any changes thereto must be approved by the Executive Officer, and proposed changes shall not be made until such approval has been granted. If reclaimed water is used for irrigation of golf courses, cemeteries, freeway landscapes, parks, playgrounds, schoolyards, or other areas where the public has similar access or exposure, samples shall be obtained subsequent to the chlorination procedure. Coliform values obtained must meet the strictest requirement specified for all uses during periods of multiple use, unless separate coliform analyses are obtained at each particular point of use.

Fluoride	mg/l	24-hr composite	quarterly
Radioactivity	pCi/l	24-hr composite	quarterly
Total identifiable chlorinated hydrocarbon	ug/l	grab	quarterly
Priority Pollutants	ug/l	grab	semi-annually

General Provisions for Sampling and Analysis

All sampling, sample preservation, and analyses shall be performed in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants", promulgated by the United States Environmental Protection Agency.

All chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Water Resources Control Board or approved by the Executive Officer.

General Provisions for Reporting

For every item where the requirements are not met, the Reclaimer shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.

The Reclaimer shall maintain all sampling and analytical results, including strip charts; date, exact place, and time of sampling; dates analyses were performed; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board.

In reporting the monitoring data, the Reclaimer shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with Water Reclamation Requirements and, where applicable, shall include results of receiving water observations.

The Reclaimer shall file a report with this Board describing the purposes for which reclaimed water from this facility is used, estimating quantities used for each type of use, depicting on a map or drawing the area(s) of use, and stating the name and address of each user of reclaimed water if other than the Reclaimer. This report shall be updated at least annually, and shall be included with the annual report due March 1 each year.

Each quarterly report shall include a statement that all reclaimed water was used only as specified in the requirements during the quarter.

If no water was delivered for reuse during the quarter, the report shall so state.

Monitoring reports shall be signed by:

- a. In the case of corporations, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which discharge originates;
- b. In the case of a partnership, by a general partner;
- c. In the case of a sole proprietorship, by the proprietor;
- d. In the case of municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

Each report shall contain the following completed declaration:

"I declare under penalty of perjury that the foregoing is true and correct.

Executed on the \_\_\_\_\_ day of \_\_\_\_\_ at \_\_\_\_\_.

\_\_\_\_\_ (Signature)

\_\_\_\_\_ (Title)"

Ordered by Robert P. Ghirelli  
Executive Officer

April 27, 1987  
Date

# **Los Coyotes Water Reclamation Plant Water Reclamation Requirements**



83 - 01.01 - 07/87

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—  
LOS ANGELES REGION



1000 SOUTH BROADWAY, SUITE 4027  
LOS ANGELES, CALIFORNIA 90012-4596  
(213) 620-4460

1987 JUL 14 AM 9:37

July 9, 1987

Mr. Robert W. Horvath  
Head, Monitoring and Research  
County Sanitation Districts of  
Los Angeles County  
P.O. Box 4998  
Whittier, CA 90607

WATER RECLAMATION REQUIREMENTS - LOS COYOTES WATER RECLAMATION PLANT  
(FILE NO. 65-182; CI 6182)

Reference is made to our letter dated May 4, 1987, which transmitted the requirements for your reuse of treated effluent.

By mistake, the copy transmitted did not include the revisions made on April 10, 1987. Enclosed is the corrected copy of the requirements as adopted by the Board on April 27, 1987.

We regret any inconvenience this may have caused.

If you have any questions, please call Mr. Gregg Kwey at (213) 620-2784.

J. E. ROSS  
Senior Water Resource  
Control Engineer

cc: See attached mailing list

Enclosures

DOC #

Mr. Robert W. Horvath  
Mailing List

State Water Resources Control Board, Division of Water  
Quality, Attn: Archie Matthews  
Department of Water Resources  
Department of Health Services, Sanitary Engineering Section  
Los Angeles County, Department of Health Services  
Los Angeles County, Department of Public Works, Hydraulic/Water  
Conservation Division  
Los Angeles County, Department of Public Works, Engineering  
Services Division

State of California  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

ORDER NO. 87-51

WATER RECLAMATION REQUIREMENTS  
FOR

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY  
(Los Coyotes Water Reclamation Plant)  
(File No. 65-182)

The California Regional Water Quality Control Board, Los Angeles Region, finds:

1. County Sanitation Districts of Los Angeles County (hereinafter referred to as "Reclaimer") operates Los Coyotes Water Reclamation Plant, located at 10740 East 166th Street, Cerritos, California, with a design flow of 37.5 million gallons per day (mgd), and reclaims all or a portion of its treated municipal wastewater under Waste Discharge Requirements contained in Order No. 78-141 adopted by this Board on November 27, 1978.
2. In 1986/87 the Reclaimer completed a project that increased the plants treated effluent reuse. Current uses are landscape irrigation for a City of Cerritos golf course and Caruthers Park in the City of Bellflower.
3. The wastewater treatment consists of primary sedimentation, activated sludge, secondary sedimentation, filtration, chlorination, and dechlorination. Sludge is diverted to Joint Water Pollution Control Plant for disposal.
4. A review of the current requirements has been conducted by Board staff in accordance with California Administration Code, Title 23, Chapter 3, Subchapter 9, Article 2, Section 2232.2.
5. The treated wastewater may also be discharged to San Gabriel River under separate waste discharge requirements and National Pollution Discharge Elimination System permit (NPDES Permit No. CA0054011) adopted by this Board.
6. The areas of reclaimed water uses are located within the Central Hydrologic Subarea.
7. The Board adopted a Revised Water Quality Control Plan for Los Angeles River Basin on November 27, 1978. The Plan contains water quality objectives for ground water in the Central Hydrologic Subarea. The requirements contained in

- this Order, as they are met, will be in conformance with the goals of the Water Quality Control Plan.
8. The Bellflower Aquiclude underlies the local area. This aquiclude restricts deep percolation of reclaimed wastewater to water supply aquifers and traps it in a semi-perched aquifer of poor mineral quality and, as such, is not beneficially used.
  9. Section 13523 of the California Water Code provides that a regional board, after consulting with and receiving the recommendations of the State Department of Health Services and after any necessary hearing, shall, if it determines such action to be necessary to protect the public health, safety, or welfare, prescribe water reclamation requirements for water which is used or proposed to be used as reclaimed water. Section 13523 further provides that such requirements shall include, or be in conformance with, the statewide reclamation criteria.
  10. The use of reclaimed water for impoundments or for irrigation could affect the public health, safety, or welfare; requirements for such use are therefore necessary in accordance with Section 13523 of the Water Code.
  11. This project involves an existing facility and as such is exempt from the provisions of the California Environmental Quality Act in accordance with California Administrative Code, Title 14, Chapter 3, Section 15301.

The Board has notified the Reclaimer and interested agencies and persons of its intent to prescribe water reclamation requirements for this direct beneficial use and has provided them with an opportunity to submit their written views and recommendations.

The Board in a public meeting heard and considered all comments pertaining to the direct beneficial use and to the tentative water reclamation requirements.

IT IS HEREBY ORDERED, that County Sanitation Districts of Los Angeles County, shall comply with the following:

A. Reclaimed Water Limitations

1. Reclaimed water shall be limited to treated municipal wastewater only, as proposed.
2. Reclaimed water shall not contain constituents in excess of the following limits:

<u>Constituent</u>	<u>Unit</u>	<u>Maximum Limitations</u>
Total dissolved solids	mg/l	1000
Chloride	mg/l	250
Sulfate	mg/l	250
Boron	mg/l	1.5

3. The pH of reclaimed water shall at all times be within the range 6.0 to 9.0.
4. Reclaimed water shall not contain trace constituents or other substances in concentrations exceeding the limits contained in the current edition of the California Department of Health Services Drinking Water Standards.
5. Radioactivity shall not exceed the limits specified in Title 22, Chapter 15, Article 5, Sections 64441 and 64443, California Administrative Code, or subsequent revisions.
6. Reclaimed water shall not cause the nitrogen content in the receiving ground water to exceed the objectives in the Water Quality Control Plan.
7. Reclaimed water, used for agricultural supply, shall not contain concentrations of chemical constituents in amounts that adversely affect such beneficial use.

B. Specifications for Use of Reclaimed Water

1. Reclaimed water used for the irrigation of golf courses, cemeteries, freeway landscapes, and landscapes in other areas where the public has similar access or exposure shall be at all times an adequately disinfected, oxidized wastewater.

The wastewater shall be considered adequately disinfected if the median number of coliform organisms in the effluent does not exceed 23 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed, and the number of coliform organisms does not exceed 240 per 100 milliliters in any two consecutive samples.

Oxidized wastewater means wastewater in which the organic matter has been stabilized, is nonputrescible, and contains dissolved oxygen.

Disinfected wastewater means wastewater in which the pathogenic organisms have been destroyed by chemical, physical or biological means.

2. Reclaimed water used for the irrigation of parks, playgrounds, schoolyard, and other areas where the public has similar access or exposure shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater or a wastewater treated by a sequence of unit processes that will assure an equivalent degree of treatment and reliability.

The wastewater shall be considered adequately disinfected if the median number of coliform organisms in the effluent does not exceed 2.2 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed, and the number of coliform organisms does not exceed 23 per 100 milliliters in any sample.

A coagulated wastewater means an oxidized wastewater in which colloidal and finely divided suspended matter have been destabilized and agglomerated by the addition of suitable floc-forming chemicals or by an equally effective method.

A filtered wastewater means an oxidized, coagulated, clarified wastewater which has been passed through natural undisturbed soils or filter media, such as sand or diatomaceous earth, so that the turbidity as determined by an approved laboratory method does not exceed an average operating turbidity of 2 turbidity units and does not exceed 5 turbidity units more than 5 percent of the time during any 24-hour period.

3. Reclaimed water used as a source of supply in a nonrestricted recreational impoundment shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater.

The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 2.2 per 100 milliliters and the number of coliform organisms does not exceed 23 per 100 milliliters in more than one sample within any 30-day period. The median value shall be determined from the

bacteriological results of the last 7 days for which analyses have been completed.

4. Reclaimed water used as a source of supply in a restricted recreational impoundment shall be at all times an adequately disinfected, oxidized wastewater.

The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 2.2 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed.

5. Reclaimed water used as a source of supply in a landscape impoundment shall be at all times an adequately disinfected, oxidized wastewater.

The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 23 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed.

6. Reclaimed water shall not be directly used for uses other than those enumerated above until requirements for these uses have been established by this Board in accordance with Section 13523 of the California Water Code, unless the Board waives such requirements or finds that the above cited standards are applicable to these uses.

7. Reclaimed water uses shall meet the requirements specified in the "Guidelines for Use of Reclaimed Water" issued by the State Department of Health Services.

8. Reclaimed water used for irrigation shall be retained on the areas of use and shall not be allowed to escape as surface flow except as provided for in a National Pollutant Discharge Elimination System Permit.

For the purpose of this requirement, however, minor amounts of irrigation return water from peripheral areas shall not be considered a violation of this Order provided the discharge meets the requirements contained in a National Pollutant Discharge Elimination System

Permit issued to the County Sanitation Districts of Los Angeles County (Los Coyotes Water Reclamation Plant).

9. Reclaimed water shall be applied at such a rate and volume as not to exceed vegetative demand and soil moisture conditions. Special precautions must be taken to prevent clogging of spray nozzles, to prevent overwatering and to exclude the production of runoff. Pipelines shall be maintained so as to prevent leaks.
10. Reclaimed water used for irrigation shall not be allowed to run off into recreational lakes unless it meets the criteria for such lakes.

C. General Requirements

1. The discharge or use of raw or inadequately treated sewage at any time is prohibited.
2. Reclaimed water shall not be used for irrigation during periods of extended rainfall and/or runoff.
3. Standby or emergency power facilities and/or sufficient capacity shall be provided for reclaimed water storage during rainfall or in the event of plant upsets or outages, and at times when spray irrigation cannot be practiced.
4. Reclaimed water use or disposal shall not result in earth movement in geologically unstable areas.
5. Adequate facilities shall be provided to protect the sewage treatment and reclamation facilities from damage by storm flows and runoff.
6. Adequate freeboard shall be maintained in reclaimed water storage pond to ensure that direct rainfall will not cause overtopping.
7. Neither treatment of waste nor any reclaimed water use or disposal shall cause pollution or nuisance.
8. Water reclamation and reuse or disposal shall not result in problems due to breeding of mosquitoes, gnats, midges, or other pests.
9. Reclaimed water use or disposal shall not impart tastes, odors, color, foaming, or other objectionable characteristics to receiving ground waters.



10. Reclaimed water use or disposal which could affect receiving ground waters shall not contain any substance in concentrations toxic to human, animal, or plant life.
11. Odors of sewage origin shall not cause a nuisance.

D. Provisions

1. A copy of these requirements shall be maintained at the reclamation facility so as to be available at all times to operating personnel.
2. In the event of any change in name, ownership, or control of these waste treatment and reclamation facilities, the Reclaimer shall notify this Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, copy of which shall be forwarded to the Board.
3. In accordance with Section 13522.5 of the Water Code and Section 60323 of the Wastewater Reclamation Criteria, the Reclaimer shall file an engineering report, prepared by a properly qualified engineer registered in California, of any material change or proposed change in character, location or volume of the reclaimed water or its uses to the Board and State Department of Health Services.
4. The Reclaimer shall file with the Board technical reports on self monitoring work performed according to the detailed specifications contained in the Monitoring and Reporting Programs, as directed by the Executive Officer.
5. The Reclaimer shall notify this Board by telephone within 24 hours of any violations of reclaimed water use conditions or any adverse conditions as a result of the use of reclaimed water from this facility; written confirmation shall follow within one week.
6. The Reclaimer shall notify Board staff by telephone immediately of any confirmed coliform counts that could cause a violation of the 7-day median limit, including the date(s) thereof. This information shall be confirmed in the next monitoring report; in addition, for any actual coliform limit violations that occurred, the report shall also include the reasons for the high

coliform results, the steps being taken to correct the problem (including dates thereof), and the steps being taken to prevent a recurrence.

7. These requirements do not exempt the Reclaimer from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this reclamation facility, and they leave unaffected any further restraint on the use of reclaimed water at this site which may be contained on other statutes or required by other agencies.
8. The Reclaimer shall be responsible to insure that all users of reclaimed water comply with the specifications and requirements for such use.
9. This Order does not alleviate the responsibility of the Reclaimer to obtain other necessary local, state, and federal permits to construct facilities necessary for compliance with this Order; nor does this Order prevent imposition of additional standards, requirements, or conditions by any other regulatory agency. Expansion of this facility from its current capacity shall be contingent upon issuance of all necessary permits, including a conditional use permit.
10. Supervisors and operators of this publicly owned wastewater treatment plant shall possess a certificate of appropriate grade as specified in California Administrative Code, Title 23, Chapter 3, Subchapter 14, Section 2455 and 2460.
11. The Reclaimer shall provide to each user of reclaimed water from Los Coyotes Water Reclamation Plant a copy of these requirements, to be maintained at the user's facility as to be available at all times to operating personnel.
12. For any extension of the reclaimed water system, the Reclaimer shall submit a report detailing the extension for the approval of the Executive Officer. Following construction, as built drawings shall be submitted to the Executive Officer for approval prior to use of reclaimed water.
13. The Reclaimer shall submit to the Board within 60 days of the adoption of this Order, a fail-safe procedure for approval by the Executive Officer.

14. Order No. 78-141 adopted by this Board on November 27, 1978, is hereby rescinded.

I, Robert P. Ghirelli, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on April 27, 1987.

Robert P. Ghirelli  
ROBERT P. GHIRELLI, D.Env.  
Executive Officer

GK/

State of California  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. 6182  
FOR

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY  
(Los Coyotes Water Reclamation Plant)  
(File No. 65-182)

The Reclaimer shall implement this monitoring program on the effective date of this Order.

Monitoring reports shall be submitted by the dates in the following schedule:

<u>Reporting period</u>	<u>Report Due</u>
January - March	May 15
April - June	August 15
July - September	November 15
October - December	February 15

The first monitoring report under this program shall be submitted by August 15, 1987.

By March 1 of each year, the Reclaimer shall submit an annual report to the board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the Reclaimer shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the Requirements.

Values obtained for the NPDES monitoring report during periods of discharge to surface waters may be reported here in lieu of duplicate testing, if representative. However, non-NPDES self-monitoring reports shall be submitted separately from the NPDES monitoring reports.

Reclaimed Water Monitoring

A sampling station shall be established where representative samples of reclaimed water can be obtained. Reclaimed water samples may be obtained at a single station provided that station is representative of the quality at all discharge points. Each sampling station shall be identified. The following shall constitute the reclaimed water monitoring program:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Turbidity <sup>1</sup>	NTU	continuous	-----
Total flow <sup>2</sup>	gallons	continuous	-----
Coliform group <sup>3</sup>	MPN/100ml	grab	daily
pH	pH units	grab	daily
Total dissolved solids	mg/l	24-hr composite	monthly
Chloride	mg/l	24-hr composite	monthly
Boron	mg/l	24-hr composite	monthly
Sulfate	mg/l	24-hr composite	monthly
Arsenic	mg/l	24-hr composite	quarterly
Barium	mg/l	24-hr composite	quarterly
Cadmium	mg/l	24-hr composite	quarterly
Chromium	mg/l	24-hr composite	quarterly
Lead	mg/l	24-hr composite	quarterly
Mercury	mg/l	24-hr composite	quarterly
Selenium	mg/l	24-hr composite	quarterly
Silver	mg/l	24-hr composite	quarterly
Cyanide	mg/l	24-hr composite	quarterly
Nitrate	mg/l	24-hr composite	quarterly

<sup>1</sup>Required only for applications having a turbidity limit. The average value recorded each day and amount of time that 5 NTU was exceeded each day shall be reported. Turbidity samples may be obtained anywhere in the treatment process subsequent to the filtration procedure.

<sup>2</sup>Shall report the daily volume of reclaimed water used at each site of use.

<sup>3</sup>Samples shall be obtained at some point in the treatment process at a time when wastewater flow and characteristics are most demanding on the treatment facility and disinfection procedures. The location(s) of the sampling point(s) and any changes thereto must be approved by the Executive Officer, and proposed changes shall not be made until such approval has been granted. If reclaimed water is used for irrigation of golf courses, cemeteries, freeway landscapes, parks, playgrounds, schoolyards, or other areas where the public has similar access or exposure, samples shall be obtained subsequent to the chlorination procedure. Coliform values obtained must meet the strictest requirement specified for all uses during periods of multiple use, unless separate coliform analyses are obtained at each particular point of use.

Fluoride	mg/l	24-hr composite	quarterly
Radioactivity	pCi/l	24-hr composite	quarterly
Total identifiable chlorinated hydrocarbon	ug/l	grab	quarterly
Priority Pollutants	ug/l	grab	semi-annual

General Provisions for Sampling and Analysis

All sampling, sample preservation, and analyses shall be performed in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants", promulgated by the United States Environmental Protection Agency.

All chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Water Resources Control Board or approved by the Executive Officer.

General Provisions for Reporting

For every item where the requirements are not met, the Reclaimer shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.

The Reclaimer shall maintain all sampling and analytical results, including strip charts; date, exact place, and time of sampling; dates analyses were performed; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board.

In reporting the monitoring data, the Reclaimer shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with Water Reclamation Requirements and, where applicable, shall include results of receiving water observations.

The Reclaimer shall file a report with this Board describing the purposes for which reclaimed water from this facility is used, estimating quantities used for each type of use, depicting on a map or drawing the area(s) of use, and stating the name and address of each user of reclaimed water if other than the Reclaimer. This report shall be updated at least annually, and shall be included with the annual report due March 1 each year.

Each quarterly report shall include a statement that all reclaimed water was used only as specified in the requirements during the quarter.

If no water was delivered for reuse during the quarter, the report shall so state.

Monitoring reports shall be signed by:

- a. In the case of corporations, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which discharge originates;
- b. In the case of a partnership, by a general partner;
- c. In the case of a sole proprietorship, by the proprietor;
- d. In the case of municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

Each report shall contain the following completed declaration:

"I declare under penalty of perjury that the foregoing is true and correct.

Executed on the \_\_\_\_\_ day of \_\_\_\_\_ at \_\_\_\_\_.

\_\_\_\_\_ (Signature)

\_\_\_\_\_ (Title)"

Ordered by Robert P. Ghirelli  
Executive Officer

April 27, 1987  
Date

# **Pomona Water Reclamation Plant Water Reclamation Requirements**



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—  
LOS ANGELES REGION

107 SOUTH BROADWAY, SUITE 4027  
LOS ANGELES, CALIFORNIA 90012  
(213) 620-4460

4-17-81  
26-02-01-81  
25-04-81

87-01-01-81

1981 JUL 31 AM 11:02



JUL 30 1981

County Sanitation Districts of  
Los Angeles County  
P. O. Box 4998  
Whittier, CA 90607

ATTN: Mr. Walter E. Garrison  
Chief Engineer and General Manager

RE: Revised Water Reclamation Requirements  
(File Nos. 54-70, 61-30, 65-86, and 77-50)

1981 JUL -2 AM 9:18

Gentlemen:

Reference is made to our letters dated June 23, 1981, which transmitted drafts of tentative requirements for use of reclaimed water from the Pomona, Saugus, Valencia and San Jose Water Reclamation Plants.

Pursuant to Division 7 of the California Water Code, this California Regional Water Quality Control Board, at a public meeting held on July 27, 1981, reviewed these tentative requirements, considered all factors in the cases, and adopted the following Orders:

<u>Order No.</u>	<u>Reclamation Plant</u>	<u>File No.</u>	<u>Compliance File No.</u>
81-34	Pomona (District 21)	54-70	6241
81-35	Saugus (District 26)	61-30	6188
81-36	Valencia (District 32)	65-86	6186
81-33	San Jose Creek	77-50	6372

Also attached are copies of specifications for technical reports to be submitted by you. Your first monitoring reports are due by October 15, 1981. Please reference all technical and monitoring reports to their respective compliance file numbers. We would appreciate it if you would not combine other reports, such as progress or technical reports, with the monitoring reports but would submit each type of report as a separate document.

Very truly yours,

*Raymond M. Hertel*  
RAYMOND M. HERTEL  
Executive Officer

cc: See attached mailing list

Enclosures

*make any changes?  
w  
7-31-81*

*with*

*one  
7-31-81*

JUL 30 1981

cc: U. S. Army Corps of Engineers  
State Water Resources Control Board, Division of Technical Services  
ATTN: Walter Pettit  
Department of Water Resources  
Department of Fish and Game, Region 5  
Department of Health Services, Sanitary Engineering Section  
Los Angeles County Flood Control District  
Los Angeles County Engineer-Facilities, Sanitation Division  
State Water Resources Control Board, Office of Water Recycling  
ATTN: Mr. Kurt Wassermann  
State Water Resources Control Board, Division of Water Quality  
ATTN: Mr. Mike Sloss  
Bouquet Canyon Water Company (Saugus and Valencia only)  
County of Los Angeles, Department of Health Services  
San Gabriel Valley Municipal Water District (Pomona only)  
San Gabriel Valley Water Company (Pomona only)  
City of Pomona (Pomona only)  
United Water Conservation District (Saugus and Valencia only)  
Central and West Basin Water Replenishment District (San Jose Creek only)  
City of Whittier (San Jose Creek only)

State of California  
Resources Agency  
CALIFORNIA REGIONAL WATER QUALITY BOARD, LOS ANGELES REGION

ORDER NO. 81-34

WATER RECLAMATION REQUIREMENTS  
FOR  
COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY  
(Pomona Water Reclamation Plant)  
(File No. 54-70)

The California Regional Water Quality Control, Los Angeles Region, finds;

1. County Sanitation Districts of Los Angeles County may reclaim water at its Pomona Water Reclamation Plant under requirements contained in Order No. 76-66, adopted by this Board on April 26, 1976.
2. County Sanitation Districts of Los Angeles County operates the Pomona Water Reclamation Plant, located at 295 South Roselawn Avenue, Pomona, California. The plant has a design capacity of 10 million gallons per day (mgd). The average 1979 plant flow and volume of reused water were 7.3 mgd and 2.0 mgd, respectively. All or a portion of the treated wastewater may be reused.
3. Treatment consists of primary sedimentation, activated sludge biological treatment, secondary sedimentation, filtration, chlorination and dechlorination. The sludge is piped to the County Sanitation Districts' Joint Water Pollution Control Plant in Carson for processing and disposal.
4. Currently, the reclaimed water is used for agriculture and landscape irrigation, fire protection, and paper manufacturing. The areas of reuse are within the San Gabriel Valley and Spadra Hydrologic Subunits.
5. The treated wastewater may also be discharged to San Jose Creek under separate waste discharge requirements and National Pollutant Discharge Elimination System permit (NPDES Permit No. CA0053619) adopted by this Board.
6. The Board adopted a revised Water Quality Control Plan for Los Angeles River Basin on November 27, 1978. The Plan contains water quality objectives for the San Gabriel Valley and Spadra Hydrologic Subunits. The requirements contained in this Order, as they are met, will be in conformance with the goals of the Water Quality Control Plan.

Revised 6/19/81  
February 4, 1981

7. The beneficial uses of the receiving groundwaters in San Gabriel Valley and Spadra Hydrologic Submit are: municipal, agricultural, industrial service and process supply.
8. Section 13523 of the California Water Code provides that a Regional Board, after consulting with and receiving the recommendations of the State Department of Health Services, and if it determines such action to be necessary to protect the public health, safety, or welfare, shall prescribe water reclamation requirements for uses of water which is used or proposed to be used as reclaimed wastewater. Section 13523 further provides that such requirements shall conform to the statewide reclamation criteria.
9. The use of reclaimed wastewater could affect the public health, safety, or welfare; requirements for such uses are therefore necessary in accordance with Section 13523 of the Water Code.
10. County Sanitation Districts of Los Angeles County prepared an Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the Pomona Water Reclamation Plant. The EIS/EIR discussed the impacts of the Pomona Water Reclamation Plant Filters and the reclaimed water on the environment. No significant adverse environmental impacts were identified in the EIS/EIR.

The Board has notified County Sanitation Districts of Los Angeles County and interested agencies and persons of its intent to prescribe water reclamation requirements, and has provided them with an opportunity to submit their written views and recommendations.

The Board in a public meeting heard and considered all comments pertaining to the reclamation and to the tentative requirements.

IT IS HEREBY ORDERED, that County Sanitation Districts of Los Angeles County shall comply with the following:

A. Reclaimed Water Limitations:

1. Reclaimed water shall be limited to treated municipal wastewater only, as proposed.
2. Reclaimed water shall not contain constituents in excess of the following limits:

<u>Constituent</u>	<u>Units</u>	<u>Limitations</u>	
		<u>30-day Average</u>	<u>Maximum</u>
Total Dissolved Solids	mg/l	-----	750
Chloride	mg/l	-----	150
Sulfate	mg/l	-----	300
Boron	mg/l	-----	1.0

3. The ph of reclaimed water shall at all times be within the range 6.0 to 9.0.
4. Reclaimed water shall not contain heavy metals, arsenic or cyanide in concentrations exceeding the limits contained in the current California Drinking Water Standards.
5. Radioactivity shall not exceed the limits specified in Title 22, Chapter 15, Article 5, Sections 64441 and 64443, California Administrative Code, or subsequent revisions.

#### B. Specifications for Use of Reclaimed Wastewater

1. Reclaimed water used for surface or spray irrigation of fodder, fiber, and seed crops shall have a level of quality no less than that of primary effluent.

Primary effluent is the effluent from a wastewater treatment process which provides removal of sewage solids so that it contains not more than 0.5 milliliter per liter per hour of settleable solids as determined by an approved laboratory method.

2. Reclaimed water used for the spray irrigation of food crops shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater. The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 2.2 per 100 milliliters and the number of coliform organisms does not exceed 23 per 100 milliliters in more than one sample within any 30-day period. The median value shall be determined from the bacteriological results of the last 7 days for which analyses have been completed.

An oxidized wastewater means wastewater in which the organic matter has been stabilized, is nonputrescible, and contains dissolved oxygen. For the purpose of these requirements, an oxidized wastewater shall be equivalent to secondary effluent with 30-day average BOD<sub>5</sub>20°C and suspended solids not exceeding 30 mg/l.

A filtered wastewater means an oxidized, coagulated, clarified wastewater which has been passed through natural undisturbed soils or filter media, such as sand or diatomaceous earth, so that the turbidity as determined by an approved laboratory method does not exceed an average operating turbidity of 2 turbidity units and does not exceed 5 turbidity units more than 5 percent of the time during any 24-hour period.

3. Reclaimed water used for surface irrigation of food crops shall be at all times an adequately disinfected, oxidized wastewater. The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 2.2 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed. Orchard and vineyards may be surface irrigated with reclaimed water that has the quality at least equivalent to that of primary effluent provided that no fruit is harvested that has come in contact with the irrigating water or the ground.
4. Exceptions to the quality requirements for reclaimed water used for irrigation of food crops may be considered on an individual case basis where the reclaimed water is to be used to irrigate a food crop which must undergo extensive commercial, physical or chemical processing sufficient to destroy pathogenic agents before it is suitable for human consumption.

5. Reclaimed water used for the irrigation of pasture to which milking cows or goats have access shall be at all times an adequately disinfected, oxidized wastewater. The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 23 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed.
6. Reclaimed water used for the irrigation of golf courses, cemeteries, freeway landscapes, and landscapes in other areas where the public has similar access or exposure shall be at all times an adequately disinfected, oxidized wastewater. The wastewater shall be considered adequately disinfected if the median number of coliform organisms in the effluent does not exceed 23 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed, and the number of coliform organisms does not exceed 240 per 100 milliliters in any two consecutive samples.
7. Reclaimed water used for the irrigation of parks, playgrounds, schoolyards, and other areas where the public has similar access or exposure shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater or a wastewater treated by a sequence of unit processes that will assure an equivalent degree of treatment and reliability. The wastewater shall be considered adequately disinfected if the median number of coliform organisms in the effluent does not exceed 2.2 per 100 milliliters as determined from the bacteriological results of the last 7 days for which analyses have been completed, and the number of coliform organisms does not exceed 23 per 100 milliliters in any sample.
8. Reclaimed water used for irrigation shall not be allowed to run off into recreational lakes unless it meets the criteria for such lakes.
9. Reclaimed water used as a source of supply in a nonrestricted recreational impoundment (a body of reclaimed water in which no limitations are imposed on body-contact water sport activities) shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater. The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 2.2 per 100 milliliters and the number of coliform organisms does not exceed 23 per 100 milliliters in more than one sample within any 30-day period. The median value shall be determined from the bacteriological results of the last 7 days for which analyses have been completed.
10. Reclaimed water used as a source of supply in a restricted recreational impoundment (a body of reclaimed water in which recreation is limited to fishing, boating, and other non-body-contact water recreation activities) shall be at all times an adequately disinfected, oxidized wastewater. The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 2.2 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed.
11. Reclaimed water used as a source of supply in a landscape impoundment (a body of reclaimed water which is used for aesthetic enjoyment or which otherwise serves a function not intended to include public contact) shall be at all times an adequately disinfected, oxidized wastewater. The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 23 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed.

