

Best Management Practice for the Discharge of Water from Fire Suppression Systems

Why it Matters

Fire sprinkler/fire hydrant line flushing is a potential source of non-stormwater runoff pollution. The water in the system sits stagnant for years causing corrosion of the pipes, growth of bacteria, and contamination. Pollutants accumulate in the water line and can impact aquatic life if discharged directly into the storm drain (which discharge to streams, wetlands, lakes, etc.). Discharge of these contaminants into a storm drain could be considered an "Illicit Discharge¹." Illicit discharges may result in an enforcement action by the local municipality, health department, or the State.

Potential Pollutants

- Heavy Metals (dissolved iron, lead, zinc, nickel, and copper)
- Oils
- Bacteria
- Sediment and debris
- Anti-freezing agents
- Surfactants (soaps/foams)



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¹ "Illicit discharge" means any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a UPDES Permit (other than the UPDES Permit for discharges from the municipal separate storm sewer) to waters of the state

Initial Flush

The water produced during the initial flush is typically poor quality (odorous; black, brown, or orange in color). After the initial flushing the water will generally become clearer and of similar quality as a potable water source.



Best Management Practices (BMPs)

1.) Contain, Collect, Haul (*preferred method*)

Plan to contain and collect the initial flush. Ensure that appropriate BMPs are employed onsite to protect any storm drains and have a spill response plan in place. Coordinate with a waste disposal company to haul and properly dispose of contaminated water.

Water free of contamination (clear potable water) may be discharged to a storm drain with the approval from the local municipality. Alternatively, the clear potable water may be directed to a landscaped area and allowed to infiltrate. If infiltration is used, appropriate measures should be taken to prevent erosion.

2.) Discharge to Sanitary Sewer

Acquire approval from pretreatment/local wastewater treatment plant to discharge flush water to the sanitary sewer. Discharging to the sanitary sewer may require treatment, sampling, and have flow restrictions.