

STORMWATER TREATMENT PRODUCTS LIST OF MANUFACTURERS & PRODUCTS (April 2016)



Rainwater Harvesting BMP Products

BMPs, such as infiltration pits and cisterns, can be tailored to harvest, treat and use rain/stormwater for non-potable uses, such as landscape irrigation (sub-surface and spray), toilet/urinal flushing, and clothes washing.

For more information on this strategy and a list of some vendors in the region, go to sustainablesm.org/runoff and click on left side, Rainwater Harvesting, then click Rain Barrel & Cistern Suppliers to learn more about the City's program.

Proprietary Products:

- Bord na Mona Environmental Products U.S. Inc., RainSava system, www.bnm-us.com
- Oceansafe Inc., www.lithocrete.com/oceansafe
- Oldcastle Precast Inc., Storm Capture™ Reuse System, www.oldcastleprecast.com
- Ozcon Water Harvesting, Jason Holloway, owner, 510 375 6381, jason.h@ozconbuilding.com www.ozconbuilding.com, specializing in modular underground water storage for landscape irrigation, as well as underground storm water management; eligible for LEED points and potentially huge savings on water bills.

Infiltration Pit BMP Filler Products

Visit the Code Requirements page at sustainablesm.org/runoff for more information on this strategy and a list of some vendors, or follow this direct link:

smgov.net/uploadedFiles/Departments/OSE/Categories/Urban_Runoff/UR_Infiltration_Pit.pdf

This linked document is NOT updated regularly with new infiltration products and their vendors. Additional, recent product references are found in this document and this section.

- Not included in PDF, more recent entries:
 - Contech Engineered Solutions, www.ContechES.com, ChamberMaxx®, Corrugated Metal Pipe (CMP)
 - GeoStorage Systems, www.geostoragecorp.com, Southern California, Steve Miller at Rainvault Solutions (714-267-6716), rock-type vaults for rain storage.
 - Rain Bunker™, www.RainBunker.net, Houston, underground rainwater storage system.
 - Thompson Construction Supply, www.thompsonconstructionsupply.com, click on Civil Solutions for stormwater products/systems, Southern California supplier of many stormwater sub-surface storage products, made from a variety of materials.

Permeable Paving/Pavers BMP Products

- Acker-Stone: www.ackerstone.com
- Advanced Pavement Technology: www.advancedpavement.com
- Atlantis Stormwater Management Solutions: www.atlantiscorp.com.au
- California Nevada Cement Promotion Council (permeable concrete): www.cncpc.org
- Contech, UrbanGreen paving systems: www.contechstormwater.com
- Firestone Specialty Projects (NetPave): <http://www.firestonesp.com/waterManagementSolutions.aspx>
- Flexi-Pave: porous paving product made with recycled rubber, granite aggregate and urethane, www.kbius.com , www.specmanagementgroup.com

- Ground Solutions: www.groundsolutions.ca
- Invisible Structures: www.invisiblestructures.com
- National Asphalt Pavement Association (porous asphalt): www.hotmix.org
- NDS, Inc.: www.grassroad.com
- Permapave: www.permapave.com
- RK Manufacturing: www.rkmfg.com
- Soil Stabilization Products Co., Inc.: www.sspco.org
- Eco-Rain Tank Systems of America: contact@ecoraintank.com, www.ecoraintank.com
- Sullivan Concrete: www.sullivanconcrete.com www.grasscrete.com
- Uni-Group USA: www.uni-groupusa.org
- Xeripave, LLC: www.xeripave.com

The Code Requirements page on our website sustainable-sm.org/runoff has more information on this strategy.
 Direct link:
smgov.net/uploadedFiles/Departments/OSE/Categories/Urban_Runoff/UR_Permeable%281%29.pdf?n=2157

Filtering BMPs (mostly soluble pollutants)

- ADS Bayfilter™ www.ads-pipe.com www.baysaver.com
- AquaShield: Aqua-Filter™ www.aquashieldinc.com
- BioClean Environmental Services, Suntree Technologies Inc.: MWS-Linear Modular Wetland
www.biocleanenvironmental.net
 3rd PARTY VERIFICATION-CERTIFICATION:
 MWS-Linear Modular Wetland:
 Washington State DOE TAPE GULD for Basic Treatment, for Phosphorus Treatment,
 for Enhanced Treatment
- Clear Creek Systems, Inc.: www.clearcreeksystems.com
- Contech Construction Products, CDS Technologies: Media Filtration Unit www.ContechES.com
www.cdstech.com)
 3rd PARTY VERIFICATION-CERTIFICATION:
 CDS: TARP Tier I certification for 50% TSS removal by NJ DEP and Tier II verification for
 80% TSS removal by NJ CAT
 WA DOE General Use Level Designation for Pretreatment