12. Reclaimed wastewater directly used as industrial process water for paper pulp processing, metal finishing, industrial cooling, and soil compaction and dust control shall conform to the criteria for landscape impoundment as set forth in B-11.
13. Reclaimed water shall be retained on the areas of use and shall not be allowed to escape as surface flow except as provided for in a National Pollutant Discharge Elimination System permit. For the purpose of this requirement, however, minor amount of irrigation return water of secondary quality or better from peripheral areas shall not be considered a violation of this order provided the discharge meets the requirements contained in a National Pollutant Discharge Elimination System Permit for the discharge of effluent from this reclamation facility to surface waters.
14. Reclaimed water shall not be directly used for uses other than those enumerated above until requirements for these uses have been established by this Board in accordance with Section 13523 of the California Water Code, unless the Board waives such requirements or finds that the requirements contained herein are applicable to these uses.

#### C. General Requirements

1. The discharge of raw or inadequately treated sewage at any time is prohibited.
2. Reclaimed water shall not be used for irrigation during periods of rainfall and/or runoff. For the purpose of this requirements use of irrigation water which meets the requirements contained in a National Pollutant Discharge Elimination System Permit for the discharge of effluent from this reclamation facility to surface waters shall not be considered a violation of this Order.
3. Standby or emergency facilities and/or storage capacity or other means shall be provided so that in the event of plant upset or outage due to power failure or other cause, discharge of raw or other inadequately treated sewage does not occur or delivery of sub-standard reclaimed water is not made.
4. Reclaimed water shall not be sprayed in geologically unstable areas or so as to cause earth movement.
5. Adequate facilities shall be provided to protect the sewage treatment and reclamation facilities from damage by storm flows and runoff.
6. Adequate freeboard shall be maintained in reclaimed water storage pond(s) to ensure that direct rainfall will not cause overtopping.
7. Any offsite disposal of sewage or sludge shall be only at a legal point of disposal. For purposes of these requirements, a legal point of disposal is one for which requirements have been established by a California Regional Water Quality Control Board and which is in full compliance therewith. Any sewage or sludge handling shall be in a manner as to prevent its reaching surface waters or watercourses.

8. Neither treatment nor any use of reclaimed water shall cause pollution or nuisance.
9. The reclamation of wastes shall not result in problems due to breeding of mosquitos, gnats, midges, or other pests.
10. Reclaimed water shall not impart tastes, odors, color, foaming, or other objectionable characteristics to receiving groundwaters.
11. Reclaimed water which should affect receiving groundwaters shall not contain any substance in concentrations toxic to human, animal, or plant life.
12. Odors of waste origin shall not cause a nuisance.

#### D. Provisions

1. A copy of these specifications shall be maintained at the reclamation facility so as to be available at all times to operating personnel.
2. In the event of any change in control or ownership of land or waste treatment and reclamation facilities presently owned or controlled by the reclaimer, he shall notify this Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to this Board.
3. The reclaimer shall file with the Board technical reports on self-monitoring performed according to the detailed specifications contained in any Monitoring and Reporting Programs as directed by the Executive Officer.
4. The reclaimer shall submit to the Board within three months from the date of adoption of this Order a report demonstrating compliance with requirements specified in Chapter 3, Division 4, Title 22, California Administrative Code.
5. The reclaimer shall notify this Board by telephone within 24 hours of any violation of reclaimed wastewater use conditions or any adverse conditions as a result of the use of reclaimed water from this facility; written confirmation shall follow within one (1) week.
6. The reclaimer shall notify Board staff by telephone immediately of any confirmed coliform counts that could cause a violation of the 7-day median limit, or that exceed the applicable maximum effluent limit, including the date(s) thereof. This information shall be confirmed in the next monitoring report; in addition, for any actual coliform limit violations that occurred, the report shall also include the reasons for the high coliform results, the steps taken to correct the problem (including dates thereof), and the steps being taken to prevent a recurrence.



7. Supervisors and operators of this publicly owned water reclamation plant shall possess a certificate of appropriate grade as specified in California Administrative Code, Title 23, Chapter 3, Division 14, Sections 2455 and 2460.
8. For any extension of the reclaimed water system the reclaimer shall submit a report detailing the extension for the approval of the Executive Officer. Following construction, as-built drawings shall be submitted to the Executive Officer for approval prior to use of reclaimed water.
9. The reclaimer shall be responsible to insure that all users of reclaimed wastewater from this facility comply with the specifications and requirements for such use.
10. Order No. 76-66, adopted by this Board on April 26, 1976, is hereby rescinded.

I, Raymond M. Hertel, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on July 27, 1981.

  
RAYMOND M. HERTEL, Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION  
MONITORING AND REPORTING PROGRAM NO. 6241  
FOR  
COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY  
(Pomona Water Reclamation Plant)  
(File No. 54-70)

County Sanitation Districts of Los Angeles County shall implement this monitoring program beginning August 1, 1981. Monitoring reports shall be submitted to the Board monthly by the 15th day of the second following month. The first monitoring report under this program is due by October 15, 1981.

Values obtained for the NPDES monitoring report during periods of discharge to surface waters may be reported here in lieu of duplicate testing, if representative. However, non-NPDES self-monitoring reports shall be submitted separately from the NPDES monitoring reports. Quarterly monitoring shall be performed during the months of February, May, August, and November. If no water was delivered for reuse on any day, the report shall so state.

Each monitoring report must affirm in writing that:

All analyses were conducted at a laboratory certified for such analyses by the State Department of Health Services and in accordance with current EPA guideline procedures, or as specified in the Monitoring Program.

For any analysis performed for which no procedure is specified in the EPA guidelines or in this Monitoring Program, the constituent or parameter analyzed and the method or procedure used must be specified in the report.

I. Reclaimed Water Monitoring

A sampling station shall be established where representative samples of reclaimed water can be obtained. Reclaimed water samples may be obtained at a single station provided that station is representative of the quality at all discharge points. Each sampling station shall be identified. The following shall constitute the reclaimed water monitoring program:

Name	Units	Type of Sample	Minimum Frequency of Analysis
Flow <sup>1/</sup>	mgd	continuous	-----
Total chlorine residual <sup>2/</sup>	mg/l	continuous	-----
Turbidity <sup>3/</sup>	NTU	continuous	-----
BOD <sub>5</sub> 20°C	mg/l	24-hour composite	weekly
Suspended solids	mg/l	24-hour composite	daily
pH	pH units	grab	daily
Settleable solids	ml/l	grab	daily
Coliform group <sup>4/</sup>	MPN/100ml	grab	daily
Total dissolved solids	mg/l	24-hour composite	monthly
Chloride	mg/l	24-hour composite	monthly
Sulfate	mg/l	24-hour composite	monthly
Boron	mg/l	24-hour composite	quarterly
Total nitrogen	mg/l	24-hour composite	monthly
Radioactivity	PCi/l	24-hour composite	quarterly

- 1/ The total volume reused each day shall be reported. In addition, the average daily quantity of reclaimed wastewater delivered to each user and his use(s) of the water shall also be reported.
- 2/ The maximum value recorded each day shall be reported.
- 3/ Required only for applications having a turbidity limit. The average value recorded each day and amount of time that 5NTU was exceeded each day shall be reported. Turbidity samples may be obtained anywhere in the treatment process subsequent to the filtration procedure.
- 4/ Samples shall be obtained at some point in the treatment process at a time when wastewater flow and characteristics are most demanding on the treatment facility and disinfection procedures. The location(s) of the sampling point(s) and any changes thereto must be approved by the Executive Officer, and proposed changes shall not be made until such approval has been granted. If reclaimed water is used for irrigation of golf courses, cemeteries, freeway landscapes, parks, playgrounds, schoolyards, or other areas where the public has similar access or exposure, samples shall be obtained subsequent to the chlorination procedure. Coliform values obtained must meet the

- 4/ the strictest requirements specified for all uses during periods of multiple use, unless separate coliform analyses are obtained at each particular point of use.

## II. Reclaimed Water Reporting

1. Within 30 days of adoption of this Order the County Sanitation Districts of Los Angeles County shall submit to this Board a technical report concerning the location and complete description of each existing and/or proposed coliform sampling station, together with data to support the conclusion that said station is representative of entire flow at that point in the treatment process.
2. County Sanitation Districts of Los Angeles County shall submit to the Board within three months from the date of adoption of this Order a report describing contingency plans to be implemented in the event the treated effluent does not meet reclaimed water requirements at any time.
3. Within 30 days after adoption of this Order, County Sanitation Districts of Los Angeles County shall submit to this Board a report which:
  - a. certifies that supervising and operating personnel at Pomona Water Reclamation Plant possess certificates of appropriate grade, as required; or
  - b. contains details and a reasonable time schedule for obtaining such certificates.
4. Each monitoring report shall include:
  - a. A statement that all reclaimed water was used only as specified, and for uses specified, in requirements during the month.
  - b. Approximate acreage receiving reclaimed water.
  - c. The results of the reclaimed water monitoring.
  - d. Records of operational problem, plant and equipment breakdowns, and diversions to emergency storage or disposal associated with violations, or potential violations, of water reclamation or monitoring requirements.
  - e. All corrective or preventive action taken.
  - f. Name and location of each user of reclaimed water and to what use(s) the reclaimed water is put; if there are no changes from the previous monitoring report, a statement to that effect shall suffice.

Monitoring and Reporting Program

File 54-70

5. The attached General Monitoring and Reporting Provisions shall be applicable to this Program.
6. If all or a portion of the water was not reclaimed during any month because of failure to meet requirements, the report shall so state and certify that the contingency plans, in accordance with Item II-2 of this Monitoring Program, were implemented.
7. If no water was delivered for reuse during the month, the report shall so state.

Ordered by Raymond M. Hertel  
EXECUTIVE OFFICER

JUL 27 1981

Date \_\_\_\_\_

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION  
GENERAL MONITORING AND REPORTING PROVISIONS

1. All sampling, sample preservation, and analyses shall be performed in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants", promulgated by the United States Environmental Protection Agency.
2. All chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services.
3. Effluent samples shall be taken downstream of any addition to the treatment works and prior to mixing with the receiving waters.
4. The discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to ensure accuracy of measurements, or shall ensure that both activities will be conducted.
5. A grab sample is defined as an individual sample collected in fewer than 15 minutes.
6. A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period. The volume of each individual sample is proportional to the discharge flow rate at the time of sampling. The sampling period shall equal the discharge period, or 24 hours, whichever period is shorter.
7. For every item where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.
8. By March 1 of each year, the discharger shall submit an annual report to the Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the discharger shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the waste discharge requirements.
9. The discharger shall maintain all sampling and analytical results, including strip charts; date, exact place, and time of sampling; date analyses were performed; analyst's name, analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board.

10. In reporting the monitoring data, the discharger shall arrange the data in tabular form so that the data, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with waste discharge requirements and, where applicable, shall include results of receiving water observations.
11. Monitoring reports shall be signed by:
  - a. In the case of corporations, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates;
  - b. In the case of a partnership, by a general partner;
  - c. In the case of a sole proprietorship, by the proprietor;
  - d. In the case of a municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.
12. Each report shall contain the following completed declaration:

"I declare under penalty of perjury that the foregoing is true and correct.

Executed on the \_\_\_\_\_ day of \_\_\_\_\_ at \_\_\_\_\_.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Title)"

13. The discharger shall mail a copy of each monitoring report to the following:

California Regional Water Quality  
Control Board - Los Angeles Region  
107 South Broadway, Room 4027  
Los Angeles, CA 90012

ATTN: Executive Officer

14. If no flow occurred (or no waste was deposited) during the reporting period, the report shall so state.
15. These records and reports are public documents and shall be made available for inspection during business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region. Records or reports which might disclose trade secrets, etc., may be excluded from this provision as provided in Section 13267 (b) of the Porter-Cologne Water Quality Control Act, if requested.

# **San Jose Creek Water Reclamation Plant Water Reclamation Requirements**



84-01.01 - 07/87

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—  
S ANGELES REGION

SOUTH BROADWAY, SUITE 4027  
LOS ANGELES, CALIFORNIA 90012-4596  
(213) 620-4460



1987 JUL 21 AM 10:51

July 9, 1987

Mr. Robert W. Horvath  
Head, Monitoring and Research  
County Sanitation Districts of  
Los Angeles County  
P.O. Box 4998  
Whittier, CA 90607

WATER RECLAMATION REQUIREMENTS - SAN JOSE CREEK WATER RECLAMATION  
PLANT (FILE NO. 77-50; CI 6372)

Reference is made to our letter dated May 4, 1987, which transmitted  
the requirements for your reuse of treated effluent.

By mistake, the copy transmitted did not include the revisions made  
on April 10, 1987. Enclosed is the corrected copy of the  
requirements as adopted by the Board on April 27, 1987.

We regret any inconvenience this may have caused.

If you have any questions, please call Mr. Gregg Kwey at (213) 620-  
2784.

J. E. ROSS  
Senior Water Resource  
Control Engineer

cc: See attached mailing list

Enclosures

*Mudik  
Horvath  
7/21/87*

*C. W. CARRY*  
7-24-87  
C. W. CARRY

Mr. Robert W. Horvath  
Mailing List

State Water Resources Control Board, Division of Water  
Quality, Attn: Archie Matthews  
Department of Water Resources  
Department of Health Services, Sanitary Engineering Section  
Los Angeles County, Department of Health Services  
Los Angeles County, Department of Public Works, Hydraulic/Water  
Conservation Division  
Los Angeles County, Department of Public Works, Engineering  
Services Division

State of California  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

ORDER NO. 87-50

WATER RECLAMATION REQUIREMENTS  
FOR

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY  
(San Jose Creek Water Reclamation Plant)  
(File No. 77-50)

The California Regional Water Quality Control Board, Los Angeles Region, finds:

1. County Sanitation Districts of Los Angeles County (hereinafter referred to as "Reclaimer") operates San Jose Creek Water Reclamation Plant, located at 1965 Workman Road, Whittier, California, with a design flow of 62.5 million gallons per day (mgd), and reclaims all or a portion of its treated municipal wastewater under Waste Discharge Requirements contained in Order No. 81-33 adopted by this Board on July 27, 1981.
2. Current use of reclaimed water includes landscape irrigation of a golf course in Industry Hills and ornamental plant irrigation at Arbor and Norman Nurseries.
3. The wastewater treatment consists of primary sedimentation, activated sludge, secondary sedimentation, dual media filtration and chlorination. Sludge is diverted to Joint Water Pollution Control Plant for disposal.
4. A review of the current requirements has been conducted by Board staff in accordance with California Administration Code, Title 23, Chapter 3, Subchapter 9, Article 2, Section 2232.2.
5. The treated wastewater may also be discharged to San Gabriel River under separate waste discharge requirements and National Pollution Discharge Elimination System permit (NPDES Permit No. CA0053911) adopted by this Board. Also a portion of this effluent is discharged for ground water recharge in the Montebello Forebay under separate Water Reclamation Requirement (Order No. 87-40) adopted March 23, 1987.
6. The areas of reclaimed water uses are located within the San Gabriel Valley Hydrologic Subarea.
7. The Board adopted a Revised Water Quality Control Plan for Los Angeles River Basin on November 27, 1978. The Plan

contains water quality objectives for ground water in San Gabriel Valley Hydrologic Subarea. The requirements contained in this Order, as they are met, will be in conformance with the goals of the Water Quality Control Plan.

8. Ground water in the San Gabriel Valley Hydrologic Subarea is beneficially used for municipal and domestic supply, industrial service and process supply, agricultural supply, and fresh water replenishment.
9. The Water Quality Control Plan recognized the reuse, and potential for increased reuse, of treated effluent from the San Jose Creek Water Reclamation Plant.
10. Section 13523 of the California Water Code provides that a regional board, after consulting with and receiving the recommendations of the State Department of Health Services and after any necessary hearing, shall, if it determines such action to be necessary to protect the public health, safety, or welfare, prescribe water reclamation requirements for water which is used or proposed to be used as reclaimed water. Section 13523 further provides that such requirements shall include, or be in conformance with, the statewide reclamation criteria.
11. The use of reclaimed water for impoundments or for irrigation could affect the public health, safety, or welfare; requirements for such use are therefore necessary in accordance with Section 13523 of the Water Code.
12. This project involves an existing facility and as such is exempt from the provisions of the California Environmental Quality Act in accordance with California Administrative Code, Title 14, Chapter 3, Section 15301.

The Board has notified the Reclaimer and interested agencies and persons of its intent to prescribe water reclamation requirements for this direct beneficial use and has provided them with an opportunity to submit their written views and recommendations.

The Board in a public meeting heard and considered all comments pertaining to the direct beneficial use and to the tentative water reclamation requirements.

IT IS HEREBY ORDERED, that County Sanitation Districts of Los Angeles County, shall comply with the following:

- A. Reclaimed Water Limitations

1. Reclaimed water shall be limited to treated municipal wastewater only, as proposed.
2. Reclaimed water, used as described in this Order, shall not contain constituents in excess of the following limits:

<u>Constituent</u>	<u>Unit</u>	<u>Maximum Limitations</u>
Total dissolved solids	mg/l	800
Chloride	mg/l	250
Sulfate	mg/l	250
Boron	mg/l	1.5

3. The pH of reclaimed water shall at all times be within the range 6.0 to 9.0.
4. Reclaimed water shall not contain trace constituents or other substances in concentrations exceeding the limits contained in the current edition of the California Department of Health Services Drinking Water Standards.
5. Radioactivity shall not exceed the limits specified in Title 22, Chapter 15, Article 5, Sections 64441 and 64443, California Administrative Code, or subsequent revisions.
6. Reclaimed water shall not cause the nitrogen content in the receiving ground water to exceed the objectives in the Water Quality Control Plan.
7. Reclaimed water, used for agricultural supply, shall not contain concentrations of chemical constituents in amounts that adversely affect such beneficial use.

B. Specifications for Use of Reclaimed Water

1. Reclaimed water used for the irrigation of golf courses, cemeteries, freeway landscapes, and landscapes in other areas where the public has similar access or exposure shall be at all times an adequately disinfected, oxidized wastewater.

The wastewater shall be considered adequately disinfected if the median number of coliform organisms in the effluent does not exceed 23 per 100 milliliters, as determined from the bacteriological results of the

last 7 days for which analyses have been completed, and the number of coliform organisms does not exceed 240 per 100 milliliters in any two consecutive samples.

Oxidized wastewater means wastewater in which the organic matter has been stabilized, is nonputrescible, and contains dissolved oxygen.

Disinfected wastewater means wastewater in which the pathogenic organisms have been destroyed by chemical, physical or biological means.

2. Reclaimed water used for the irrigation of parks, playgrounds, schoolyard, and other areas where the public has similar access or exposure shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater or a wastewater treated by a sequence of unit processes that will assure an equivalent degree of treatment and reliability.

The wastewater shall be considered adequately disinfected if the median number of coliform organisms in the effluent does not exceed 2.2 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed, and the number of coliform organisms does not exceed 23 per 100 milliliters in any sample.

A coagulated wastewater means an oxidized wastewater in which colloidal and finely divided suspended matter have been destabilized and agglomerated by the addition of suitable floc-forming chemicals or by an equally effective method.

A filtered wastewater means an oxidized, coagulated, clarified wastewater which has been passed through natural undisturbed soils or filter media, such as sand or diatomaceous earth, so that the turbidity as determined by an approved laboratory method does not exceed an average operating turbidity of 2 turbidity units and does not exceed 5 turbidity units more than 5 percent of the time during any 24-hour period.

3. Reclaimed water used as a source of supply in a nonrestricted recreational impoundment shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater.

The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 2.2 per 100 milliliters and the number of coliform organisms does not exceed 23 per 100 milliliters in more than one sample within any 30-day period. The median value shall be determined from the bacteriological results of the last 7 days for which analyses have been completed.

4. Reclaimed water used as a source of supply in a restricted recreational impoundment shall be at all times an adequately disinfected, oxidized wastewater.

The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 2.2 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed.

5. Reclaimed water used as a source of supply in a landscape impoundment shall be at all times an adequately disinfected, oxidized wastewater.

The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 23 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed.

6. Reclaimed water shall not be directly used for uses other than those enumerated above until requirements for these uses have been established by this Board in accordance with Section 13523 of the California Water Code, unless the Board waives such requirements or finds that the above cited standards are applicable to these uses.
7. Reclaimed water uses shall meet the requirements specified in the "Guidelines for Use of Reclaimed Water" issued by the State Department of Health Services.
8. Reclaimed water used for irrigation shall be retained on the areas of use and shall not be allowed to escape as surface flow except as provided for in a National Pollutant Discharge Elimination System Permit.

For the purpose of this requirement, however, minor amounts of irrigation return water from peripheral areas shall not be considered a violation of this Order provided the discharge meets the requirements contained in a National Pollutant Discharge Elimination System Permit issued to the County Sanitation Districts of Los Angeles County (San Jose Creek Water Reclamation Plant).

9. Reclaimed water shall be applied at such a rate and volume as not to exceed vegetative demand and soil moisture conditions. Special precautions must be taken to prevent clogging of spray nozzles, to prevent overwatering and to exclude the production of runoff. Pipelines shall be maintained so as to prevent leaks.
10. Reclaimed water used for irrigation shall not be allowed to run off into recreational lakes unless it meets the criteria for such lakes.

C. General Requirements

1. The discharge or use of raw or inadequately treated sewage at any time is prohibited.
2. Reclaimed water shall not be used for irrigation during periods of extended rainfall and/or runoff.
3. Standby or emergency power facilities and/or sufficient capacity shall be provided for reclaimed water storage during rainfall or in the event of plant upsets or outages, and at times when spray irrigation cannot be practiced.
4. Reclaimed water use or disposal shall not result in earth movement in geologically unstable areas.
5. Adequate facilities shall be provided to protect the sewage treatment and reclamation facilities from damage by storm flows and runoff.
6. Adequate freeboard shall be maintained in reclaimed water storage pond to ensure that direct rainfall will not cause overtopping.
7. Neither treatment of waste nor any reclaimed water use or disposal shall cause pollution or nuisance.



8. Water reclamation and reuse or disposal shall not result in problems due to breeding of mosquitoes, gnats, midges, or other pests.
9. Reclaimed water use or disposal shall not impart tastes, odors, color, foaming, or other objectionable characteristics to receiving ground waters.
10. Reclaimed water use or disposal which could affect receiving ground waters shall not contain any substance in concentrations toxic to human, animal, or plant life.
11. Odors of sewage origin shall not cause a nuisance.

D. Provisions

1. A copy of these requirements shall be maintained at the reclamation facility so as to be available at all times to operating personnel.
2. In the event of any change in name, ownership, or control of these waste treatment and reclamation facilities, the Reclaimer shall notify this Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, copy of which shall be forwarded to the Board.
3. In accordance with Section 13522.5 of the Water Code and Section 60323 of the Wastewater Reclamation Criteria, the Reclaimer shall file an engineering report, prepared by a properly qualified engineer registered in California, of any material change or proposed change in character, location or volume of the reclaimed water or its uses to the Board and State Department of Health Services.
4. The Reclaimer shall file with the Board technical reports on self monitoring work performed according to the detailed specifications contained in the Monitoring and Reporting Programs, as directed by the Executive Officer.
5. The Reclaimer shall notify this Board by telephone within 24 hours of any violations of reclaimed water use conditions or any adverse conditions as a result of the use of reclaimed water from this facility; written confirmation shall follow within one week.

6. The Reclaimer shall notify Board staff by telephone immediately of any confirmed coliform counts that could cause a violation of the 7-day median limit, including the date(s) thereof. This information shall be confirmed in the next monitoring report; in addition, for any actual coliform limit violations that occurred, the report shall also include the reasons for the high coliform results, the steps being taken to correct the problem (including dates thereof), and the steps being taken to prevent a recurrence.
7. These requirements do not exempt the Reclaimer from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this reclamation facility, and they leave unaffected any further restraint on the use of reclaimed water at this site which may be contained on other statutes or required by other agencies.
8. The Reclaimer shall be responsible to insure that all users of reclaimed water comply with the specifications and requirements for such use.
9. This Order does not alleviate the responsibility of the Reclaimer to obtain other necessary local, state, and federal permits to construct facilities necessary for compliance with this Order; nor does this Order prevent imposition of additional standards, requirements, or conditions by any other regulatory agency. Expansion of this facility from its current capacity shall be contingent upon issuance of all necessary permits, including a conditional use permit.
10. Supervisors and operators of this publicly owned wastewater treatment plant shall possess a certificate of appropriate grade as specified in California Administrative Code, Title 23, Chapter 3, Subchapter 14, Section 2455 and 2460.
11. The Reclaimer shall provide to each user of reclaimed water from San Jose Creek Water Reclamation Plant a copy of these requirements, to be maintained at the user's facility as to be available at all times to operating personnel.
12. For any extension of the reclaimed water system, the Reclaimer shall submit a report detailing the extension for the approval of the Executive Officer. Following construction, as built drawings shall be submitted to

the Executive Officer for approval prior to use of reclaimed water.

13. The Reclaimer shall submit to the Board within 60 days of the adoption of this Order, a fail-safe procedure for approval by the Executive Officer.
14. Order No. 81-33 adopted by this Board on July 27, 1981, is hereby rescinded.

I, Robert P. Ghirelli, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on April 27, 1987.

  
\_\_\_\_\_  
ROBERT P. GHIRELLI, D.Env.  
Executive Officer

GK/

State of California  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. 6372  
FOR

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY  
(San Jose Creek Water Reclamation Plant)  
(File No. 77-50)

The Reclaimer shall implement this monitoring program on the effective date of this Order.

Monitoring reports shall be submitted by the dates in the following schedule:

<u>Reporting period</u>	<u>Report Due</u>
January - March	May 15
April - June	August 15
July - September	November 15
October - December	February 15

The first monitoring report under this program shall be submitted by August 15, 1987.

By March 1 of each year, the Reclaimer shall submit an annual report to the board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the Reclaimer shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the Requirements.

Values obtained for the NPDES monitoring report during periods of discharge to surface waters may be reported here in lieu of duplicate testing, if representative. However, non-NPDES self-monitoring reports shall be submitted separately from the NPDES monitoring reports.

Reclaimed Water Monitoring

A sampling station shall be established where representative samples of reclaimed water can be obtained. Reclaimed water samples may be obtained at a single station provided that station is representative of the quality at all discharge points. Each sampling station shall be identified. The following shall constitute the reclaimed water monitoring program for reclaimed water used as described in the Water Reclamation Requirements:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Turbidity <sup>1</sup>	NTU	continuous	-----
Total flow <sup>2</sup>	gallon	continuous	-----
Coliform group <sup>3</sup>	MPN/100ml	grab	daily
pH	pH units	grab	daily
Total dissolved solids	mg/l	24-hr composite	monthly
Chloride	mg/l	24-hr composite	monthly
Boron	mg/l	24-hr composite	monthly
Sulfate	mg/l	24-hr composite	monthly
Arsenic	mg/l	24-hr composite	quarterly
Barium	mg/l	24-hr composite	quarterly
Cadmium	mg/l	24-hr composite	quarterly
Chromium	mg/l	24-hr composite	quarterly
Lead	mg/l	24-hr composite	quarterly
Mercury	mg/l	24-hr composite	quarterly
Selenium	mg/l	24-hr composite	quarterly
Silver	mg/l	24-hr composite	quarterly
Cyanide	mg/l	24-hr composite	quarterly
Nitrate	mg/l	24-hr composite	quarterly

<sup>1</sup>Required only for applications having a turbidity limit. The average value recorded each day and amount of time that 5 NTU was exceeded each day shall be reported. Turbidity samples may be obtained anywhere in the treatment process subsequent to the filtration procedure.

<sup>2</sup>Shall report the daily volume of reclaimed water used at each site of use.

<sup>3</sup>Samples shall be obtained at some point in the treatment process at a time when wastewater flow and characteristics are most demanding on the treatment facility and disinfection procedures. The location(s) of the sampling point(s) and any changes thereto must be approved by the Executive Officer, and proposed changes shall not be made until such approval has been granted. If reclaimed water is used for irrigation of golf courses, cemeteries, freeway landscapes, parks, playgrounds, schoolyards, or other areas where the public has similar access or exposure, samples shall be obtained subsequent to the chlorination procedure. Coliform values obtained must meet the strictest requirement specified for all uses during periods of multiple use, unless separate coliform analyses are obtained at each particular point of use.

Fluoride	mg/l	24-hr composite	quarterly
Radioactivity	pCi/l	24-hr composite	quarterly
Total identifiable chlorinated hydrocarbon			
Priority Pollutants	ug/l	grab	quarterly
	ug/l	grab	semi-annually

General Provisions for Sampling and Analysis

All sampling, sample preservation, and analyses shall be performed in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants", promulgated by the United States Environmental Protection Agency.

All chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Water Resources Control Board or approved by the Executive Officer.

General Provisions for Reporting

For every item where the requirements are not met, the Reclaimer shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.

The Reclaimer shall maintain all sampling and analytical results, including strip charts; date, exact place, and time of sampling; dates analyses were performed; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board.

In reporting the monitoring data, the Reclaimer shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with Water Reclamation Requirements and, where applicable, shall include results of receiving water observations.

