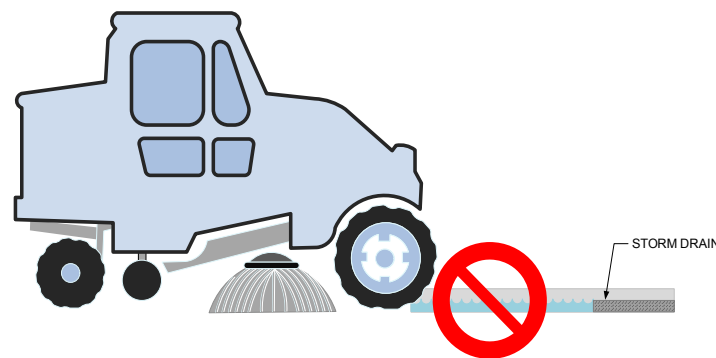


1. Each customer must assign a Recycled Water Site Supervisor that will receive training prior to receiving a permit. The Recycled Water Site Supervisor will be responsible for ensuring that all employees working with recycled water are trained on its proper use and that adequate signage is maintained to make employees aware that recycled water is being used.
2. Records of training should be maintained by the recycled water purveyor.
3. Street cleaning vehicles must be equipped with an air gap to ensure backflow protection.
4. Truck owners must show proof of vehicle liability insurance and worker's compensation insurance.
5. Truck owners must show proof of valid truck registration.
6. Each customer must apply a recycled water notification sticker or magnetic signs on each vehicle transporting recycled water. An example sign is shown on Page 4 of this guide.
7. Vehicles used for transportation and distribution of recycled water must have water-tight valves and fittings, and must not leak.
8. The Recycled Water Use Permit must be available for inspection at all times.
9. The truck driver must notify workers and/or the public when recycled water is used at a site and tell them they are not to drink recycled water or use it for food preparation.
10. Truck drivers should be equipped with an adequate first aid kit. Cuts or abrasions should be promptly washed, disinfected, and bandaged.
11. Recycled water must not be introduced into any potable water piping system and no connection shall be made between the tank and any part of a potable water system.
12. Recycled water shall not be applied where it could spray on external drinking water fountains, passing vehicles, buildings, or areas where food is handled or eaten.
13. Recycled water users should wash their hands with soap and potable water or apply hand sanitizer after working with recycled water, especially before eating or smoking.
14. Precautions should be taken to avoid food coming in contact with recycled water while the use site is wet.
15. Obtain recycled water from an approved recycled water filling station or from a potable source. When the vehicle is filled from a potable water source, a water agency or municipality provided meter or other acceptable tracking system must be used. There must also be a reduced pressure principle backflow device protecting the potable system (7) or the vehicle must be equipped with two risers, one for potable water and one for recycled water.
16. Vehicles used to transport recycled water shall not be used to carry water for potable purposes, regardless of the source water.
17. Customer shall comply with the appropriate municipality's storm water ordinance. Typical compliance measures include preventing overspray, ponding, or runoff of recycled water from the use area. Incidental runoff, which includes small amounts of runoff from the intended use area and overspray from sprinklers that drifts out of the use area, should not trigger the need for an individual National Pollutant Discharge Elimination System (NPDES) permit or enforcement action (6).
18. Street sweeper shall have no hose bibs.

