

Linking Alliances for Cleaner Water

Filtrexx regularly works with other allied companies in the erosion, stormwater, reclamation, and remediation market sectors.

Recently we formed an alliance with The Living Wall Company from St. Louis to offer a full line of Living Wall products at price points that work in almost any budget.

The recent webinar on our new Filtrexx® Trinity™ LivingWall (see page 4) indicated that we are on track. We presented to a capacity crowd, and we are now booking additional webinars for the overflows (Register for the Dec. 10 session at www.filtrexx.com). In this webinar Mark Woolbright from The Living Wall Company reviews all the issues surrounding engineering and designing of Green Walls. The simple combination of existing technologies has come after both companies encountered barriers in market development for their individual wall products. By combining forces, Filtrexx, The Living Wall Company, and Tricon Precast Ltd can offer the best of all worlds. Tricon is the leader in manufacturing wire forms for temporary wire walls.

In the past, Filtrexx representatives would conduct a lunch and learn and show our slope stabilization system or our GreenLoxx® MSE wall system. Sometimes (OK, a lot of times) engineers needed more strength than these systems are designed to provide. We had no other option to offer. The same is true with The Living Wall Company's SmartSlope™ system. In the past, Mark would present SmartSlope™ and people said they liked the structure of the concrete blocks, but then saw the price tag and did not have the budget for it. He had no other offering. So both sales teams left those meetings empty handed. Now, we offer four LivingWall™ systems with a range of strength, design flexibility, and price points, including GroSoxx® reinforced walls, GreenLoxx® MSE walls, Trinity™ LivingWalls, and SmartSlope™ using Filtrexx® SmartSoxx™. These types of alliances are currently being formed between Filtrexx and many other technologies.

The environmental benefit of green walls is underestimated. They have real function in reducing heat island effect, detention and retention of water (a recent design used SmartSlope™ blocks as a large barrier for water to pass through, with EnviroSoxx® in the spaces to treat water). We can even create vertical gardens! What? Grow food on a wall?

Having Mark Woolbright on staff is invaluable and also one of the main reasons we had not seriously impacted the MSE marketplace. Mark's 25 years of experience in inventing, designing and building structural wall systems is a great asset for any of you that require design help. In addition, he has trained our capable sales force to present these great new products, and offer design ideas on how one of our systems might solve your site needs.



Many of the other wall systems that are trying to be green are struggling with the very thing that makes them green – vegetation establishment. As you know, Filtrexx is leading the field in vegetation establishment in dozens of applications. We have documented over 65 natives that grow well in our GroSoxx® (For the full list, go to www.filtrexx.com/grosoxx/natives.pdf). These native plants can be established from seeds, sprigs, plugs, or live stakes in *any of the systems described above*. By adding drip irrigation, Filtrexx expands the time of year when we can plant and establish vegetation and increase the chance of having a successful green wall. The real secret is that our GroSoxx® deliver a measured, quality controlled, proven growth medium that is just not available in other systems.

– **Rod Tyler**
CEO, Filtrexx International

Project Profiles

Retaining Value with GroSoxx®

Brentwood, TN

The City of Brentwood is an affluent suburb of Nashville. In May 2010 the entire region experienced a “1000-year flood”. The two day rainfall at Nashville International Airport shattered the monthly rainfall record for May. According to the NOAA, the equivalent to 420 billion gallons of water fell in just two days.

The City of Brentwood received an unprecedented 14-17 inches of rain. Flooding caused water damage to several hundred homes, mud slides, damage to roads and bridges, and even generated several fires in flooding homes. It turned the normally trickling Little Harpeth River into a raging river. Several homes along an unnamed tributary to the River had lost several feet of land in their back yards. Erosion of these parcels has continued unabated, and with a median property value of \$450,000, this means huge financial losses for the homeowners.

The City’s stormwater regulations require a natural, undisturbed buffer along existing streams to improve water quality. City engineers originally proposed to mitigate further erosion using coconut matting with rip rap. However, Tennessee Department of Environment and Conservation (TDEC) rejected the proposal, preferring something “greener”. The tributary is a Designated Blue Line Stream, and thus is governed by the TDEC, with strict rules on what you can and cannot do.

Brentwood’s Public Works Department turned to Mid-TN Erosion Control for a solution. “We had worked with Mid-TN in the past and knew that they always stood behind their work,” said Rich Richardson, Public Works Operations Superintendent for the City of Brentwood. Mid-TN showed them several installations that use Filtrexx® Bank

Stabilization technology and they were very impressed with the rapid and sustained vegetation and their overall stability under the constant flow of water.

