



STORMWATER, GROUNDWATER, AND OTHER WATER DISCHARGES

1. PURPOSE AND SCOPE

The Los Angeles County Sanitation Districts' (Sanitation Districts) policy on Stormwater, Groundwater and other Water Discharges is established under the provisions of [Section 305](#) of the [Wastewater Ordinance](#) as amended July 1, 1998. [Section 305](#) specifies that no rainwater, stormwater, groundwater, artesian well water, street drainage, yard drainage, water from yard fountains, ponds or lawn sprays shall be discharged to the Sanitation Districts' sanitary sewer system, except where the Chief Engineer has given prior approval. This policy protects the Sanitation Districts' sanitary sewer system from excessive hydraulic loads due to stormwater inflow. This document presents guidelines for implementing this policy as it applies to rainwater and stormwater (collectively referred to as stormwater), groundwater, and other water discharges covered in [Section 305](#)¹.

2. STORMWATER

No stormwater may be discharged to the sanitary sewer except where prior approval has been given. Any drain connected to the sanitary sewer that is exposed to potential stormwater inflow must either be permanently sealed or have diversion methods implemented to prevent stormwater inflow. These methods can include roofing, grading, surface diversions and controls, and/or automatic diversion systems.

2.1 Roofing -

- 2.1.1 Roofing materials must be of solid construction, such as metal, fiberglass reinforced plastic, polycarbonate, composite materials, concrete, or tile. Fabric or woven polyethylene is not acceptable.
- 2.1.2 Roof structures without side walls must have an overhang of at least 20% of the roof height beyond the edge of the exposed drainage area to accommodate the rainfall angle.
- 2.1.3 Roofing design and installation must satisfy all local regulations.
- 2.1.4 All roof drains must be routed to the storm drain.

2.2 Grading, Flow Diversions, and Controls -

¹ Rainwater and Stormwater are defined in Appendix A of the *Wastewater Ordinance*.

- 2.2.1 Areas exposed to stormwater must be graded appropriately or have permanent flow diversions to prevent runoff from surrounding areas from entering the sanitary sewer.
- 2.2.2 Grading shall maximize stormwater diversion to the storm drain.
- 2.2.3 Permanent surface flow diversions may include swales, berms, and trench drains around all exposed drains, sumps, or trenches directly connected to the sanitary sewer system. Surface diversions are required to:
- Be sized to divert stormwater away from the protected drainage area. Sizing shall be sufficient to prevent ponded or flooded areas from flowing to the sanitary sewer.
 - Have a minimum of 3 inches vertical offset from the surrounding grade where vehicles or equipment must traverse onto the protected drainage area.
 - Berms must be constructed from waterproof materials such as concrete or brick and be permanently fixed to the ground with proper anchorage or bonding (e.g., concrete, expansion/adhesive anchors, mastic, etc.). No outlet valves, gates, or openings are permitted in the berms.

2.3 Automatic Diversion - If complete segregation of stormwater from the sanitary sewer system is not feasible, the Sanitation Districts may allow on a case-by-case basis stormwater discharge, specifically up to the first 0.1 inch of rainfall, subject to the general Conditions of Acceptance and under the following conditions:

- 2.3.1 After the first 0.1 inch of rainfall, all excess stormwater must be diverted to an approved storm drain.
- 2.3.2 All stormwater from non-process areas, such as parking lots and roofs, must be routed to the storm drain.
- 2.3.3 Other diversion methods, such as automatic valves, manual gates, and removable plugs, are prohibited.
- 2.3.4 The automatic diversion system must adhere to [County Department of Public Works \(DPW\) Standard 2043-0, "Rainwater Diversion System,"](#) and receive approval from the Sanitation Districts. Key components include:

2.3.4.1 Pump Well: Non-permitted stormwater must be segregated from dry-weather industrial wastewater using a pump well in accordance with [County DPW Standard 2043-0](#). During dry weather, the industrial wastewater from processing areas shall flow into the pump well and be pumped upstream of any wastewater pretreatment system. The pump must be sized to maintain sufficient hydraulic retention time in downstream pretreatment systems. Furthermore, the designated pumping rate shall not be exceeded at any time and must comply with all requirements set by the Sanitation Districts and the local agency.

During rainfall periods, the pump must be automatically deactivated after 0.1 inch of rainfall. All subsequent stormwater that flows to the well must be redirected to the storm drain. The diverted water must meet the water quality standards set by the [Regional Water Quality Control Board](#) and other regulatory agencies. Therefore, industries should make every effort to keep the exposed area clean and prevent industrial wastewater discharge to the pump well during rainfall periods. This practice will reduce the likelihood of contaminated water entering the storm drain.