FILLING STATIONS

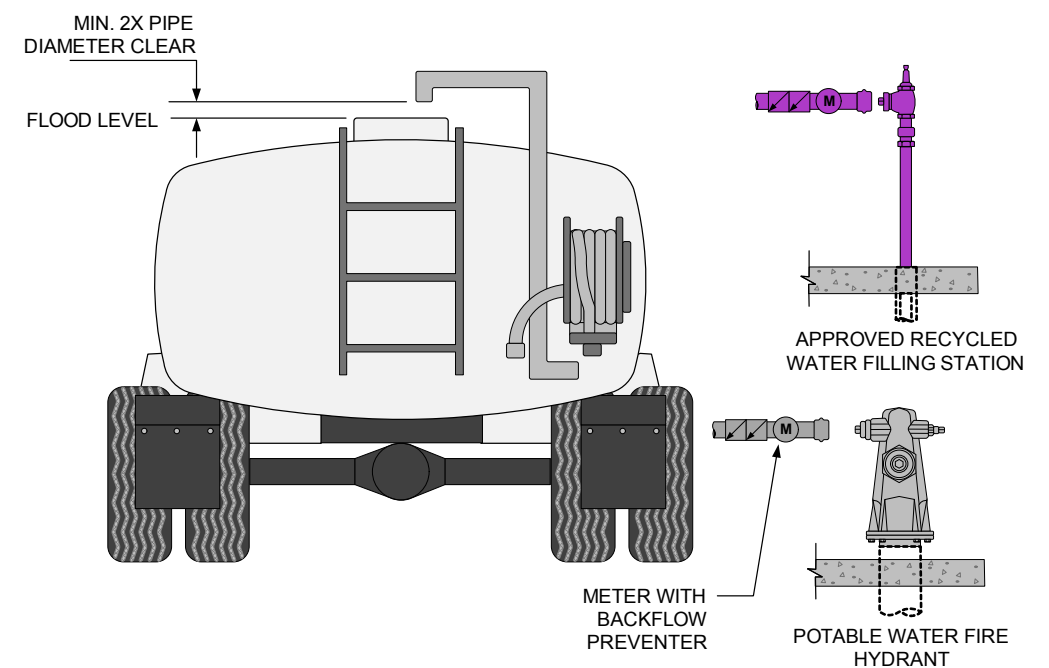
Street sweeping vehicles must fill up at approved recycled water filling stations, which are typically located at a water recycling/reclamation treatment facility or along the distribution network at "purple hydrant" stations. In order to eliminate non-approved access to the recycled water, the filling stations must be protected so that only permitted, trained customers can use it. Drop tanks at secured construction sites maybe used for the purpose of street sweeping the immediate construction area. Filling stations located within restricted access treatment plants are typically protected by the security guard located at the entrance. The guard should check each vehicle's permit and ensure that the driver has been through the proper training. Remote filling stations located along the distribution network should be equipped with an access control security system, such as a key card system or other locking mechanism, to prevent



Recycled water shall not enter storm drain system

non-permitted users from accessing the water. Keys or cards for these remote filling stations should only be issued to permitted, trained customers. Filling stations must also have proper signage indicating that recycled water is in use (8).

Vehicles may also fill up at potable water sources, such as domestic fire hydrants. When the vehicle is filled from a potable water source, a water agency or municipality provided meter must be used and there must also be a reduced pressure principle backflow device protecting the potable system (7). An alternative to using a backflow device is to equip the vehicle with two risers, one for potable water and one for recycled water. Each riser must have an approved air gap separation between the riser outlet and the water tank rim. The risers, hoses, and fittings for each supply must be color coded (painted) blue for potable water and purple for recycled water. The hoses, hydrants, and risers for each supply must also have separate and unique fittings (e.g. 2-1/2" diameter on the potable system and 2" diameter on the recycled system) such that the potable water system cannot accidentally be used on the recycled water system and vice versa. Once the vehicle is used to transport recycled water, it shall not be used to carry water for potable purposes unless permitted by CDPH.