“We conducted a cost analysis and found that the labor was not drastically different from what we had used in the past, but this system lasts a lot longer,” said Richardson.

TDEC approved the City’s proposal to use Filtrexx® Bank Stabilization technology to mitigate the loss of land. This technology uses GroSoxx® filled with engineered Filtrexx® GrowingMedia™. GroSoxx® are typically pre-seeded with native species for successful establishment. On this project, the GroSoxx® were seeded with switchgrass, hairy vetch, fescue, and bermudagrass.

Mid-TN Erosion stabilized a 530-foot section of bank, at an average height of four feet. “It took six men about a day and half to build the product and a day and a half to install it,” said Chris Richey, of Mid-TN.

GroSoxx® are installed in successive courses along with geogrid to provide structural protection, control erosion, and establish and reinforce vegetation all in one simple system. The application has been specifically developed to withstand high flow velocities and shear stresses that conventional products cannot withstand. Over time the vegetation creates a natural anchor between the bank and the stabilization system. We call this “nature’s velcro”.

Eight weeks later, the GroSoxx® have indeed proven to be effective. “I was out there last week and it was unbelievable! You can’t see the mesh—it’s completely vegetated,” said Richardson. “And the homeowners are tickled to death, it looks like their lawn extends right up to the bank.”

A biologist by training, Richardson understands the long term benefits. “The vegetation does the work. The product alone is not going to do it,” he said. “But once the vegetation is established, I can’t see it failing—ever.”

Outfitted for Construction

Greenville, SC

Cabela’s, the World’s Foremost Outfitter® of hunting, fishing and outdoor gear, is building its first store in the Southeast in Magnolia Park, a retail development on the site of a former shopping mall. As with any development project, perimeter control had to be addressed. The area was covered with asphalt, making trenching impossible. The contractor needed an alternative to silt fence.

Contractor Palmetto Grading of Spartanburg, SC had used coir logs in similar situations in the past, but were dissatisfied with how poorly they held up to use on a construction site. They feared Filtrexx® SiltSoxx™ might do the same, but decided to try it based on past successes with a different SiltSoxx™ application.

Palmetto Grading installed 8-inch SiltSoxx™ purchased from Ferguson Waterworks. “With all the asphalt on the site, it’s been good, said Palmetto’s Todd Crawford. We’re able to move it, cut it, tie it off, and make an opening. It’s very easy to work with.”



Close to Home

Stow and Piqua, OH

The Ohio Department of Transportation (ODOT) recently initiated trials of Filtrexx® SiltSoxx™ on two projects. Although the Ohio DNR has approved the product, ODOT has not added it to its Qualified Product List.

Karvo Paving of Stow, OH installed two miles of SiltSoxx™ for perimeter control, inlet protection, and check dams on a highway expansion project on State Route 8. The SiltSoxx™ will remain on the ground for the duration of the three-year project.

In Piqua, OH, Eagle Bridge Construction installed approximately 5,000 feet of 12-inch SiltSoxx™ for the expansion of an established residential neighborhood, and will use 5,000 more feet before the project is complete.

ODOT officials were on site in Piqua for the installation. They were pleasantly surprised at the heftiness of the SiltSoxx™. Contractors were equally as pleased with the speed and ease of installation.



Don't Bust Your Asphalt

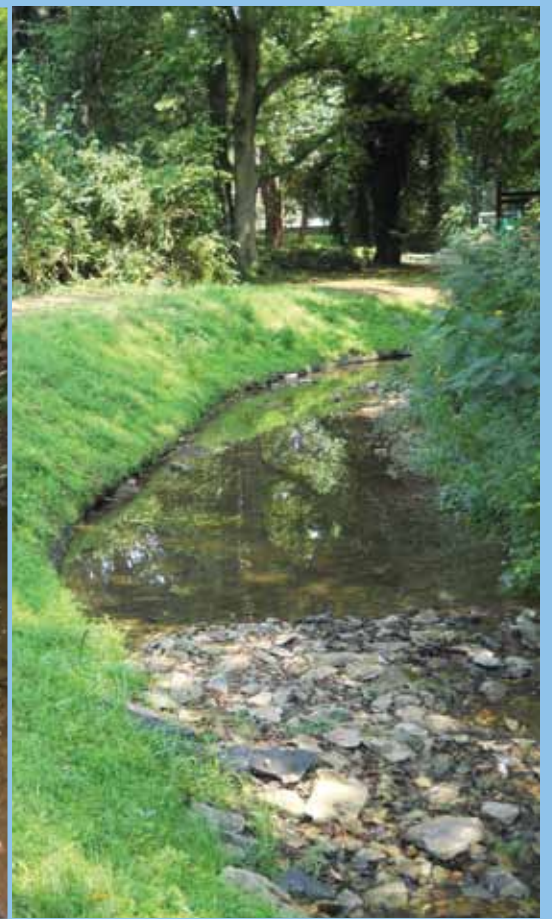
Carlsbad, CA

A major shopping mall in Carlsbad, 35 miles North of San Diego was undergoing a renovation. The building, constructed in the 1960s, had asbestos that had to be remediated prior to demolition.