2.3.4.2 Rain Switch: A rainfall detection device (as specified in [County DPW Standard 2043-0](#)) must be installed near the pump well to automatically deactivate the pump after detecting 0.1 inches of rainfall. The pump must not be reactivated until a minimum of twenty-four(24) hours after cessation of the storm defined as the last 0.1 inches measured by the detection device capable of measuring active precipitation (maximum of 0.1-inch increments). In the absence of a feature to detect active rainfall for automatic reset, the rain switch shall be reset manually 24-hours after the last 0.1-inches of rainfall measured onsite, or measured by the nearest local rain gauge monitored by the Los Angeles County Department of Public Works (<https://dpw.lacounty.gov/wrd/rainfall/>).

The rain collector must be installed in an area directly exposed to rainfall. Furthermore, both the collector and switch must be located in close proximity to the pump well, ensuring they are easily accessible. Their height must not exceed six (6) feet above the adjacent supporting surface, such as a floor, deck, or other permanent walkway. This height ensures that the diversion system can be tested safely and easily.

Should the Sanitation Districts conclude that installing the collector in an accessible location is not feasible, the discharger must implement adequate measures for testing the diversion system. This includes establishing a permanent mechanism for conveying water to the collector and providing a reset mechanism for the switch.

A "Y" section with a cap intended for testing the stormwater diversion system, as in [County DPW Standard 2043-0](#), will only be allowed if all other alternative methods have been proven to be impractical.

2.3.4.3 Overflow Line: Stormwater must be directed to the storm drain or another approved disposal point through a gravity overflow system. The overflow line must be positioned either within the pump well or slightly upstream and must be at the same elevation as the pump's effluent line. If a gravity overflow is not feasible due to the property's surrounding grade, installing a second pump may be permitted to divert all stormwater to an approved drainage system. This second pump must automatically activate via a rain switch at the same time the primary pump, which conveys wastewater to the public sanitary sewer, is deactivated. The secondary pump's capacity must be sufficient to prevent flooding in the surrounding area and to avoid stormwater entering the sanitary

sewer system. Other diversion methods, such as automatic valves, manual gates, and removable plugs, are prohibited.

Periodic inspections will be conducted to ensure systems are in working condition. Companies failing to maintain the system to the Sanitation Districts' requirements will be required to install permanent diversions such as roofing or regrading exposed areas. The Chief Engineer may mandate modifications as needed.

2.4 Impoundment of Stormwater in Spill Containment Areas – Stormwater collected within tank farms and spill containment areas should be discharged to the storm drain when feasible, in accordance with the requirements of the [Regional Water Quality Control Board](#) and the local agency. If discharging to the storm drain is not feasible, the Sanitation Districts may allow discharge to the sanitary sewer on a case-by-case basis, subject to the following conditions:

2.4.1 Only the first 0.1 inch of stormwater collected within any containment area can be discharged to the sanitary sewer manually. The Sanitation Districts may allow the discharge of stormwater beyond the initial 0.1 inch of rainfall, but this will be evaluated on a very limited, case-by-case basis as determined by the Chief Engineer.

2.4.2 Where the Sanitation Districts approve the discharge of stormwater beyond the initial 0.1 inch, the discharger will be required to impound the stormwater until twenty-four(24) hours after cessation of the storm as defined in Part 2.3.4.2 above before manual discharge to the sanitary sewer.

2.4.3 Additional restrictions on wastewater quality, flow rate, and discharge timing (e.g., off-peak hours) may apply.

3. GROUNDWATER

The Sanitation Districts' restrict groundwater discharges to the sanitary sewer system. Groundwater should be reused or discharged to the storm drain system whenever possible. The Sanitation Districts may consider accepting groundwater discharge on a case-by-case basis, subject to the general Conditions of Acceptance and under the following conditions:

3.1 Documentation for Groundwater Cleanup Project - A cleanup abatement order issued by the [Regional Water Quality Control Board](#), along with approvals for cleanup operations from relevant groundwater agencies such as the Watermaster and Replenishment District, must be submitted for review by Sanitation Districts.

3.2 Limitations - Discharge must conform with the Sanitation Districts' [Wastewater Ordinance](#), including conditions and requirements, and must adhere to the specified concentration limits for all compounds in the discharge.