The Reclaimer shall file a report with this Board describing the purposes for which reclaimed water from this facility is used, estimating quantities used for each type of use, depicting on a map or drawing the area(s) of use, and stating the name and address of each user of reclaimed water if other than the Reclaimer. This report shall be updated at least annually, and shall be included with the annual report due March 1 each year.

Each quarterly report shall include a statement that all reclaimed water was used only as specified in the requirements during the quarter.

If no water was delivered for reuse during the quarter, the report shall so state.

Monitoring reports shall be signed by:

- a. In the case of corporations, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which discharge originates;
- b. In the case of a partnership, by a general partner;
- c. In the case of a sole proprietorship, by the proprietor;
- d. In the case of municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

Each report shall contain the following completed declaration:

"I declare under penalty of perjury that the foregoing is true and correct.

Executed on the \_\_\_\_\_ day of \_\_\_\_\_ at \_\_\_\_\_.

\_\_\_\_\_ (Signature)

\_\_\_\_\_ (Title)"

Ordered by Robert P. Ghirelli  
Executive Officer

April 27, 1987  
Date

GK/

# **Saugus Water Reclamation Plant Water Reclamation Requirements**



*Horvath*

26-02.01-07

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—  
LOS ANGELES REGION

SOUTH BROADWAY, SUITE 4027  
ANGELES, CALIFORNIA 90012-4596  
(213) 620-4460

1987 MAY 12 AM 9:15



May 5, 1987

Mr. Robert W. Horvath  
Head, Monitoring and Research  
County Sanitation Districts of  
Los Angeles County  
P.O. Box 4998  
Whittier, CA 90607

WATER RECLAMATION REQUIREMENTS - SAUGUS WATER RECLAMATION PLANT  
(FILE NO. 61-30; CI 6188)

Reference is made to our letter dated April 15, 1987 which transmitted a draft of tentative requirements for your disposal of secondary treated effluent.

Pursuant to Division 7 of the California Water Code, this California Regional Water Quality Control Board, at a public meeting held on April 27, 1987 reviewed these tentative requirements, considered all factors in the case, and adopted Order No. 87-49 (copy attached) relative to this waste discharge.

You are required to implement the new monitoring program as stated in the Monitoring and Reporting Program on the effective date of this Order. Please note that any monitoring report due under your previous Monitoring and Reporting Program is still required and must be submitted by the due date. Please reference all technical and monitoring reports to our Compliance File No. 6188. We would appreciate it if you would not combine other reports, such as progress or technical reports, with your monitoring reports but would submit each type of report as a separate document.

If you have any questions, please call Mr. Gregg Kwey at (213) 620-2784.

*J. E. Ross*

J. E. ROSS  
Senior Water Resource  
Control Engineer

cc: See attached mailing list

Enclosures

*Copy to  
2/1/87  
5/12/87  
acknowledged  
7-30-87*

C. W. CARRY  
*Stall*  
5-12-87

Mr. Robert W. Horvath  
Mailing List

State Water Resources Control Board, Division of Water  
Quality, Attn: Archie Matthews  
Department of Water Resources  
Department of Health Services, Sanitary Engineering Section  
Los Angeles County, Department of Health Services  
Los Angeles County, Department of Public Works, Hydraulic/Water  
Conservation Division  
Los Angeles County, Department of Public Works, Engineering  
Services Division  
Valencial Water Company  
Bouquet Canyon Water Company  
United Water Conservation District

State of California  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

ORDER NO. 87-49

WATER RECLAMATION REQUIREMENTS  
FOR

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY  
(Saugus Water Reclamation Plant)  
(File No. 61-30)

The California Regional Water Quality Control Board, Los Angeles Region, finds:

1. County Sanitation Districts of Los Angeles County (hereinafter referred to as "Reclaimer") operates Saugus Water Reclamation Plant, located at 26200 Springbrook Road, Saugus, California, with a design flow of 5.0 million gallons per day (mgd), and reclaims all or a portion of its treated municipal wastewater under Waste Discharge Requirements contained in Order No. 81-35 adopted by this Board on July 27, 1981. Currently no reclaimed water is being reused.
2. In 1986 the Reclaimer completed a clean water grant project which upgraded the Saugus Water Reclamation Plant by adding filtration to the treatment process.
3. Influent flow in excess of 5 mgd is diverted to the Valencia Water Reclamation Plant for treatment and disposal.
4. The wastewater treatment consists of primary sedimentation, activated sludge, secondary sedimentation, filtration and chlorination. The sludge is digested anaerobically and hauled away to a legal point of disposal.
5. A review of the current requirements has been conducted by Board staff in accordance with California Administration Code, Title 23, Chapter 3, Subchapter 9, Article 2, Section 2232.2.
6. The treated wastewater may also be discharged to Santa Clara River under separate waste discharge requirements and National Pollution Discharge Elimination System permit (NPDES Permit No. CA0054313) adopted by this Board.
7. The areas of reclaimed water uses are located within the Eastern Hydrologic Subarea.

8. The Board adopted a Revised Water Quality Control Plan for Santa Clara River Basin on March 27, 1978. The Plan contains water quality objectives for ground water in Eastern Hydrologic Subarea. The requirements contained in this Order, as they are met, will be in conformance with the goals of the Water Quality Control Plan.
9. Ground water in the Eastern Hydrologic Subarea is beneficially used for municipal and domestic supply, industrial service and process supply, and agricultural supply.
10. Section 13523 of the California Water Code provides that a regional board, after consulting with and receiving the recommendations of the State Department of Health Services and after any necessary hearing, shall, if it determines such action to be necessary to protect the public health, safety, or welfare, prescribe water reclamation requirements for water which is used or proposed to be used as reclaimed water. Section 13523 further provides that such requirements shall include, or be in conformance with, the statewide reclamation criteria.
11. The use of reclaimed water for impoundments or for irrigation could affect the public health, safety, or welfare; requirements for such use are therefore necessary in accordance with Section 13523 of the Water Code.
12. This project involves an existing facility and as such is exempt from the provisions of the California Environmental Quality Act in accordance with California Administrative Code, Title 14, Chapter 3, Section 15301.

The Board has notified the Reclaimer and interested agencies and persons of its intent to prescribe water reclamation requirements for this direct beneficial use and has provided them with an opportunity to submit their written views and recommendations.

The Board in a public meeting heard and considered all comments pertaining to the direct beneficial use and to the tentative water reclamation requirements.

IT IS HEREBY ORDERED, that County Sanitation Districts of Los Angeles County, shall comply with the following:

- A. Reclaimed Water Limitations

1. Reclaimed water shall be limited to treated municipal wastewater only, as proposed.
2. Reclaimed water shall not contain constituents in excess of the following limits:

<u>Constituent</u>	<u>Unit</u>	<u>Maximum Limitation</u>
Total dissolved solids	mg/l	1000
Chloride	mg/l	300
Sulfate	mg/l	450

3. The pH of reclaimed water shall at all times be within the range 6.0 to 9.0.
4. Reclaimed water shall not contain trace constituents or other substances in concentrations exceeding the limits contained in the current edition of the California Department of Health Services Drinking Water Standards.
5. Radioactivity shall not exceed the limits specified in Title 22, Chapter 15, Article 5, Sections 64441 and 64443, California Administrative Code, or subsequent revisions.
6. Reclaimed water shall not cause the nitrogen content in the receiving ground water to exceed the objectives in the Water Quality Control Plan.
7. Reclaimed water used as agricultural supply shall not contain concentrations of chemical constituents in amounts that adversely affect such beneficial use.

B. Specifications for Use of Reclaimed Water

1. Reclaimed water used for the irrigation of golf courses, cemeteries, freeway landscapes, and landscapes in other areas where the public has similar access or exposure shall be at all times an adequately disinfected, oxidized wastewater.

The wastewater shall be considered adequately disinfected if the median number of coliform organisms in the effluent does not exceed 23 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed, and

the number of coliform organisms does not exceed 240 per 100 milliliters in any two consecutive samples.

Oxidized wastewater means wastewater in which the organic matter has been stabilized, is nonputrescible, and contains dissolved oxygen.

Disinfected wastewater means wastewater in which the pathogenic organisms have been destroyed by chemical, physical or biological means.

2. Reclaimed water used for the irrigation of parks, playgrounds, schoolyard, and other areas where the public has similar access or exposure shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater or a wastewater treated by a sequence of unit processes that will assure an equivalent degree of treatment and reliability.

The wastewater shall be considered adequately disinfected if the median number of coliform organisms in the effluent does not exceed 2.2 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed, and the number of coliform organisms does not exceed 23 per 100 milliliters in any sample.

A coagulated wastewater means an oxidized wastewater in which colloidal and finely divided suspended matter have been destabilized and agglomerated by the addition of suitable floc-forming chemicals or by an equally effective method.

A filtered wastewater means an oxidized, coagulated, clarified wastewater which has been passed through natural undisturbed soils or filter media, such as sand or diatomaceous earth, so that the turbidity as determined by an approved laboratory method does not exceed an average operating turbidity of 2 turbidity units and does not exceed 5 turbidity units more than 5 percent of the time during any 24-hour period.

3. Reclaimed water used as a source of supply in a nonrestricted recreational impoundment shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater.

The wastewater shall be considered adequately disinfected if at some location in the treatment

process the median number of coliform organisms does not exceed 2.2 per 100 milliliters and the number of coliform organisms does not exceed 23 per 100 milliliters in more than one sample within any 30-day period. The median value shall be determined from the bacteriological results of the last 7 days for which analyses have been completed.

4. Reclaimed water used as a source of supply in a restricted recreational impoundment shall be at all times an adequately disinfected, oxidized wastewater.

The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 2.2 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed.

5. Reclaimed water used as a source of supply in a landscape impoundment shall be at all times an adequately disinfected, oxidized wastewater.

The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 23 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed.

6. Reclaimed water shall not be directly used for uses other than those enumerated above until requirements for these uses have been established by this Board in accordance with Section 13523 of the California Water Code, unless the Board waives such requirements or finds that the above cited standards are applicable to these uses.

7. Reclaimed water uses shall meet the requirements specified in the "Guidelines for Use of Reclaimed Water" issued by the State Department of Health Services.

8. Reclaimed water used for irrigation shall be retained on the areas of use and shall not be allowed to escape as surface flow except as provided for in a National Pollutant Discharge Elimination System Permit.

For the purpose of this requirement, however, minor amounts of irrigation return water from peripheral areas shall not be considered a violation of this Order provided the discharge meets the requirements contained in a National Pollutant Discharge Elimination System Permit issued to the County Sanitation Districts of Los Angeles County (Saugus Water Reclamation Plant).

9. Reclaimed water shall be applied at such a rate and volume as not to exceed vegetative demand and soil moisture conditions. Special precautions must be taken to prevent clogging of spray nozzles, to prevent overwatering and to exclude the production of runoff. Pipelines shall be maintained so as to prevent leaks.
10. Reclaimed water used for irrigation shall not be allowed to run off into recreational lakes unless it meets the criteria for such lakes.

C. General Requirements

1. The discharge or use of raw or inadequately treated sewage at any time is prohibited.
2. Reclaimed water shall not be used for irrigation during periods of extended rainfall and/or runoff.
3. Standby or emergency power facilities and/or sufficient capacity shall be provided for reclaimed water storage during rainfall or in the event of plant upsets or outages, and at times when spray irrigation cannot be practiced.
4. Reclaimed water use or disposal shall not result in earth movement in geologically unstable areas.
5. Adequate facilities shall be provided to protect the sewage treatment and reclamation facilities from damage by storm flows and runoff.
6. Adequate freeboard shall be maintained in reclaimed water storage pond to ensure that direct rainfall will not cause overtopping.
7. Neither treatment of waste nor any reclaimed water use or disposal shall cause pollution or nuisance.
8. Water reclamation and reuse or disposal shall not result in problems due to breeding of mosquitoes, gnats, midges, or other pests.



9. Reclaimed water use or disposal shall not impart tastes, odors, color, foaming, or other objectionable characteristics to receiving ground waters.
10. Reclaimed water use or disposal which could affect receiving ground waters shall not contain any substance in concentrations toxic to human, animal, or plant life.
11. Odors of sewage origin shall not cause a nuisance.

D. Provisions

1. A copy of these requirements shall be maintained at the reclamation facility so as to be available at all times to operating personnel.
2. In the event of any change in name, ownership, or control of these waste treatment and reclamation facilities, the Reclaimer shall notify this Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, copy of which shall be forwarded to the Board.
3. In accordance with Section 13522.5 of the Water Code, the Reclaimer shall file a report of any material change or proposed change in character, location or volume of the reclaimed water or its use.
4. The Reclaimer shall file with the Board technical reports on self monitoring work performed according to the detailed specifications contained in the Monitoring and Reporting Programs, as directed by the Executive Officer.
5. The Reclaimer shall notify this Board by telephone within 24 hours of any violations of reclaimed water use conditions or any adverse conditions as a result of the use of reclaimed water from this facility; written confirmation shall follow within one week.
6. The Reclaimer shall notify Board staff by telephone immediately of any confirmed coliform counts that could cause a violation of the 7-day median limit, including the date(s) thereof. This information shall be confirmed in the next monitoring report; in addition, for any actual coliform limit violations that occurred, the report shall also include the reasons for the high

coliform results, the steps being taken to correct the problem (including dates thereof), and the steps being taken to prevent a recurrence.

7. These requirements do not exempt the Reclaimer from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this reclamation facility, and they leave unaffected any further restraint on the use of reclaimed water at this site which may be contained on other statutes or required by other agencies.
8. The Reclaimer shall be responsible to insure that all users of reclaimed water comply with the specifications and requirements for such use.
9. This Order does not alleviate the responsibility of the Reclaimer to obtain other necessary local, state, and federal permits to construct facilities necessary for compliance with this Order; nor does this Order prevent imposition of additional standards, requirements, or conditions by any other regulatory agency. Expansion of this facility from its current capacity shall be contingent upon issuance of all necessary permits, including a conditional use permit.
10. Supervisors and operators of this publicly owned wastewater treatment plant shall possess a certificate of appropriate grade as specified in California Administrative Code, Title 23, Chapter 3, Subchapter 14, Section 2455 and 2460.
11. The Reclaimer shall provide to each user of reclaimed water from Saugus Water Reclamation Plant a copy of these requirements, to be maintained at the user's facility as to be available at all times to operating personnel.
12. For any extension of the reclaimed water system, the Reclaimer shall submit a report detailing the extension for the approval of the Executive Officer. Following construction, as built drawings shall be submitted to the Executive Officer for approval prior to use of reclaimed water.
13. The Reclaimer shall submit to the Board within 60 days of the adoption of this Order, a fail-safe procedure for approval by the Executive Officer.

14. Order No. 81-35 adopted by this Board on July 27, 1981,  
is hereby rescinded.

I, Robert P. Ghirelli, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on April 27, 1987.

*Robert P. Ghirelli*

ROBERT P. GHIRELLI, D.Env.  
Executive Officer

GK/

State of California  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. 6188  
FOR

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY  
(Saugus Water Reclamation Plant)  
(File No. 61-30)

The Reclaimer shall implement this monitoring program on the effective date of this Order.

Monitoring reports shall be submitted by the dates in the following schedule:

<u>Reporting period</u>	<u>Report Due</u>
January - March	May 15
April - June	August 15
July - September	November 15
October - December	February 15

The first monitoring report under this program shall be submitted by August 15, 1987.

By March 1 of each year, the Reclaimer shall submit an annual report to the board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the Reclaimer shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the Requirements.

Reclaimed Water Monitoring

A sampling station shall be established where representative samples of reclaimed water can be obtained. Reclaimed water samples may be obtained at a single station provided that station is representative of the quality at all discharge points. Each sampling station shall be identified. The following shall constitute the reclaimed water monitoring program:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Turbidity	NTU	continuous	-----
Total flow <sup>1</sup>	gallon	continuous	-----
Coliform group <sup>2</sup>	MPN/100ml	grab	daily
pH	pH units	grab	daily
Total dissolved solids	mg/l	24-hr composite	monthly
Chloride	mg/l	24-hr composite	monthly
Sulfate	mg/l	24-hr composite	monthly
Arsenic	mg/l	24-hr composite	quarterly
Barium	mg/l	24-hr composite	quarterly
Cadmium	mg/l	24-hr composite	quarterly
Chromium	mg/l	24-hr composite	quarterly
Lead	mg/l	24-hr composite	quarterly
Mercury	mg/l	24-hr composite	quarterly
Selenium	mg/l	24-hr composite	quarterly
Silver	mg/l	24-hr composite	quarterly
Cyanide	mg/l	24-hr composite	quarterly
Nitrate	mg/l	24-hr composite	quarterly
Fluoride	mg/l	24-hr composite	quarterly
Radioactivity	pCi/l	24-hr composite	quarterly
Total identifiable chlorinated hydrocarbon	mg/l	grab	quarterly
Priority pollutants	ug/l	grab	semiannually

<sup>1</sup>Shall report the daily volume of reclaimed water and the monthly volume used at each site.

<sup>2</sup>Samples shall be obtained at some point in the treatment process at a time when wastewater flow and characteristics are most demanding on the treatment facility and disinfection procedures. The location(s) of the sampling point(s) and any changes thereto must be approved by the Executive Officer, and proposed changes shall not be made until such approval has been granted. If reclaimed water is used for irrigation of golf courses, cemeteries, freeway landscapes, parks, playgrounds, schoolyards, or other areas where the public has similar access or exposure, samples shall be obtained subsequent to the chlorination procedure. Coliform values obtained must meet the strictest requirement specified for all uses during periods of multiple use, unless separate coliform analyses are obtained at each particular point of use.

The report due in August or February shall contain the semiannual monitoring data.

General Provisions for Sampling and Analysis

All sampling, sample preservation, and analyses shall be performed in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants", promulgated by the United States Environmental Protection Agency.

All chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Water Resources Control Board or approved by the Executive Officer.

General Provisions for Reporting

For every item where the requirements are not met, the Reclaimer shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.

The Reclaimer shall maintain all sampling and analytical results, including strip charts; date, exact place, and time of sampling; dates analyses were performed; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board.

In reporting the monitoring data, the Reclaimer shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with Water Reclamation Requirements and, where applicable, shall include results of receiving water observations.

The Reclaimer shall file a report with this Board describing the purposes for which reclaimed water from this facility is used, estimating quantities used for each type of use, depicting on a map or drawing the area(s) of use, and stating the name and address of each user of reclaimed water if other than the Reclaimer. This report shall be updated at least annually, and shall be included with the annual report due March 1st each year.

Each quarterly report shall include a statement that all reclaimed water was used only as specified in the requirements during the quarter.

If no water was delivered for reuse during the quarter, the report shall so state.

Monitoring reports shall be signed by:

- a. In the case of corporations, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which discharge originates;
- b. In the case of a partnership, by a general partner;
- c. In the case of a sole proprietorship, by the proprietor;
- d. In the case of municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

Each report shall contain the following completed declaration:

"I declare under penalty of perjury that the foregoing is true and correct.

Executed on the \_\_\_\_\_ day of \_\_\_\_\_ at \_\_\_\_\_.

\_\_\_\_\_ (Signature)

\_\_\_\_\_ (Title)"

Ordered by Robert P. Ghirelli  
Executive Officer

April 27, 1987  
Date

GK/

# **Valencia Water Reclamation Plant Water Reclamation Requirements**



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—  
ANGELES REGION

SOUTH BROADWAY, SUITE 4027  
LOS ANGELES, CALIFORNIA 90012-4596  
(213) 620-4460



MAY 12 AM 9:15

May 5, 1987

Mr. Robert W. Horvath  
Head, Monitoring and Research  
County Sanitation Districts of  
Los Angeles County  
P.O. Box 4998  
Whittier, CA 90607

WATER RECLAMATION REQUIREMENTS - VALENCIA WATER RECLAMATION PLANT  
(FILE NO. 65-86; CI 6186)

Reference is made to our letter dated April 15, 1987 which transmitted a draft of tentative requirements for your disposal of secondary treated effluent.

Pursuant to Division 7 of the California Water Code, this California Regional Water Quality Control Board, at a public meeting held on April 27, 1987 reviewed these tentative requirements, considered all factors in the case, and adopted Order No. 87-48 (copy attached) relative to this waste discharge.

You are required to implement the new monitoring program as stated in the Monitoring and Reporting Program on the effective date of this Order. Please note that any monitoring report due under your previous Monitoring and Reporting Program is still required and must be submitted by the due date. Please reference all technical and monitoring reports to our Compliance File No. 6186. We would appreciate it if you would not combine other reports, such as progress or technical reports, with your monitoring reports but would submit each type of report as a separate document.

If you have any questions, please call Mr. Gregg Kwey at (213) 620-2784.

J. E. ROSS  
Senior Water Resource  
Control Engineer

cc: See attached mailing list

Enclosures

*Handwritten notes:*  
acknowledged  
7-30-87

Mr. Robert W. Horvath  
Mailing List

State Water Resources Control Board, Division of Water  
Quality, Attn: Archie Matthews  
Department of Water Resources  
Department of Health Services, Sanitary Engineering Section  
Los Angeles County, Department of Health Services  
Los Angeles County, Department of Public Works, Hydraulic/Water  
Conservation Division  
Los Angeles County, Department of Public Works, Engineering  
Services Division  
Valencial Water Company  
Bouquet Canyon Water Company  
United Water Conservation District

State of California  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

ORDER NO. 87-48

WATER RECLAMATION REQUIREMENTS  
FOR

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY  
(Valencia Water Reclamation Plant)  
(File No. 65-86)

The California Regional Water Quality Control Board, Los Angeles Region, finds:

1. County Sanitation Districts of Los Angeles County (hereinafter referred to as "Reclaimer") operates Valencia Water Reclamation Plant, located at 28185 The Old Road, Los Angeles County, California, with a design flow of 7.5 million gallons per day (mgd), and reclaims all or a portion of its treated municipal wastewater under Waste Discharge Requirements contained in Order No. 81-36 adopted by this Board on July 27, 1981. Currently no reclaimed water is reused.
2. In 1986 the Reclaimer completed a project that increased the plants capacity to 7.5 mgd.
3. The Reclaimer diverts flows in excess of 5 mgd from the Saugus Water Reclamation Plant to the Valencia Water Reclamation Plant for treatment and disposal.
4. The wastewater treatment consists of primary sedimentation, activated sludge, secondary sedimentation, dual media filtration, chlorination, and dechlorination. The sludge is digested anaerobically and hauled away to a legal point of disposal.
5. A review of the current requirements has been conducted by Board staff in accordance with California Administration Code, Title 23, Chapter 3, Subchapter 9, Article 2, Section 2232.2.
6. The treated wastewater may also be discharged to Santa Clara River under separate waste discharge requirements and National Pollution Discharge Elimination System permit (NPDES Permit No. CA0054216) adopted by this Board.
7. The areas of reclaimed water uses are located within the Eastern Hydrologic Subarea.

8. The Board adopted a Revised Water Quality Control Plan for Santa Clara River Basin on March 27, 1978. The Plan contains water quality objectives for ground water in Eastern Hydrologic Subarea. The requirements contained in this Order, as they are met, will be in conformance with the goals of the Water Quality Control Plan.
9. Ground water in the Eastern Hydrologic Subarea is beneficially used for municipal and domestic supply, industrial service and process supply, and agricultural supply.
10. Section 13523 of the California Water Code provides that a regional board, after consulting with and receiving the recommendations of the State Department of Health Services and after any necessary hearing, shall, if it determines such action to be necessary to protect the public health, safety, or welfare, prescribe water reclamation requirements for water which is used or proposed to be used as reclaimed water. Section 13523 further provides that such requirements shall include, or be in conformance with, the statewide reclamation criteria.
11. The use of reclaimed water for impoundments or for irrigation could affect the public health, safety, or welfare; requirements for such use are therefore necessary in accordance with Section 13523 of the Water Code.
12. This project involves an existing facility and as such is exempt from the provisions of the California Environmental Quality Act in accordance with California Administrative Code, Title 14, Chapter 3, Section 15301.

The Board has notified the Reclaimer and interested agencies and persons of its intent to prescribe water reclamation requirements for this direct beneficial use and has provided them with an opportunity to submit their written views and recommendations.

The Board in a public meeting heard and considered all comments pertaining to the direct beneficial use and to the tentative water reclamation requirements.

IT IS HEREBY ORDERED, that County Sanitation Districts of Los Angeles County, shall comply with the following:

- A. Reclaimed Water Limitations

1. Reclaimed water shall be limited to treated municipal wastewater only, as proposed.
2. Reclaimed water shall not contain constituents in excess of the following limits:

<u>Constituent</u>	<u>Unit</u>	<u>Maximum Limitations</u>
Total dissolved solids	mg/l	1000
Chloride	mg/l	300
Sulfate	mg/l	450

3. The pH of reclaimed water shall at all times be within the range 6.0 to 9.0.
4. Reclaimed water shall not contain trace constituents or other substances in concentrations exceeding the limits contained in the current edition of the California Department of Health Services Drinking Water Standards.
5. Radioactivity shall not exceed the limits specified in Title 22, Chapter 15, Article 5, Sections 64441 and 64443, California Administrative Code, or subsequent revisions.
6. Reclaimed water used as agricultural supply shall not cause the nitrogen content in the receiving ground water to exceed the objectives in the Water Quality Control Plan.
7. Reclaimed water shall not contain concentrations of chemical constituents in amounts that adversely affect such beneficial.

B. Specifications for Use of Reclaimed Water

1. Reclaimed water used for the irrigation of golf courses, cemeteries, freeway landscapes, and landscapes in other areas where the public has similar access or exposure shall be at all times an adequately disinfected, oxidized wastewater. The wastewater shall be considered adequately disinfected if the median number of coliform organisms in the effluent does not exceed 23 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed, and

the number of coliform organisms does not exceed 240 per 100 milliliters in any two consecutive samples.

Oxidized wastewater means wastewater in which the organic matter has been stabilized, is nonputrescible, and contains dissolved oxygen.

Disinfected wastewater means wastewater in which the pathogenic organisms have been destroyed by chemical, physical or biological means.

2. Reclaimed water used for the irrigation of parks, playgrounds, schoolyard, and other areas where the public has similar access or exposure shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater or a wastewater treated by a sequence of unit processes that will assure an equivalent degree of treatment and reliability.

The wastewater shall be considered adequately disinfected if the median number of coliform organisms in the effluent does not exceed 2.2 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed, and the number of coliform organisms does not exceed 23 per 100 milliliters in any sample.

A coagulated wastewater means an oxidized wastewater in which colloidal and finely divided suspended matter have been destabilized and agglomerated by the addition of suitable floc-forming chemicals or by an equally effective method.

A filtered wastewater means an oxidized, coagulated, clarified wastewater which has been passed through natural undisturbed soils or filter media, such as sand or diatomaceous earth, so that the turbidity as determined by an approved laboratory method does not exceed an average operating turbidity of 2 turbidity units and does not exceed 5 turbidity units more than 5 percent of the time during any 24-hour period.

3. Reclaimed water used as a source of supply in a nonrestricted recreational impoundment shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater.

The wastewater shall be considered adequately disinfected if at some location in the treatment

process the median number of coliform organisms does not exceed 2.2 per 100 milliliters and the number of coliform organisms does not exceed 23 per 100 milliliters in more than one sample within any 30-day period. The median value shall be determined from the bacteriological results of the last 7 days for which analyses have been completed.

4. Reclaimed water used as a source of supply in a restricted recreational impoundment shall be at all times an adequately disinfected, oxidized wastewater.

The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 2.2 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed.

5. Reclaimed water used as a source of supply in a landscape impoundment shall be at all times an adequately disinfected, oxidized wastewater.

The wastewater shall be considered adequately disinfected if at some location in the treatment process the median number of coliform organisms does not exceed 23 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed.

6. Reclaimed water shall not be directly used for uses other than those enumerated above until requirements for these uses have been established by this Board in accordance with Section 13523 of the California Water Code, unless the Board waives such requirements or finds that the above cited standards are applicable to these uses.

7. Reclaimed water uses shall meet the requirements specified in the "Guidelines for Use of Reclaimed Water" issued by the State Department of Health Services.

8. Reclaimed water used for irrigation shall be retained on the areas of use and shall not be allowed to escape as surface flow except as provided for in a National Pollutant Discharge Elimination System Permit.

For the purpose of this requirement, however, minor amounts of irrigation return water from peripheral areas shall not be considered a violation of this Order provided the discharge meets the requirements contained in a National Pollutant Discharge Elimination System Permit issued to the County Sanitation Districts of Los Angeles County (Valencia Water Reclamation Plant).

9. Reclaimed water shall be applied at such a rate and volume as not to exceed vegetative demand and soil moisture conditions. Special precautions must be taken to prevent clogging of spray nozzles, to prevent overwatering and to exclude the production of runoff. Pipelines shall be maintained so as to prevent leaks.
10. Reclaimed water used for irrigation shall not be allowed to run off into recreational lakes unless it meets the criteria for such lakes.

C. General Requirements

1. The discharge or use of raw or inadequately treated sewage at any time is prohibited.
2. Reclaimed water shall not be used for irrigation during periods of extended rainfall and/or runoff.
3. Standby or emergency power facilities and/or sufficient capacity shall be provided for reclaimed water storage during rainfall or in the event of plant upsets or outages, and at times when spray irrigation cannot be practiced.
4. Reclaimed water use or disposal shall not result in earth movement in geologically unstable areas.
5. Adequate facilities shall be provided to protect the sewage treatment and reclamation facilities from damage by storm flows and runoff.
6. Adequate freeboard shall be maintained in reclaimed water storage pond to ensure that direct rainfall will not cause overtopping.
7. Neither treatment of waste nor any reclaimed water use or disposal shall cause pollution or nuisance.
8. Water reclamation and reuse or disposal shall not result in problems due to breeding of mosquitoes, gnats, midges, or other pests.



9. Reclaimed water use or disposal shall not impart tastes, odors, color, foaming, or other objectionable characteristics to receiving ground waters.
10. Reclaimed water use or disposal which could affect receiving ground waters shall not contain any substance in concentrations toxic to human, animal, or plant life.
11. Odors of sewage origin shall not cause a nuisance.

