



## Storm Water Systems Product Overview

Storm Water Systems is committed to offering high quality, innovative products and services that improve the quality of water. These products are engineered to remove harmful pollutants and debris prior to reaching waterways, rivers and oceans.

Product Managers at Storm Water Systems carefully review and select products that represent the most effective solution for cleaning both storm water and surface water.

### **Bandalong Litter Trap**

The Bandalong Litter Trap is designed to be anchored and float in waterways in order to capture litter before it flows downstream by using the current to guide the debris into the trap. By continuously operating 365 days a year without any mechanical assistance to capture floating litter, the Bandalong is a proven cost effective solution to a growing litter problem.

The litter trap performs exceptionally well in tidal reaches, preventing captured litter from escaping once the tide turns. The components of the litter traps are pre-assembled offsite and installation can usually be completed within a day or two. The Bandalong Litter Trap has been successfully utilized throughout Australia and Asia.

### **Bandalong Boom Systems**

The Bandalong Boom System is installed across waterways, acting as a barrier to collect or deflect debris. The floating boom sections are connected together with stainless steel and/or aluminum universal joints and spanned across a weir, waterway or dam to capture litter and prevent it from floating further downstream. Boom Systems can be used in conjunction with the Bandalong Litter Trap or alone. The boom sections are manufactured from durable polyethylene pipe.

### **Cisterns**

Storm Water System's High Density Polyethylene Cisterns (HDPE Cisterns) are made from non-corrosive materials that capture and store water runoff from rooftops, parking lots and other areas for later reuse. Each HDPE cistern is custom designed for below-ground or above-ground usage to allow for the maximum in land use and water retention.

### **Mycelx<sup>®</sup>**

Mycelx<sup>®</sup> is a patented technology that is used to infuse all Mycelx Technologies water filtering media products in order to capture pollutants. This infused filter may be used with the Storm-PURE<sup>™</sup> Catch Basin Insert or with a custom fabricated filter housing to remove 99.9% of hydrocarbons and other pollutants from storm water runoff. The Mycelx filter captures pollutants including hydrocarbons, solvents, crude oil and fuel, pesticides, organic pollutants, animal fats and colloidal heavy metals.

### **Storm-PURE<sup>™</sup> Catch Basin Inserts (with mycelx hydrocarbon extraction filter)**

The Storm-PURE<sup>™</sup> Catch Basin Insert, a two-stage unit that will fit into new or existing catch basins, stands apart from competitive units in its ability to remove suspended solids, hydrocarbons and other pollutants.

The product collects sediment and debris while allowing filtered water to pass freely down through the center cone. The lower stage contains a patented Mycelx<sup>®</sup> filter insert which attracts and bonds tiny particles of hydrocarbons and oil-bound pollutants. Storm- PURE<sup>™</sup> Catch Basin Inserts are easily adapted to existing catch drain basins with an adaptor kit and have proven to be successful pollution elimination systems.

**About Storm Water Systems.**

Storm Water Systems offers solutions that remove impurities and litter from storm water runoff as well as surface waters. Storm Water Systems is based in Cleveland, GA and is a subsidiary of Plastek Werks, Inc., a privately held plastic fabrication company specializing in environmental products and services. To learn more about Storm Water Systems, visit [www.stormwatersystems.com](http://www.stormwatersystems.com).

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## Bandalong Litter Trap Fact Sheet

### Overview

The Bandalong Litter Trap is designed to float in waterways in order to capture litter before it flows downstream by using the current to guide debris into the trap. Continuously operating 365 days a year without any mechanical assistance to capture floating litter, the Bandalong is a proven cost effective solution to a growing litter problem. The Bandalong Litter Trap has been cleaning waterways in Australia and Asia for more than 10 years.