Typical truck and water supply system

PURVEYOR'S ENGINEERING REPORT

The purpose of an Engineering Report is to describe the manner by which a project will comply with Title 22. The California Department of Public Health's guidance document, titled "Preparation of an Engineering Report for the Production, Distribution, and Use of Recycled Water," details the information required for approval of recycled water projects. The report should contain sufficient information to assure the regulatory agencies that the degree and reliability of treatment is commensurate with the requirements for the proposed use, and that the use of the recycled water will not create a health hazard or nuisance. The Engineering Report should be prepared by a properly qualified engineer registered in California and experienced in the field of wastewater treatment and should be submitted as early as possible in the design process to allow for comment and revision before detailed plans are complete (9). Typical components of the Engineering Report when street sweeping is being considered include, but are not limited to:

- Identification of all agencies involved in the treatment, distribution, and use of the recycled water.
- Procedures, restrictions, and other requirements that will be imposed by the distributor and/or user, such as construction criteria, operational requirements, and inspection and testing requirements.
- Description of the proposed use, in this case street sweeping.
- Identification of the party(s) responsible for the use.
- Map of the recycled water distribution system and filling station locations.
- Details and plumbing of the street sweeping vehicle, including the method of filling. An example diagram is provided in this guide.
- Filling station details.
- Description of the backflow prevention procedures to protect the potable water system as required by Title 17 of the California Code of Regulations, which can be found at <http://www.cdph.ca.gov/HealthInfo/environhealth/water>
- Location and wording of public warning signs on the vehicle, an example of which is shown on page 4.



Technical Information Street Sweeping Guide

- Description and plan of back-up water supply.
- Description of the inspection and monitoring program, including frequency of visual inspections, public notification procedures, systems identification, and Recycled Water Site Supervisors. Provide description of record keeping procedures for reporting deficiencies and corrective actions.
- Description of the employee training program to educate personnel on the handling and filling of street sweepers, and the use of recycled water during street sweeping activities. The training program must be conducted by a Recycled Water Site Supervisor.



Recycled Water Example Sign

INTRODUCTION

Many water agencies in San Diego County are providing recycled water for landscape irrigation, industrial processes, and other non-drinking purposes, including street sweeping. Street sweeping is a great non-potable use of recycled water because it reduces the demand for high-quality drinking water, which is more beneficially used for human consumption rather than for cleaning our roads. The use of recycled water for street sweeping purposes is allowed in Section 60307(b) of Title 22 of the California Code of Regulations (Title 22), provided that the water is treated to a minimum disinfected secondary-23 recycled water level as defined in Section 60301 of Title 22.

Recycled water has been used for street sweeping in California since 2003. The City of Inglewood has been using recycled water provided by West Basin Municipal Water District for its street sweeping operations since April 2003. The East Bay Municipal Utility District (EBMUD) launched their Recycled Water Truck Program in August 2008 with one fill station, and has since expanded the system to include several additional filling locations. Other California agencies offering recycled water for customers with trucks include Central Contra Costa Sanitary District, Dublin San Ramon Services District, West County Wastewater District, North Marin Water District, City of Livermore, City of San Leandro, and the City of Long Beach, among others.

PURPOSE OF THIS GUIDE

The San Diego County Water Authority (SDCWA) has published this document to assist those customers, cities, and agencies that are interested in using recycled water for street sweeping. The purpose of this guide is to provide information tailored specifically for customers, water purveyors, and municipalities planning to use recycled water for street sweeping purposes through the use of recycled water filling stations. The California Department of Public Health (CDPH) has reviewed this guide.

APPROVAL PROCESS FOR PURVEYORS

Purveyors must obtain the required permits and approvals prior to allowing customers to use recycled water for street sweeping. The San Diego Regional Water Quality Control Board (RWQCB) is assigned with the protection, coordination, and control of water quality in the San Diego region and, therefore, is responsible for the issuance and enforcement of requirements given to producers and users of recycled water (1). The RWQCB issues Waste Discharge Requirements (WDRs) for activities which can affect groundwater quality, including recycled water discharges. In addition, Water Reclamation Requirements (WRRs) are also issued to place conditions on recycled water use. The RWQCB may issue a Master Reclamation Permits (MRP) in lieu of individual WRRs for projects involving multiple users. These MRPs are issued to a producer or distributor, or both, of recycled water and combine the WDRs and WRRs (2). The process for obtaining approval is summarized below:

1. Determine if your agency's WDRs/WRRs or MRP allows the use of recycled water for street sweeping. If so, skip to Step 3. If not, the agency will need to seek an amendment to the WDRs/WRRs or MRP by submitting a report describing the nature of the proposed additional use (3). If the agency is not willing to amend their permit, the customer may obtain individual WDRs from the RWQCB.
2. Anyone who proposes to use recycled water must file a report, called a Report of Waste Discharge (RWD), with the RWQCB. The requirement for this RWD is waived if the customer is supplied with recycled water from a purveyor that is operating under a MRP (4). If the purveyor is not operating under a MRP, the customer must submit a RWD to the RWQCB. Many purveyors in San Diego County are operating under a MRP.
3. Each purveyor that is issued a MRP is required to establish and enforce rules or regulations governing the use of recycled water and the design and construction of recycled water facilities (2). These rules and regulations may vary slightly between purveyors. If your agency is operating under a MRP, the customer should follow the approval and permitting procedures of the agency, which may include the submission of an Engineering Report. The purpose of the Engineering Report is to describe the manner by which the recycled water use, in this case street sweeping, will comply with the requirements of Title 22. Additional information concerning Engineering Reports is presented on page 3.

CUSTOMER REQUIREMENTS

Customers should contact the recycled water purveyor in the area where the streets are to be cleaned. Typically, the street sweeping may occur only within the recycled water purveyor's service area, so those customers that may receive recycled water from more than one purveyor will need to coordinate with each supplier. The customer should ensure that the following requirements are met (5):

WATER AGENCY CONTACT INFORMATION

Carlsbad Municipal Water District..... (760) 438-2722	Poway, City of (858) 668-4720
Del Mar, City of..... (760) 753-6203	Ramona M. W. D..... (760) 789-1330
Escondido, City of..... (760) 839-4668	Rincon Del Diablo M. W. D..... (760) 745-5522
Fallbrook P.U.D..... (760) 728-1125	San Diego, City of (619) 515-3500
Oceanside, City of..... (760) 435-5800	San Dieguito Water District (760) 633-2650
Olivenhain M. W. D..... (760) 753-6466	San Elijo Joint Powers Authority..... (760) 753-6203
Otay W. D..... (619) 670-2222	Santa Fe Irrigation District (858) 756-2424
Padre Dam M. W. D. (619) 448-3111	Valley Center M. W. D..... (760) 749-1600

REGULATORY CONTACT INFORMATION

California Department of Public Health Southern California Field Operations Branch, District 14 – San Diego 1350 Front Street, Room 2050 San Diego, CA 92101 (619) 525-4195	San Diego County Department of Environmental Health 5201 Ruffin Road, Suite C San Diego, CA 92123 (858) 694-2121
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WORKS CITED

1. *Memorandum of Agreement Between the Department of Health Services and the State Water Resources Control Board on the Use of Reclaimed Water. 1996.*
2. *California Water Code. Division 7, Chapter 7, Section 13523.1.*
3. **Los Angeles Regional Water Quality Control Board.** *Order No. R4-2002-0173 Amending Water Recycling Requirements in Order No. 01-043 for West Basin Municipal Water District. 2002.*
4. *California Water Code. Division 7, Chapter 7, Section 13522.5.*
5. **East Bay Municipal Water District.** *Recycled Water Truck Program Guidelines. July 2009.*
6. **Celeste Cantu, Executive Officer, California State Water Resources Control Board.** *"Incidental Runoff of Recycled Water" Memorandum to Regional Board Executive Officers. February 24, 2004.*
7. **City of San Diego.** *Recycled Water Truck Program Guidelines. Not Yet Approved.*
8. **East Bay Municipal Water District.** *Recycled Water Truck Program Letter Report to San Francisco Regional Water Quality Control Board. October 2008.*
9. **California Department of Public Health.** *Preparation of an Engineering Report for the Production, Distribution, and Use of Recycled Water. March 2001.*