D. Provisions

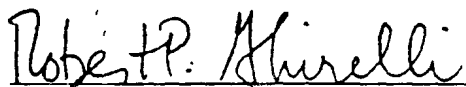
1. A copy of these requirements shall be maintained at the reclamation facility so as to be available at all times to operating personnel.
2. In the event of any change in name, ownership, or control of these waste treatment and reclamation facilities, the Reclaimer shall notify this Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, copy of which shall be forwarded to the Board.
3. In accordance with Section 13522.5 of the Water Code, the Reclaimer shall file a report of any material change or proposed change in character, location or volume of the reclaimed water or its use.
4. The Reclaimer shall file with the Board technical reports on self monitoring work performed according to the detailed specifications contained in the Monitoring and Reporting Programs, as directed by the Executive Officer.
5. The Reclaimer shall notify this Board by telephone within 24 hours of any violations of reclaimed water use conditions or any adverse conditions as a result of the use of reclaimed water from this facility; written confirmation shall follow within one week.
6. The Reclaimer shall notify Board staff by telephone immediately of any confirmed coliform counts that could cause a violation of the 7-day median limit, including the date(s) thereof. This information shall be confirmed in the next monitoring report; in addition, for any actual coliform limit violations that occurred, the report shall also include the reasons for the high

coliform results, the steps being taken to correct the problem (including dates thereof), and the steps being taken to prevent a recurrence.

7. These requirements do not exempt the Reclaimer from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this reclamation facility, and they leave unaffected any further restraint on the use of reclaimed water at this site which may be contained on other statutes or required by other agencies.
8. The Reclaimer shall be responsible to insure that all users of reclaimed water comply with the specifications and requirements for such use.
9. This Order does not alleviate the responsibility of the Reclaimer to obtain other necessary local, state, and federal permits to construct facilities necessary for compliance with this Order; nor does this Order prevent imposition of additional standards, requirements, or conditions by any other regulatory agency. Expansion of this facility from its current capacity shall be contingent upon issuance of all necessary permits, including a conditional use permit.
10. Supervisors and operators of this publicly owned wastewater treatment plant shall possess a certificate of appropriate grade as specified in California Administrative Code, Title 23, Chapter 3, Subchapter 14, Section 2455 and 2460.
11. The Reclaimer shall provide to each user of reclaimed water from Valencia Water Reclamation Plant a copy of these requirements, to be maintained at the user's facility as to be available at all times to operating personnel.
12. For any extension of the reclaimed water system, the Reclaimer shall submit a report detailing the extension for the approval of the Executive Officer. Following construction, as built drawings shall be submitted to the Executive Officer for approval prior to use of reclaimed water.
13. The Reclaimer shall submit to the Board within 60 days of the adoption of this Order, a fail-safe procedure for approval by the Executive Officer.

14. Order No. 81-36 adopted by this Board on July 27, 1981,  
is hereby rescinded.

I, Robert P. Ghirelli, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on April 27, 1987.



ROBERT P. GHIPELLI, D.Env.  
Executive Officer

GK/

State of California  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. 6186  
FOR

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY  
(Valencia Water Reclamation Plant)  
(File No. 65-86)

The Reclaimer shall implement this monitoring program on the effective date of this Order.

Monitoring reports shall be submitted by the dates in the following schedule:

<u>Reporting period</u>	<u>Report Due</u>
January - March	May 15
April - June	August 15
July - September	November 15
October - December	February 15

The first monitoring report under this program shall be submitted by August 15, 1987.

By March 1 of each year, the Reclaimer shall submit an annual report to the board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the discharger shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the Requirements.

Values obtained for the NPDES monitoring report during periods of discharge to surface waters may be reported here in lieu of duplicate testing, if representative. However, non-NPDES self-monitoring reports shall be submitted separately from the NPDES monitoring reports.

Reclaimed Water Monitoring

A sampling station shall be established where representative samples of reclaimed water can be obtained. Reclaimed water samples may be obtained at a single station provided that station is representative of the quality at all discharge points. Each sampling station shall be identified. The following shall constitute the reclaimed water monitoring program:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Minimum Frequency of Analysis</u>
Turbidity <sup>1</sup>	NTU	continuous	-----
Total flow <sup>2</sup>	gallon	continuous	-----
Coliform group <sup>3</sup>	MPN/100ml	grab	daily
pH	pH units	grab	daily
Total dissolved solids	mg/l	24-hr composite	monthly
Chloride	mg/l	24-hr composite	monthly
Sulfate	mg/l	24-hr composite	monthly
Arsenic	mg/l	24-hr composite	quarterly
Barium	mg/l	24-hr composite	quarterly
Cadmium	mg/l	24-hr composite	quarterly
Chromium	mg/l	24-hr composite	quarterly
Lead	mg/l	24-hr composite	quarterly
Mercury	mg/l	24-hr composite	quarterly
Selenium	mg/l	24-hr composite	quarterly
Silver	mg/l	24-hr composite	quarterly
Cyanide	mg/l	24-hr composite	quarterly
Nitrate	mg/l	24-hr composite	quarterly
Fluoride	mg/l	24-hr composite	quarterly

<sup>1</sup>Required only for applications having a turbidity limit. The average value recorded each day and amount of time that 5 NTU was exceeded each day shall be reported. Turbidity samples may be obtained anywhere in the treatment process subsequent to the filtration procedure.

<sup>2</sup>Shall report the daily volume of reclaimed water and the monthly volume used at each site.

<sup>3</sup>Samples shall be obtained at some point in the treatment process at a time when wastewater flow and characteristics are most demanding on the treatment facility and disinfection procedures. The location(s) of the sampling point(s) and any changes thereto must be approved by the Executive Officer, and proposed changes shall not be made until such approval has been granted. If reclaimed water is used for irrigation of golf courses, cemeteries, freeway landscapes, parks, playgrounds, schoolyards, or other areas where the public has similar access or exposure, samples shall be obtained subsequent to the chlorination procedure. Coliform values obtained must meet the strictest requirement specified for all uses during periods of multiple use, unless separate coliform analyses are obtained at each particular point of use.

Radioactivity	pCi/l	24-hr composite	quarterly
Total identifiable chlorinated hydrocarbon			
Priority pollutants	mg/l	grab	quarterly
	ug/l	grab	semiannually

The report due in August or February shall contain the semiannual monitoring data.

General Provisions for Sampling and Analysis

All sampling, sample preservation, and analyses shall be performed in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants", promulgated by the United States Environmental Protection Agency.

All chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health or approved by the Executive Officer.

General Provisions for Reporting

For every item where the requirements are not met, the Reclaimer shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.

The Reclaimer shall maintain all sampling and analytical results, including strip charts; date, exact place, and time of sampling; dates analyses were performed; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board.

In reporting the monitoring data, the Reclaimer shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized to demonstrate compliance with Water Reclamation Requirements and, where applicable, shall include results of receiving water observations.

The Reclaimer shall file a report with this Board describing the purposes for which reclaimed water from this facility is used, estimating quantities used for each type of use, depicting on a map

or drawing the area(s) of use, and stating the name and address of each user of reclaimed water if other than the Reclaimer. This report shall be updated at least annually, and shall be included with the annual report due March 1st each year.

Each quarterly report shall include a statement that all reclaimed water was used only as specified in the requirements during the quarter.

If no water was delivered for reuse during the quarter, the report shall so state.

Monitoring reports shall be signed by:

- a. In the case of corporations, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which discharge originates;
- b. In the case of a partnership, by a general partner;
- c. In the case of a sole proprietorship, by the proprietor;
- d. In the case of municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

Each report shall contain the following completed declaration:

"I declare under penalty of perjury that the foregoing is true and correct.

Executed on the \_\_\_\_\_ day of \_\_\_\_\_ at \_\_\_\_\_.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Title)"

Ordered by Robert P. Ghirelli  
Executive Officer

April 27, 1987  
Date

# **Whittier Narrows Water Reclamation Plant Water Reclamation Requirements**



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## Los Angeles Regional Water Quality Control Board

July 7, 2017

Ms. Grace Robinson Hyde  
Chief Engineer and General Manager  
Joint Outfall System  
1955 Workman Mill Road  
Whittier, CA 90601-1400

Dear Ms. Hyde:

### NOTICE OF APPLICABILITY

#### **STATE WATER RESOURCES CONTROL BOARD ORDER WQ 2016-0068-DDW, WATER RECLAMATION REQUIREMENTS FOR RECYCLED WATER USE, JOINT OUTFALL SYSTEM, WHITTIER NARROWS WATER RECLAMATION PLANT (FILE NO. 88-040, CI. NO 6844) WDID 4B190107016.**

The Los Angeles Regional Water Quality Control Board (Regional Water Board) reviewed the Joint Outfall System's Notice of Intent (NOI) for regulatory coverage under State Water Resources Control Board (State Water Board) Water Quality Order No. WQ 2016-0068-DDW, *Water Reclamation Requirements for Recycled Water Use* (hereafter, General Order).

The Joint Outfall System (Administrator) owns and operates the Whittier Narrows Water Reclamation Plant (Whittier Narrows WRP or Facility) at 301 North Rosemead Boulevard, El Monte, California, in Los Angeles County. The Facility currently recycles treated wastewater under Water Reclamation Requirements (WRRs) Order No. 88-107, adopted by this Regional Water Board on October 24, 1988. Pursuant to California Water Code section 13523, this WRR was reviewed in 1997 and was readopted without change in Board Order No. 97-072, adopted on May 12, 1997.

The Administrator currently uses approximately 1.5 million gallons per day (mgd) of the 8.2 mgd total treated effluent. The recycled water is used for landscape irrigation including, but not limited to, golf courses, street medians, parks, playgrounds, schoolyards, commercial and residential landscaping, athletic fields, and ornamental plant nurseries. The recycled water is also used for vehicle washing. The remainder of the treated effluent that is not used for recycling is discharged to the San Gabriel River or Rio Hondo under Waste Discharge Requirements (WDRs) contained in amended National Pollutant Discharge Elimination System (NPDES) Permit No. CA0053716), Order No. R4-2014-0213-A01, adopted by this Regional Water Board on July 9, 2015.

On January 5, 2016, the Regional Water Board received a Notice of Intent (NOI) (i.e., application) from the Administrator seeking coverage under the General Order. The Regional Water Board reviewed the NOI and deemed complete on April 18, 2016. The Administrator also submitted the following California Code of Regulation, title 22, Division 4 (Title 22) Engineering Reports approved by the State Water Board Division of Drinking Water (DDW) for the current uses:

1. San Gabriel Valley Recycling Project – Phase IIA, dated February 2006.
2. Amended Engineering Report Due to Planned Construction at the Whittier Narrows Reclamation Plant, dated July 2008.
3. Amended Engineering Report for the ultraviolet (UV) disinfection system, dated February 2011.

A request to add an additional use may require an additional or supplemental engineering report.

The tertiary-treated recycled water is delivered from the Whittier Narrows WRP to a wholesale water purveyor - the Upper San Gabriel Valley Municipal Water District (USGVMWD). This recycled water is then conveyed by USGVMWD through its transmission system to two retail water purveyors who, in turn, provide the recycled water to the end users. An organizational chart is provided in Figure 1 of the attached Monitoring and Reporting Program (MRP) Order No WQ 2016-0068-RB4-6844. The list of recycled water users and reuse site location map is shown in Attachment C of the MRP, Table 1 and Figure 3, respectively.

Based on the information provided in the NOI, the proposed water recycling project satisfies the general and specific conditions of the General Order. Therefore, this serves as formal notice that Order WQ 2016-0068-DDW is applicable to the site and discharge described below. The Joint Outfall System will act as the Administrator of the Recycled Water Program. You are hereby assigned Order No. WQ-2016-0068-RB4 (File No. 88-040, Series No. 001, CI-6844) for this discharge. Please include this number on all correspondence related to this discharge.

### **WASTEWATER TREATMENT FACILITY**

The Whittier Narrows WRP provides tertiary treatment by utilizing the following treatment process sequence: primary sedimentation, activated sludge nitrification/denitrification biological treatment, secondary sedimentation, coagulation, inert media filtration, and UV disinfection (supplemented by chlorination and dechlorination). Influent flow (raw sewage) to the Whittier Narrows WRP is conveyed from the Sanitation Districts' JO "B" regional trunk sewer. The Whittier Narrows WRP is a scalping plant without solids handling and as such, all primary sludge, waste activated sludge, skimmings, and waste backwash from the Whittier Narrows WRP is returned to the sewer for conveyance and treatment downstream, at the Sanitation District's Joint Water Pollution Control Plant in Carson. The process flow schematic diagram is shown in Figure 2 of the MRP.

### **RECYCLED WATER PROGRAM**

The Administrator, will be responsible for the administration of the Recycled Water Program authorized pursuant to this General Order, including the requirements of Title 22. The Administrator is the recycled water producer and is responsible for all permit requirements related to the production. The Administrator currently uses the tertiary-treated recycled water produced at the Facility for in-plant use, landscape irrigation, vehicle washing at El Monte High School District Bus Depot, and other onsite uses. The USGVMWD is the distributor and responsible for the distribution of recycled water.

The Administrator has signed an agreement with USGVMWD for the sale of recycled water from the Whittier Narrows WRP. That agreement stipulates that USGVMWD must adhere to the Sanitation Districts' rules and regulations as outlined in the JOS Recycled Water Users Handbook (see Attachment D of the MRP). These rules include the requirement to irrigate at agronomic rates to prevent runoff and to prevent any nuisance conditions; such as allowing airborne spray to enter eating areas. In addition, agreements regarding the delivery and use of recycled water have been made between USGVMWD, the two retail water purveyors, and the end users. These agreements include requirements for the purveyors and end users to comply with these rules and regulations.

### **STATE WATER BOARD DIVISION OF WATER RIGHTS CONSIDERATIONS**

Regional Water Board staff solicited information from the State Water Board, Division of Water Rights, regarding the applicability of California Water Code section 1211. In its response, on February 10, 2016, the Division of Water Rights indicated that the application for a water rights petition for a change in the point of discharge, place of use, or purpose of use of treated wastewater is not required at this time because this NOI intends to cover current users. However, when it is anticipated that the current amount of recycled water served will be exceeded due to increase in number of uses and/or users, and there is a projected reduction in the tertiary effluent discharge to the Los Angeles via Rio Hondo and San Gabriel Rivers, an approved water rights petition is required prior to supplying recycled water to new uses and/or users.

### **WATER RECYCLING USE AREA REQUIREMENTS**

1. Unless otherwise permitted, application of recycled water shall be confined to the Use Area as defined in Figure 3 of the MRP.
2. The production, distribution, and use of recycled water shall conform to an Engineering Report prepared pursuant to Title 22, section 60323 and approved by the Division of Drinking Water.
3. The use of recycled water shall not cause pollution or nuisance, as defined by Water Code section 13050.
4. The recycled water shall be disinfected tertiary recycled water as defined by Title 22, section 60301.230.
5. No irrigation with disinfected tertiary recycled water shall take place within 50 feet of any domestic water supply well.
6. No physical connection shall exist between recycled water piping and any domestic water supply, domestic well or existing potable water systems.
7. Public contact with recycled water shall be controlled using signs and/or other appropriate means within project boundaries.
8. The use area shall be managed to prevent breeding of mosquitos including no standing water 48 hours after dust control operation.
9. No recycled water shall be applied to irrigation areas during periods when soils are saturated.

10. The Administrator shall ensure prompt notification of any recycled water spills or unauthorized uses, as outlined in the JOS Recycled Water Users Handbook (see Attachment D).
11. All use areas that are accessible to the public shall be posted with signs that are visible to the public. The size shall be no less than 4 inches high by 8 inches wide, and shall include the following wording: "RECYCLED WATER – DO NOT DRINK". Each sign shall display an international symbol similar to that shown in California Code of Regulations, title 22, Division 4, Chapter 3, Article 4, (See Attachment B of the MRP). Alternative signage and wording, or an educational program, may be acceptable on a case-by-case basis, provided the use site demonstrates to the Regional Water Board and to DDW that the alternative approach will assure an equivalent degree of public notification.

### **DIVISION OF DRINKING WATER REQUIREMENTS**

On February 25, 2011, the Administrator submitted an amended Title 22 Engineering Report to the Regional Water Board and to the California Department of Public Health (now State Water Board, DDW) focusing only on the new UV disinfection system at the Whittier Narrows WRP. On June 17, 2011, DDW completed its review and recommended approval of the Trojan 3000Plus UV Reactor for the Whittier Narrows WRP. On July 28, 2011, the Regional Water Board approved the amended engineering report.

The Administrator shall continue to comply with the disinfection requirements in accordance with the approved amended engineering report.

### **RECYCLED WATER USE AREA MONITORING AND REPORTING REQUIREMENTS**

Requirements for monitoring the recycled water system shall be in accordance with the attached Monitoring and Reporting Program No WQ-2016-0068-RB4-CI-6844. Disinfection system monitoring shall be conducted on a daily basis and all monitoring results shall be reported according to the reporting schedule. In addition, site inspection reports and monitoring reports as required in the Administrator's Recycled Water Program shall be included in the annual monitoring report.

### **DISCHARGE REQUIREMENTS**

1. The discharge of recycled water in a manner different from that described in the NOI is prohibited, unless otherwise authorized under separate permit.
2. Recycled water shall not be allowed to escape from the use area(s) as surface flow that would either pond and/or enter surface waters, unless authorized by WDRs, waivers of WDRs, or conditional prohibitions regulating agricultural discharges from irrigated lands.
3. Recycled water shall not be used to replenish groundwater resources unless authorized by a separate WDRs/WRRs. Groundwater replenishment activities include surface spreading basins, percolation ponds, or injection through groundwater wells.

## GENERAL INFORMATION AND REQUIREMENTS

The Administrator shall comply with the Prohibitions, Specifications, Water Recycling Administration Requirements, and General Provisions of the General Order.

Please review this NOA carefully to ensure that it completely and accurately reflects the proposed Recycled Water Program. If the discharge violates the terms or conditions, the Regional Water Board may take enforcement action, including the assessment of an administrative civil liability. Failure to abide by the conditions of the General Order, including MRP No. WQ-2016-0068-RB4-CI-6844), and this letter authorizing applicability could result in enforcement actions, as authorized by provisions of the California Water Code.

The required annual fee specified in the annual billing from the State Water Board shall be paid until this NOA is officially terminated. The Administrator must submit in writing a Notice of Termination once the water recycling program has ended.

## DOCUMENT SUBMITTALS

1. The Regional Water Board requires the Administrator to submit signed and certified self-monitoring reports (SMRs). The results of monthly, quarterly, annual analyses, calculations and observations and the results of all required monitoring shall be reported on the due date according to the reporting schedule of the Monitoring and Reporting Program. Paper SMRs should be converted to a Portable Document Format (PDF). Documents that are less than 10 megabytes (MB) should be emailed to [losangeles@waterboards.ca.gov](mailto:losangeles@waterboards.ca.gov). Documents that are 10 MB or larger should be transferred to a disk and mailed to the address listed below:

California Regional Water Quality Control Board  
320 West 4th Street, Suite 200  
Los Angeles, CA90013  
Attention: Information Technology Unit

Permittees who have been certified to only submit electronic SMRs (eSMRs) to the California Integrated Water Quality System (CIWQS) should continue doing so, as previously required. Reference the reports to Compliance File No. CI-6844 to facilitate routing to the appropriate staff and file.

2. Reports to DDW shall be submitted to:

Via email to the following address if they are in PDF format and they are less than or equal to 10 MB: [DDWRegion4@waterboards.ca.gov](mailto:DDWRegion4@waterboards.ca.gov) and [Sherly.Rosilela@waterboards.ca.gov](mailto:Sherly.Rosilela@waterboards.ca.gov).

Via electronic CD/DVD to the following address if they are greater 10 MB:

Sherly Rosilela  
Division of Drinking Water  
P.O. Box 100  
1001 I Street, 13<sup>th</sup> Floor  
Sacramento, CA 95814

If you find it necessary to make a change to your permitted operations, including any additional use areas, please contact Raul Medina at (213) 620-2160, or email to [raul.medina@waterboards.ca.gov](mailto:raul.medina@waterboards.ca.gov).

Sincerely,



Samuel Unger, P.E.  
Executive Officer

Enclosures: State Water Resources Control Board Order WQ 2016-0068-DDW, *Water Reclamation Requirements for Recycled Water Use*

Monitoring and Reporting Program No. WQ 2016-0068-RB4-CI-6844

JOS' Recycled Water Users Handbook

cc : Frances McChesney, State Water Resources Control Board, Office of Chief Counsel  
Jennifer Fordyce, State Water Resources Control Board, Office of Chief Counsel  
David Coupe, State Water Resources Control Board, Office of Chief Counsel  
Kurt Souza and Chi Diep, State Water Resources Control Board, Division of Drinking Water  
Sherly Rosilela, State Water Resources Control Board, Division of Drinking Water  
Matthew McCarthy, State Water Resources Control Board, Division of Water Rights

**MONITORING AND REPORTING PROGRAM  
ORDER NO. WQ 2016-0068-RB4-CI-6844**

**FOR**

**THE JOINT OUTFALL SYSTEM  
WHITTIER NARROWS WATER RECLAMATION PLANT**

This monitoring and reporting program (MRP) describes requirements for monitoring the recycled water program for the Whittier Narrows WRP. California Water Code (CWC) sections 13267 and 13383 authorize the Los Angeles Regional Water Quality Control Board (Regional Water Board) to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. This MRP establishes monitoring, reporting, and recordkeeping requirements that implement California laws and/or regulations. The Administrator shall not implement any changes to this MRP unless and until a revised MRP is issued by the Regional Water Board Executive Officer, or his designee.

The State Water Resources Control Board (State Water Board) and Regional Water Boards are transitioning to the paperless office system. During the life of this General Order, the State Water Board or Regional Water Board may require the Administrator to electronically submit reports using the State Water Board's California Integrated Water Quality System (CIWQS) program or an alternative database. Electronic submittal procedures will be provided when directed to begin electronic submittals. Permittees who have been certified to only submit electronic SMRs (eSMRs) to the CIWQS should continue doing so, as previously required.

The Administrator has applied for and received coverage for the recycled water program that is subject to the notice of applicability (NOA) of Water Quality Order 2016-0068-DDW. The reports are necessary to ensure that the Administrator complies with the NOA and General Order. Pursuant to California Water Code section 13267 and 13383, the Administrator shall implement this MRP and shall submit the monitoring reports described herein.

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. The name of the sampler, sample type (grab or composite), time, date, location, bottle type, and any preservative used for each sample shall be recorded on the sample chain of custody form. The chain of custody form must also contain all custody information including date, time, and to whom samples were relinquished. For the composite samples, the basis for sampling (time or flow weighted) shall be per MRP or approved by Regional Water Board staff.

Field test instruments (such as those used to test pH, dissolved oxygen, and electrical conductivity) may be used provided that they are used by a California Environmental Laboratory Program (ELAP) certified laboratory or:

1. The user is trained in proper use and maintenance of the instruments.
2. The instruments are field calibrated prior to monitoring events at the frequency recommended by the manufacturer.

3. Instruments are serviced by the manufacturer or authorized representative at the recommended frequency.
4. Field calibration reports are maintained and available for at least three years.

Monitoring requirements listed below may duplicate existing requirements under Waste Discharge Requirements R4-2014-0213-A01 (NPDES Permit No. CA0053716). Duplication of sampling and monitoring activities are not required if the monitoring activity satisfies the requirements of this order. In addition to submitting the results under another order, the results shall be submitted in the reports required by this General Order.

### RECYCLED WATER MONITORING

Since the recycled water is used for irrigation of landscape areas<sup>1</sup>, priority pollutant monitoring is required at the production facility. The Administrator shall monitor the recycled water used as follows:

Constituent	Units	Sample Type	Minimum Sampling Frequency	Reporting Frequency
Total Dissolved Solids	mg/L	24-hr composite	monthly	quarterly
Chloride	mg/L	24-hr composite	monthly	quarterly
Sulfate	mg/L	24-hr composite	monthly	quarterly
Boron	mg/L	24-hr composite	monthly	quarterly
Total Nitrogen	mg/L	24-hr composite	monthly	quarterly
Total Phosphorus	mg/L	24-hr composite	monthly	quarterly
Total Potassium	mg/L	24-hr composite	monthly	quarterly
Priority Pollutants <sup>2</sup> excluding asbestos	µg/L	24-hr composite; grab for VOCs	annually	annually

<sup>1</sup> Landscapes areas are defined as parks; greenbelts; playgrounds; school yards; athletic fields; golf courses; cemeteries; residential landscaping; common areas; commercial landscaping (except eating areas); industrial landscaping (except eating areas); freeway, highway, and street landscaping.

<sup>2</sup> See priority pollutants list in Attachment A.



### DISINFECTION SYSTEM MONITORING

The Administrator shall collect representative samples of recycled water immediately downstream of the disinfection system. Should there be any change in the sampling station, the proposed station shall be approved by the Executive Officer prior to use. The Administrator shall monitor the following parameters:

Constituent/ Parameter	Units	Sample Type	Minimum Sampling Frequency	Reporting Frequency
Total Coliform Bacteria	MPN/100 mL <sup>3</sup>	grab	daily <sup>4</sup>	quarterly
Turbidity	NTU <sup>5</sup>	grab/meter	continuous	quarterly

### UV DISINFECTION SYSTEM MONITORING

The Whittier Narrows WRP uses ultraviolet light (UV) for disinfection. The Administrator shall monitor, at a minimum, the following parameters:

Parameter	Units	Minimum Sampling Frequency	Reporting Frequency
System Flow	million gallons/ day	continuous	quarterly
UV Transmittance	%	continuous	quarterly
UV Dose	mJ/cm <sup>2</sup>	continuous	quarterly

### USE AREA MONITORING

The Administrator shall monitor use areas(s) at a frequency appropriate to determine compliance with the General Order and the Administrator's recycled water use program requirements. An Administrator may assign monitoring responsibilities to a User as part of the

<sup>3</sup> MPN/100mL denotes most probable number per 100 milliliter sample.

<sup>4</sup> Daily grab samples shall be collected at a station immediately downstream of the disinfection system (designated monitoring location) Monday through Friday only, except for holidays.

<sup>5</sup> NTU denotes nephelometric turbidity unit.

Water Recycling Use Permit program; the Administrator retains responsibility to ensure the data is collected, as well as to prepare and submit the annual report.

The following shall be recorded for each user with additional reporting for use areas as appropriate. The frequency of use area observations shall be based on the complexity and risk of each use area. Use areas may be aggregated to combine acreage for calculation or observation purposes. Use area monitoring shall include the following parameters:

Parameter	Units	Sample Type	Sample Frequency	Reporting Frequency
Recycled Water User	--	--	--	quarterly
Recycled Water Flow	gpd <sup>6</sup>	meter <sup>7</sup>	monthly	quarterly
Acreage Applied <sup>8</sup>	acres	calculated	monthly	quarterly
Application Rate	inches/acre/year	calculated	monthly	quarterly
Soil Saturation/Ponding	--	observation	quarterly	annually
Nuisance Odors/Vectors	--	observation	quarterly	annually
Discharge Off-Site	--	observation	quarterly	annually
Notifications Signs <sup>9</sup>	--	observation	quarterly	annually

## REPORTING

In reporting monitoring data, the Administrator shall submit the report in similar format as the previous Order by arranging the data in tabular form so that the date, data type (e.g., flow rate, bacteriological, etc.), and reported analytical or visual inspection results are readily discernible. In addition, data shall be summarized to illustrate compliance with the General Order and NOA as applicable. The results of any monitoring done more frequently than required at the locations specified in the MRP shall be reported in the next regularly scheduled monitoring report and shall be included in calculations as appropriate.

The State Water Board or Regional Water Board may require the Administrator to electronically submit reports using the State Water Board's California Integrated Water Quality System (CIWQS) program or an alternative database. The Administrator has already set up their

<sup>6</sup> gpd denotes gallons per day

<sup>7</sup> Meter requires meter reading or other approved method such as tank volume.

<sup>8</sup> Acreage applied denotes the acreage to which recycled water is applied.

<sup>9</sup> Notification signs shall be consistent with the requirements of Title 22, section 60310(g).

database and electronic reporting system to be able to submit reports to CIWQS. Upon approval of this NOA, the Administrator shall submit reports to CIWQS.

**A. MONITORING REPORTS AND REPORTING SCHEDULE**

Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Continuous	Permit effective date	All	Submit with quarterly SMR
Daily	Permit effective date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with quarterly SMR
Monthly	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1 <sup>st</sup> day of calendar month through last day of calendar month	Submit with quarterly SMR
Quarterly	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	June 15 September 15 December 15 March 15
Annually	January 1 following (or on) permit effective date	January 1 through December 31	April 1

**B. Annual Report**

Annual Reports shall be submitted to the Regional Water Board by April 1<sup>st</sup> following the monitoring year. The first Annual Report is due on **April 1, 2018**, and shall include the following:

1. A summary table of all recycled water users and use areas. Maps are to be included to identify use areas. Newly permitted recycled water Users and use areas shall be identified. When applicable, any supplements to the Title 22 Engineering Report and the corresponding State Water Board/Regional Water Board approval letter supporting those additions shall be included.
2. A summary table of Title 22 recycled water produced at the facility and the quantity used for each approved uses. Do not combine the quantity used for golf irrigation, landscape irrigation or agriculture irrigation. Please itemize the quantity used by using the following categories:

- a. Golf course irrigation
  - b. Landscape irrigation
  - c. Commercial
  - d. Industrial
  - e. Geothermal energy production
  - f. Seawater intrusion
  - g. Quantity recharged
  - h. Recreational impoundment
  - i. Natural system restoration, wetlands
3. A summary table of all inspections and enforcement activities initiated by the Administrator. Include a discussion of compliance and the corrective action taken, as well as any planned or proposed actions needed to bring the discharge and distribution into compliance with the NOA and/or General Order. Copies of any enforcement actions taken by the Administrator shall be provided.
  4. An evaluation of the performance of the recycled water treatment facility, including discussion of capacity issues, system problems, and a forecast of the flows anticipated in the next year.
  5. Tabular and graphical summaries of all monitoring data collected during the year, including priority pollutant monitoring, if required.
  6. The name and contact information for the recycled water operator responsible for operation, maintenance, and system monitoring.

A letter transmitting the annual report shall accompany each report. The letter shall summarize the numbers and severity of violations found during the reporting period, and actions taken or planned to correct the violations and prevent future violations. The transmittal letter shall contain the following penalty of perjury statement and shall be signed by the Administrator or the Administrator's authorized agent:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of the those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

The Administrator shall implement the above monitoring program as of the date of this MRP.