Rick Engineering specified compost socks in the Stormwater Pollution Prevention Plan due to the potential for run off and the need for containment and filtration of any stormwater or nuisance water. The installation is on asphalt, so the 8-inch SiltSoxx™ made for an easy installation by Summit Erosion Control, of Poway, CA.

“Had straw wattles been used, we would have been forced to use gravel bags to hold the straw in place and even with that, there would not have been consistent contact with the asphalt,” said Jeff Carpenter, superintendent for Westfield Construction, the mall’s owner and General Contractor. He has been extremely pleased with the product’s ease of installation, performance, and appearance.





Sarasota Success Story

Sarasota, FL

As part of a \$2.5 million sediment management project, Sarasota County has implemented the Phillippi Creek water quality improvement program. The Phillippi Creek Basin drains 57 square miles of Sarasota County. GroSoxx® Gabions were identified and selected as a critical component for the project. The gabions are used to both stabilize the banks of Phillippi Creek and to remove particulate matter and nutrients from surface runoff and filter lateral movement of water in the soil that drains into the creek.

EPA acting assistant administrator Nancy Stoner visited Sarasota County to determine which projects could be replicated in other areas of the country. Overall improvement to Sarasota Bay attracted Stoner to the area however, her focus was on Phillippi Creek, a tributary that, despite its 60 percent reduction in nitrogen pollution since 1988, is still in need of much help.

Said Stoner, “There will be a lot of interest in what people have done here and how it worked to restore these water bodies.”



The Best Defense Against Silt

Cleveland, OH

Burke Lakefront Airport sits on the shore of Lake Erie overlooking the Rock & Roll Hall of Fame and Cleveland Browns’ stadium. The airport is currently undergoing updates to its taxiways and the sub-base.

Project Manager Rick Robertson of Independence Excavating had long advocated for SiltSoxx™ as an alternative to silt fence. But regulators were reluctant, citing concerns that water may “flow through too quickly.” Robertson persisted, because he knew that two-thirds of the sediment stopping happens *inside* Filtrex® Soxx™, not behind it.

“We finally got approval to use the Soxx™,” said Robertson. “We installed 1200 linear feet in about a day. It would have taken two or three days if that were silt fence.”

For Robertson, there’s no going back to silt fence. He says, “The only reason someone would use silt fence instead of SiltSoxx™ is because they have to.”



Pocket Protector

North Myrtle Beach, SC

The city of North Myrtle Beach is converting two former water tower sites to neighborhood “pocket parks”. Because the site plan required the preservation of several large trees near the perimeter of the site, City engineers saw this as a good opportunity to try Filtrex® SiltSoxx™ on a small scale to gain an understanding of their utility and performance. The SiltSoxx™ would minimize disturbance to the trees’ root zone.

Contractor Waccamaw Landscaping liked the ease of installation, and say the SiltSoxx™ are doing the job they were designed to do. The bright green color also serves as a visual barrier to keep pedestrians off of the construction site. When the project is complete, engineers plan to re-use the Filtrex® FilterMedia™ in the final mulching of the park’s landscape.

“We’ll continue to explore opportunities to use SiltSoxx™ on public projects,” said Sean Hoelscher, Senior Planner for the City of North Myrtle Beach, “It’s been well received on installation and performance.”



Introducing the Filtrexx® Trinity™ LivingWall



This month Filtrexx International introduced our latest vegetated retaining wall solution, the Filtrexx® Trinity™ LivingWall. It combines innovative engineering from The Living Wall Company with the proven performance of Tricon Precast wire forms and Filtrexx GroSoxx® technology. The Filtrexx® Trinity™ LivingWall can be used to stabilize extreme inclines while providing a broad range of design and planting options.

Tricon Precast wire has been used for years in areas where a Mechanically Stabilized Earth (MSE) wall is required. The pre-formed galvanized wire ensures the proper batter on the face of the wall and allows for mechanical connections to reinforcement elements.

Filtrexx® Bank Stabilization technology uses a high-quality Filtrexx® GrowingMedia™ inside our tubular mesh to quickly establish and permanently maintain vegetation, whether established from seeds or plants. Unlike other systems in which soil is backfilled into a containing structure, the Filtrexx® system enables engineers and contractors to accurately quantify the amount of media needed for the job.