 Media Filtration Unit: TARP Tier I (lab) and II (field) verification for 80% TSS removal
 from NJ CAT and certification by NJ DEP at 18 gpm/22" cartridge
 WA DOE General Use Level Designation for Basic Treatment at 1 gpm/22" cartridge
- Contech Construction Products, Stormwater Management Inc.: StormFilter®, Stormgate Separator™
www.ContechES.com (www.stormwaterinc.com)
 3rd PARTY VERIFICATION-CERTIFICATION:
 Sacramento Stormwater Quality Partnership approval at 2 gpm/sf
 TARP Tier I (lab) and II (field) verification for 80% TSS removal from NJ CAT and
 certification by NJ DEP at 2 gpm/sf
 WA DOE General Use Level Designation for Basic Treatment at 1 gpm/sf
- Contech Construction Products, Vortech™: VortFilter™, VortSentry™
 3rd PARTY VERIFICATION-CERTIFICATION:

Vortechs: TARP Tier I certification for 50% TSS removal by NJ DEP. Testing for Tier II verification at 80% TSS complete and verification by NJ CAT pending WA DOE General Use Level Designation for Pretreatment

VorSentry: TARP Tier I certification for 50% TSS removal by NJ DEP

- ecoStorm® plus, Royal Environmental Systems, Inc., www.royalenterprises.net, removal of soluble pollutants and gross solids from hydro-dynamic separation
- Environment21™, EnviroTrap Filter, Puristorm Filtration, www.env21.com
- Filterra®: Bioretention (tree well) System, www.americastusa.com

3rd PARTY VERIFICATION-CERTIFICATION:

Washington State Department of Ecology TAPE/TARP for TSS, oil-grease, and enhanced dissolved metals

- Hydro International: Hydro Up-Flo Filter®, available through KriStar (below)
- Hydroworks: Hydroguard, Hydrofilter, Hydrobox; separation and filtering systems www.hydroworks.com

3rd PARTY VERIFICATION-CERTIFICATION: NJDEP since 2009

- Imbrium Systems Corp.: Jellyfish membrane filter, Stormceptor and Sorbtive Media system, www.imbriumsystems.com

3rd PARTY VERIFICATION-CERTIFICATION:

Jellyfish: NJCAT-- NJDEP, and Pilot Level designation by Washington Dept of Ecology, WADOE

Stormceptor: NJCAT—NJDEP; only hydrodynamic separator to have an "inline" (or "online" in New Jersey) certification

SorbitiveFILTER and SorbtiveMedia: Maryland Dept of Environment

- KriStar Enterprises: FloGard® PERK FILTER (Media Filtration Device), Up-Flo Filter®, www.kristar.com

3rd PARTY VERIFICATION-CERTIFICATION:

Downstream Defender – NJ DEP Interim 2 certification, Washington DOE GULD for TSS

Dual Vortex Separator – NJ DEP Interim 2 certification

Up-Flo Filter – NJ DEP Interim 1, Washington DOE PULD for Basic

Perk Filter – Washington DOE GULD for Basic and phosphorous

Third Party Verification-Certification

GULD: General Use Level Designation; this is the final certification level; Washington State Department of Ecology (DOE), which runs and oversees and approves the TAPE program. There are three Levels of approvals through DOE, PULD (Pilot Use designation), CULD (Conditional Use level Designation) and GULD (General Use Designation).

TAPE stands for Technology Assessment Protocol – Ecology (Washington State Department of Ecology)

<http://www.ecy.wa.gov/programs/wq/stormwater/newtech/index.html>

TARP stands for Technology Acceptance Reciprocity Partnership (formed by the states of California, Illinois, Maryland, Massachusetts, New Jersey, New York, Pennsylvania, and Virginia)

<http://www.dep.state.pa.us/dep/deputate/pollprev/techservices/tarp/>

www.njcat.org/verification/Verifications_search.cfm

<http://www.state.nj.us/dep/dsr/bscit/CertifiedMain.htm>

Sacramento program web site:

<http://www.sacramentostormwater.org/SSQP/development/proprietary.asp>

Environmental Technology Verification:

http://www.nsf.org/business/water_quality_protection_center/reports.asp?prog;

<http://www.epa.gov/nrmrl/std/etv/vt-wqp.html#SWSATD>

University of New Hampshire Stormwater Center

<http://www.unh.edu/erg/cstev/>

NJCAT ---- is a non-profit group that works for NJDEP, and under their direction to perform the verification of data/testing submitted by technologies. Hence--New Jersey Corporation for Advanced Technology (NJCAT)

NJDEP --- sets the regulations, and takes the verification information from NJCAT and certifies it as it relates to the State of NJ stormwater regulations, which may differ from other TARP states.