Ordered by:

  
\_\_\_\_\_  
Samuel Unger, P.E., Executive Officer

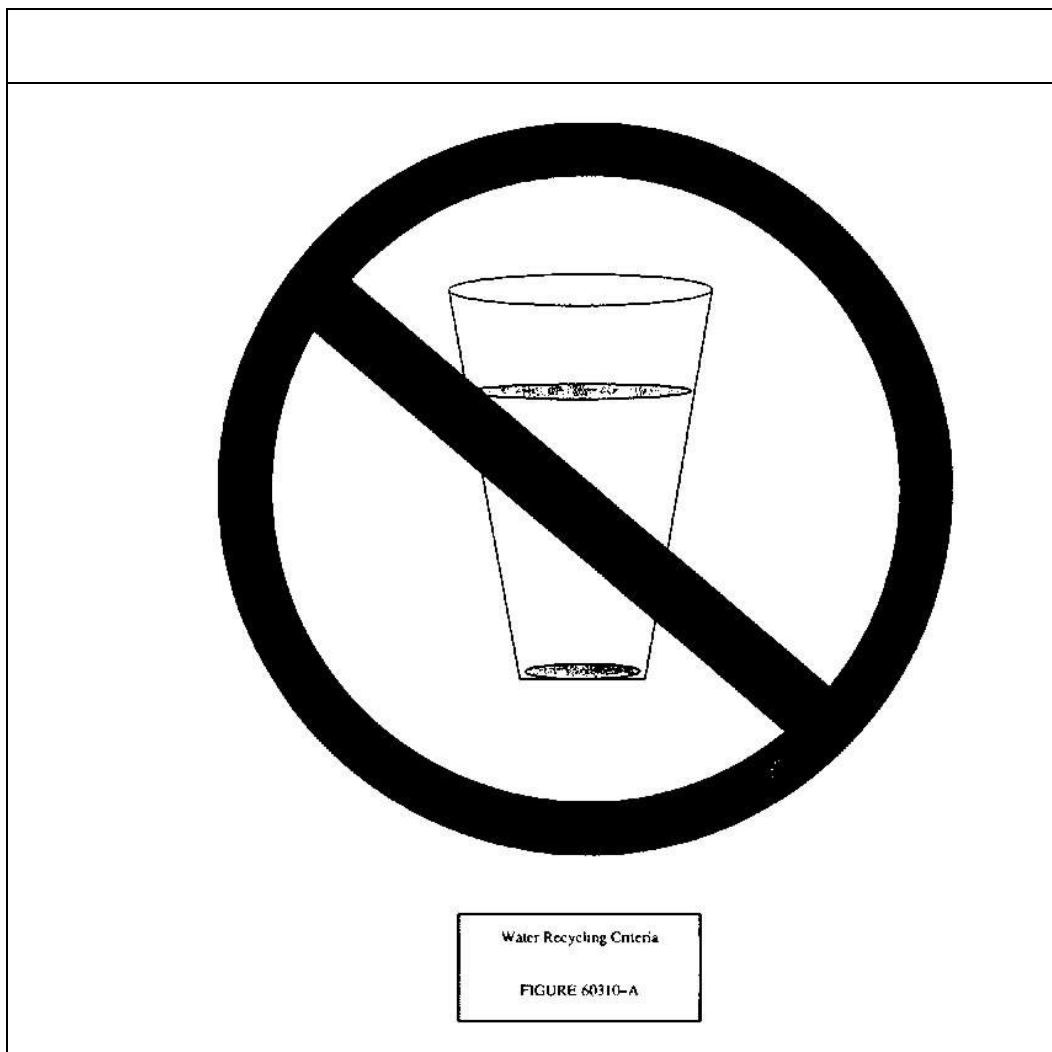
July 7, 2017

\_\_\_\_\_  
Date

**ATTACHMENT A – PRIORITY POLLUTANTS**

001 Acenaphthene	047 Bromoform (tribromomethane)	090 Dieldrin
002 Acrolein	048 Dichlorobromomethane	091 Chlordane (technical mixture and metabolites)
003 Acrylonitrile	051 Chlorodibromomethane	092 4,4-DDT
004 Benzene	052 Hexachlorobutadiene	093 4,4-DDE (p,p-DDX)
005 Benzidine	053 Hexachloromyclopentadiene	094 4,4-DDD (p,p-TDE)
006 Carbon tetrachloride (tetrachloromethane)	054 Isophorone	095 Alpha-endosulfan
007 Chlorobenzene	055 Naphthalene	096 Beta-endosulfan
008 1,2,4-trichlorobenzene	056 Nitrobenzene	097 Endosulfan sulfate
009 Hexachlorobenzene	057 2-nitrophenol	098 Endrin
010 1,2-dichloroethane	058 4-nitrophenol	099 Endrin aldehyde
011 1,1,1-trichloroethane	059 2,4-dinitrophenol	100 Heptachlor
012 Hexachloroethane	060 4,6-dinitro-o-cresol	101 Heptachlor epoxide (BHC-hexachlorocyclohexane)
013 1,1-dichloroethane	061 N-nitrosodimethylamine	102 Alpha-BHC
014 1,1,2-trichloroethane	062 N-nitrosodiphenylamine	103 Beta-BHC
015 1,1,2,2-tetrachloroethane	063 N-nitrosodi-n-propylamine	104 Gamma-BHC (lindane)
016 Chloroethane	064 Pentachlorophenol	105 Delta-BHC (PCB-polychlorinated biphenyls)
018 Bis(2-chloroethyl) ether	065 Phenol	106 PCB-1242 (Arochlor 1242)
019 2-chloroethyl vinyl ether (mixed)	066 Bis(2-ethylhexyl) phthalate	107 PCB-1254 (Arochlor 1254)
020 2-chloronaphthalene	067 Butyl benzyl phthalate	108 PCB-1221 (Arochlor 1221)
021 2,4, 6-trichlorophenol	068 Di-N-Butyl Phthalate	109 PCB-1232 (Arochlor 1232)
022 Parachlorometa cresol	069 Di-n-octyl phthalate	110 PCB-1248 (Arochlor 1248)
023 Chloroform (trichloromethane)	070 Diethyl Phthalate	111 PCB-1260 (Arochlor 1260)
024 2-chlorophenol	071 Dimethyl phthalate	112 PCB-1016 (Arochlor 1016)
025 1,2-dichlorobenzene	072 1,2-benzanthracene (benzo(a)anthracene)	113 Toxaphene
026 1,3-dichlorobenzene	073 Benzo(a)pyrene (3,4-benzo-pyrene)	114 Antimony
027 1,4-dichlorobenzene	074 3,4-Benzofluoranthene (benzo(b)fluoranthene)	115 Arsenic
028 3,3-dichlorobenzidine	075 11,12-benzofluoranthene (benzo(b)fluoranthene)	116 Asbestos
029 1,1-dichloroethylene	076 Chrysene	117 Beryllium
030 1,2-trans-dichloroethylene	077 Acenaphthylene	118 Cadmium
031 2,4-dichlorophenol	078 Anthracene	119 Chromium
032 1,2-dichloropropane	079 1,12-benzoperylene (benzo(ghi)perylene)	120 Copper
033 1,2-dichloropropylene (1,3-dichloropropene)	080 Fluorene	121 Cyanide, Total
034 2,4-dimethylphenol	081 Phenanthrene	122 Lead
035 2,4-dinitrotoluene	082 1,2,5,6-dibenzanthracene (dibenzo(h)anthracene)	123 Mercury
036 2,6-dinitrotoluene	083 Indeno (1,2,3-cd) pyrene (2,3-o-pheynylene pyrene)	124 Nickel
037 1,2-diphenylhydrazine	084 Pyrene	125 Selenium
038 Ethylbenzene	085 Tetrachloroethylene	126 Silver
039 Fluoranthene	086 Toluene	127 Thallium
040 4-chlorophenyl phenyl ether	087 Trichloroethylene	126 Silver
041 4-bromophenyl phenyl ether	088 Vinyl chloride (chloroethylene)	128 Zinc
042 Bis(2-chloroisopropyl) ether	089 Aldrin	129 2,3,7,8-tetrachloro-dibenzo-p-dioxin (TCDD)
043 Bis(2-chloroethoxy) methane		
044 Methylene chloride (dichloromethane)		
045 Methyl chloride (dichloromethane)		
046 Methyl bromide (bromomethane)		

**ATTACHMENT B – WATER RECYCLING SIGN**



**ATTACHMENT C – RECYCLED WATER USERS**

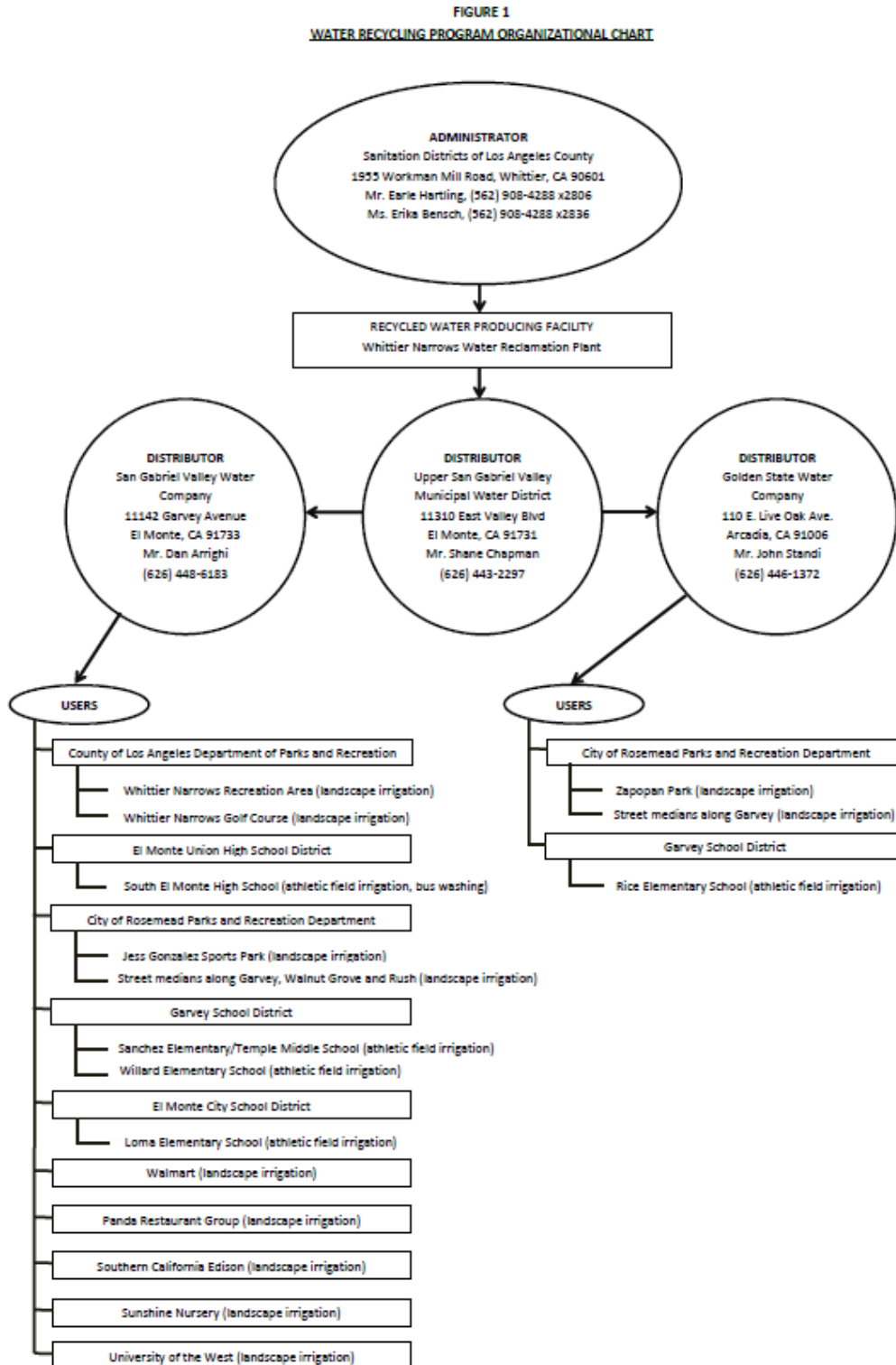
**Table 1. Tertiary-Treated Recycled Water Users**

	REUSE SITE	Estimated Average Annual Demand <sup>10</sup>		Type of Use
		AFY	MGD	
San Gabriel Valley Water Company				
1	Whittier Narrows Recreation Area	872	0.779	Landscape Irrigation
2	Whittier Narrows Golf Course	562	0.501	
3	South El Monte High School	79	0.071	Athletic Field Irrigation/Bus Washing
4	Sanchez/Temple Elementary School	7	0.006	Athletic Field Irrigation
5	Loma Elementary School	4	0.004	
6	Willard Elementary School	4	0.004	
7	Jess Gonzales Sports Park	12	0.011	City of Rosemead Landscape Irrigation
8	Garvey medians	1	0.001	
9	Walnut Grove medians	3	0.002	
10	Rush Street medians	1	0.001	
11	Southern California Edison Campus	75	0.067	Landscape Irrigation
12	Wal-Mart (1827 Walnut Grove)	14	0.012	
13	Panda Restaurant Group (1683 Walnut Grove)	16	0.014	
14	University of the West (1409 Walnut Grove)	7	0.006	
15	Sunshine Nursery (8448 Dorothy)	5	0.004	Ornamental Plant
	SUBTOTAL	1660	1.482	
Golden State Water Company				
16	Rice Elementary School	16	0.015	Athletic Field Irrigation
17	Zapopan Park	11	0.010	Landscape Irrigation
18	Garvey medians	0.4	0.0003	
	SUBTOTAL	27	0.0253	
USGVMWD Recycled Water Distribution System				
	<b>TOTAL</b>	<b>1687</b>	<b>1.51</b>	

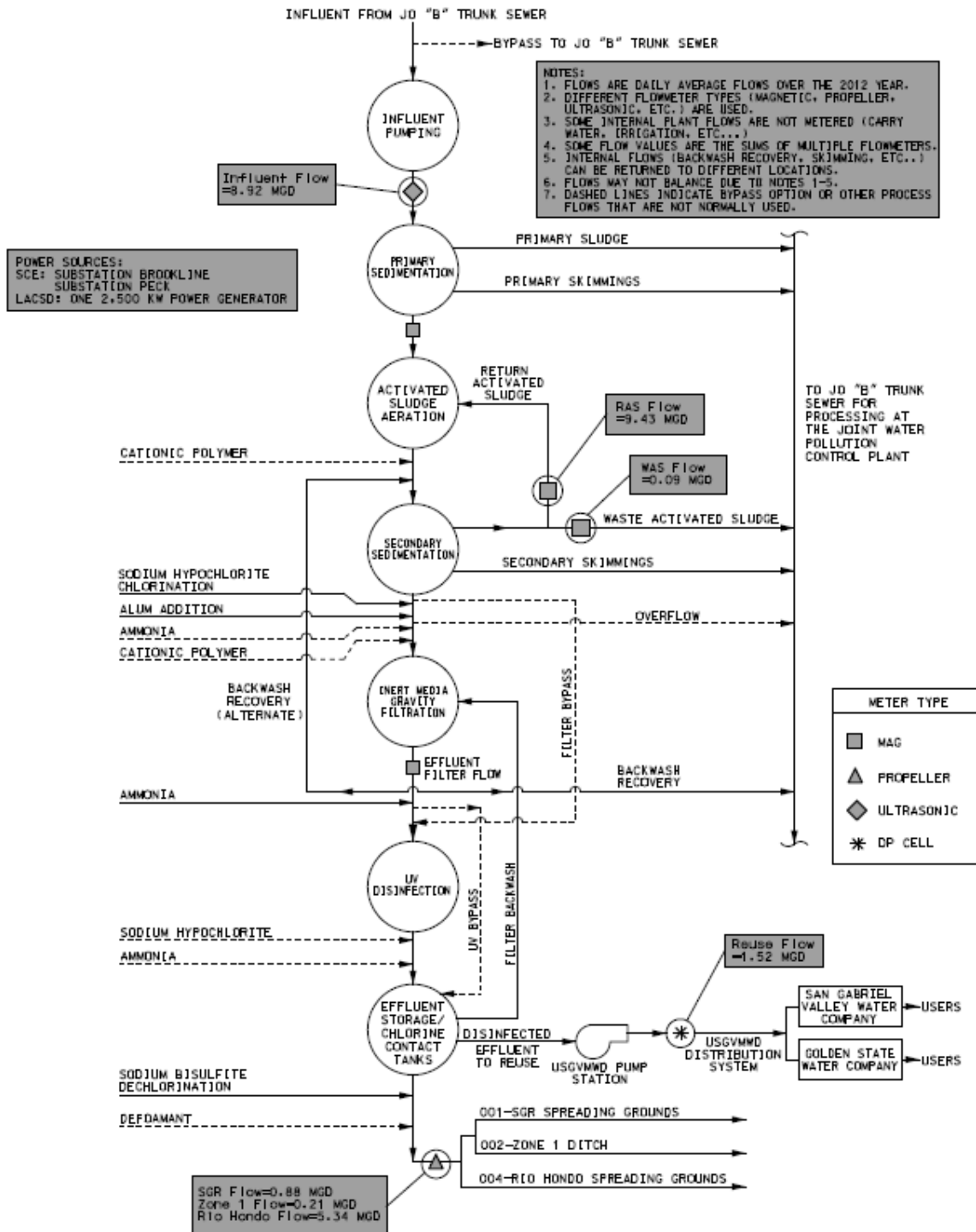
<sup>10</sup> Based on year 2014 usage.



**FIGURE 1 – WATER RECYCLING PROGRAM ORGANIZATIONAL CHART**



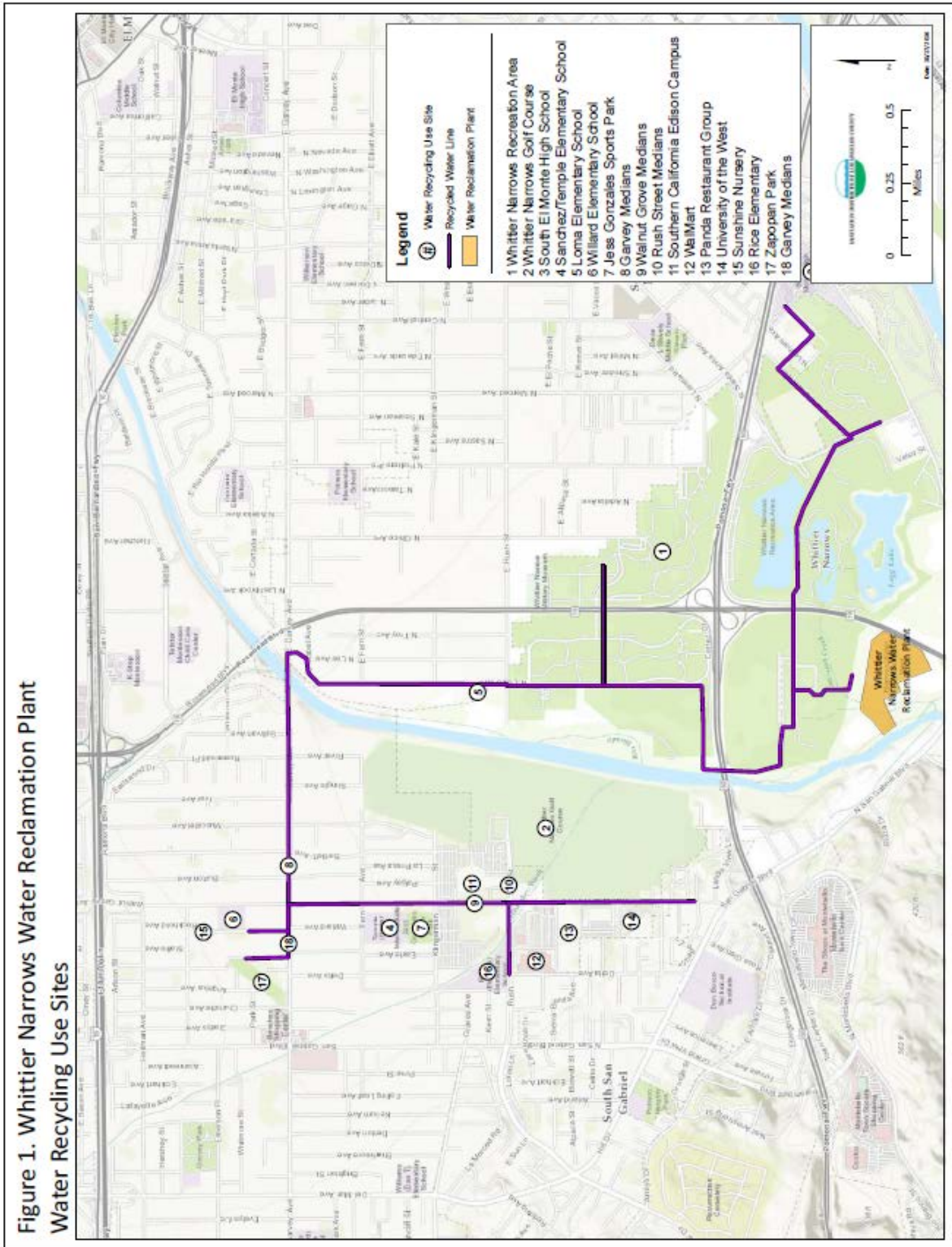
**FIGURE 2 – WHITTIER NARROWS WATER RECLAMATION PLANT PROCESS FLOW SCHEMATIC DIAGRAM**



LACSD/WW/JD/TREATMENT/WW/FACILITY MDS/WW-0008/C-001\_1.dcn 2016\_WW0008.SRT

FIGURE 3 – REUSE SITE LOCATION MAP

Figure 1. Whittier Narrows Water Reclamation Plant  
Water Recycling Use Sites





**STATE WATER RESOURCES CONTROL BOARD  
ORDER WQ 2016-0068-DDW**

**WATER RECLAMATION REQUIREMENTS  
FOR RECYCLED WATER USE**

**Adoption Date  
June 7, 2016**



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STATE WATER RESOURCES CONTROL BOARD  
ORDER WQ 2016-0068-DDW  
WATER RECLAMATION REQUIREMENTS  
FOR RECYCLED WATER USE

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<b>ACRONYMS AND ABBREVIATIONS</b>	
AGR	Agricultural supply
Antidegradation Policy	State Water Board Resolution 68-16, the Statement of Policy with Respect to Maintaining High Quality of Waters in California
AQUA	Aquaculture
Basin Plan	Water Quality Control Plan
BPTC	Best practicable treatment or control
CDPH	California Department of Public Health
CEC	Contaminants of Emerging Concern
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
DBP	Disinfection By-products
Delta	Sacramento-San Joaquin River Delta Estuary
DDW	Division of Drinking Water
DWR	Department of Water Resources
E. coli	Escherichia coli
e.g.	Latin <i>exempli gratia</i> (for example)
FRESH	Fresh water replenishment
gpd	gallons per day
GWR	Groundwater recharge
IND	Industrial service supply
mg/L	Milligrams per liter
MPN	Most Probable Number
MRP	Monitoring and Reporting Program
MUN	Municipal supply
MOA	Memorandum of Agreement
NOA	Notice of Applicability
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NTU	Nephelometric Turbidity Unit
pdf	Portable Document Format
PROC	Industrial process supply
REC-1	Water contact recreation
Regional Water Board	Regional Water Quality Control Board
State Water Board	State Water Resources Control Board
TBD	To Be Determined
TDS	Total Dissolved Solids
TMDL	Total Maximum Daily Load
Water Boards	State Water Board and Regional Water Boards
WILD	Wildlife habitat
WDRs	Waste Discharge Requirements
WRRs	Water Reclamation Requirements

STATE WATER RESOURCES CONTROL BOARD  
ORDER WQ 2016-0068-DDW  
WATER RECLAMATION REQUIREMENTS  
FOR RECYCLED WATER USE

**FINDINGS:**

The State Water Resources Control Board (State Water Board) finds that:

**BACKGROUND INFORMATION**

1. On January 17, 2014, California’s Governor proclaimed a [Drought State of Emergency](#) and directed state officials to take all necessary actions to prepare for drought conditions. On March 1, 2014, the Governor signed bipartisan drought relief legislation, Senate Bill (SB) 103 and 104, modifying the Budget Act of 2013 (Stats. 2013, ch. 20 and 354) to provide additional funds for drought relief. (Stats. 2014, ch. 2 and 3, respectively).
2. On April 25, 2014, the Governor proclaimed a continued State of Emergency due to severe drought conditions and directed the State Water Board to “adopt statewide general waste discharge requirements to facilitate the use of treated wastewater that meets standards set by the California Department of Public Health (CDPH) in order to reduce demand on potable water supplies.”
3. California experiences frequent drought conditions. The recent emergency actions follow a similar Declaration of Statewide Drought in effect from 2008 through 2011 ([Executive Order S-06-08](#)) and Drought Declaration State of Emergency in effect from 2009 through 2011 ([Executive Order S-11-09](#)). Drought conditions in California also persisted from 1987 through 1992. Paleoclimatologists have reconstructed medieval climate episodes from tree ring studies, sediment deposition, and other sources. These studies show that the most severe droughts during the past 1,000 years have lasted from 20 to more than 150 years.<sup>1</sup>
4. On June 3, 2014, the State Water Board adopted [Water Quality Order 2014-0090-DWQ](#), *General Waste Discharge Requirements for Recycled Water Use* to streamline permitting of recycled water use statewide.
5. Order WQ 2014-0090-DWQ was adopted to facilitate recycled water use and reduce demand on potable water supplies; this General Order further encourages recycled water projects by (1) maintaining the streamlined approach in permitting new Users through a water recycling program and (2) providing the option for a single recycled water use permit coverage for larger Users that typically need permit coverage from multiple Regional Water Boards. Enrollees issued a Notice of Applicability (NOA) under order WQ 2014-0090-DWQ must

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<sup>1</sup> Michael Dettinger, *Droughts, Epic Droughts and Droughty Centuries—Lessons from California’s Paleoclimatic Record: A PACLIM 2001 Meeting Report*, (Summer 2001) Interagency Ecological Program Newsletter, at p. 50.



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notify the State Water Board of its intention to be regulated under this General Order.

6. Prior to July 1, 2014, CDPH provided public health recommendations to the Water Boards through review and approval of Title 22 Engineering Reports prepared pursuant to California Code of Regulations, title 22, section 60323. The Water Boards then issue permits. Effective July 1, 2014, the administration of the Drinking Water Program, including responsibility for review of Title 22 Engineering Reports was transferred from the CDPH to the State Water Board.
7. "Recycled water" means water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource. (Wat. Code, § 13050(n).) Coverage under these Water Reclamation Requirements (WRRs) for Recycled Water Use (General Order) is limited to treated municipal wastewater for uses consistent with the Uniform Statewide Recycling Criteria, and other uses approved by the State Water Board on a case-by-case basis, other than direct or indirect potable uses. An estimated 1.85 to 2.25 million acre-feet of water supply could be realized annually through recycling by the year 2030.<sup>2</sup> Of this total amount, an estimated 0.9 million to 1.4 million acre-feet of recycled water could be realized through recycling of municipal wastewater that is discharged into the ocean or saline bays. Downstream beneficial uses will be protected by requiring compliance with Water Code section 1211, as described in the Antidegradation Analysis section of this General Order.
8. Recycled water use can help to reduce local water scarcity. It is not the only option for bringing supply and demand into a better balance, but it is a viable cost effective solution that is appropriate in many cases. The feasibility of recycled water use depends on local circumstances, which affect the balance of costs and benefits. In drought conditions, recycled water can be particularly valuable, given the scarcity of alternative supplies. In normal precipitation years recycled water use may reduce groundwater extraction.
9. The California Legislature has declared that a substantial portion of the future water requirements of the state may be economically met by beneficial use of recycled water. (Wat. Code, § 13511.) The Legislature also expressed its intent that the state undertakes all possible steps to encourage development of water recycling facilities so that recycled water may be made available to help meet the growing water requirements of the state. (Wat. Code, § 13512.)
10. On February 3, 2009, the State Water Board adopted [Resolution 2009-0011](#), Adoption of a Policy for Water Quality Control for Recycled Water (Recycled Water Policy) (Revised January 22, 2013, effective April 25, 2013.) The

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<sup>2</sup> California Department of Water Resources, Bulletin 160-2009, p. 11-9.

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Recycled Water Policy promotes the use of recycled water to achieve sustainable local water supplies and reduce greenhouse gas emissions.

11. Water recycling is an essential part of an overall program to manage local and regional water resources. Many local governing bodies have adopted resolutions establishing their intent to proceed with planning, permitting, and implementation of recycled water projects. These projects will provide water supply and municipal wastewater disposal benefits for communities, and will provide water supply benefits to agriculture.
12. The Uniform Statewide Recycling Criteria was established for the protection of public health and are codified in the California Code of Regulations, title 22, division 4, chapter 3 (herein referred to as Uniform Statewide Recycling Criteria). Approved uses of recycled water under the Uniform Statewide Recycling Criteria depend on the level of treatment and potential for public contact. Under the Uniform Statewide Recycling Criteria, recycled water is categorized based on treatment levels. There are four categories of recycled water relevant to this General Order; they are listed here and defined in the indicated regulations section:
  - a. Undisinfected secondary recycled water (Cal. Code Regs., tit. 22, § 60301.900.)
  - b. Disinfected secondary-23 recycled water (Cal. Code Regs., tit. 22, § 60301.225.)
  - c. Disinfected secondary-2.2 recycled water (Cal. Code Regs., tit. 22, § 60301.220.)
  - d. Disinfected tertiary recycled water (Cal. Code Regs., tit. 22, § 60301.230.)

An approved Title 22 Engineering Report addressing protection of public health is required before authorization to use recycled water is granted by the Regional Water Board Executive Officer.