Green roofs, rain gardens, bioswales, and living walls minimize stormwater runoff, cool the environment, and provide habitat for native creatures. More opportunity exists to use living walls than most other living architecture. Living walls also contribute to the LEED points of a project in several categories.

“The benefits of surrounding ourselves and our buildings with nature, green-space and habitat is without measure, said Woolbright of The Living Wall Company. “We live to inspire and educate those interested in our mission, to view the possibilities of the built environment in new ways.”

Compost Research Scholarship

Filtrexx International is committed to its vision of clean water. We understand the soil and water connection—it’s why Rod Tyler invented the compost filter sock, and why Filtrexx remains steadfast in our commitment to innovation in stormwater management.

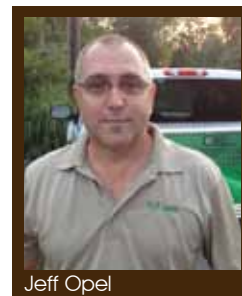
In pursuit of this vision, we are proud to sponsor two scholarships through the US Composting Council’s Research and Education Foundation (CCREF). The 2013 Sustainable Student Scholarship will award \$1000 to a high school student, and the Young Investigator Scholarship will award \$2500 to a college student at the undergraduate, graduate, or doctoral level. The scholarships will each be awarded to the researcher whose proposal best aligns with the mission of CCREF and falls within the theme of compost utilization/soil and water connection.

This summer, Filtrexx intern Tindall Ouerson catalogued 50 of the top sustainability-oriented undergraduate majors from colleges across the globe. Her work will be used to promote the scholarship opportunity and advance the future of the industry.

To apply, visit <http://compostingcouncil.org/scholarships/>

Filtrexx® Expands in the Chesapeake Bay Area

In response to the increasing urgency to restore the health of the Chesapeake Bay, Filtrexx is proud to introduce you to our new representative for the region, Jeff Opel. Jeff has over 28 years in the sediment and stormwater industry both as a regulator and installer.



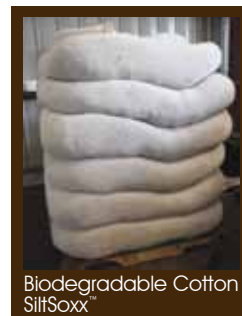
Jeff Opel

Jeff’s role will be to further educate the market on how compost-based BMPs can dramatically reduce sediment and targeted pollutants entering the Chesapeake Bay, and to work with clients to develop customized solutions to target the particular pollutants that plague our nation’s largest estuary.

Jeff is available to make individual or group presentations in addition to providing technical help utilizing Filtrexx® products. He can be reached at (410) 703-9180 or jopel@filtrexx.com/.

SiltSoxx™ Now Available in Biodegradable Cotton

In recent years Filtrexx International has seen increasing market demand for a biodegradable mesh made from natural fiber. We have heard your request, and we are proud to introduce our newest mesh—Biodegradable Cotton.



Biodegradable Cotton SiltSoxx™

Filtrexx explored using burlap or one of several other natural fiber products already available, but they all proved to be impractical for the manufacturing or installing of Filtrexx® Soxx™. They were too expensive, too rigid and difficult to work with, and/or they simply did not meet federal specifications for compost filter socks.

Filtrexx sought to engineer a biodegradable cotton product that had the necessary flexibility, strength, and durability while meeting the flow through rate required by federal specifications. Biodegradable Cotton Soxx™ achieve the same performance as the photodegradable multi-filament Soxx™ that you have come to know and trust.

Biodegradable Cotton is available prefilled on pallets to our National Pallet Program customers at the same sizes and prices as the original SiltSoxx™. Cotton mesh is also available on rucks for our installers.

In the News

Environmental Connection, July 2013

This article is the first in a series of four written or coauthored by Rod Tyler and published by the IECA examining the role of compost as a practical erosion and sediment control solution. <http://www.ieca.org/membersonly/resources/NewsToUse.asp> (requires IECA member login)

Erosion Control, July/Aug 2013

The Drain Game examines how Merek Landscaping used Filtrexx to stabilize a 200-foot bluff on the shore of Lake Michigan. http://www.erosioncontrol.com/EC/Articles/The_Drain_Game_21914.aspx

Oregon Live, August 3, 2013

Blue Heron Paper Mill cleanup uses compost, gardens to treat contaminated water. http://www.oregonlive.com/environment/index.ssf/2013/08/blue_heron_paper_mill_clean-up.html

