



STORMWATER FILTERS



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Leaves, litter and debris on the street are expensive to remove when they enter stormwater drainage pipes. This is commonly referred to as "stormwater pollution", and the pollution also causes street floods when it clogs pipes, and leads to water pollution when the stormwater flows to waterways.



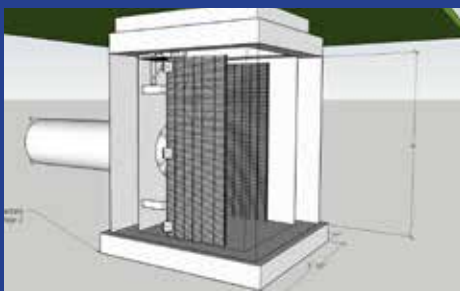
To address these issues, our patented stormwater filters/ screens block debris from entering the storm drain system, while allowing for a high flow rate of water.

Proven effective in the field since 2011, our products deliver long-term benefits while saving communities money.



TECHNOLOGY BENEFITS

- ✓ Save money by reducing maintenance costs
- ✓ Prevent floods by keeping debris out of drainage pipes
- ✓ Prevent pollution by keeping leaves, plastics and other pollution out of natural waterways
- ✓ Quicker and more efficient field operations



QUICK STATS

8+ Years

proven effective in the field

Patented

several sole-sourced contracts awarded

Options

we manufacture using several material types

Service

we'll work with you from design to installations

ISSUES: STORMWATER POLLUTION



“Nonpoint source (NPS) pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters and ground waters.”

- U.S. Environmental Protection Agency EPA



POLLUTED WATERS AND ECOSYSTEMS

HUMAN HEALTH RISKS



FLOODS DUE TO CLOGGED PIPES

DAMAGE TO HOMES AND BUSINESSES



EXPENSIVE MAINTENANCE

SOLUTIONS: STORMWATER FILTERS



Our patented storm drain filters are installed at drainage openings on the side of the road and under storm grates.



City of Key West

LOWER MAINTENANCE COSTS

LESS FLOODS DUE TO CLOGGED PIPES

DECREASE WATER POLLUTION

IMPROVE QUALITY OF LIFE

RETROFIT TO OLD & NEW INFRASTRUCTURE



City of Key Biscayne

SELECT CLIENTS & TESTIMONIALS



City of Aventura



Village of Virginia Gardens



City of Key West

“It has not been necessary to clean the drains since the devices have been installed.”

Public Works Director, Customer

“The filter does what it is designed to do, all debris is collected at the inlet, keeping it out of the basin.”

Public Works Director, Customer

“I was amazed at the results because of the way the water flows and the leaves and the debris do not block the filter.”

Engineer and Faculty Member, Miami-Dade College

“All of the debris stays out instead of going into the storm basin. Much easier to clean and remove from the surface instead of vac trucking it out.”

Public Works Director, Customer

“It is in the best interest of the city to purchase these filters from SOP Technologies. Staff have tested filters from two companies. The SOP product is much stronger and better built. They are comparable in price. No other comparable products exist to staffs knowledge after lengthy research. The filters have been effective at keeping debris out as intended and have had no mechanical or corrosion issues to date.”

Utilities Director, Customer

STORMWATER FILTERS: POLLUTION AND FLOOD PREVENTION

Annually, each filter **blocks up to 350 lbs. of leaves and litter** from entering stormwater catch basins, pipes and waterways



Aventura, FL



Key Biscayne, FL



Seminole, FL

STORMWATER FILTERS: COST SAVINGS

Return on Investment After 2 years



Filters + Street Sweeping costs less than using vacuum trucks.

Street Sweeping
\$165 / lb of TN



Catch Basin Cleaning
\$1,016 / lb of TN



PROVEN IN THE FIELD AND IN THE LAB

Patented upward flow design allows for high water flow, while blocking stormwater pollution.

FIU

Blocks cigarette butts, small leaves, plastic bags, Styrofoam and other debris



FILTERS FOR MULTIPLE SCENARIOS



Curb Inlet Filters

Protect curb openings and maintain the filters clean with existing street sweeping efforts.



Under-grate Basket Filters

Use under storm grates to capture debris. Easily lift out and remove contents when baskets are full.



