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Nutrient Separating Baffle Box



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***Infrastructure
Stormwater Filtration Systems***

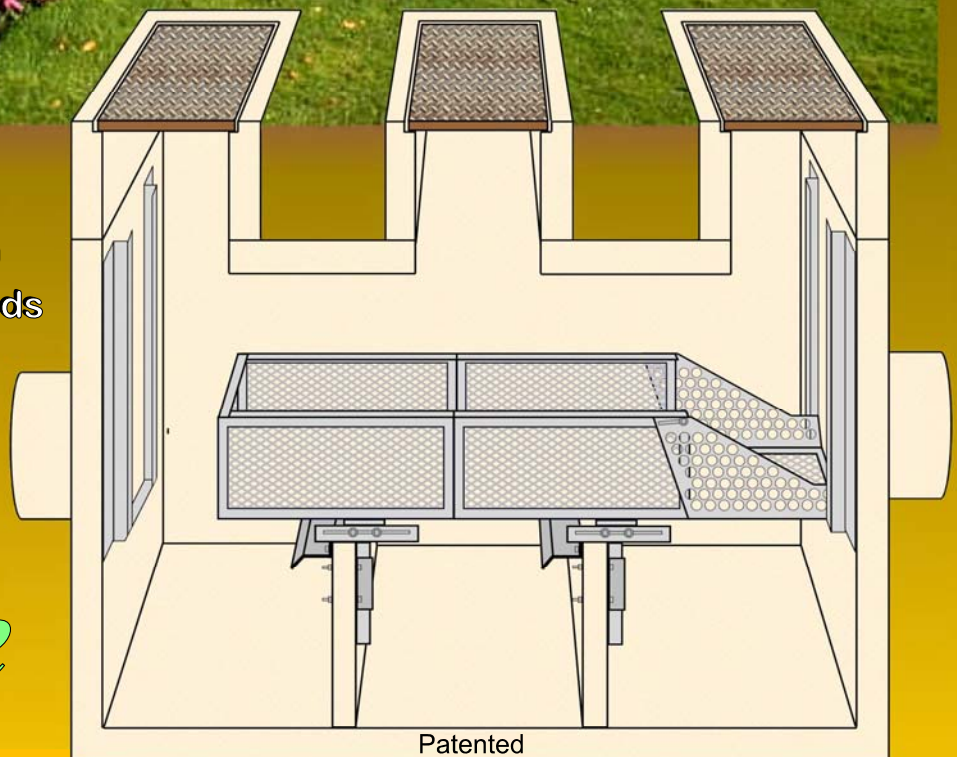
Nutrient Separating Baffle Box

- *Fits Within Existing Easements*
- *Hydrocarbon Removal*
- *Almost No Head Loss*
- *Always Treats Entire Flow*
- *Retrofits Existing Systems*
- *Easy & Quick To Install*
- *Meets NPDES Phase 2*

*The 2nd
Generation
Baffle Box*

Up To
90% Removal
Of Total Suspended Solids
at less than half the
cost of competing
systems.


Suntree
Technologies Inc.



www.suntreetech.com

Nutrient Separating Baffle Box

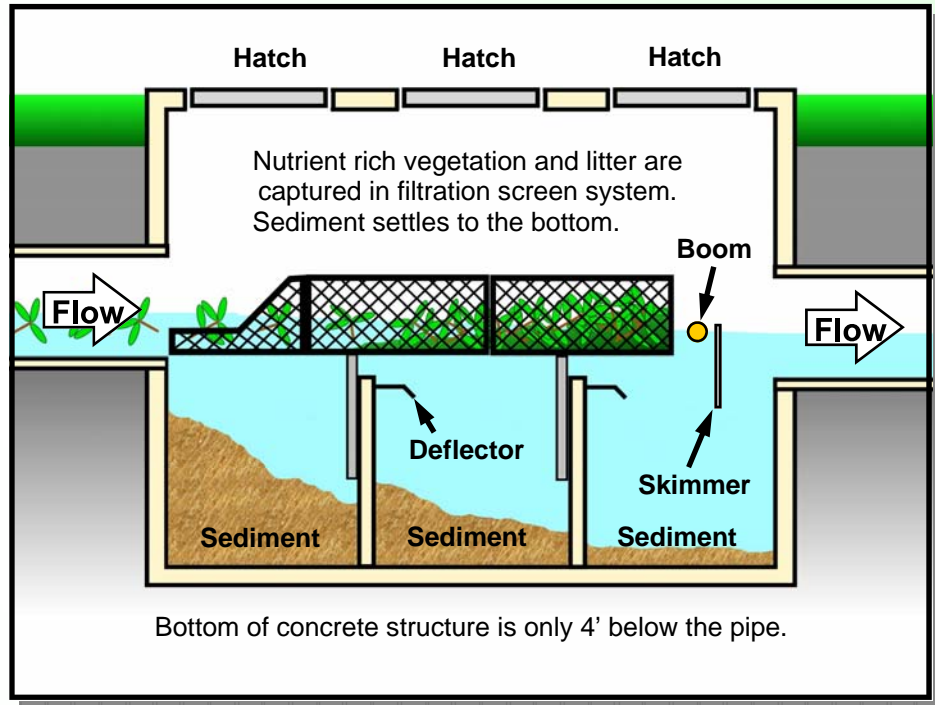
Functional Description

During The Storm Event

Captures foliage, litter, sediment, phosphates, hydrocarbons...
Everything!