Plant/Tree Type Products: Wetland (artificial) and Biofilter/Bioretention (Tree) modular-type Systems:

- Deep Root, Silva Cell Integrated Tree & Stormwater System, www.deeproot.com
- Filtterra®, bioretention (tree well) system, www.contech-cpi.com
- Modular Bioretention System, Kristar, www.kristar.com
- Modular Wetland System, BioClean Environmental Services www.biocleanenvironmental.net, 3rd Party Certification: MASS DOT; Washington State Dept of Ecology Technology Assessment Protocol – Energy (TAPE) for TSS, copper and zinc for Basic (CULD) and Enhanced (PULD) treatment
- StormTreat Systems, Inc.: StormTreat™ www.stormtreat.com available through BioClean Environmental Services www.biocleanenvironmental.net
- Stratavault™, citygreen, healthy trees in the urban environment, turning grey into green, www.citygreen.com
- SwaleGard® and FloGard® gutter pan diverter products to support biofilter systems, www.kristar.com
- Treepod™ Biofilter, www.kristar.com
- UrbanGreen BioFilter, tree well system, Contech, www.contechstormwater.com

Screening-Separation BMPs (inc. vortex-like, gross pollutants)

- ADS Bayseparator™ www.ads-pipe.com www.baysaver.com
- AquaShield: Aqua-Swirl™ Concentrator www.aquashieldinc.com
- BioClean Environmental Services, Suntree Technologies Inc.: Nutrient Separating Baffle Box www.biocleanenvironmental.net

3rd PARTY VERIFICATION-CERTIFICATION:

Nutrient Separating Baffle Box: NJCAT

San Francisco Water Board Full Capture

State of Hawaii

San Diego Regional Water Quality Board (for Nutrient and Metals TMDLs) with Up Flow Filter

MWS-Linear Modular Wetland:

Washington State DOE TAPE GULD for Basic Treatment, for Phosphorus Treatment, for Enhanced Treatment

- Contech Construction Products, CDS Technologies: Inline/Offline Units www.ContechES.com (www.cdstech.com)
- Contech Construction Products, Stormwater Management Inc.: StormFilter® www.contech-cpi.com (www.stormwaterinc.com)
- Contech Construction Products, Vortech®: VortSentry™, VortCapture™ www.contech-cpi.com (www.vortech.com)
- CrystalStream Technologies: CrystalStream™ www.crystalstream.com
- CSR Hydro Conduit: Stormceptor® www.csrstormceptor.com
- Environment21™, EnviroTrap Filter, V2B1 Swirl and Unistorm Separation, Puristorm Filtration and other products, www.env21.com
- Fresh Creek Technologies: Netting TrashTrap® www.freshcreek.com
- Hydro-International: Downstream Defender® www.hydro-international.biz
- Imbrium Systems Corp.: Stormceptor Hydrodynamic Separator (Rinker Materials distributor), www.imbriumsystems.com
- KriStar Enterprises: Dual-Vortex™ www.kristar.com

Insert Filter, Screen BMPs (for catch basins and storm drains, curb or drop-in, new or retrofits, different shapes such as circular, 4-sided, trash, heavy metals, hydro-carbons; NOTE: full-capture category for Southern California Santa Monica Bay Marine Debris TMDL, State Water Resources Control Board SWRCB)

- ADS Nyloplast Storm-PURE and FLEXSTORM (for sediment and hydrocarbons), www.nyloplast-us.com, <http://www.ads-pipe.com/en/product.asp?productID=117>
- AquaShield: Aqua-Guard™, www.aquashieldinc.com
- BioClean Environmental Services, Grate/Curb Inlet Skimmer, www.biocleanenvironmental.net, Hawaii, San Diego County, Riverside DOT, San Francisco Water Board Full Capture
 - Bio Clean Catch Basin Media Filters with BioMediaGREEN: San Diego Regional Water Quality Board (for Nutrient and Metals TMDLs)
- Carson Industries LLC: Capture Flow, www.carsonind.com
- CleanWay Environmental Partners, Inc., www.cleanwayusa.com, 800.723.1373
- ClearWater Solutions: ClearWater BMP, www.clearwaterbmp.com (under construction)
- Coanda, Inc., Curb Inlet Filter, 714.389.2113, www.coanda.com
- Contech Construction Products, www.ContechES.com, CDS Technologies: Drop Inlet Unit, www.cdstech.com, Stormwater Management Inc.: Catch basin StormFilter™ www.stormwaterinc.com
- CSR Hydro Conduit: Stormceptor®, www.csrstormceptor.com
- Ecology Control Industries: CleanScreen
- Engineering Safety Products, LLC (ESP): CleanScreen™, HighScreen™, MeasureScreen™
- Fabco Industries Inc.: StormBasin®, www.fabco-industries.com
- Global H2o Solutions, www.gh2os.com, website under construction, screen and filter
- Hydro Compliance Management, Inc.: Hydro-Kleen™, 2 chambered system, www.HydroCompliance.com, www.stormwaterproducts.com