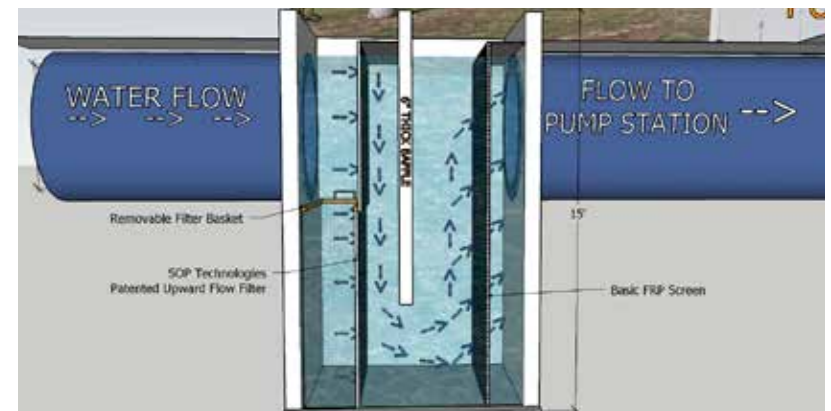
Catch Basin Filters

Place adjacent to pipes, inside stormwater catch basins. Remove pollutants using vacuum trucks.



Large-Scale Systems

Custom design and fabrication to prevent stormwater pollution from reaching pumps or other areas.



SERVICES & FABRICATION



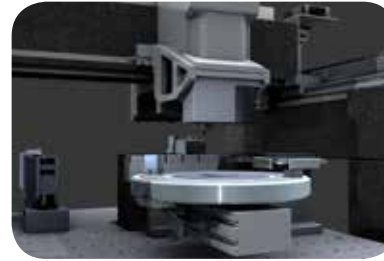
Consultation



Site Visits



Fabrication



Installations



Capture large debris, small items, chemicals and/or oils



Aluminum

Aluminum can be configured in various shapes and has a high strength-to-weight ratio.



We offer many materials to choose from

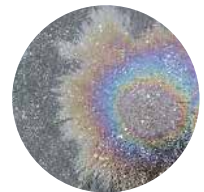
Stainless Steel

Stainless steel is stronger and can provide added corrosion resistance in marine settings.



HDPE Plastic

High-density polyethylene (HDPE) and other plastics are lower cost alternatives.



Geotextile Fabrics

Geotextile fabrics are malleable and can be used to filter smaller debris.



SOP TECHNOLOGIES CASE STUDIES

CASE STUDY: CITY OF KEY WEST, FL



THE CHALLENGE

- Litter blocking the drainage system
- High cleaning costs
- Flood risks due to clogged pipes

USE OF TECHNOLOGY

- 3 month pilot project for curb filters
- Collaboration with Public Works and Maintenance Personnel
- Feedback on product design

OUTCOMES

- Successful pilot project
- Implementation of curb filters throughout the commercial district
- More filter implementations at sites with lots of litter.

CASE STUDY: CITY OF BOROONDARA, AUSTRALIA



TESTIMONIAL

"We have been trialling the SOP side entry pit filter at the Council Infrastructure Operations depot since August 2018. In that time we have been encouraged by its performance in preventing litter and debris from entering the stormwater system.

We found the unit easy to install and now intend to fit a number of units at a busy commercial centre and marketplace."

- City of Boroondara, Drainage & Cleansing Team.

CASE STUDY: CITY OF AVENTURA, FL

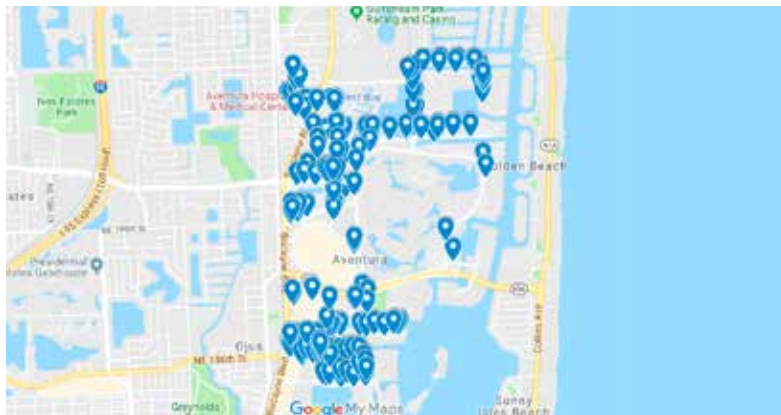


THE CHALLENGE

- Flooding issues due to clogged drains
- High cleaning costs
- Concern of future sea level rise