Turbulence deflectors prevent captured sediment from re-suspending.

Hydrocarbons collect in front of skimmer and are absorbed by Storm Boom.



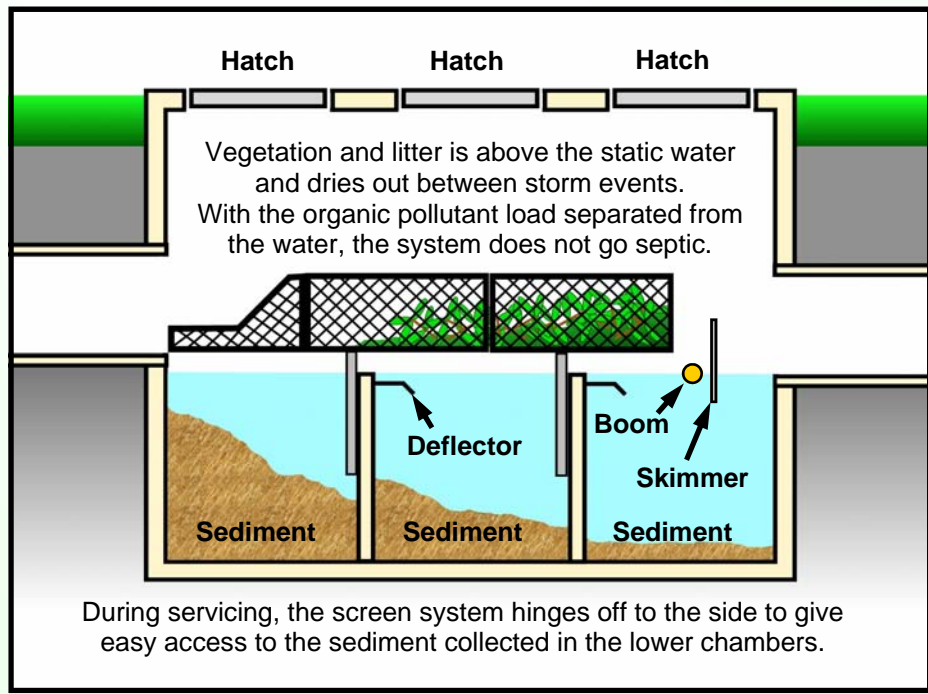
Patented

The System Stays Healthy!

Nutrient pollutant load is not lost to static water and flushed out at the next storm event.

Separating organic matter from the static water prevents bacterial buildup.

After The Storm Event



No Chance For A Bacterial Discharge!

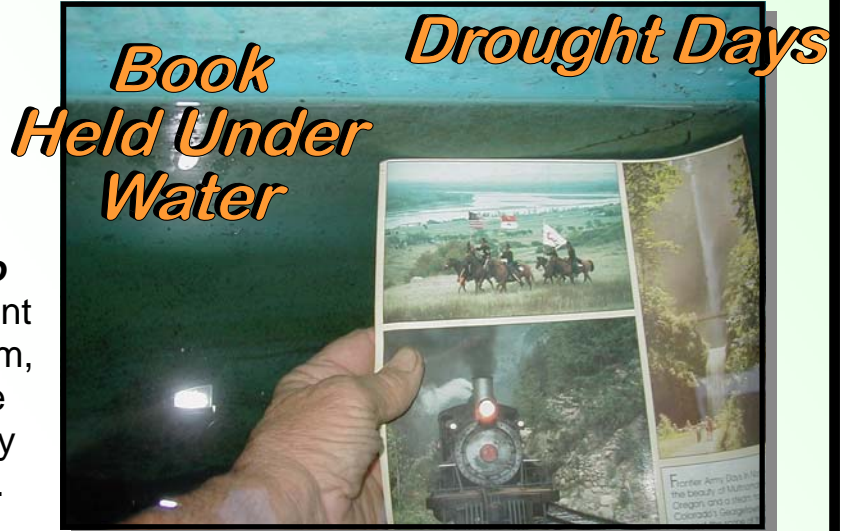
Nutrient Separating Baffle Box

Captured Debris

Not All Stormwater Systems Are Created Equal

To the right is a photo of the back page of a road atlas being held 10" underwater in a *Nutrient Separating Baffle Box*.

After a couple of months with no rain, the water still has no smell and is clear. The sediment can be clearly seen on the bottom, and small fish and critters have established a happy and healthy ecosystem within the structure.



If you are reluctant to touch the water in your stormwater filtration system because it is septic, then you have a problem because the next storm event will flush out your system into the environment.

5790 Pounds In 30 days



To the left is a view of 5790 pounds of sediment collected in a *Nutrient Separating Baffle Box* just 30 days after installation.

To the right is a view of foliage and litter collected within the screen system of a *Nutrient Separating Baffle Box*.



