



CASE STUDY - PROMOTING WATER CONSERVATION:

Forsta Self-Cleaning Filters Utilized in On-Site Treatment & Reuse of Stormwater in the Irrigation of Temescal Canyon Park and Surrounding Area



According to the City of Los Angeles, Department of Public Works/Bureau of Engineering, "In November 2004, the voters of the City of Los Angeles passed Proposition O, a Clean Water Bond, authorizing \$500 million of general obligation bonds for projects to protect public health and the environment by cleaning pollution, including bacteria and trash, in the City's watercourses, rivers, lakes, beaches, and ocean. These projects, including the Temescal Canyon Park Stormwater Best Management Practices Project - Phase II, assist the City of Los Angeles in meeting federal Clean Water Act requirements. Proposition O - Clean Water Bond also funds improvements to protect water quality, provide flood protection, increase water conservation, provide habitat protection, and create open space.

"The proposed project would implement on-site treatment and beneficial reuse of previously retained stormwater (Phase I) for the irrigation of Temescal Canyon Park, thereby promoting water conservation. This Project includes the construction of: a 120-foot stormwater line from 500 gallon per minute (gpm) pump located inside an existing buried reservoir to the treatment building; a 31'4" by 13'4" (416.3 square feet) treatment building (to include two (2) peristaltic booster pumps; self-cleaning 200 micron filter with a flow capacity of 2,000 gpm; 490 gallon double-contained tank on a raised platform; treatment agent will be sodium-hypochlorite at 12.5% solution) constructed with a fire suppression system; exterior air conditioning condenser unit; a 2,530-foot treated water distribution line from the treatment building to the existing Temescal Canyon Park Irrigation System, of which 2,372-feet will be located within the right-of-way of Temescal Canyon Road; and a 10-foot wide gravel road to provide access to the treatment building from Temescal Canyon Road.

"The resulting processed water will be in conformance with the Tier III Standards as found in the Los Angeles County Department of Public Health *Guidelines for Harvesting Rainwater, Stormwater, & Urban Runoff for Outdoor Non-Potable Uses September 2011*. The treatment building will be located at 362 Temescal Canyon Road,

approximately 550' +/- north of Pacific Coast Highway, being sited behind and southerly of the existing restroom building.”

Throughout 2016 & 2017, Forsta Filters worked with the local contractor to provide the requisite 200 micron self-cleaning filter to meet spec for the stormwater project that had been approved in 2004. The Forsta B6-180 model self-cleaning filter was selected to handle the max flow for the Temescal pump station system.

Forsta self-cleaning filters have been incorporated into many irrigation system protection applications, where increasingly these projects utilize some form of non-potable water. Whether from captured stormwater, treated municipal or industrial wastewater, irrigation designs that do not rely on the potable water supply are more efficient, less expensive, and protect valuable water resources.

Forsta self-cleaning filters protect drip tubing and irrigation spray nozzles from debris buildup which can reduce energy efficiency. As irrigation piping and drip tubing orifices become smaller due to buildup it takes more energy to pump water through them. If spray nozzles become clogged, it can cause damage to turf and landscape, and create the need for time-consuming and costly replacement.

Forsta's self-cleaning systems protect irrigation systems with 100-200 micron screens that keep fine sand, silt and other particles from entering the system. By utilizing available system pressure for cleaning (min. 35psi), Forsta self-cleaning filters consume a minimal amount of energy. Where system pressure is lower (min 15psi) Forsta offers motor-driven filters.

In May of 2018, Forsta engineers conducted comprehensive onsite training at the Temescal Canyon site. The training included the utilization of an equipment startup checklist and implementing a process for ongoing equipment evaluation. The Forsta equipment installed at the Temescal Canyon site has reliably provided filtered water for irrigation without issue for 7 months.

Forsta Filters is proud to be a part of the growing trend towards efficient water use in agriculture and landscape irrigation. With irrigation systems at the forefront of water efficiency in landscape and agricultural irrigation projects, protecting those systems from clogging is of the utmost importance



About the Author:

Polly Stenberg is Director of Sales with Forsta Filters Inc. - A California-based original equipment manufacturer. Stenberg has conducted case study reviews with customers using Forsta self-cleaning filters in drinking water, wastewater, cooling, agricultural/landscape irrigation and industrial process systems. Polly can be reached at 310-837-7177 x 405 or by emailing polly@forstafilters.com Visit Forsta on the web at www.forstafilters.com