USE OF TECHNOLOGY

- Pilot project with 35 filters
- Successful pilot project
- City-wide implementation in progress (177 inlets of various sizes)



OUTCOMES

- Cost savings due to decreased need for vector cleanings
- Street sweeping keeps the filters clean and debris out of the pipes
- Less water pollution and flood risks

INDUSTRY RECOGNITION: AVENTURA, FL



STORMWATER PROJECT OF THE YEAR

“IMPLEMENTING INNOVATIVE AND COST-EFFECTIVE BEST PRACTICES FOR STORMWATER MANAGEMENT”



STORMWATER FILTERS IMPLEMENTATION PROCESS



We provide all the necessary services to implement stormwater filters.

MEASUREMENTS

MANUFACTURING

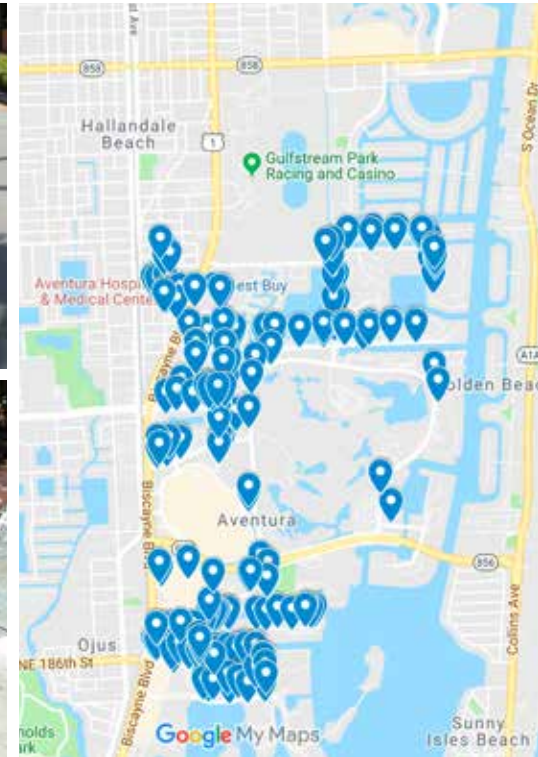
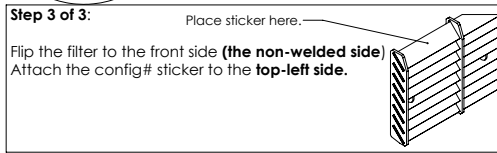
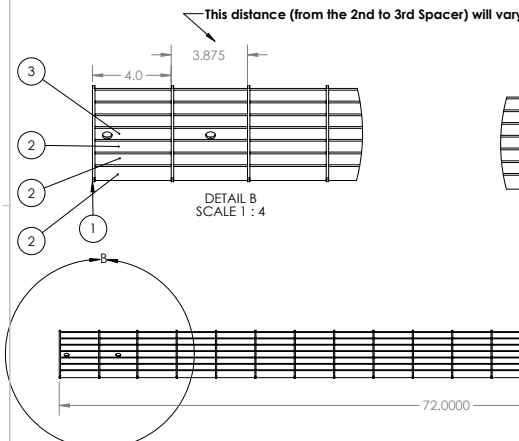
INSTALLATIONS

REPORT WITH MAPS



Step 1 of 3: Assemble the filter by sliding the slats into the Spacer pc

ITEM NO.	PART NUMBER	DESCRIPTION
1	SM7	Spacer part with 7 holes.
2	PS-72	Plain Slat (no holes). 72 in. length
3	HS-72	Holed Slat (4 holes). 72 in. length



ABOUT US



Based in Miami, FL, SOP Technologies provides technologies to prevent ocean pollution, prevent floods, and provide cost savings to communities and businesses around the world. We also use our expertise to offer custom engineering and consulting services to clients that have additional technical needs.

SOP Technologies is a winner of the 2017 American Entrepreneurship Award; and a recipient of the Keys to Miami-Dade County and City of Miami. We also collaborate with research institutions such as Florida International University.

[Click here to read and listen to our radio interview with NPR.](#)

[Click here to watch our TV interview with Telemundo.](#)

We are:



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