13. When used in compliance with the Recycled Water Policy, the Uniform Statewide Recycling Criteria, and all applicable state and federal water quality laws, the State Water Board finds that recycled water is safe for approved uses, and strongly supports recycled water as a safe alternative to raw and potable water supplies for approved uses.
14. This General Order authorizes beneficial, non-potable recycled water uses consistent with the Uniform Statewide Recycling Criteria and any additional requirements specified in the Notice of Applicability. Activities that are not authorized by this Order include:

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- a. Activities designed to replenish groundwater resources. Groundwater replenishment activities include surface spreading basins, percolation ponds, or injection through groundwater wells<sup>3</sup>.
  - b. Disposal of treated wastewater by means of percolation ponds, excessive hydraulic loading of recycled water in use areas, etc., where the primary purpose of the activity is disposal of treated wastewater.
  - c. Direct potable reuse (Wat. Code, § 13561(b)), indirect potable reuse for groundwater recharge (Wat. Code, § 13561(c)), or surface water augmentation (Wat. Code, § 13561(d)).
15. There are many sources of salts and nutrients in surface and groundwater, including water soluble inorganic and organic constituents in imported water, leaching of naturally occurring salts in soils as a result of irrigation and precipitation, animal wastes, fertilizers and other soil amendments, municipal use including water softeners, industrial wastewater, and oil field wastewater. In coastal areas and areas adjacent to the Sacramento-San Joaquin Delta, seawater intrusion is also a source of salinity in groundwater, particularly in over-drafted basins. Imported water is a major source of salt. In water year 2010, 45 percent of the surface water used in the San Joaquin Valley was imported from the Sacramento-San Joaquin Delta through the Delta Mendota Canal, Folsom South Canal, and California Aqueduct (DWR).<sup>4</sup> In an average year, more than 800,000 tons of salt are imported from the Sacramento-San Joaquin River Delta Estuary (Delta) into the northern portion of the San Joaquin Valley, and another two million tons of salt are imported into the Tulare Lake Basin.<sup>5</sup> Southern California also imports significant water supplies from the Delta. In addition, it imports 4.4 million acre-feet of water each year from the Colorado River. Colorado River water has, on average, twice the salinity of northern California water sources, and water imported from the Delta is blended with Colorado River supplies to control salinity. The use of recycled water for irrigation has the potential to increase salts and other constituents in groundwater, but is not expected to be a significant source of salt loading relative to other potential sources, particularly when recycled water is used in the same watershed in which it would otherwise be discharged. Basin-specific salt and nutrient management plans, however, will provide definitive information on where assimilative capacity is available.

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3 Injection well is defined in Water Code 13051.

4 Water Recycling and Desalination Section, California Department of Water Resources.

5 Department of Water Resources, Water Facts-Salt Balance in the San Joaquin Valley <[http://www.water.ca.gov/pubs/environment/salt\\_balance\\_in\\_the\\_san\\_joaquin\\_valley\\_water\\_facts\\_20/\\_water\\_facts\\_20.pdf](http://www.water.ca.gov/pubs/environment/salt_balance_in_the_san_joaquin_valley_water_facts_20/_water_facts_20.pdf)>, accessed 3 April 2014.

16. Use of recycled water has the potential to increase nutrients in groundwater supplies. In order to minimize the nutrient loading, this Order requires that recycled water used for irrigation purposes be applied at agronomic rates.
17. The Recycled Water Policy calls on local water and wastewater entities together with other stakeholders who contribute salt and nutrients to a groundwater basin or sub-basin, to fund and develop Salt and Nutrient Management Plans to comprehensively address all sources of salts and nutrients. The State Water Board herein reasserts the need for comprehensive salt and nutrient management planning and directs that salinity and nutrient increases should be managed in a manner consistent with the Recycled Water Policy. It is the intent of the Recycled Water Policy that every groundwater basin/sub-basin in California ultimately has a consistent Salt and Nutrient Management Plan. The appropriate way to address salt and nutrient issues is through the development of regional or subregional Salt and Nutrient Management Plans.
18. The Recycled Water Policy includes monitoring requirements for Constituents of Emerging Concern<sup>6</sup> (CECs) for the use of recycled water for groundwater recharge by surface and subsurface application methods. The monitoring requirements and criteria for evaluating monitoring results in the Recycled Water Policy are based on recommendations from a Science Advisory Panel.<sup>7</sup> Because this General Order is limited to non-potable uses and does not authorize groundwater replenishment activities, monitoring for CECs is not required.
19. The Recycled Water Policy requires permits for landscape irrigation with recycled water to include priority pollutant monitoring at the recycled water production facility. Annual monitoring is required for design production flows greater than one million gallons per day; a five year monitoring frequency is required for flows less than one million gallons per day. Priority pollutants are listed in Appendix A of 40 Code of Federal Regulations (CFR) Part 423.

### STATUTORY AND REGULATORY ISSUES

20. Pursuant to Water Code section 13523, the Regional Water Board, after consulting with and receiving the recommendation of the State Water Board, may prescribe water reclamation requirements for water that is used or proposed to be used as recycled water. The requirements shall be established in

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6 For this Policy, CECs are defined to be chemicals in personal care products, pharmaceuticals including antibiotics, antimicrobials; industrial, agricultural, and household chemicals; hormones; food additives; transformation products, inorganic constituents; and nanomaterials.

7 The Science Advisory Panel was convened in accordance with provision 10.b of the Recycled Water Policy. The panel's recommendations were presented in the report; *Monitoring Strategies for Chemicals of Emerging Concern (CECs) in Recycled Water - Recommendations of a Science Advisory Panel*, dated June 25, 2010.

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conformance with the Uniform Statewide Recycling Criteria pursuant to Water Code section 13521. Pursuant to Water Code section 13523 (b), the requirements for use of recycled water not addressed by the Uniform Statewide Recycling Criteria will be considered on a case-by-case basis by Regional Water Boards, after consulting with and receiving the recommendations of the State Water Board. The State Water Board provides such recommendations through acceptance letters for Title 22 Engineering Reports. These recommendations become requirements of the Order when specified in the Notice of Applicability.

21. Pursuant to Water Code section 13528.5, the State Water Board may carry out duties and authority granted to a Regional Water Board pursuant to the Water Code, division 7, chapter 7, including the authority to prescribe water reclamation requirements pursuant to Water Code section 13523.
22. Pursuant to Water Code section 13241 and 13263, the State Water Board, in establishing the requirements contained herein, considered factors including, but not limited to, the following:
  - a. Past, present, and probable future beneficial uses of water;
  - b. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto;
  - c. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area;
  - d. Economic considerations;
  - e. The need for developing housing within the region(s); and
  - f. The need to develop and use recycled water.
23. Pursuant to Water Code section 106.5, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This General Order promotes that policy by encouraging uses of recycled water. Such uses must be consistent with the requirements of California Code of Regulations (including the Uniform Statewide Recycling Criteria). This General Order furthers the human right to water by encouraging use of recycled water thus reducing demand on other other sources, including use of potable water used for non-potable uses where recycled water is available.
24. Technical and monitoring reports specified in this General Order are required pursuant to Water Code section 13267. Failing to furnish the reports by the due date or falsifying information in the reports is a misdemeanor that may result in assessment of civil liabilities against the Discharger. Water Code section 13267 states, in part:

“In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is

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suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports. ... (f) the State Board may carry out the authority granted to a regional board pursuant to this section.”

The technical reports required by this General Order, the NOI, and the Monitoring and Reporting Program (MRP) are necessary to assure compliance with this General Order. The burden and cost of preparing the reports are reasonable and consistent with the best interest of the people of the state in maintaining water quality.

25. This General Order is applicable to recycled water projects where recycled water is used or transported for non-potable uses (for example: landscape irrigation, irrigation of crops and pasture land, construction, fire suppression, hydrostatic testing, etc.) This General Order does not regulate the treatment of wastewater. Compliance with this General Order does not relieve producers or distributors from the obligation to comply with applicable Waste Discharge Requirements (WDRs) for discharges from wastewater treatment plants, other than the recycled water uses described herein.
26. The uses of recycled water described in this General Order are exempt from the requirements of Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste in California Code of Regulations, title 27, division 2, subdivision 1, section 20005, et seq. The activities are exempt from the requirements of title 27 so long as the activity meets, and continues to meet, all preconditions listed below. (Cal Code Regs., tit. 27, § 20090.)
  - a. Sewage—Discharges of domestic sewage or treated effluent which are regulated by WDRs issued pursuant to California Code of Regulations, title 23, division 3, chapter 9, or for which WDRs have been waived, and which are consistent with applicable water quality objectives, and treatment or storage facilities associated with municipal wastewater treatment plants, provided that residual sludge or solid waste from wastewater treatment facilities shall be discharged only in accordance with the applicable State Water Board promulgated provisions of this division. (Cal. Code Regs., tit. 27, § 20090(a).)

- b. Wastewater—Discharges of wastewater to land, including but not limited to evaporation ponds, percolation ponds, or subsurface leach fields if the following conditions are met: (1) the applicable Regional Water Board has issued WDRs, reclamation requirements, or waived such issuance; (2) the discharge is in compliance with the applicable water quality control plan; and (3) the wastewater does not need to be managed according to, California Code of Regulations, title 22, division 4.5, chapter 11, as a hazardous waste. (Cal. Code Regs., tit. 27, § 20090(b).)
- c. Reuse – Recycling of other use of materials salvaged from waste or produced by waste treatment, such as scrap metal, compost, and recycled chemicals, provided that discharges of residual wastes from recycling or treatment operations to land shall be according to applicable provisions of Title 27 regulations.(Cal. Code Regs., tit. 27, § 20090(h).)

### ANTIDegradation ANALYSIS

27. [State Water Board Resolution No. 68-16](#), the *Statement of Policy with Respect to Maintaining High Quality of Waters in California* (the Antidegradation Policy) requires that disposal of waste into the waters of the state be regulated to achieve the highest water quality consistent with the maximum benefit to the people of the state. The quality of some waters is higher than established by adopted policies and that higher quality water shall be maintained to the maximum extent possible consistent with the Antidegradation Policy. The Antidegradation Policy requires the following:
- a. Higher quality water will be maintained until it has been demonstrated to the state that any change will be consistent with the maximum benefit to the people of the state, will not unreasonably affect present and anticipated beneficial use of the water, and will not result in water quality less than that prescribed in the policies.
  - b. Any activity that produces a waste or may produce waste or increased volume or concentration of waste and discharges to existing high quality waters will be required to meet waste discharge requirements that will result in the best practicable treatment or control (BPTC) of the discharge necessary to assure pollution or nuisance will not occur, and the highest water quality consistent with the maximum benefit to the people of the state will be maintained.
28. This General Order regulates discharges to groundwater basins throughout the state. There is not sufficient data to determine which groundwater basins are high quality waters for the various constituents that may be associated with recycled water. To the extent use of recycled water may result in a discharge to a groundwater basin that contains high quality water, this General Order authorizes limited degradation consistent with the Antidegradation Policy as described in the findings below. Further, Salt and Nutrient Management Plans,

developed in accordance with the Recycled Water Policy, will require analysis on an ongoing basis to evaluate inputs to the basin, the salt and nutrient mass balance, and the available assimilative capacity.

29. This General Order requires BPTC, which is a combination of treatment, storage, and application methods that implement the requirements of the Uniform Statewide Recycling Criteria and the Regional Water Board Water Quality Control Plans (Basin Plans). Recycled water is generated by treating (primarily) domestic wastewater adequately to make the water suitable for a direct beneficial use that would not otherwise occur. The required level of treatment corresponds to the proposed use of the recycled water. In addition, this General Order includes requirements regarding the storage and application of recycled water to protect water quality and limit public contact to recycled water, where appropriate. Wastewater treatment can be accomplished many different ways, but generally consists of physical, chemical, and/or biological methods. Depending upon the use of the recycled water, disinfection may be performed. In addition to the treatment processes, this General Order also requires the following control measures:
  - a. Recycled water use shall not cause unacceptable groundwater and/or surface water degradation.
    - i. Regional Water Boards have discretion regarding permitting storage of recycled water in unlined ponds. Applicants shall improve storage facilities if deemed necessary by a Regional Water Board.
    - ii. Application of recycled water is limited to agronomic rates, which limits the potential for significant amounts of recycled water to impact groundwater quality and allows plants to take up wastewater constituents such as nitrogen compounds.
    - iii. Recycled water use shall be controlled to prevent significant runoff from application areas. This General Order authorizes use of recycled water for application to land, where recycled water is further treated in natural soil processes.
  - b. Recycled water shall not create nuisance conditions.
    - i. The Uniform Statewide Recycling Criteria requires wastewater to be oxidized, which removes putrescible matter and requires dissolved oxygen. Maintaining dissolved oxygen in the wastewater will generally prevent nuisance odors.
    - ii. Application of recycled water is controlled to prevent airborne spray from entering dwellings, eating areas, or food handling areas.
    - iii. Application of recycled water to saturated soil is prohibited. Application to saturated soil reduces the soil treatment processes and may create conditions for mosquito breeding.



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- c. Recycled water shall only be used consistent with the Uniform Statewide Recycling Criteria and any other requirements specified in the Notice of Applicability.
    - i. A written approval of a Title 22 Engineering Report must be obtained from the State Water Board before a Notice of Applicability (NOA) can be issued.
    - ii. Uses of recycled water are subject to category-specific use area signage, and monitoring frequency requirements as specified in the Uniform Statewide Recycling Criteria. Uses not addressed by the Uniform Statewide Recycling Criteria will be considered on a case-by-case basis by Regional Water Boards , after consulting with and receiving the recommendations of the State Water Board. These recommendations become requirements of the Order when specified in the Notice of Applicability.
    - iii. Uses of recycled water are subject to backflow prevention, cross connection tests, and setback requirements for surface impoundments, wells, etc. as contained in the Uniform Statewide Recycling Criteria and California Code of Regulations, title 17, division 1, article 2.
30. In an arid climate, such as the climate that exists in most of California, the maximum benefit to the people of the state can only be achieved by ensuring long and short-term protection of economic opportunities, public health, and environmental protection. In order to do that, water uses must be better matched to water quality and use of local supplies must be encouraged to the extent possible, including reusing water that would otherwise flow to the ocean or other salt sinks without supporting beneficial uses during transmission. The use of recycled water in place of both raw and potable water supplies for the non-potable uses allowed under this General Order improves water supply availability and helps to ensure that higher quality water will continue to be available for human uses and for instream uses for fish and wildlife. It also reduces the need for groundwater pumping that has resulted in permanent loss of aquifer storage capacity and land subsidence in some parts of the state.

As required by the Antidegradation Policy, the State Water Board finds that the limited degradation of water that may occur as the result of recycling under the conditions of this General Order provides maximum benefit to the people of California, provided recycled water treatment and use are managed to ensure long-term reasonable protection of beneficial uses of waters of the state. Recycled water available for reuse under this General Order has been treated at a wastewater treatment plant to levels that comply with permits issued by the State Water Board or Regional Water Boards pursuant to the Clean Water Act for discharges to waters of the United States or the Porter Cologne Water Quality Control Act for discharges to land. Treatment technologies required under these

laws and permits include secondary and/or tertiary treatment and disinfection when needed for pathogen reduction.

The Uniform Statewide Recycling Criteria imposes limitations on the uses of recycled water, based on the level of treatment and the specific use in this General Order to protect public health. By restricting the use of recycled water to those meeting the Uniform Statewide Recycling Criteria, this General Order ensures that recycled water is used safely. To the extent that the use of recycled water may result in some waste constituents entering the environment after effective source control, treatment, and control measures are implemented, the conditions of this General Order limiting the use of recycled water to agronomic rates is part of the suite of treatment, storage and applications measures that comprise BPTC for uses with frequent or routine application, such as landscape or agricultural irrigation. Other types of uses that may be approved, such as dust control, firefighting, hydrostatic testing, and other short term or infrequent application are unlikely to result in sufficient loading of waste constituents that impact water quality.

31. Constituents associated with recycled water that have the potential to degrade groundwater include salinity, nutrients, pathogens (represented by coliform bacteria), disinfection by-products (DBPs), constituents of emerging concern (CECs), and endocrine disrupting chemicals (EDCs). If the discharge is not consistent with Basin Plan requirements, the applicant may elect to improve treatment to enroll under this General Order, or to apply for a site-specific order from the Regional Water Board. The State Water Board finds that the use of recycled water permitted under this General Order will not unreasonably affect beneficial uses or result in water quality that is less than that prescribed in applicable policies. The characteristics and requirements associated with each of the recycled water constituents of concern are discussed below:
  - a. Salinity is measured in water through various measurements, including but not limited to, total dissolved solids (TDS) and electrical conductivity. Excessive salinity can impair the beneficial uses of water. Salinity levels in the receiving water can be affected by the use of recycled water if the recycled water has elevated concentrations of salinity. However, it is anticipated that in most cases, the use of recycled water for irrigation will consist of a portion of the total applied irrigation water. Other sources of irrigation water are likely to be potable water, imported water, agricultural water supply wells, irrigation districts (surface water supplies), and precipitation. The blending of sources of irrigation water (e.g. recycled water blended with stormwater) will generally reduce concentrations of, and/or loading rates of salinity constituents. As a result, salinity increases in use areas where the irrigation water is a blend of water sources are less likely to impair an existing and/or potential beneficial use of groundwater.

- b. Nitrogen is a nutrient that may be present in recycled water at a concentration that can degrade groundwater quality. This General Order requires application of recycled water to take into consideration nutrient levels in recycled water and nutrient demand by plants. Application of recycled water at agronomic rates and considering soil, climate, and plant demand minimizes the movement of nutrients below the plants' root zone. When applied to cropped (or landscaped) land, some of the nitrogen in recycled water will be taken up by the plants, lost to the atmosphere through volatilization of ammonia or denitrification, or stored in the soil matrix. As a result, nitrogen increases are unlikely to impair an existing and/or potential beneficial use of groundwater.
- c. Pathogens and other microorganisms may be present in recycled water based on the disinfection status. Coliform bacteria are used as a surrogate (indicator) because they are present in untreated wastewater, survive in the environment similar to pathogenic bacteria, and are easy to detect and quantify. Pathogens are generally limited in their mobility when applied to land.

Setbacks from recycled water use areas are required in the Uniform Statewide Recycling Criteria as a means of reducing pathogenic risks by coupling pathogen inactivation rates with groundwater travel time to a domestic water supply well or other potential exposure route (e.g. water contact activities). In general, a substantial unsaturated zone reduces pathogen survival compared to saturated soil conditions. Fine grained soil particles (silt or clay) reduce the rate of groundwater transport and therefore are generally less likely to transport pathogens. Setbacks also provide attenuation of other recycled water constituents through physical, chemical, and biological processes.

When needed, disinfection can be performed in a number of ways. The Uniform Statewide Recycling Criteria lists disinfection requirements for specifically listed activities.

- d. Disinfection by-products (DBPs) consist of organic and inorganic substances produced by the interaction of chemical disinfectants with naturally occurring substances in the water source. Common disinfection by-products include trihalomethanes, haloacetic acids, bromate, and chlorite. DBPs present in recycled water receive additional treatment when applied to land. Biodegradation, adsorption, volatilization, and other attenuative processes that occur naturally in soil will reduce the concentrations and retard migration of DBPs in the subsurface.
- e. Chemicals of Emerging Concern (CECs) in recycled water as they pertain to the State Water Board's Recycled Water Policy are defined to be chemicals in personal care products, pharmaceuticals including antibiotics, antimicrobials; industrial, agricultural, and household chemicals; hormones;

food additives; transformation products, inorganic constituents; and nanomaterials. CECs are new classes of chemicals, diverse, and relatively unmonitored chemicals. Many of them are so new that standardized measurement methods and toxicological data for interpreting their potential human or ecosystem health effects are unavailable. The State Water Board convened a CEC Advisory Panel to address questions about regulating CECs with respect to the use of recycled water. The Panel's primary charge was to provide guidance for developing monitoring programs that assess potential CEC threats from various water recycling practices, including groundwater recharge/reuse and urban landscape irrigation. The Panel provided recommendations for monitoring specific CECs in recycled water used for groundwater recharge reuse. Monitoring of health-based CECs or performance indicator CECs is not required for recycled water used for landscape irrigation due to the low risk of ingestion of the water. These recommendations were made part of the Recycled Water Policy. This General Order does not provide coverage for groundwater recharge activities or production of recycled water.

- f. Endocrine disrupting chemicals (EDCs) are mostly man-made, found in various materials such as pesticides, metals, additives, or contaminants in food, and personal care products. Human exposure to EDCs occurs via ingestion of food, dust and water, via inhalation of gases and particles in the air, and through the skin. Perchlorate is an EDC that may be present in hypochlorite solutions, which is a type of disinfectant used for wastewater. Formation of perchlorate in hypochlorite solution can be minimized when proper manufacturing, handling, and storage conditions are followed. Perchlorate accumulation has been documented in fruit and seed bearing crops and leafy vegetation irrigated with perchlorate contaminated water. Recycled water currently makes up less than one percent of California agricultural water supply. Much of the recycled water used for agricultural irrigation is either undisinfected or is disinfected by means that do not result in perchlorate generation, such as ultraviolet light and chlorine gas. Some sources of agricultural water supply in some areas of the state contain perchlorate, such as surface water from Colorado River or groundwater sources in areas near industrial or military application sites (e.g. Riverside, San Bernardino, and Los Angeles counties). The blending of sources of irrigation water will further reduce any concentration of perchlorate present in recycled water and will be unlikely to affect beneficial uses or degrade groundwater quality.
32. The use of recycled water that would otherwise be discharged to a watercourse can adversely affect the availability of water for beneficial uses of water downstream of the discharge point, including in-stream uses. Water Code section 1211 requires that: (1) the owner of any wastewater treatment plant obtain the approval of the State Water Board before making any change in the

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point of discharge, place of use, or purpose of use of treated wastewater where changes to the discharge or use of treated wastewater have the potential to decrease the flow in any portion of a watercourse, and (2) the State Water Board review the proposed changes pursuant to the provisions of Water Code section 1700 *et seq.* In order to approve the proposed change, the State Water Board must determine that the proposed change will not operate to the injury of any legal user of the water involved. (Wat. Code, §1702.) The State Water Board also has an independent obligation to consider the effect of the proposed change on public trust resources and beneficial uses established for areas downstream of the discharge point, and to protect those resources where feasible. (*National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419 [189 Cal. Rptr. 346].)

33. This General Order authorizes uses of recycled water statewide. If an existing or proposed use of recycled water seeking coverage under this General Order could result in water quality degradation as described below, the Regional Water Board's Executive Officer shall notify the applicant/discharger of the need to either revise the proposed/existing project, or apply for or continue coverage under a site-specific order of the Regional Water Board. The Regional Water Board's Executive Officer or the State Water Board's Executive Director (or designee) shall explain the need for a revised project, design, operation, or coverage under a different order, by making one or more of the following findings in the NOI response letter:
- a. The proposed use of recycled water is not consistent with Findings 27 through 32 of this General Order, which collectively provide for compliance with antidegradation findings for projects covered by this General Order. The degradation may be from salinity, nitrogen compounds, pathogens, disinfection by-products, or other substances.
  - b. The proposed method of recycled water storage in unlined ponds is not consistent with Findings 27 through 32 of this General Order, which collectively provide for compliance with antidegradation findings for projects covered by this General Order. The degradation may be from salinity, nitrogen compounds, pathogens, disinfection by-products, or other substances.
  - c. The proposed use of recycled water or method of recycled water storage will cause or contribute to pollution or nuisance, or otherwise fail to comply with the applicable Basin Plan or State Water Board plans or policies.
  - d. The proposed use of recycled water does not implement mitigation measures in a California Environmental Quality Act (CEQA) document.
  - e. The proposed use of recycled water is not consistent with a Total Maximum Daily Load (TMDL) waste load or load allocation, or implementation plan as adopted by the Regional Water Board and made part of the Regional Water Board's Basin Plan.

- f. The proposed use of recycled water is not consistent with the Basin Plan provisions for implementing a Salt and Nutrient Management Plan.

### **PURPOSE AND APPLICABILITY**

- 34. The State Water Board recognizes the need for streamlined permitting consistent with the State Water Board's Recycled Water Policy. The State Water Board's intention in the issuance of this statewide order is to provide consistent regulation of non-potable uses of recycled water statewide. To provide such consistency, the State Water Board intends that regulatory coverage under an existing Regional Water Board general order or conditional waiver for non-potable uses of recycled water (landscape irrigation, golf course irrigation, dust control, street sweeping, etc.) will be terminated by the applicable Regional Water Board within three (3) years after adoption of this General Order. Enrollees covered by a Regional Water Board general order or conditional waiver for non-potable uses of recycled water may continue discharging under that authority until the applicable Regional Water Board issues a Notice of Applicability to an Administrator per the terms of this Order. Enrollees under Order WQ 2014-0090-DWQ will be transferred for coverage under this General Order.
- 35. This document serves as a statewide General Order authorizing the use of recycled water by Producers, Distributors, and Users for uses consistent with the Uniform Statewide Recycling Criteria, other than direct or indirect potable reuse. The intent of this General Order is to streamline the permitting process and delegate the responsibility of administering water recycling programs to an Administrator to the fullest extent possible. The following may apply for coverage under this General Order and agree to become the Administrator:
  - a. Producers of recycled water: Producers may be publicly or privately owned. A Producer will typically produce recycled water that meets the requirements of the Uniform Statewide Recycling Criteria. A Producer may also act as an Administrator.
  - b. Distributors of recycled water: In some cases, a Distributor may provide additional treatment (such as disinfection) to meet the Uniform Statewide Recycling Criteria for its intended use, and distribute it to Users. A Distributor is not required to take physical possession of the recycled water and may act simply as an Administrator.
  - c. Users of recycled water: Users take physical possession of the recycled water from Producers and/ or Distributors for an approved beneficial recycled water use consistent with Uniform Statewide Recycling Criteria. A User that takes physical possession of recycled water may act as an Administrator and distribute to other Users. Users of recycled water may also use the recycled water under a Water Recycling Use Permit from another Administrator.

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- d. A legal entity: A joint powers agreement or equivalent contractual agreement between a Producer, Distributor, irrigation district, or other entity. Similar to a Distributor, a legal entity is not required to take physical possession of the recycled water and may act simply as an Administrator.
36. To obtain coverage under this General Order, the applicant shall submit an NOI (Attachment A) and an application fee to the Regional Water Board of jurisdiction. An applicant proposing a water recycling program that covers recycled water use areas within multiple Regional Water Board jurisdictions may submit an NOI (Attachment A) and application fee to the State Water Board. Fee amounts are in accordance with California Code of Regulations, title 23, division 3, chapter 9, article 1. The applicant shall declare responsibility for the administration of the water recycling program authorized pursuant to this General Order. The applicant shall describe a program they will administer to ensure that recycled water use complies with the requirements of the Uniform Statewide Recycling Criteria, and this General Order. Upon authorization by the State or Regional Water Board, the applicant then becomes the Administrator. The Administrator shall be billed for an annual fee until coverage under the General Order is terminated.
37. Pursuant to Water Code section 13554.2, any person or entity proposing the use of recycled water shall reimburse the State Water Board for reasonable costs incurred in performing duties relevant to the implementation of regulatory oversight related to protection of public health for uses of recycled water.
38. This General Order does not authorize discharges of pollutants from point sources to water of the United States, thus the use of recycled water allowed pursuant to the terms of this General Order are not subject to National Pollutant Discharge Elimination System (NPDES) permits. To the extent that this General Order results in agricultural irrigation return flows entering waters of the United States, such return flows are not subject to NPDES permits (33 U.S.C., §1342(l)(1)) but may be subject to waste discharge requirements or conditional waivers as adopted by Regional Water Boards. Where such waste discharge requirements or conditional waivers exist, this General Order requires that uses of recycled water comply with their provisions.
39. The State Water Board recognizes the need to allow a centralized enrollment process under this General Order to facilitate opportunities for non-potable uses of recycled water by a single entity that may occur in more than one Regional Water Board jurisdictions (for example: hydrostatic testing of utility pipelines owned by a utility company or landscape irrigation at facilities managed by other state agencies). An NOI may be submitted to the State Water Board for such uses of recycled water, when managed by a single Administrator and subject to the corresponding recycled water quality, use area requirements, and reliability features.

40. Enrollment under this General Order may serve as additional authorization for new uses of recycled water presently not covered under existing WDRs, Master Reclamation Permits, or WRRs, as long as such new uses meet the requirements of this General Order and an approved Title 22 Engineering Report. A User that serves as an Administrator may use the additional authorization provided by this General Order to obtain recycled water from other Producers or Distributors permitted under other existing WDRs, Master Reclamation Permits, or WRRs.
41. Agricultural operations subject to waste discharge requirements or waivers of waste discharge requirements regulating discharges from irrigated lands may obtain authorization pursuant to this General Order to use recycled water for irrigation. Such authorization may take the form of a Water Recycling Use Permit from an Administrator covered by this General Order, or the agricultural operation may enroll as its own Administrator. The State Water Board recognizes the need to simplify regulation of recycled water use on agricultural lands. Pursuant to Water Code section 13267, Regional Water Boards' Executive Officers may modify the MRP to prevent duplication of monitoring and reporting activities that satisfy the requirements of both orders.

#### **BASIN PLANS AND BENEFICIAL USES**

42. Beneficial uses of groundwater are determined by each Regional Water Board and are listed in their respective Basin Plans. Beneficial uses for groundwater are: municipal supply (MUN), industrial service supply (IND), industrial process supply (PROC), fresh water replenishment (FRESH), aquaculture (AQUA), wildlife habitat (WILD), water contact recreation (REC-1), agricultural supply (AGR), and groundwater recharge (GWR). Some beneficial uses only apply to certain geographical areas within regions.
43. Basin Plans establish water quality objectives to protect beneficial uses. The water quality objectives may be narrative, numerical, or both. This General Order requires proposed recycled water uses to comply with Basin Plan requirements. Determination of compliance with the Basin Plan is part of the application process.

#### **CEQA AND PUBLIC NOTICE**

44. On April 25, 2014, the Governor issued an Executive Order declaring a continued state of emergency due to severe drought conditions. Directive No. 10 of the Executive Order directs the State Water Board to adopt statewide general waste discharge requirements to facilitate the use of treated wastewater that meets standards set by CDPH, in order to reduce demand on potable water supplies. Effective July 1, 2014 the authority to establish such standards was transferred from CDPH to the State Water Board. This General Order is intended to satisfy the Directive No. 10 requirement. Directive No. 19 of the Executive Order provides that the California Environmental Quality Act (CEQA)



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requirement to conduct an environmental review is suspended to allow the State Water Board to adopt this General Order as quickly as possible.