After 45 Days

Sizing The Nutrient Separating Baffle Box

Because the entire flow is always treated and head loss is so minimal, determining the appropriate size of *Nutrient Separating Baffle Box* for a project is more often an element of pipe size than flow rate.

Model #	Inside Width	Inside Length	Standard Height *	Recommended Pipe Sizes
NSBB 4-6	4'	6'	6'	8" to 18"
NSBB 4-8	4'	8'	7'	12" to 18"
NSBB 5-10	5'	10'	7'	12" to 30"
NSBB 6-12	6'	12'	7'	18" to 36"
NSBB 8-12	8'	12'	8'	36" to 48"
NSBB 8-14	8'	14'	8'	40" to 54"
NSBB 10-14	10'	14'	8'	48" to 72"
NSBB 10-16	10'	16'	8'	48" to 72"

Custom sizes are available.

*Height can vary as needed

Please Call Suntree For Assistance Or Advice

- Because water flow is not ducted off line for treatment, head loss is minimal and comparable to a large square catchbasin. Because of this, existing stormwater systems can be retrofitted with a Nutrient Separating Baffle Box, without compromising the original design specifications of the existing stormwater system.
- All structures are load rated for at least H-20. Standard wall construction of the structure is 6" thick steel re-enforced concrete. Concrete wall thickness can be more heavily reinforced and thicker upon request.
- A wide variety of manhole lids and hatches, and dampers to block off water flow during servicing, can be incorporated into the structure.
- Screen systems have stainless steel screens bolted into a heavy duty aluminum framework. The screen systems are hinged to give easy access to the lower chambers, and have a wide range of adjustments to accommodate unforeseen variables during installation.

Pre-assembly Of The Nutrient Separating Baffle Box

The internal components are installed prior to delivery to the job site.



Turbulence deflectors are attached to the tops of the baffles with stainless steel bolts. Several bolts per deflector are required.



Four brackets, held in place with 4 stainless steel bolts each, secure the screen system to the baffles. The screen system includes a wide range of positional adjustment.



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Setting The Structure

Installation Of A Nutrient Separating Baffle Box In Perry Florida

As Easy to Install As A Large Square Catchbasin

The hole was dug starting at 10:00am. By 3:00pm the same day, the entire structure was set in place with most of the backfilling done.

Less Expensive To Install Than Other Systems

Because installation is so fast, the risk of washouts when retrofitting existing stormwater systems is dramatically reduced.

No Problem For Custom Configurations

Notice the custom pipe fitting on the inflow end. It is designed to accommodate two 18" RCP side by side. To block off the water flow of submerged or partially submerged pipes during servicing, internal damper systems are available.

A Suntree representative is always available to oversee installation to ensure a successful project.

Step 1: Set lower half



Step 2: Hook up pipes



Step 3: Put sealant on joint



Step 4: Set upper half



Ready to position inflow pipe and seal pipes with grout



Set In
Less Than
30 Minutes



The logo for Suntree Technologies Inc. features a stylized yellow sun with rays above the company name. "Suntree" is written in a large, green, cursive font, and "Technologies Inc." is written in a smaller, green, sans-serif font below it.

Storm Boom

**Hydrocarbon Absorption Booms
Specifically Designed For Stormwater Applications**

Suntree Technologies as developed 4 types of Storm Booms that have specialized applications to achieve optimum results.



Storm Boom Type 1 is filled with only Absorbent W and has a large sieve size covering for better stormwater penetration. Absorbent W is a cellulose filler made from reclaimed paper mill by-products, and it is certified by Green Cross as 100% recycled material. Absorbed liquid is drawn into the cellulose fibers through capillary action and locked into the boom by encapsulation. Absorbent W is a wide spectrum absorbent capable of absorbing chemicals other than hydrocarbons. It is recommended that this boom be replaced every 3 to 4 months, and not exceed 6 months of service.

Storm Boom Type 2 is filled with shredded melt blown polypropylene and has a large sieve size covering. The melt blown polypropylene will not biodegrade and has an indefinite lifespan in the field. It's spectrum of absorption is limited to hydrocarbons. It is recommended that this boom be replaced when it starts to darken & look contaminated.

Storm Boom Type 3 is filled with a 50-50 blend of Absorbent W and melt blown polypropylene with a large sieve size covering. This boom offers wide spectrum absorption with an extra emphasis on hydrocarbon absorption. It is recommended that this boom be replaced every 3 to 4 months and not exceed 6 months of service. It is especially effective in high pollutant load areas such as maintenance facilities and gas stations.

Storm Boom Type 4 is filled with a polymer crumb filler and has a fine sieve size covering. It's spectrum of absorption is limited to hydrocarbons which it absorbs on contact by chemically bonding with the hydrocarbon molecules. The polymer crumb filler will not absorb water and can float indefinitely, and it will not biodegrade. It is recommended that this boom be replaced as needed, based on visual observations (when it starts to darken & look contaminated). This Storm Boom is recommended for use in the Nutrient Separating Baffle Box near the outflow.

**We Have The Correct
Boom For Your
Stormwater Needs**