### How It Works

- Litter and debris floating on top of the water enters into the trap and is captured for later removal
- Patented gate prevents litter and debris from exiting the trap
- Anchored into place for maximum efficiency

### Statistics and Construction

- Two sizes: 5' X 22' and weighs approximately 600 lbs.  
10' X 29' and weighs approximately 1100 lbs.
- Constructed of Aluminum and High Density Polyethylene (HDPE)
- Pre-assembled offsite for efficient installation
- Manufactured in Cleveland, GA
- No nets or fencing underneath, fish and wildlife are unaffected by the traps
- Anchors keep the Bandalong Litter Trap stationary in waterways

### Water Requirements

- Requires 8" - 10" for floatation, but may temporarily sit in a dry area
- Works effectively with a flow rate of eight to ten feet of water per second, but can be designed to withstand higher flow rates
- Ideal for areas with current more than six feet wide.
- Effective in rivers, streams, creeks, lakes, drainage culverts with tidal basins, ports, harbors, marinas, etc.
- Rises and falls with water levels and is ideal for tidal reaches
- Litter that is caught in the trap will not be dislodged by wind, choppy currents or tides

### Unique Features

- Custom signs, demonstrating anti-litter or clean water campaigns and sponsors, are available for the top of the unit
- May be fitted with the patented Mycelx filter to catch hydrocarbons
- May be equipped with flashing solar navigation lights powered with lifelong batteries

### Purchasing and Warranty Information

- One year warranty covers the materials and workmanship. HDPE booms and floats on the Bandalong Litter Trap carry a 10 year warranty on materials and workmanship.

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## Storm-PURE™ Catch Basin Insert Fact Sheet

### Overview

Storm-PURE™ Catch Basin Inserts are designed to capture harmful pollutants from storm water runoff before they move into rivers and streams. By collecting pollutants, sediment and debris, the catch basin allows clean, filtered water to pass freely through its center cone, ensuring that water systems are free of harmful pollutants.



### How It Works

The catch basin insert fits easily into new or existing horizontal drop inlets. When water enters into the storm drain, it passes through a fine mesh cloth over the filter basket separating the debris and allowing water to continue to flow through the drain and downstream.

### Benefits

- Two stage filtering system that captures gross solids ranging from soil particles to litter.
- Fits readily into standard catch basins including curb inlets, road and highway basins and standard concrete catch basins using a hanger kit and transition plates
- Removes up to...
  - 99 percent of hydrocarbons
  - 96.9 percent of Total Suspended Solids (TSS) such as litter, debris and fines
  - Over 74.43 percent of total phosphorus
  - 67.46 percent of total Nitrogen

### Statistics and Construction

- Available in two sizes 18" and 24"
- Upper Section of the basin features a perforated metal catch basket which is covered by a geotextile filter basket that removes TSS
- Attaches to catch drain basins with an adapter kit that requires minimal assembly
- Lower portion of the basin contains the patented Mycelx filter to absorb hydrocarbons
- Overflow slots serve as a bypass in unusually high flowing conditions
- Housed in corrosion-resistant high density polyethylene body
- May be used with or without the Mycelx filter

### Purchasing and Warranty Information

- One year warranty on materials and workmanship

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## **Mycelx<sup>®</sup> Filter Fact Sheet**

### **Overview**

The Mycelx<sup>®</sup> Filter is designed to remove hydrocarbons such as crude oil and fuel along with other pollutants from water resources. Mycelx can be manufactured in different medias, depending on the application, from filters for stormwater filtration to booms for hydrocarbon spills. It can also be attached to the Bandalong Litter Trap.



Example of Mycelx used in a contained system

### **How It Works**

- Hydrophobic filter molecularly bonds to and removes hydrocarbons and pollutants as water passes through the filter
- Consists of polypropylene fibers that are coated with hydrophobic substances which bond to hydrocarbons
- May be used in mass quantities to clean up oil spills
- Each filter works for up to six months under normal loads

### **Benefits**

- Removal rate of over 95 percent of total petroleum hydrocarbons
- Unrestricted water flow
- Filter will not release the hydrocarbons, even when completely saturated
- Received Lloyd's Register Performance Certification for reducing 99 percent of total petroleum and hydrocarbons from water sources
- Exceeds Environmental Protection Agency's criteria for Best Management Practice designation by removing petroleum pollutants from storm water.

### **Statistics**

- Available in different media types and sizes depending on application.
- Mycelx filters are manufactured in Gainesville, GA by Mycelx Technologies Corporation

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## Smart Cisterns Fact Sheet

### Overview

Smart Cisterns capture and store water resulting from rain or stormwater run-off for later use. Cisterns are recognized worldwide as offering independence from municipal water sources and wells. Smart Cistern's below ground installation ensures safe storage of water in an aesthetically pleasing manner allowing for the optimal use of land

### How It Works

Smart Cisterns are installed underground in yards, fields, parking lots, roadways, driveways, etc. Above ground, the size of the cistern is virtually undetectable and can be covered with sod or paving. Mechanical and electrical equipment including pumps, electrical controls and filters can be incorporated to the cistern system allowing for the water to be utilized whenever and however desired.