45. On November 13, 2015, the Governor issued an Executive Order (B-36-15) extending suspension of Division 13 (commencing with section 21000) of the Public Resources Code and regulations adopted pursuant to that Division in the January 17, 2014 Proclamation, April 25, 2014 Proclamation, and Executive Orders B-26-14, B-28-14, and B-29-15. The suspension will remain in effect until the drought state of emergency is terminated. The suspension also applies to the adoption of water reclamation requirements by the State Water Board that serve the purpose of paragraph 10 of the April 25, 2014 Proclamation.
46. The State Water Board has notified interested agencies and persons of its intent to prescribe these WRRs, and has provided them the opportunity to attend a public meeting and to submit their written views and recommendations.
47. The State Water Board, in a public meeting, heard and considered all comments pertaining to this matter.

**IT IS HEREBY ORDERED** that Order WQ 2014-0090-DWQ is hereby rescinded except for enforcement purposes, effective 60 calendar days after adoption of this General Order (“Effective Date”).

To enroll under this General Order, a prospective enrollee must file an NOI indicating its intention to be regulated under the provisions of this General Order, and receive authorization from the appropriate Regional Water Board. A prospective enrollee that intends to obtain authorization from multiple Regional Water Boards may file an NOI and receive authorization from the State Water Board.

To obtain coverage under this General Order, an enrollee under Order WQ 2014-0090-DWQ must notify the State Water Board of its intention to be regulated under this General Order. See Attachment A, “Who May Apply.” Coverage will terminate on the Effective Date for any existing enrollee that fails to submit the required documentation.

Pursuant to Water Code sections 13263, 13267, 13523 and 13523.1, enrollees under this Order, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, shall comply with the requirements in this Order.

#### **A. PROHIBITIONS**

1. The treatment, storage, distribution, or use of recycled water shall not cause or contribute to a condition of pollution as defined in Water Code section 13050(I) or nuisance as defined in Water Code section 13050(m).
2. Recycled water shall not be applied for irrigation during periods when soils are saturated.

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3. Recycled water shall not be allowed to escape from the use area(s) as surface flow that would either pond and/or enter surface waters, unless authorized by WDRs, waivers of WDRs, or conditional prohibitions regulating agricultural discharges from irrigated lands.
4. Spray or runoff shall not enter a dwelling or food handling facility and shall not contact any drinking water fountain, unless specifically protected with a shielding device. If the recycled water is undisinfected secondary or disinfected secondary-23 quality then spray or runoff shall not enter any place where public access is not restricted during irrigation.
5. The incidental runoff of recycled water shall not result in water quality less than that prescribed in water quality control plans or policies unless authorized through time schedule provisions in WDRs, waivers of WDRs, or conditional prohibitions regulating agricultural discharges from irrigated lands.

Recycled water shall not be discharged from treatment facilities, irrigation holding tanks, storage ponds, or other containment, other than for permitted use in accordance with this General Order; Regional Water Board issued WDRs, WRRs, or Master Reclamation Permits; NPDES permits; or a contingency plan in an approved Water Recycling Use Permit.

6. There shall be no cross-connection between potable water supply and piping containing recycled water. All Users of recycled water shall provide for appropriate backflow protection for potable water supplies as specified in California Code of Regulations, title 17, section 7604 or as determined by the State Water Board on a case-by-case basis to protect public health.
7. This General Order authorizes certain beneficial recycled water uses consistent with Uniform Statewide Recycling Criteria. The following activities are not authorized by this General Order:
  - a. Activities designed to replenish groundwater resources. Groundwater replenishment activities include surface spreading basins, percolation ponds, or injection through groundwater wells.
  - b. Disposal of treated wastewater by means of percolation ponds, excessive hydraulic loading of application areas, or any other method, where the primary purpose of the activity is the disposal of treated wastewater.
  - c. Direct potable reuse (Wat. Code, § 13561(b)), indirect potable reuse for groundwater recharge (Wat. Code, § 13561(c)), or surface water augmentation (Wat. Code, § 13561(d)).
8. The use of recycled water in violation of the applicable Regional Water Board's Basin Plan is prohibited.

## **B. SPECIFICATIONS**

1. Recycled water distribution and use permitted under this General Order shall be in compliance with all of the following requirements:
  - a. Regulations related to recycled water (including its subsequent revisions) contained in California Code of Regulations, title 17, sections 7583 – 7586, sections 7601 – 7605, and California Code of Regulations, title 22, sections 60001 – 60355.
  - b. All requirements of this General Order.
  - c. An approved Title 22 Engineering Report that demonstrates or defines compliance with the Uniform Statewide Recycling criteria (and amendments).
  - d. The NOA issued by the Regional Water Board or State Water Board.
  - e. Applicable Salt and Nutrient Management Plan adopted by the Regional Water Board as a Basin Plan Amendment.
  - f. WDRs or NPDES permits for recycled water production facilities, to the extent that the WDRs or NPDES permits include provisions that address recycled water.
  - g. Any applicable water quality related CEQA mitigation measure.
  - h. Water Code section 1211 for facilities where the changes to the discharge are necessary to accomplish water recycling and will result in changes in flow in a watercourse.
  - i. Policy for Water Quality Control for Recycled Water (Recycled Water Policy)
2. The Administrator shall discontinue delivery of recycled water during any period in which it has a reason to believe that the quality of the delivered recycled water is not meeting the Uniform Statewide Recycling Criteria specification. The Administrator shall notify the Regional Water Board, and the State Water Board if it issued the NOA, within one (1) business day of determining that delivery of off-specification recycled water has taken place. In circumstances where the emergency requires termination of delivery to Users, the Regional Water Board, and the State Water Board if it issued the NOA, shall be copied on any correspondence concerning non-compliance between the Administrator and User. This notification does not supersede any notification requirements contained within a Producer's WDRs or Master Reclamation Permit for production facilities.
3. Uses of recycled water with frequent or routine application (for example: agricultural or landscape irrigation uses) shall be at agronomic rates and shall consider soil, climate, and plant demand. In addition, application of recycled water and use of fertilizers shall be at a rate that takes into consideration nutrient levels in recycled water and nutrient demand by plants. The State or Regional Water Board may require the Administrator to submit an Implementation or

Operations and Management Plan specifying agronomic rates and nutrient application for the use area(s) and a set of reasonably practicable measures to ensure compliance with this General Order. An Administrator may submit a nutrient management plan developed to comply with another Water Board's order, such as waste discharge requirements or a waiver regulating discharges from irrigated lands, in lieu of an Implementation or Operations and Management Plan. Other uses of recycled water that are infrequent (for example: dust control, firefighting, hydrostatic testing, etc.) must also be addressed by a set of reasonably practicable measures within an Implementation or Operations and Management Plan.

### **C. WATER RECYCLING ADMINISTRATION REQUIREMENTS**

1. Applicants seeking coverage under this General Order shall submit an NOI in accordance with Attachment A. Responsibilities for an Administrator shall be described in the NOI.
2. Coverage under this General Order becomes effective when the State or Regional Water Board issues an NOA. The Regional Water Board and the State Water Board will coordinate to include Title 22 Engineering Report requirements and conditions of approval.
3. Under this General Order, the Administrator's program shall be implemented to accomplish compliance with Specification B.1. Upon State or Regional Water Board approval of the Administrator's program, which shall accompany the NOI, the Administrator may authorize and/or implement water recycling projects, in accordance with the Administrator's approved program and the approved Title 22 Engineering Report. The Administrator shall obtain written approvals for any changes to the Administrator's approved program, for example: new recycled water use types or distribution methods not already described in the Administrator's approved program.
4. The Administrator shall establish and enforce rules or regulations for recycled water uses governing the design and construction of recycled water use facilities and the use of recycled water in accordance with Specification B.1.
5. A User acting as a water recycling program Administrator is subject to the conditions of its water recycling program prepared in accordance with Specification B.1. A User acting as a water recycling program Administrator is responsible to implement water recycling administration requirements applicable to Users and Administrators as described in Water Recycling Administration Requirements C.1 – C.16.
6. The Administrator shall inspect to ensure that cross-connections between potable water and non-potable water systems have not been created and that backflow prevention devices are in proper working order by conducting or requiring User testing in accordance with the Uniform Statewide Recycling Criteria and California Code of Regulations, title 17, section 7605. Reports of

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testing and maintenance shall be maintained by the Administrator. The Administrator may use a third party agent to perform this task, however, the Administrator is solely responsible for compliance with conditions of this permit and the approved water recycling program.

7. The Administrator shall ensure recycled water meets the quality standards of this General Order and shall be responsible for the operation and maintenance of major transport facilities and associated appurtenances. If an entity other than the Administrator has actual physical and ownership control over the recycled water transport facilities, the Administrator may delegate operation and maintenance responsibilities for such facilities to that entity. The Administrator shall require the use of the recycled water to be in accordance with the Uniform Statewide Recycling Criteria and to comply with this General Order, including requirements to apply only at agronomic rates and not cause unauthorized degradation, pollution, or nuisance. If not the same entity, the Producer shall provide water quality data and communicate to Users the nutrient levels in the recycled water.
8. The Administrator shall conduct periodic inspections of the User's facilities and operations to determine compliance with conditions of the Administrator requirements and this General Order. The Administrator shall take whatever actions are necessary, including the termination of delivery of recycled water to the User, to correct any User violations. The Administrator may use a third party agent to perform this task, however, the Administrator is solely responsible for compliance with conditions of this permit and the approved water recycling program.
9. The Administrator shall comply with all applicable items of the attached Standard Provisions and Reporting Requirements (Attachment C) and any amendments thereafter.
10. The Administrator shall require Users to comply with the Administrator's use area conditions. Use area requirements shall be consistent with Specification B.1.
11. If recycled water will be transported by truck for uses consistent with the Uniform Statewide Recycling Criteria such as dust control, the Administrator shall provide notification and control measures for Users consistent with the provisions of the approved Title 22 Engineering Report that addresses protection of public health.
12. A copy of the Water Recycling Use Permit must be provided to Users by the Administrator (electronic format is acceptable). The Users must have the documents available for inspection by State and Regional Water Board staff, State/County officials, and/or the Administrator.
13. The Administrator shall comply with the attached monitoring and reporting program including any amendments issued by the entity that issued the NOA (State or Regional Water Board). This monitoring program shall be consistent with any applicable Salt and Nutrient Management Plan for the basin/sub-basin.

The Administrator is responsible for collecting reports from Users. Where applicable, Users are responsible for submitting on-site observation reports and use data to the Administrator, who will compile and file an annual report with the entity that issued the NOA. The Administrator, at its discretion, may assume the User's responsibility for on-site observation reports and use data.

14. The Administrator and Users shall maintain in good working order and operate as efficiently as possible any facility or control system to achieve compliance with this General Order. The Administrator may use a third party agent to perform this task, however, the Administrator is solely responsible for compliance with conditions of this permit and the approved water recycling program.
15. The Administrator shall require that personnel receive training to assure proper operation of recycling facilities, worker protection, and compliance with this General Order. The Administrator shall require Recycled Water Supervisor(s) to be familiar with the Administrator permit conditions.
16. The Administrator shall assure that all above ground equipment, including pumps, piping, storage reservoir, and valves which may at any time contain recycled water are identified with appropriate notification as required by the Uniform Statewide Recycling Criteria and California Health and Safety Code section 116815. The Administrator may use a third party agent to perform this task, however, the Administrator is solely responsible for compliance with conditions of this permit and the approved water recycling program.

#### **D. GENERAL PROVISIONS**

1. The Administrator shall document compliance with all conditions of this General Order and requirements specified in the Uniform Statewide Recycling Criteria and California Code of Regulations title 17.
2. If directed by the State Water Board or a Regional Water Board pursuant to Water Code section 13267, an Administrator shall prepare and submit a Salt and Nutrient Management Plan, acceptable to the entity that issued such order, to ensure that the overall impact of permitted water recycling projects does not degrade groundwater resources in a manner inconsistent with Findings 27 through 32. Unless otherwise directed by the entity that issued such order, in lieu of developing an individual Salt and Nutrient Management Plan, the Administrator shall participate in a Regional Water Board's existing salt and nutrient management planning effort to meet the requirements of this provision.
3. State and/or Regional Water Board staff may conduct inspections/audits of water recycling projects. The Administrator and Users shall permit the State and/or Regional Water Board or its authorized representatives, in accordance with Water Code section 13267(c):

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- a. Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this General Order.
  - b. Access to and copy of, at reasonable times, any records that must be kept as a condition of this General Order.
  - c. Inspection, at reasonable times, of any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this General Order.
  - d. To sample or monitor, at reasonable times, for the purpose of assuring compliance with this General Order.
4. The State or Regional Water Board may terminate or modify an Administrator's coverage under this General Order for cause, including, but not limited to:
- a. Violation of any term or condition contained in this General Order;
  - b. Obtaining this General Order by misrepresentation, or failure to disclose fully all relevant facts;
  - c. Endangerment to public health or environment that can only be mitigated to acceptable levels by General Order modification or termination.
  - d. An increase in recycle flows which causes a reduction of treated effluent flow from the wastewater treatment plant into a surface water body with beneficial uses dependent on flow without the approval of the Division of Water Rights.
5. The State or Regional Water Board, upon a finding of non-compliance with this General Order, may revoke an Administrator's authority to issue Water Recycling Use Permits.
6. The State Water Board will review this General Order periodically and may revise the requirements as deemed necessary.
7. Users shall comply with all requirements of other applicable WDRs or waivers of WDRs, including without limitation WDRs or waivers regulating agricultural discharges from irrigated lands.
8. The Administrators shall comply with the MRP issued with the NOA, as specified by the Regional Water Board's Executive Officer or State Water Board's Executive Director (or designee). A model MRP is provided as Attachment B. However, the State Water Board's Executive Director (or designee) may modify or replace the MRP when deemed necessary.

**CERTIFICATION**

The undersigned, Clerk to the State Water Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on June 7, 2016.

AYE: Chair Felicia Marcus  
Vice Chair Frances Spivy-Weber  
Board Member Tam M. Doduc  
Board Member Steven Moore  
Board Member Dorene D'Adamo

NAY: None

ABSENT: None

ABSTAIN: None



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Jeanine Townsend  
Clerk to the Board



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Attachments:

- A. Notice of Intent (NOI) - General Instructions
- B. Monitoring and Reporting Program
- C. Standard Provisions & Reporting Requirements
- D. Definition of Terms

ATTACHMENT A: NOTICE OF INTENT (NOI) – GENERAL INSTRUCTIONS  
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**WHO MAY APPLY**

This Order is intended to serve as a statewide General Order for use of recycled water. It may be used to (1) replace waste discharge requirements (WDRs) / water reclamation requirements (WRR) , or a conditional waiver of WDRs; (2) serve as an additional authorization for new uses of recycled water not previously permitted, issued to any of the following:

- a. Producers of recycled water. Producers may be publicly or privately owned. A Producer will typically produce recycled water that meets the requirements of the Uniform Statewide Recycling Criteria. A Producer may also act as an Administrator.
- b. Distributors of recycled water. In some cases, a Distributor may provide additional treatment (such as disinfection) to meet the Uniform Statewide Recycling Criteria for its intended use, and distribute it to Users. A Distributor is not required to take physical possession of the recycled water and may act simply as an Administrator.
- c. Users of recycled water: Users take physical possession of the recycled water from a Producer or Distributor for an approved beneficial recycled water use consistent with the Uniform Statewide Recycling Criteria. Users may use the recycled water under a Water Recycling Use Permit from an Administrator or act as an Administrator.
- d. A legal entity such as a joint powers agreement or equivalent contractual agreement between a Producer, Distributor, irrigation district, or other entity. Similar to a Distributor, a legal entity is not required to take physical possession of the recycled water and may act simply as an Administrator.

Applicants that have been previously issued an order authorizing water recycling may be able to submit an abbreviated information package. Such applicants should contact Regional Water Board and State Water Board staff to determine the application information needs.

Enrollees covered under Order WQ 2014-0090-DWQ who wish to continue coverage must acknowledge in writing their consent to coverage under this General Order. Enrollees who submit the required documentation will automatically be covered under this General Order. The State Water Board will provide existing enrollees with a form for this purpose. A new NOI is not required if the project has not materially changed.

Any applicant whose NOI is pending on the date this General Order is adopted must update its NOI to request coverage under this General Order. If the NOI is approved before the Effective Date, the applicant will be enrolled in Order WQ 2014-0090-DWQ

until the Effective Date and coverage under this General Order will commence on the Effective Date.

## **WHERE TO APPLY**

An applicant should submit an NOI to their applicable Regional Water Board and submit a Title 22 Engineering Report to the applicable State Water Board Division of Drinking Water Field Operations Branch office. The NOI cannot be considered complete until the responsible staff in the State Water Board provides a Title 22 Engineering Report approval letter. An Applicant proposing to administer a water recycling program that covers recycled water use areas within multiple Regional Water Board jurisdictions and is therefore seeking General Order coverage from multiple Regional Water Boards may submit an NOI to the State Water Board.

## **WHEN TO APPLY**

An applicant should normally file the NOI at least 90 days prior to the project start.

## **WHAT TO FILE**

The NOI shall include a water recycling program technical report containing the following information:

### **SECTION I - FACILITY/WASTE TREATMENT INFORMATION**

Description of existing and/or proposed treatment, storage, and transmission facilities for water recycling (much of this may be from current orders/reports, but should be updated if necessary). This shall include the type and level of wastewater treatment for water recycling applications, estimated seasonal flows of recycled water, and a summary of monitoring data that describes the chemical, physical, and disinfection characteristics of the recycled water. A copy of the approved Title 22 Engineering Report and the corresponding State Water Board approval letter, shall be included in the submittal.

### **SECTION II – RECYCLED WATER APPLICATION**

Describe how recycled water will be used. This should include the following information:

- a. Administrator owned/controlled uses
  1. An estimated amount of recycled water used at use area(s)

ATTACHMENT A: NOI GENERAL INSTRUCTIONS  
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2. Relevant information regarding use type and use area (e.g. for agricultural irrigation use, provide information on irrigation type, acreage, and locations; for hydrostatic testing of utility pipelines, provide information on project locations, schedule/duration of testing, and type of utility pipeline; etc.).
  3. A proposed Implementation or Operations and Management plan (Plan). For uses with frequent or routine application (such as irrigation), the Plan shall specify agronomic rates and nutrient application for the use area(s) and a set of reasonably practicable measures to ensure compliance with this General Order. For uses with infrequent or non-routine applications, the Plan shall specify a list of practices to ensure compliance with this General Order. The Plan may include a water and nutrient budget for use area(s), site supervisor training, periodic inspections, or other appropriate measures. An Administrator may submit a nutrient management plan developed to comply with another Water Board order, such as waste discharge requirements or a waiver regulating discharges from irrigated lands, in lieu of an Implementation or Operations and Management Plan.
- b. Non-Administrator owned/controlled uses or contracted user applications (use areas that consist of small lots, e.g., residential/ industrial developments, roadway median irrigation, etc., may be aggregated to combine acreage for calculation purposes.)
1. List of Users receiving or proposing to receive recycled water (including a list of uses of recycled water for each User).
  2. An estimated amount of recycled water used at use area(s) of each User.
  3. A proposed Implementation or Operations and Management plan (Plan). For uses with frequent or routine application (such as irrigation), the Plan shall specify agronomic rates and nutrient application for the use area(s) and a set of reasonably practicable measures to ensure compliance with this General Order. For uses with infrequent or non-routine applications, the Plan shall specify a list of practices to ensure compliance with this General Order. The Plan may include a water and nutrient budget for use area(s), site supervisor training, periodic inspections, or other appropriate measures. This requirement does not apply to the extent Users are subject to WDRs or waivers of WDRs that require implementation of nutrient management plans.
  4. Descriptions/maps of use area(s).
  5. Method(s) of conveyance to Users.

### SECTION III - DESCRIPTION OF WATER RECYCLING PROGRAM

The Administrator's water recycling program should be fully described as follows:

- a. Description of the Administrator agency's authority, rules, and/or regulations
- b. Design and implementation of program
- c. Cross-connection testing responsibilities and procedures
- d. Monitoring and Reporting Program
- e. Use area inspection program
- f. Operations and Maintenance program
- g. Compliance program
- h. Employee and User Training
- i. Emergency procedures and notification

### SECTION IV - ADDITIONAL SITE SPECIFIC CONDITIONS

If existing orders have additional site specific conditions and/or restrictions not covered in the General Order, they shall be described here. If a CEQA document for the project was prepared, include a copy of the certified or adopted document(s).

### SECTION V - WATER RECYCLING PROGRAM ADMINISTRATION

Describe organization and responsibilities of pertinent personnel involved in the water recycling program. Provide the name(s), title(s) and phone number(s) of contact person(s) who are charged with operation/oversight of the water recycling program. Identify all agencies or entities involved in the production, distribution, and use of recycled water, and include a description of legal arrangements, such as, but not limited to, charters, agreements, or Memorandum of Understanding. Copies of such legal documents and organizational charts may be useful.

ATTACHMENT B: MONITORING AND REPORTING PROGRAM  
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This monitoring and reporting program (MRP) describes requirements for monitoring a recycled water system. This MRP is issued pursuant to Water Code section 13267. The Administrator shall not implement any changes to this MRP unless and until a revised MRP is issued by the Regional Water Quality Control Board (Regional Water Board) Executive Officer.

The State Water Resources Control Board (State Water Board) and Regional Water Boards are transitioning to the paperless office system.

During the life of this General Order, the State Water Board or Regional Water Board may require the Administrator to electronically submit reports using the State Water Board's California Integrated Water Quality System (CIWQS) program or an alternative database. Electronic submittal procedures will be provided when directed to begin electronic submittals. Until directed to electronically submit reports, the Administrator shall submit hard copy reports.

In some regions, Administrators will be directed to submit reports (both technical and monitoring reports) to the State Water Board's GeoTracker database over the Internet in portable document format (pdf). In addition, analytical data shall be uploaded to the GeoTracker database under a site-specific global identification number. Information on the GeoTracker database is provided on the Internet at:

<[http://www.waterboards.ca.gov/ust/electronic\\_submittal/index.shtml](http://www.waterboards.ca.gov/ust/electronic_submittal/index.shtml)>

The Administrator has applied for and received coverage for the recycled water system that is subject to the notice of applicability (NOA) of Water Quality Order 2016-0068-DDW. The reports are necessary to ensure that the Administrator complies with the NOA and General Order. Pursuant to California Water Code section 13267, the Administrator shall implement this MRP and shall submit the monitoring reports described herein.

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. The name of the sampler, sample type (grab or composite), time, date, location, bottle type, and any preservative used for each sample shall be recorded on the sample chain of custody form. The chain of custody form must also contain all custody information including date, time, and to whom samples were relinquished. If composite samples are collected, the basis for sampling (time or flow weighted) shall be approved by Regional Water Board staff.

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Field test instruments (such as those used to test pH, dissolved oxygen, and electrical conductivity) may be used provided that they are used by a California Environmental Laboratory Program (ELAP) certified laboratory or:

1. The user is trained in proper use and maintenance of the instruments;
2. The instruments are field calibrated prior to monitoring events at the frequency recommended by the manufacturer;
3. Instruments are serviced by the manufacturer or authorized representative at the recommended frequency; and
4. Field calibration reports are maintained and available for at least three years.

Monitoring requirements listed below may duplicate existing requirements under other orders including WDRs or waivers of WDRs that regulate agricultural discharges from irrigated lands. Duplication of sampling and monitoring activities are not required if the monitoring activity satisfies the requirements of this General Order. Collecting composite samples is acceptable in most cases. The facility may continue using existing sampling collection equipment that is consistent with the applicable facility order. However, due to short sample holding times, bacteriological samples collected to verify disinfection effectiveness must be grab samples. In addition to submitting the results under another order, the results shall be submitted in the reports required by this General Order.

All of the monitoring listed below may not be applicable to all recycled water projects. Consult the NOA or Regional Water Board staff to determine applicable requirements.

### RECYCLED WATER MONITORING

If recycled water is used for irrigation of landscape areas<sup>1</sup>, priority pollutant monitoring is required at the production facility. The frequency of monitoring corresponds to the flow rate of the recycled water use. Sampling shall be consistent with the following:

<u>Constituent</u>	<u>Treatment System Flow Rate</u>	<u>Sample Frequency</u>	<u>Reporting Frequency</u>
Priority Pollutants	< 1mgd	5 years	The next annual report.
	≥ 1mgd	Annually	Annually

<sup>1</sup> mgd denotes million gallons per day.

1 Landscape areas are defined as parks; greenbelts, playgrounds; school yards; athletic fields; golf courses; cemeteries; residential landscaping; common areas; commercial landscaping (except eating areas); industrial landscaping (except eating areas); freeway, highway, and street landscaping.

### DISINFECTION SYSTEM MONITORING

If disinfection is performed, samples shall be collected from downstream of the disinfection system and analyzed by an approved laboratory per Title 22, section 60321(a). Depending upon the level of disinfection and recycled water application to land, monitoring requirements vary. Disinfection monitoring shall be customized to the site-specific conditions from the following:

<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency</u>	<u>Reporting Frequency</u>
Total Coliform Bacteria	MPN/100 mL <sup>(a)</sup>	Grab	TBD <sup>(b)</sup>	TBD <sup>(c)</sup>
Turbidity	NTU <sup>(a)</sup>	Grab/Meter	TBD <sup>(b)</sup>	TBD <sup>(c)</sup>

<sup>(a)</sup> MPN/100 mL denotes most probable number per 100 mL sample. NTU denotes nephelometric turbidity unit.

<sup>(b)</sup> TBD (to be determined) shall be specified in the NOA or as required by California Code of Regulations, title 22 section 60321.

<sup>(c)</sup> TBD (to be determined) shall be specified in the NOA or as required by CCR, title 22, section 60329(c).

### POND SYSTEM MONITORING

In some cases, recycled water storage ponds may be used to store recycled water when it is not needed. These monitoring requirements apply only to ponds permitted through this General Order. Ponds covered by an existing order shall continue to be monitored in accordance with that order. Pond(s) containing recycled water shall be monitored for the following:

<u>Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency</u> <sup>(a)</sup>	<u>Reporting Frequency</u>
Freeboard	0.1 feet	Measurement	Quarterly	Annually
Odors	--	Observation	Quarterly	Annually
Berm condition	--	Observation	Quarterly	Annually

<sup>(a)</sup> Or less frequently if approved by the Regional Water Board Executive Officer

### USE AREA MONITORING

The Administrator shall monitor use areas(s) at a frequency appropriate to determine compliance with this General Order and the Administrator's recycled water use program requirements. An Administrator may assign monitoring responsibilities to a User as part of the Water Recycling Use Permit program; the Administrator retains responsibility to ensure the data is collected, as well as prepare and submit the annual report.



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The following shall be recorded for each user with additional reporting for use areas as appropriate. The frequency of use area inspections shall be based on the complexity and risk of each use area. Use areas may be aggregated to combine acreage for calculation or observation purposes. Use area monitoring shall include the following parameters:

<u>Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sampling Frequency</u> <sup>(a)</sup>	<u>Reporting Frequency</u>
Recycled Water User	--	--	--	Annually
Recycled Water Flow	gpd <sup>(b)</sup>	Meter <sup>(c)</sup>	Monthly	Annually
Acreage Applied <sup>(d)</sup>	Acres	Calculated	--	Annually
Application Rate	inches/acre/year	Calculated	--	Annually
Soil Saturation/Ponding	--	Observation	Quarterly	Annually
Nuisance Odors/Vectors	--	Observation	Quarterly	Annually
Discharge Off-Site	--	Observation	Quarterly	Annually
Notification Signs <sup>(e)</sup>	--	Observation	Quarterly	Annually

<sup>(a)</sup> Or less frequently if approved by the Regional Water Board Executive Officer.

<sup>(b)</sup> gpd denotes gallons per day.

<sup>(c)</sup> Meter requires meter reading, a pump run time meter, or other approved method.

<sup>(d)</sup> Acreage applied denotes the acreage to which recycled water is applied.

<sup>(e)</sup> Notification signs shall be consistent with the requirements of California Code of Regulations, title 22, section 60310 (g).

### COOLING/INDUSTRIAL/OTHER USES OF RECYCLED WATER

If recycled water is used for industrial, commercial cooling, or air conditioning in which a mist is generated, the cooling system shall comply with California Code of Regulations, title 22, section 60306 (c).

### DUAL PLUMBED RECYCLED WATER SYSTEMS

If dual plumbed recycled water systems are proposed, consult with State Water Board for additional reporting, design, and operation requirements. The frequency of testing for cross connection and backflow prevention devices shall be as listed below or more frequently if specified by State Water Board.

<u>Requirement</u>	<u>Frequency</u>	<u>Reporting Frequency</u>
Cross Connection Testing	Four Years <sup>(a)</sup>	30 days/Annually <sup>(b)</sup>
Backflow Incident	--	24 hours from discovery
Backflow Prevention Device Testing and Maintenance	Annually <sup>(c)</sup>	Annually

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- (a) Testing shall be performed at least every four years, or more frequently at the discretion of the State Water Board Division of Drinking Water.
- (b) Cross connection testing shall be reported pursuant to California Code of Regulations, title 22, section 60314. The report shall be submitted to State Water Board within 30 days and included in the annual report to the Regional Water Board.
- (c) Backflow prevention device maintenance shall be tested by a qualified person as described in California Code of Regulations, title 17, section 7605.

## REPORTING

In reporting monitoring data, the Administrator shall arrange the data in tabular form so that the date, data type (e.g., flow rate, bacteriological, etc.), and reported analytical or visual inspection results are readily discernible. The data shall be summarized to illustrate compliance with this General Order and NOA as applicable. The results of any monitoring done more frequently than required at the locations specified in the MRP shall be reported in the next regularly scheduled monitoring report and shall be included in calculations as appropriate.

During the life of this General Order, the State Water Board or Regional Water Board may require the Administrator to electronically submit reports using the State Water Board's California Integrated Water Quality System (CIWQS) program or an alternative database. Electronic submittal procedures will be provided when directed to begin electronic submittals. Until directed to electronically submit reports, the Administrator shall submit hard copy reports.

