

Chapter 43: [Wastewater](#)

Construction Requirements

Product ID: [802](#) | Revision ID: 2915 | Date published: 17 July 2026 | Date effective: 17 July 2026

URL: <https://www-esh.slac.stanford.edu/eshmanual/references/wastewaterReqConstruction.pdf>

1 Purpose

The purpose of these requirements is to ensure that any material (*wastewater*) that enters the sanitary sewer system (*discharges*) at SLAC complies with applicable rules and regulations.

They cover planning, permitting, conducting, and completing construction, soil excavation, and grading activities that may affect wastewater discharges at SLAC.

They apply to workers, supervisors, project and construction managers, subcontractors, the wastewater program manager, and Facilities and Operations.

Construction activities include clearing, grading, and disturbances to the ground, such as stockpiling and excavating. Potential impacts from construction include spills, sediment, debris, and chemicals or other materials entering the storm drainage system.

2 Requirements

All projects must adhere to SLAC's [wastewater permit](#), associated wastewater requirements, and pertinent federal, state, and local laws and regulations.

The project manager and/or construction manager (CM) are responsible for ensuring wastewater requirements are met by subcontractors. (See [Chapter 42, "Subcontractor Safety"](#).)

The CM is responsible for regularly inspecting construction sites to ensure all requirements are being met.

2.1 Project Design

Construction projects must consider the following during the project design and planning phase.

2.1.1 Characterization of Wastewater Generating Activities

During the design process, the project manager must develop an estimation of the primary wastewater generating activities, chemical concentrations, and their anticipated daily volumes during final operation. Some wastewater generating activities may require a modification to SLAC's wastewater permit.

Submit this information to the wastewater program manager using the [Wastewater Generating Activity Characterization Form](#).

2.1.2 Delayed Discharge Requirements

Wastewater that contains elevated dissolved solids (for example, cooling tower water and groundwater) may be required to be placed on time-delayed discharge, with appropriate holding tanks and automated discharge controllers. Other wastewater streams that the sewer agency deems potentially impactful to their recycled water plant may also be required to be placed on time-delayed discharge.

2.1.3 Sewer Capacity and Entitlement

SLAC is subject to a sewer capacity entitlement (i.e., cap on average gallons of discharge per day) that the site must continue to remain below while accommodating new construction across SLAC's campus. Projects that are anticipated to generate substantial volumes of wastewater may be required to purchase additional entitlement capacity from the sewer agency before commissioning.

Facilities Engineering Group is responsible for evaluating proposed construction projects to ensure SLAC's existing sewer pipes have sufficient capacity for the anticipated additional wastewater streams, and to ensure that new pipes are designed to accommodate the appropriate volume of wastewater.

Projects should contact the wastewater program manager and Facilities Engineering Group early in the project design process to determine if additional entitlement capacity must be purchased.

2.2 Project Construction

Examples of construction activities that generate wastewater include the following:

- Draining of pipes (domestic water, fire water, low conductivity water [LCW], process chilled water [PCW]) before replacing or connecting into existing lines
- Commissioning activities of water system loops or lines treated with alkaline phosphate cleaner
- Flushing of new fire sprinkler lines and fire suppression lines following fire life safety inspection
- Flow testing of new fire lines
- Pressure testing of new aboveground and underground piping systems
- Cutting of transite pipes and asbestos removal activities
- Pressure washing of equipment and/or buildings
- Concrete mixing

Wastewater from construction activities, including domestic water treated with chemicals, may not be discharged to SLAC's sanitary sewer without prior approval from the wastewater program manager. Submit the [Wastewater Discharge Request Form](#) to initiate the approval process.

Important Discharge of hazardous waste to SLAC's sanitary sewer system is strictly prohibited.

Important Discharge of wastewater to SLAC's storm drainage system is strictly prohibited (see [Chapter 26, "Stormwater"](#)).

2.2.1 Non-routine Discharge Permits

Generated wastewater from construction, cleaning/washing, jetting, and commissioning activities may need to be discharged under a non-routine discharge permit, which the wastewater program manager will procure on behalf of the project.

This wastewater will need to be contained and sampled before receiving discharge approval.

Note Allow one week to process non-routine discharge permits.

If the wastewater is not approved for discharge to the sanitary sewer, disposal must be coordinated with [Chemical and Waste Management](#).

2.2.2 Reuse for Dust Control

Clean water from testing and flushing activities may be reused for dust control or as irrigation water, under the following conditions, and with approval from Environmental Protection:

- It is not a prohibited discharge.
- The water is not from copper piping.
- If the water has been chlorinated, it has been dechlorinated before discharge.
- No other chemicals have been added.
- The water will not be permitted to enter the storm drain system.

2.2.3 Asbestos Wastewater

Any water that comes into contact with asbestos fibers, or wastewater generated during transite pipe cutting work, needs to be collected and filtered in accordance with the following requirements as a prerequisite for obtaining approval of discharge of the water to the sanitary sewer system:

- Filter water using four in-line filter cartridges with 2-inch inlets and outlets.
- Connect the outlet of each filter cartridge in series to the inlet of the next cartridge.
- The first cartridge must contain 100 µm prefilters, the second and third cartridge 25 µm filters, and the final cartridge 0.5 µm absolute filters.
- Contact the wastewater program manager for sampling and discharge to the sanitary sewer under a non-routine discharge permit.

3 Forms

The following forms and systems are required by these requirements:

- [Wastewater Generating Activity Characterization Form](#). Form for documenting the characterization of proposed new or changing wastewater generating activities at SLAC that will occur following project completion
- [Wastewater Discharge Request Form](#). Form for requesting approval to discharge wastewater into SLAC's sanitary sewer

4 Recordkeeping

The following recordkeeping requirements apply for these requirements:

- The wastewater program manager maintains completed characterization and discharge request forms.
- The wastewater program manager retains copies of wastewater analytical records, correspondence with sewer agency, copies of non-routine permits, and dates and volumes of discharges from construction sites.
- Subcontractors must track the date/time and volume of any discharges made under non-routine discharge permits and report that to the wastewater program manager.

5 References

[SLAC Environment, Safety, and Health Manual](#) (SLAC-I-720-0A29Z-001)

- [Chapter 43, “Wastewater”](#)
 - [Wastewater: General Requirements](#) (SLAC-I-750-0A16S-015)
- [Chapter 26, “Stormwater”](#)
- [Chapter 42, “Subcontractor Safety”](#)

Other SLAC Documents

- [Environment Resources](#)
- [Chemical and Waste Management](#) (SharePoint)

Other Documents

- Silicon Valley Clean Water and West Bay Sanitary District. Mandatory Wastewater Discharge Permit No. WB 211216 ([WB 211216](#))