### Benefits

- Optimal use of water
- Independence from municipal water sources and wells
- Allows for maximum land usage
- Resistant to ex-filtration of contents and infiltration of groundwater
- Water available for irrigation or consumption
- Long-lasting

### Statistics and Construction

- Constructed of durable High Density Polyethylene (HPDE)
- Designed to support weight including maximum traffic loads
- Capacity from 500 gallons to 500,000 gallons
- Leak free
- Customization of size and design
- Built with advanced plastic welding technology

### Purchasing and Warranty Information

- One year warranty on materials and workmanship

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## **Gary Hopkins** Biographical Information

On the weekends in the North Georgia Mountains, it's common to see Gary Hopkins walking along the roadside picking up litter in an effort to preserve the countryside. It's his personal way of saving the environment. His love of the environment started during his childhood and he has always carried the torch for the land he loves. It was clear early in Gary's life that he would one day make a difference by helping the environment.

In 2007, Gary followed his heart and founded Storm Water Systems, Inc. with his business partner and friend, Mark Kirves, which offers performance products and services for removing oil, pollution, and litter from surface waters. For Storm Water Systems, Gary serves as President and is the public face of the company at trade shows, organizations and in the community.

Gary's journey to Storm Water Systems, began shortly after college at the University of Georgia when he joined Spirolite Corporation/Chevron Chemical. For more than 10 years, he was responsible for providing on-site project management and customer service for a manufacturer of large diameter HDPE (High Density Polyethylene) piping and piping components. It was with this position that Gary learned the skills that would one day allow him to combine his technical expertise and underlying passion for the environment to truly make a difference in the world.

Before founding Storm Water Systems, Gary and Mark founded Plastek Werks, Inc., a privately held plastic fabrication company specializing in environmental products and services. Gary is a dedicated member of AWS (American Welding Society) and holds the positions of Chairman of the G-1-A Technical Subcommittee and Vice Chairman of the B2F subcommittee. He is also a member of NACE (National Association of Corrosion Engineers). In 2001 he had the privilege of authoring the NACE publication, "Applied Thermoplastic Welding for Corrosion Resistant Service".

Gary has been a featured speaker for industry conferences including the Northeast Ohio Stormwater Conference.

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**Mark Kirves  
Vice President**

**Biographical Information**

When Mark Kirves purchased his home on Lake Lanier in North Georgia he expected the property to provide him with a great view and some time to relax. He didn't anticipate that his new home would help provide a new direction for his career and the creation of Storm Water Systems.

Looking out over Lake Lanier, a body of water that eventually feeds into the Gulf of Mexico and provides most of the water for the greater Atlanta area, Mark noticed the large amount of pollution that the lake accumulated over time. He knew that something needed to be done. Fortunately he had the skills and passion that could keep water clean.

In 2007, Mark used his vast knowledge of industrial welding and fabrication to address the issue of water pollution. Along the side of friend and business partner, Gary Hopkins, he co-founded Storm Water Systems, Inc. which offers performance products and services for removing oil, pollution, and litter from surface waters.

Clients, co-workers and neighbors are familiar with Mark's mantra, "All the water, is ALL the water there is." This statement helps fuel his passion for the environment and ensuring that clean water is available for many generations to come.

As Vice President of Storm Water Systems, Mark utilizes his extensive knowledge from 30 years in the plastic fabrication industry to provide Storm Water Systems with the technical knowledge to identify and create quality products that will keep water clean. Before founding Plastek Werks, Inc., parent company of Storm Water Systems, Mark served as a fabrication supervisor with Spirolite Corporation/Chevron Chemical.

Mark is DVS 2212 certified from the German Welding Society and also holds certificates in thermoplastic welding from Ameron, Atlas, Ausimont, BF Goodrich, Chevron chemical, Dow, Gulf, Society of Manufacturing Engineers and DuPont. Mark has trained over 200 people in Hot Gas Rod welding and extrusion welding worldwide.

A lifelong outdoor enthusiast, Mark has dedicated his skills, talents and energies to improving the environment for us all.

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