### A. Annual Report

Annual Reports shall be submitted to the Regional Water Board by **April 1<sup>st</sup> following the monitoring year**. The Annual Report shall include the following:

1. A summary table of all recycled water Users and use areas. Maps may be included to identify use areas. Newly permitted recycled water Users and use areas shall be identified. When applicable, supplement to the Title 22 Engineering Report and the State Water Board approval letter supporting those additions shall be included.
2. A summary table of all inspections and enforcement activities initiated by the Administrator. Include a discussion of compliance and the corrective action taken, as well as any planned or proposed actions needed to bring the discharge into compliance with the NOA and/or General Order. Copies of documentation of any enforcement actions taken by the Administrator shall be provided.
3. An evaluation of the performance of the recycled water treatment facility, including discussion of capacity issues, system problems, and a forecast of the flows anticipated in the next year.

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4. Tabular and graphical summaries of all monitoring data collected during the year, including priority pollutant monitoring, if required.
5. The name and contact information for the recycled water operator responsible for operation, maintenance, and system monitoring.

A letter transmitting the annual report shall accompany each report. The letter shall summarize the numbers and severity of violations found during the reporting period, and actions taken or planned to correct the violations and prevent future violations. The transmittal letter shall contain the following penalty of perjury statement and shall be signed by the Administrator or the Administrator's authorized agent:

“I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of the those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.”

The Administrator shall implement the above monitoring program.

ATTACHMENT C: STANDARD PROVISIONS AND REPORTING REQUIREMENTS  
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A. GENERAL PROVISIONS

1. Duty to Comply

- a. An Administrator must comply with all of the conditions of this General Order and the MRP. Any General Order or MRP non-compliance constitutes a violation of the Water Code and/or Basin Plan and is subject to enforcement action.
- b. The filing of a request by the Administrator for a modification, revocation and reissuance, termination, a notification of planned changes, or anticipated non-compliance does not stay any General Order or MRP condition.

2. Duty to Mitigate

The Administrator shall take all reasonable steps to minimize or prevent any discharge in violation of this General Order which has a reasonable likelihood of adversely affecting public health or the environment, including such accelerated or additional monitoring as requested by the State or Regional Water Board to determine the nature and impact of the violation.

3. Property Rights

This General Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from liabilities under federal, state, or local laws.

4. Duty to Provide Information

The Administrator shall furnish, within a reasonable time, any information the Regional Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the General Order coverage. The Administrator shall also furnish to the Regional Water Board, upon request, copies of records required to be kept by its General Order.

5. Availability

A copy of this General Order, the NOA, and the MRP shall be maintained at the Administrator facilities and be available at all times to operating personnel.

B. GENERAL REPORTING REQUIREMENTS

1. Signatory Requirements

- a. All reports required by this General Order and other information requested by the Regional Water Board shall be signed by the Administrator principal owner or operator, or by a duly authorized representative of that person.

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Duly authorized representative is one whose:

- 1) Authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as general manager in a partnership, manager, operator, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position), and
- 2) Written authorization is submitted to the Regional Water Board. If an authorization becomes no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements above must be submitted to the Regional Water Board prior to or together with any reports, information, or applications to be signed by an authorized representative.

b. Certification

All reports signed by a duly authorized representative under Provision C.1 shall contain the following certification:

“I certify under penalty of law that this document and all attachments are prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

2. Should the responsible reporting party discover that it failed to submit any relevant facts or that it submitted incorrect information in any report, it shall promptly submit the missing or correct information. All violations of any requirements in this General Order, including Uniform Statewide Recycling Criteria requirements shall be submitted in the annual self-monitoring reports.

3. False Reporting

Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this General Order, including monitoring reports or reports of compliance or non-compliance shall be subject to enforcement procedures as identified in Section C of these Provisions.

### C. ENFORCEMENT

1. The provision contained in this enforcement section shall not act as a limitation on the statutory or regulatory authority of the State and Regional Water Board.
2. Any violation of this General Order constitutes violation of the Water Code and regulations adopted thereunder, and are the basis for enforcement action, General Order termination, General Order revocation and reissuance, denial of an application for General Order reissuance, or a combination thereof.
3. The State and Regional Water Board may impose administrative civil liability, may refer a discharger to the State Attorney General to seek civil monetary penalties, may seek injunctive relief or take other appropriate enforcement action as provided in the Water Code for violation of this General Order.

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*Definitions noted with (\*) are from the Uniform Statewide Recycling Criteria. The definitions are provided in this Attachment for convenience and are subject to revisions should the codes are formally revised. Please refer to the formal published codes [Health & Safety Code or Title 22 of the California Code Regulations] to obtain the latest version.*

**Administrator:** An Administrator is an entity (Producer, Distributor, User, or legal entity) that submits an NOI and application fee to the Regional Water Board for coverage under this General Order. An Administrator may issue use permits for uses of recycled water consistent with the Uniform Statewide Recycling Criteria. An Administrator is responsible for coordinating, collecting data, and reporting the monitoring reports to the Regional Water Board.

**Agronomic Rates:** The rate of application of recycled water to plants necessary to satisfy the plants' evapotranspiration requirements, considering allowances for supplemental water (e.g., effective precipitation), irrigation distribution uniformity, and leaching requirement, thus minimizing the movement of nutrients below the plants' root zone.

**Coagulated Wastewater** \*: Oxidized wastewater in which colloidal and finely divided suspended matter have been destabilized and agglomerated upstream from a filter by the addition of suitable floc-forming chemicals.

**Conventional Treatment** \*: A treatment chain that utilizes a sedimentation unit process between the coagulation and filtration processes and produces an effluent that meets the definition for disinfected tertiary recycled water.

**Disinfected Secondary-23** \*: Recycled water that has been oxidized and disinfected so that the median concentration of total coliform bacteria in the disinfected effluent does not exceed a most probable number (MPN) of 23 per 100 milliliters using the bacteriological results of the last seven days for which analyses have been completed, and the number of coliform bacteria does not exceed an MPN of 240 per 100 milliliters in more than one sample in any 30 day period.

**Disinfected Secondary-2.2** \*: Recycled water that has been oxidized and disinfected so that the median concentration of total coliform bacteria in the disinfected effluent does not exceed a most probable number (MPN) of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed, and the number of coliform organisms does not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30 day period.

**Disinfected Tertiary Recycled Water** \*: A filtered and subsequently disinfected wastewater that meets the following criteria:

- (a) The filtered wastewater which has been disinfected by either:

- (1) A chlorine disinfection process following filtration that provides a contact time (CT, the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow; or
  - (2) A disinfection process that, when combined with the filtration process, has been demonstrated to inactivate and/or remove 99.999 percent of the plaque forming units of F-specific bacteriophage MS2, or polio virus in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for purposes of the demonstration.
- (b) The median concentration of total coliform bacteria measured in the disinfected effluent does not exceed an MPN of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed and the number of total coliform bacteria does not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30 day period. No sample shall exceed an MPN of 240 total coliform bacteria per 100 milliliters.

**Disinfected Wastewater** \*: Wastewater in which the pathogenic organisms have been reduced by chemical, physical or biological means. For the purposes of this General Order, disinfected wastewater is safe for use when applied consistent with the requirements of the Uniform Statewide Recycling Criteria.

**Distributor**: A private or public agency which receives recycled water from a Producer for the purpose of distribution to Users. In some cases, a distributor may provide additional treatment (such as disinfection) to meet the Uniform Statewide Recycling Criteria for its intended use, and distributes it to Users. A Distributor may not take physical possession of the recycled water and may act simply as an Administrator.

**Dual Plumbed System** \*: A system that utilizes separate piping systems for recycled water and potable water within a facility and where the recycled water is used for either of the following purposes:

- a) To serve plumbing outlets (excluding fire suppression systems) within a building or
- b) Outdoor landscape irrigation at individual residences.

**Filtered Wastewater** \*: An oxidized wastewater that meets the criteria in the subsection 1 or 2:

- (1) Has been coagulated and passed through natural undisturbed soils or a bed of filter media pursuant to the following:
  - a. At a rate that does not exceed 5 gallons per minute per square foot of surface area in mono, dual or mixed media gravity, upflow or pressure filtration systems, or does not exceed 2 gallons per minute per square foot of surface area in travelling automatic backwash filters; and



b. So that the turbidity of the filtered wastewater does not exceed any of the following:

- i. An average 2 NTU within a 24-hour period;
- ii. 5 NTU more than 5 percent of the time within a 24-hour period; and
- iii. 10 NTU at any time

(2) Has been passed through a microfiltration, ultrafiltration, nanofiltration, or reverse osmosis membrane so that the turbidity of the filtered wastewater does not exceed any of the following:

- a. 0.2 NTU more than 5 percent of the time within a 24-hour period; and
- b. 0.5 NTU at any time

**F-specific bacteriophage MS-2** \*: A strain of a specific type of virus that infects coliform bacteria that is traceable to the American Type Culture Collection (ATCC 15597B1) and is grown on lawns of E. Coli (ATCC 15597).

**Incidental Runoff**: Unintended small amounts (volume) of runoff from recycled water use areas, such as unintended, minimal over-spray from sprinklers that escapes the recycled water use area. Water leaving a recycled water use area is not considered incidental if it is part of the facility design, if it is due to excessive application, if it due to intentional overflow or application, or if it is due to negligence.

**Legal Entity**: A legal entity is an entity formed by a legal document (such as a joint powers agreement or equivalent contractual agreement) between a Producer, Distributor, irrigation district, or other entity. Similar to a Distributor, a legal entity may not take physical possession of the recycled water and may act simply as an Administrator.

**Modal Contact Time** \*: The amount of time elapsed between the time that a tracer, such as salt or dye, is injected into the effluent at the entrance to a chamber and the time that the highest concentration of the tracer is observed in the effluent from the chamber.

**Nonrestricted Recreational Impoundment** \*: An impoundment of recycled water, in which no limitations are imposed on body-contact water recreational activities.

**NTU (Nephelometric Turbidity Unit)** \*: A measurement of turbidity as determined by the ratio of the intensity of light scattered by the sample to the intensity of incident light scattered by the sample to the intensity of incident light as measured by method 2130 B. in Standard Methods for the Examination of Water and Wastewater, 20<sup>th</sup> ed.; Eaton, A.D., Clesceri, L.S., and Greenberg, A.E., Eds; American Public Health Association: Washington, DC, 1995; p.2-8.

**Oxidized Wastewater** \*: Wastewater in which the organic matter has been stabilized, is nonputrescible, and contains dissolved oxygen.

**Recycled Water Producer**: Any entity that produces recycled water.

**Recycled Water:** Means water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur therefore considered a valuable resource. (Wat. Code, § 13050(n).) Coverage under these Water Reclamation Requirements for Recycled Water Use (General Order) is limited to treated municipal wastewater for non-potable uses.

**Recycled Water Supervisor:** A person designated, by the Administrator that acts as the coordinator between the supplier and User. The Recycled Water Supervisor shall have authority to ensure recycled water use complies with the General Order, NOA, and the Uniform Statewide Recycling Criteria.

**Regional Water Board:** All references to a Regional Water Board include the Executive Officer, who may act for the Regional Water Board in carrying out this General Order. See Water Code section 13223.

**Restricted access golf course** \*: A golf course where public access is controlled so that areas irrigated with recycled water cannot be used as if they were part of a park, playground, or school yard and where irrigation is conducted only in areas and during periods when the golf course is not being used by golfers.

**Restricted Recreational Impoundment** \*: An impoundment of recycled water in which recreation is limited to fishing, boating, and other non-body-contact water recreational activities.

**Spray Irrigation** \*: The application of recycled water to plants to maintain vegetation or support growth of vegetation by applying it from sprinklers.

**State Water Board:** All references to the State Water Board refer to divisions within the State Water Board whose roles in carrying out this General Order are as following:

- Division of Drinking Water reviews and approves (Title 22 Engineering Report and provide recommendations to the Regional Water Boards to address protection of public health. Division of Drinking Water is also processes any Notice of Intent submitted by a potential enrollee needing coverage from multiple Regional Water Boards.
- Division of Water Rights is responsible for approval of wastewater change petitions for water recycling projects that will decrease the amount of water in a stream or other waterway.

**Surface Irrigation:** Application of recycled water by means other than spraying such that contact between the edible portion of any food crop and recycled water is prevented (i.e., drip or flood irrigation).

**Title 22 Engineering Report** : Engineering report prepared to describe the manner by which a project or a water recycling program will comply with the Uniform Statewide Recycling Criteria.

**Undisinfected Secondary** \*: Means oxidized wastewater.

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**Use Area:** An area of recycled water use with defined boundaries. Agricultural use areas may contain one or more facilities (ditch, irrigated fields, pumping stations, etc.); use areas may also consist of an aggregate of small lots (e.g., residential/ industrial developments, roadway median irrigation, etc.).

**Use Area Supervisor:** A person designated, by the owner or manager of the property upon which recycled water will be applied, to discharge the responsibility of the owner or manager of the property for: (a) installation, operation and maintenance of a system that enables recycled water to be used; (b) for prevention of potential hazards; (c) implementing and complying with conditions of all Water Recycling Use Permits and associated documents; (d) coordination with the cross-connection control program of the supplier of drinking water and the local health/environmental health agency; (e) control of on-site piping to prevent any cross connections with potable water supplies; (f) routine inspection and maintenance of backflow prevention devices. (A Recycled Water Supervisor and Use Area Supervisor may be one in the same in some instances).

**User:** Users take physical possession of the recycled water from Producer and/or Distributor for an approved beneficial recycled water use consistent with the Uniform Statewide Recycling Criteria. Users may use the recycled water under either a Water Recycling Use Permit from an Administrator or act as an Administrator under this General Order.

**Water Recycling Use Permit:** A permit issued by the Administrator to the Recycled Water User, which is consistent with the requirements specified in this General Order.

ATTACHMENT D

JOS RECYCLED WATER USERS HANDBOOK

(Insert a copy of the Handbook)

## **Tab 12**

# **Sanitation Districts' Ordinances Providing for the Establishment and Enforcement of Regulations Pursuant to Water Recycling Requirements for Recycled Water Users**

## **Joint Outfall System (Sanitation District No. 2) Recycled Water Ordinance**

**ORDINANCE PROVIDING FOR  
THE ESTABLISHMENT AND ENFORCEMENT OF REGULATIONS  
PURSUANT TO WATER RECYCLING REQUIREMENTS FOR  
RECYCLED WATER USERS**

The Board of Directors of County Sanitation District No. 2 of Los Angeles County (hereinafter "District") ordains as follows:

**1. AUTHORITY**

This Ordinance is enacted pursuant to authority contained in the County Sanitation District Act, California Health and Safety Code Sections 4700 *et seq.*, and exercises authority conferred by law including but not limited to Division 7, Chapter 7, Article 4, Sections 13520 *et seq.* of the Water Code.

**2. SHORT TITLE**

This Ordinance shall be known as the **Joint Outfall System Recycled Water Ordinance** and may be cited as such.

**3. PURPOSE**

The purpose of this Ordinance is to provide for the establishment and enforcement of regulations pertaining to the administration of waste discharge requirements ("WDRs") issued by the California Regional Water Quality Control Board, Los Angeles Region ("Regional Board"), pursuant to Water Code Section 13263, water reclamation requirements ("WRRs") issued pursuant to Section 13523, or a master reclamation permit ("Master Permit") issued pursuant to Section 13523.1. This Ordinance will govern the use of recycled water in accordance with the Water Recycling Criteria established by the California Department of Health Services ("DHS") pursuant to Water Code Section 13521, and codified in Title 22, Division 4, Chapter 3 of the California Code of Regulations.

**4. FINDINGS AND DETERMINATIONS**

For over forty years, the County Sanitation Districts of Los Angeles County have owned and operated wastewater treatment plants capable of producing water that meets all requirements for recycled water, including but not limited to regulations and other directives issued by the DHS and the Regional Board.

No person may recycle water or use recycled water until a California Regional Water Quality Control Board either establishes WDRs, WRRs, or Master Permits (collectively, "Permits") or determines that no such Permits are necessary.<sup>1</sup> As the producer of recycled water, the District oversees the production and use of recycled water pursuant to Permits issued by the Regional Board.

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<sup>1</sup> California Water Code § 13524.

## 5. APPLICATION

This Ordinance shall apply to any and all Users to whom the District distributes recycled water, either directly or through an intermediate party, including Purveyors that act as such intermediate parties in delivering recycled water to Users.

## 6. DEFINITIONS

For purposes of this Ordinance, the following definitions shall apply to the following terms:

- a) "**Authorized Recycled Water Use Site**" is a site authorized for use of recycled water; the uses of recycled water and the site location must comply with Permits as issued by the Regional Board.
- b) "**Chief Engineer**" is the Chief Engineer and General Manager of the District.
- c) "**Master Reclamation Permit**" contains requirements established by the Regional Board pursuant to Water Code Section 13523.1.
- d) "**Person**" is any individual, partnership, corporation, governmental subdivision or unit of a governmental subdivision, or public or private organization or entity of any character.
- e) "**Purveyor**" is any public, private, investor-owned, or other water utility that is legally permitted to distribute water and that obtains recycled water from the District for distribution to Users.
- f) "**Recycled water**" is water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur, and is therefore considered a valuable resource.
- g) "**Regulations**" are requirements established by the Chief Engineer that govern the design and construction of recycled water use facilities and the use of recycled water, in accordance with the Uniform Statewide Reclamation Criteria. These may also be called the District's "*Requirements for Recycled Water Users.*"
- h) "**State Water Resources Control Board**" is an agency of the state of California created by the Legislature and exercising its powers pursuant to the Porter-Cologne Water Quality Control Act, Water Code Section 13000 *et seq.*
- i) "**User**" is any person to whom the District distributes recycled water under the Permits issued to the District by the Regional Board, including end users to whom recycled water is conveyed through an intermediate party. User does not include persons who have been independently issued Permits from the Regional Board.
- j) "**User Agreement**" is a contractual agreement between the User and/or Purveyor and the District that establishes the conditions for recycled water service and use.
- k) "**Waste Discharge Requirements**" are requirements that are established by the Regional Board pursuant to Water Code Section 13263.
- l) "**Water Recycling Criteria**" are the criteria established by the DHS generally dealing with the levels of constituents of recycled water, and the means for assurance of reliability under the design concept, which will result in safe recycled water from the standpoint of public health. The criteria are established pursuant to Water Code Section 13521, and are contained in the California Code of Regulations, Title 22, Division 4, Chapter 3; also referred to as the "Uniform Statewide Reclamation Criteria."
- m) "**Water Recycling Requirements**" are requirements that are established by the Regional Board pursuant to Water Code section 13523.



**7. ADMINISTRATION**

The District shall administer this Ordinance so as to comply with the terms and conditions of Permits as issued by the Regional Board.

**8. REQUIREMENTS**

A. A User and/or Purveyor who receives the District's recycled water must comply with the terms of this Ordinance and with the following requirements:

- 1) Water Recycling Criteria, as established by the California Department of Health Services, Title 22, Division 4, Chapter 3 of the California Code of Regulations;
- 2) Requirements, rules, regulations, and/or restrictions established by the California State Water Resources Control Board;
- 3) Requirements, rules, regulations, and/or restrictions established by the Regional Board.
- 4) Permits issued by the Regional Board, which are incorporated herein and made a part hereof, to the extent that they are applicable to persons subject to this Ordinance;
- 5) Requirements, rules, regulations, and/or restrictions, pertaining to the quality of recycled water, adopted by any agency maintaining jurisdiction over any person subject to this Ordinance;
- 6) Regulations adopted by the Chief Engineer pursuant to Section 9 of this Ordinance.

A User and/or Purveyor must keep apprised of any changes to the foregoing requirements. A User and/or Purveyor must conform to any applicable changes to the requirements; a violation thereof is the User's and/or Purveyor's sole responsibility. A violation of any of the foregoing requirements will constitute a violation of this Ordinance.

B. A person seeking to operate a proposed Authorized Recycled Water Use Site ("Authorized Site"), and directly receive the District's recycled water, must comply with the following:

- 1) The person must file an application therefore with the District prior to using the recycled water. Persons who have already executed a User Agreement with the District are exempt from this requirement until such time as the Agreement is amended or revised.
- 2) The person must execute a User Agreement, which includes the District's terms and conditions for use of recycled water at the Authorized Site. Any violation of a User Agreement shall be a violation of this Ordinance and punishable as such. Any Person that has been a User for more than one year prior to the effective date of this Ordinance, and has otherwise been in conformance with all legal requirements and directives of the District, shall be exempt from this subparagraph (2) for a period of one year from said effective date.

A person seeking to operate a proposed Authorized Site, and receive the District's recycled water through a Purveyor, must file an application with the Purveyor prior to any delivery of recycled water. Such application shall not be effective until it has been approved by the District.

**9. ENFORCEMENT**

The Chief Engineer is granted authority to establish Regulations governing the use of recycled water as necessary, which shall be in accordance with existing law.

The Chief Engineer shall administer, implement, and enforce the provisions of this Ordinance. Any powers granted to or duties imposed upon the Chief Engineer may be delegated to persons acting in the beneficial interest of or in the employ of the District.

**10. VIOLATION**

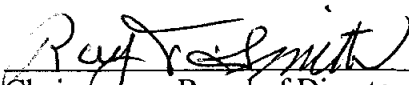
A. Upon a written determination of the Chief Engineer that a violation of this Ordinance has occurred, such action shall constitute a basis for:

- 1) termination of any User Agreement
- 2) immediate cessation of recycled water delivery

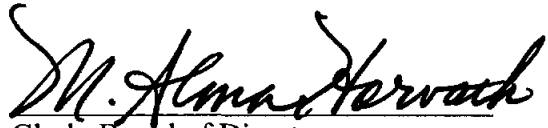
B. The Chief Engineer shall adopt notice and hearing procedures to implement this section, which shall be consistent with the rights afforded by due process.

**11. VALIDITY**

If any part, section, subsection, paragraph, sentence, clause, or phrase of this Ordinance is held invalid or unconstitutional for any reason by any court, that decision does not affect the validity or constitutionality of the remainder of this Ordinance. The Board of Directors declares that it would have adopted each provision of this Ordinance irrespective of the validity of any other provision.


**PRO TEM**   
Chairperson, Board of Directors  
County Sanitation District  
No. 2 of Los Angeles County

ATTEST:

  
Clerk, Board of Directors  
County Sanitation District  
No. 2 of Los Angeles County

PASSED AND ADOPTED by the Board of Directors of County Sanitation District No. 2 of Los Angeles County on January 24, 2007, by the following vote:

- AYES: Directors Bello, Lee, Calhoun, Bayer, Reyes Uranga, Cardenas, Lopez-Reid, Lau, Luera, Hofmeyer, E.A. "Pete" Ramirez, D. Gutierrez, DeWitt, Nordbak, Yaroslavsky, and Smith
- NOES: None
- ABSTAIN: None
- ABSENT: Directors Sham, Lyon, Aceituno, Ramos, and Malburg

  
Secretary of the Board of Directors  
County Sanitation District No. 2  
of Los Angeles County

# **Santa Clarita Valley Sanitation District Recycled Water Ordinance**

**ORDINANCE PROVIDING FOR  
THE ESTABLISHMENT AND ENFORCEMENT OF REGULATIONS  
PURSUANT TO WATER RECYCLING REQUIREMENTS FOR  
RECYCLED WATER USERS**

The Board of Directors of Santa Clarita Valley Sanitation District of Los Angeles County (hereinafter "District") ordains as follows:

**1. AUTHORITY**

This Ordinance is enacted pursuant to authority contained in the County Sanitation District Act, California Health and Safety Code Sections 4700 *et seq.*, and exercises authority conferred by law including but not limited to Division 7, Chapter 7, Article 4, Sections 13520 *et seq.* of the Water Code.

**2. SHORT TITLE**

This Ordinance shall be known as the **Santa Clarita Valley Sanitation District Recycled Water Ordinance** and may be cited as such.

**3. PURPOSE**

The purpose of this Ordinance is to provide for the establishment and enforcement of regulations pertaining to the administration of waste discharge requirements ("WDRs") issued by the California Regional Water Quality Control Board, Los Angeles Region ("Regional Board"), pursuant to Water Code Section 13263, water reclamation requirements ("WRRs") issued pursuant to Section 13523, or a master reclamation permit ("Master Permit") issued pursuant to Section 13523.1. This Ordinance will govern the use of recycled water in accordance with the Water Recycling Criteria established by the California Department of Health Services ("DHS") pursuant to Water Code Section 13521, and codified in Title 22, Division 4, Chapter 3 of the California Code of Regulations.

**4. FINDINGS AND DETERMINATIONS**

For over forty years, the County Sanitation Districts of Los Angeles County have owned and operated wastewater treatment plants capable of producing water that meets all requirements for recycled water, including but not limited to regulations and other directives issued by the DHS and the Regional Board.

No person may recycle water or use recycled water until a California Regional Water Quality Control Board either establishes WDRs, WRRs, or Master Permits (collectively, "Permits") or determines that no such Permits are necessary.<sup>1</sup> As the producer of recycled water, the District oversees the production and use of recycled water pursuant to Permits issued by the Regional Board.

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<sup>1</sup> California Water Code § 13524.

## 5. APPLICATION

This Ordinance shall apply to any and all Users to whom the District distributes recycled water, either directly or through an intermediate party, including Purveyors that act as such intermediate parties in delivering recycled water to Users.

## 6. DEFINITIONS

For purposes of this Ordinance, the following definitions shall apply to the following terms:

- a) "**Authorized Recycled Water Use Site**" is a site authorized for use of recycled water; the uses of recycled water and the site location must comply with Permits as issued by the Regional Board.
- b) "**Chief Engineer**" is the Chief Engineer and General Manager of the District.
- c) "**Master Reclamation Permit**" contains requirements established by the Regional Board pursuant to Water Code Section 13523.1.
- d) "**Person**" is any individual, partnership, corporation, governmental subdivision or unit of a governmental subdivision, or public or private organization or entity of any character.
- e) "**Purveyor**" is any public, private, investor-owned, or other water utility that is legally permitted to distribute water and that obtains recycled water from the District for distribution to Users.
- f) "**Recycled water**" is water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur, and is therefore considered a valuable resource.
- g) "**Regulations**" are requirements established by the Chief Engineer that govern the design and construction of recycled water use facilities and the use of recycled water, in accordance with the Uniform Statewide Reclamation Criteria. These may also be called the District's "*Requirements for Recycled Water Users.*"
- h) "**State Water Resources Control Board**" is an agency of the state of California created by the Legislature and exercising its powers pursuant to the Porter-Cologne Water Quality Control Act, Water Code Section 13000 *et seq.*
- i) "**User**" is any person to whom the District distributes recycled water under the Permits issued to the District by the Regional Board, including end users to whom recycled water is conveyed through an intermediate party. User does not include persons who have been independently issued Permits from the Regional Board.
- j) "**User Agreement**" is a contractual agreement between the User and/or Purveyor and the District that establishes the conditions for recycled water service and use.
- k) "**Waste Discharge Requirements**" are requirements that are established by the Regional Board pursuant to Water Code Section 13263.
- l) "**Water Recycling Criteria**" are the criteria established by the DHS generally dealing with the levels of constituents of recycled water, and the means for assurance of reliability under the design concept, which will result in safe recycled water from the standpoint of public health. The criteria are established pursuant to Water Code Section 13521, and are contained in the California Code of Regulations, Title 22, Division 4, Chapter 3; also referred to as the "Uniform Statewide Reclamation Criteria."
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**7. ADMINISTRATION**

The District shall administer this Ordinance so as to comply with the terms and conditions of Permits as issued by the Regional Board.

**8. REQUIREMENTS**

A. A User and/or Purveyor who receives the District's recycled water must comply with the terms of this Ordinance and with the following requirements:

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- 4) Permits issued by the Regional Board, which are incorporated herein and made a part hereof, to the extent that they are applicable to persons subject to this Ordinance;
- 5) Requirements, rules, regulations, and/or restrictions, pertaining to the quality of recycled water, adopted by any agency maintaining jurisdiction over any person subject to this Ordinance;
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A User and/or Purveyor must keep apprised of any changes to the foregoing requirements. A User and/or Purveyor must conform to any applicable changes to the requirements; a violation thereof is the User's and/or Purveyor's sole responsibility. A violation of any of the foregoing requirements will constitute a violation of this Ordinance.

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**10. VIOLATION**

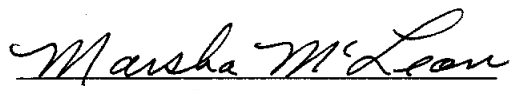
A. Upon a written determination of the Chief Engineer that a violation of this Ordinance has occurred, such action shall constitute a basis for:

- 1) termination of any User Agreement
- 2) immediate cessation of recycled water delivery

B. The Chief Engineer shall adopt notice and hearing procedures to implement this section, which shall be consistent with the rights afforded by due process.

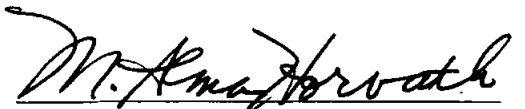
**11. VALIDITY**

If any part, section, subsection, paragraph, sentence, clause, or phrase of this Ordinance is held invalid or unconstitutional for any reason by any court, that decision does not affect the validity or constitutionality of the remainder of this Ordinance. The Board of Directors declares that it would have adopted each provision of this Ordinance irrespective of the validity of any other provision.

  
 Chairperson, Board of Directors  
 Santa Clarita Valley Sanitation District  
 of Los Angeles County

FEB 14 2007

ATTEST:

  
 Clerk, Board of Directors  
 Santa Clarita Valley Sanitation District  
 of Los Angeles County



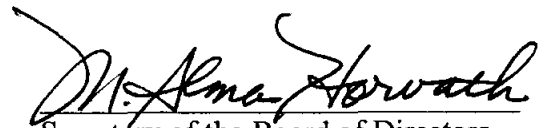
PASSED AND ADOPTED by the Board of Directors of Santa Clarita Valley Sanitation District of Los Angeles County on February 14, 2007, by the following vote:

AYES: Directors Weste, Yaroslavsky, and McLean

NOES: None

ABSTAIN: None

ABSENT: None

  
Secretary of the Board of Directors  
Santa Clarita Valley Sanitation District  
of Los Angeles County