- Hydrophix (AbTech): Ultra Urban Filter®, Smart Sponge®, SWAT (Storm Water Anti-microbial Treatment) unit, www.hydrophix.com
- KriStar Enterprises: FloGard™ (Fossil Filter), www.kristar.com
- Revel Environmental Manufacturing Inc.: Triton Filter™, www.remfilters.com
- StormTek, www.stormtekcps.com
- Stormwater Filters Corp.: Hydro-Master/Coanda systems, www.stormwater-filters.com
- Storm Water Systems: Hydro-Cartridge®
- Streamhawk Inlet Protection, GreenVision Partners, www.greenvisonpartners.com
- United Storm Water, Inc.: DrainPac®, automatic retractable screen, certified by the County of Los Angeles Public Works Engineering Group, the Orange County Transportation Authority, the Association of Bay Area Governments, and the San Francisco Estuary Partnership, <http://unitedstormwater.com/index.html>
- West Coast Storm , Inc.: automatic retractable screen, www.wcstorm.net

Anti-Microbial Systems*

- Clearwater Solutions: A S Filtration™ using Pathex™ Filter Medium www.asfiltermedia.com
- Hydrophix (AbTech): Ultra Urban Filter®, Smart Sponge®, SWAT (Storm Water Anti-microbial Treatment) unit, www.hydrophix.com
- Transpo Industries Inc., StormSafe™ HF10 and FebGuard, www.transpo.com
- * ***Any anti-microbial system, product must be registered in California with the Department of Pesticide Regulation. Pls check on any product status before use; ask the manufacturer for legal documentation. You can also check this website: <http://www.cdpr.ca.gov/dprdatabase.htm>***

Full Capture Trash Systems (State Water Resources Control Board (SWRCB certification):

- ACF Environmental, TrashGuard, www.acfenvironmental.com
 - StormTek, www.stormtekcps.com
 - Global H2o Solutions, www.gh2os.com, website under construction, screen and filter
 - KriStar Enterprises, www.kristar.com , Full Capture Certification, SWRCB
 - UltraTech, Ultra Trash & Debris Screen, www.stormwaterproducts.com, Full Capture screen
 - United Storm Water, Inc., www.unitedpumping.com, Connector Pipe Screen (CPS), SWRCB, Los Angeles and San Francisco Bay Regional Boards
 - BioClean Environmental Services, Suntree Technologies Inc.
 - Watergate® Full Capture Articulated Retractable Screen
 - Nutrient Separating Baffle Box www.biocleanenvironmental.net
- 3rd PARTY VERIFICATION-CERTIFICATION:
- Nutrient Separating Baffle Box: NJCAT;
 - San Francisco Water Board Full Capture;
 - State of Hawaii;
 - San Diego Regional Water Quality Board (for Nutrient and Metals TMDLs) with Up Flow Filter

Downspout and Roof Filters/Inserts

- BioClean Environmental Services, Downspout Filter, 760.433.7640
www.biocleanenvironmental.net, IAMPO Approval
- Coanda, Inc., Downspout Filter, 714.389.2113, www.coanda.com
- Contech Construction Products, Downspout StormFilter, Stormwater Management Inc.,
www.stormwaterinc.com/products/stormfilter_dscbsf.shtml
- KriStar Enterprises, FloGard Architectural Series Downspout Filter Assembly, www.kristar.com
IAMPO (International Association of Plumbing and Mechanical Officials), LADBS (City of Los Angeles
Department of Building & Safety)
- Revel Environmental Manufacturing Inc.: RFD Roof Drain Filter, www.remfilters.com
- Stormwater Solutions LLC, Downspout Insert, 818.905.7582, www.stormh2osolutions.com
- SuperFlo, Hydroscreen LLC, www.hydroscreen.com

General BMP Products

- BMP Store: www.bmpstore.com
- Ultra Tech: www.stormwater-products.com

NOTE: The City neither endorses nor approves any of the manufacturers, their products, views or policies. This List is neither inclusive nor comprehensive. The City is not responsible for the (in)accuracy of the information found in this List, which is based upon the most recent brochures on file with the City's Watershed Management Coordinator or on the Web. Check directly with manufacturers for the most recent information.

To provide more up-to-date information or to add manufacturers and products, please contact the City's Coordinator, 310.458.8223, neal.shapiro@smgov.net or visit sustainablesm.org/runoff