3.3 Control - A shut-off system capable of terminating the discharge in case of a violation of any discharge requirement.

3.4 Monitoring - A dedicated monitoring facility must be provided, equipped with a flow recorder and a non-resettable flow totalizer. In some cases, batch discharge of the treated groundwater may be required. Quarterly analyses of priority pollutants, excluding asbestos, will generally be required for groundwater discharge. The Sanitation Districts may impose additional monitoring requirements as deemed appropriate.

4. OTHER WATER DISCHARGES

The Sanitation Districts restrict sanitary sewer discharges of both contaminated and uncontaminated water from sources including street drainage, yard drainage, fountains, ponds, and tank testing. Discharge may be accepted on a case-by-case basis subject to the general Conditions of Acceptance and the following:

4.1 Prohibited Discharge - [Section 406](#) of the [Wastewater Ordinance](#) prohibits the discharge of four specific water categories, as listed below.

4.1.1 Any excessive quantities, as defined by the Chief Engineer, of deionized water, steam condensate or distilled water.

4.1.2 Any blow-down or bleed water from cooling towers or other evaporative coolers exceeding one-third of the makeup water.

4.1.3 Any single pass cooling or heating water.

4.1.4 Any water added to dilute wastes that would otherwise exceed applicable maximum concentration limitations.

5. CONDITIONS OF ACCEPTANCE

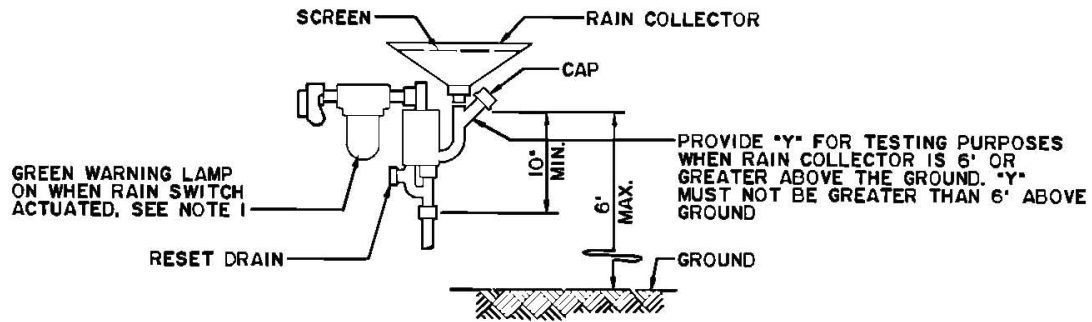
The Sanitation Districts may accept controlled discharge of stormwater, groundwater, and other water discharges to the sanitary sewer system on a case-by-case basis subject to the following conditions and additional limitations as specified herein:

5.1 Alternatives - All other alternatives must be demonstrated as unfeasible. Considerations should include treatment and discharge to the storm drain, reuse options, on-site storage for evaporation, and relocating processes or treatment areas exposed to stormwater intrusion. A report detailing this review's findings must be submitted for evaluation by the Sanitation Districts.

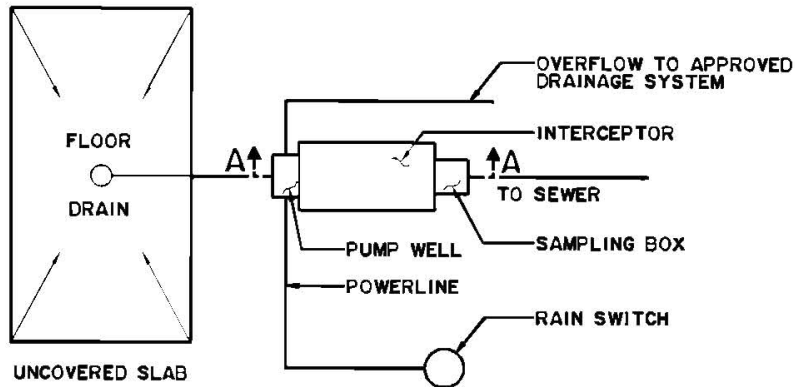
5.2 Feasibility - The Sanitation Districts generally do not consider cost when assessing feasibility.

5.3 Permitting - Any water accepted into the public sanitary sewer is considered industrial wastewater and may require an industrial wastewater discharge permit. All discharges must comply with all applicable effluent limits.

