

BMP NS01 - Potable Water Line Flushing

The Facilities Management Department conducts a comprehensive potable water line flushing and distribution system releases throughout the CSUSM campus. Water line flushing is a process that rapidly removes water from the CSUSM water piping system by forcing scour of materials that accumulate in the CSUSM pipelines.

Potable water mains are sized to allow adequate and safe flows for fire protection, water typically is moving through the underground pipelines at less than 2-miles per hour. This slow movement causes sediment, like rust and mineral particles, to build up over time and accumulate along the pipe's bottom. The buildup of sediment and debris can impede and restrict water flow in the pipelines and contribute to corrosion and water coloring issues. Potable water line pipes are typically flushed by opening-up fire hydrants and blowing water flows to the open street through the curb and gutter. The CSUSM campus staff uses a fire hydrant connector to direct fire hydrant flows to an open-space area on campus. CSUSM staff discharges potable water at discreet locations from fire hydrants on a bi-monthly basis.



Pollution Prevention Guidelines:

- **Do not** discharge chlorinated or super-chlorinated¹ water to any storm drain, street, ditch or surface water.
- Super-chlorinated water may only be discharged after de-chlorination by aeration, retention, dissipation, or chemical treatment to “no measurable chlorine” content.
- The discharge shall be visibly clear and not contain floating or solid materials.
- The discharge shall not result in flooding of neighboring property, streets, gutters or storm sewers.
- The discharge shall be diverted from building foundations or other areas that may be damaged from ground settling or swelling.
- Remove any debris, trash or other materials from conveyance system if discharged².

Design Guidelines:

- Direct to a pervious area, ditch to help percolate discharge.

Inspection Guidelines:

- Inspect the discharge for any floating or solid materials or debris.

Training Guidelines:

- Train CSUSM field staff and contractors on the procedures to use for potable water line flushing.
- Conduct refresher training for staff and contractors who conduct potable line flushing on an as needed basis.

¹ Usually associated with the installation of a new potable water line or after a repair to eliminate any risk of bacterial contamination of the water supply.

² Discharges to storm drain systems and/or receiving waters may require a separate permit from other storm drain operators (City of San Marcos) and/or the State's Water Quality Control Board.