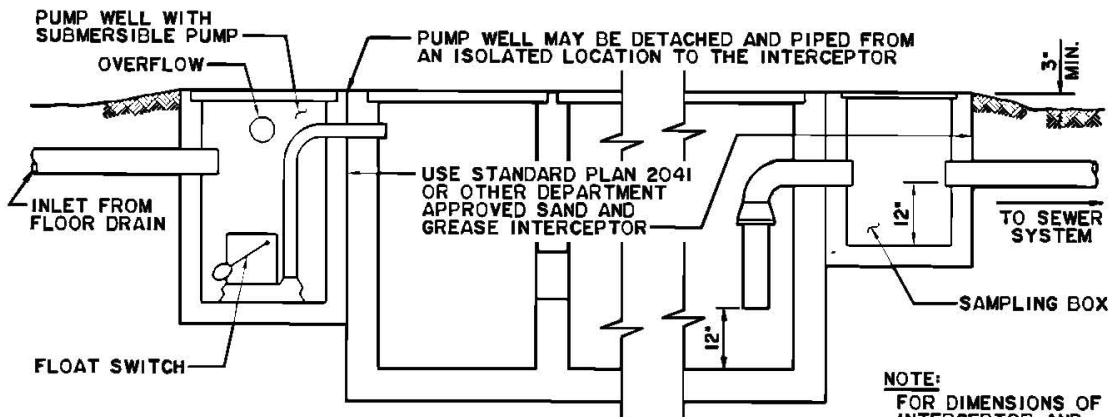
- 5.4 Limits on Discharge - Restrictions may be placed on the maximum flow rate discharged from a facility during periods of rainfall and on times of day when discharge to the sanitary sewer system is allowed.
- 5.5 Controls - The Sanitation Districts may require stormwater diversion systems, flow monitoring, telemetry systems, flow restrictors, berms, and/or other devices as necessary.
- 5.6 Additional Restrictions – Local wastewater collection agencies may set additional restrictions on stormwater discharge to the public sanitary sewer.
- 5.7 Capacity - Discharge will be prohibited if the sanitary sewer system or treatment plant does not have the capacity to handle it safely or if the discharge would use a disproportionate or inequitable amount of that capacity.
- 5.8 Connection Fee – If the site's existing baseline capacity entitlement is inadequate, a connection fee must be paid prior to issuing a permit. An annual surcharge will apply based on the contribution of flow, chemical oxygen demand, suspended solids, and peak flow.



**APPROVED RAIN
ACTIVATED SWITCH**



SYSTEM LAYOUT



SECTION A-A

NOTE:
FOR DIMENSIONS OF
INTERCEPTOR AND
SAMPLING BOX, SEE
STANDARD PLAN 2041.

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

RAIN WATER DIVERSION SYSTEM

APPROVED *A. Carlos A. G. [Signature]*
DIRECTOR OF PUBLIC WORKS

5/31/1992
DATE

STANDARD PLAN
2043-0
SHEET 1 OF 2

SUPERSEDES COUNTY ENGINEER STD. I-7

NOTES

1. WARNING LIGHT TO BE LOCATED IN THE OPERATIONAL ROOM OR OTHER SUITABLE LOCATION. POST A SIGN TO READ "NOTIFY OPERATOR WHEN GREEN WARNING LAMP IS ON".
2. THE RAIN SWITCH WILL SHUT OFF POWER TO THE PUMP AFTER 0.1" OF RAINFALL. RAINWATER ENTERING THE PUMP WELL WILL DISCHARGE THROUGH THE OVERFLOW TO AN APPROVED POINT OF DISPOSAL.
3. PUMP RATING CANNOT EXCEED MAXIMUM PERMITTED PEAK FLOW RATE.
4. ALL WATER MUST ENTER THRU THE INLET PIPE ONLY. ALL SURFACE WATER MUST DRAIN AWAY FROM THE INTERCEPTOR AND PUMP WELL TO EXCLUDE RAINWATER FROM THE PUBLIC SEWER.
5. PUMP WELL AND INTERCEPTOR MAY BE MONOLITHIC OR CAST SEPARATELY AND JOINED TOGETHER WITH EPOXY RESIN.
6. THE RAIN COLLECTOR MUST BE LOCATED FREE FROM OBSTRUCTION AND VERTICALLY ABOVE THE RAIN SWITCH WITH THE SHORTEST POSSIBLE CONNECTING PIPE.
7. STRUCTURE NOT FOR TRAFFIC LOADING.

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

RAIN WATER DIVERSION SYSTEM

STANDARD PLAN
2043-0
SHEET 2 OF 2