

Nutrient Separating Baffle Box

A Superior Stormwater Treatment System Separated from the Rest.

The Nutrient Separating Baffle Box (NSBB) is a widely accepted and desired stormwater solution chosen by civil engineers, municipalities and developers nationwide because of its superior characteristics. The NSBB is easy to install and maintain and is the only systems with a two stage maintenance option, which minimizes maintenance costs.

Hundreds of Nutrient Separating Baffle Boxes have been installed nation wide, from Florida to California because of its superior and proven design. The NSBB efficiently removes TSS, hydrocarbons, nutrients, metals and debris/organics from stormwater runoff. The patented filtration screen system captures and stores trash and organics in a dry state, which prevents nutrient leaching and bacterial build up.

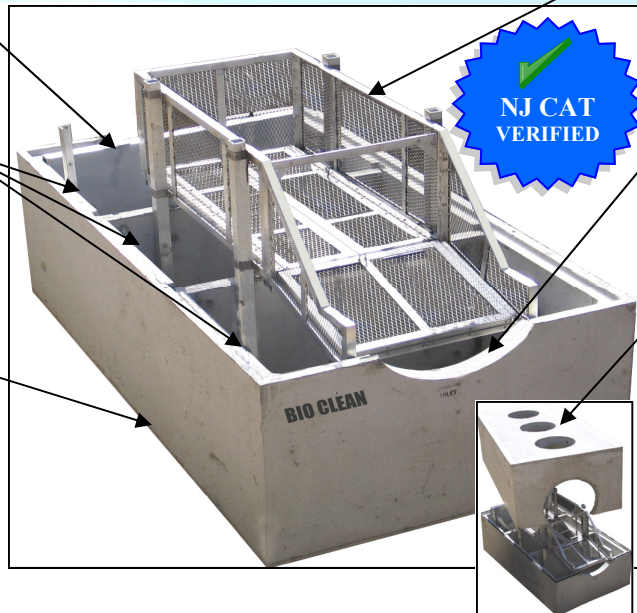
System Characteristics

Traps Oil & Grease
The skimmer and hydrocarbon booms captures all forms of hydrocarbons.

High TSS Removal
The three chambered design maximizes capture of large and fine TSS.

89.8% TSS Removal
Pandit - 1996
86.3% TSS Removal
Harvey's Lake - 2004
93.3% TSS Removal
Dillard - 2006

Low Installation Cost
Bottom of structure less than 4 feet from invert of pipe.



Separates Nutrients & Trash

The patented filtration screen system captures and stores trash and organics in a dry state which prevents nutrient

Low Head Loss

Allows for easy retrofit and inline installation. Eliminates the need for expensive diversion structures.

Easy Maintenance

Unobstructed Manhole Access

POLLUTANT	REMOVAL EFFICIENCY
Trash & Debris	99% ¹
TSS	76.9% ² to 93.3% ³
Fine TSS (d ₅₀ 63 µm)	67.3% ⁴
Metals	Up to 57% ⁵
Total Nitrogen	38% to 63% ⁵
Total Phosphorus	18% to 70% ^{2,5}

1. Rockledge Baffle Box Independent Field Report. Applied Environmental Technology. 2007.
2. Brevard County (Mico & Indalantic). St. Johns River Water Management District. 1994.
3. Field Test for Suntree Nutrient Separating Baffle Box. Dillard & Associates. 2005.
4. New Jersey Corporation for Advanced Technology. 2008.
5. Atlantic Beach Field Report. Blue Water Environmental. 2004.

Setting a New Standard for Hydrodynamic Separators.

The Nutrient Separating Baffle Box is designed to do more than most systems. This system is effective at removing not only TSS, but also fine TSS and gross solids making it, overall, a more effective treatment system compared to traditional swirl type separators. This system has been proven to provide the following benefits:

System Benefits

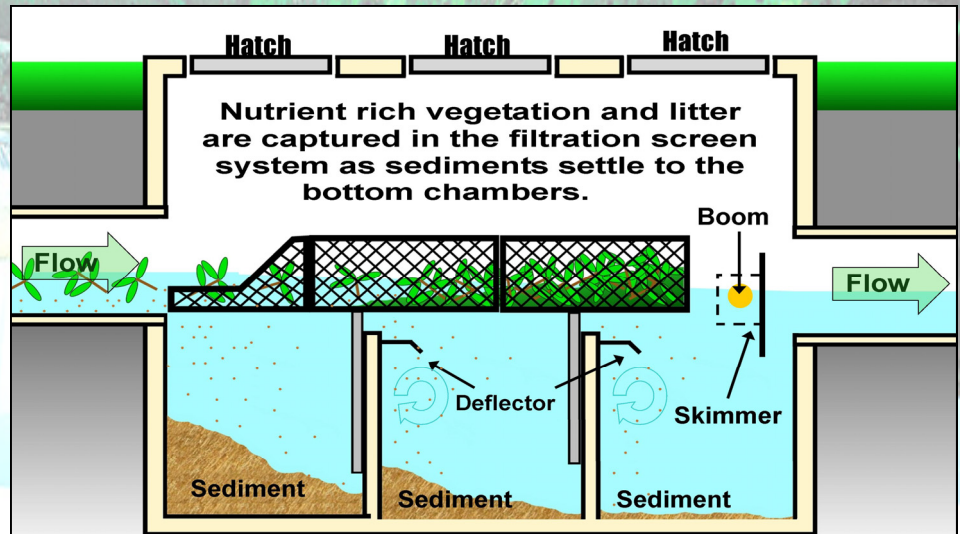
- **Can Treat 100% of the Flow.**
Offline Configuration is Not Required.
- **Inexpensive Maintenance.**
Patented screen system allows gross solids to be removed without vacuuming out the water.
- **Minimal Head Loss.**
Hydraulically efficient design generates less head loss than diversion structures.
- **Custom Designs Available.**
Can be modified to meet your needs.
- **Easy to Install.**
Delivered in a top & bottom half to minimize weight. Shallow profile minimizes installation costs.
- **5 Year Warranty.**
Made of precast concrete, fiberglass, aluminum & stainless steel. No cheap plastics!

Functional Description

Captures:

- Trash & Debris ^D
- Oxygen Demanding Substances/Organic Compounds ^D
- Hydrocarbons, Oils & Grease
- TSS (including fines)
- Nutrients (particulates)
- Heavy Metals (particulates)

"Pollutants with this symbol ^D are stored in a dry state".



The Filtration Screen System is Patented

During Storm Event

Why Dry State Storage? ^D

Storing Trash, Debris, Organics, and Oxygen Demanding Substances in a Dry State Prevents:

- Prevent Nutrient Leaching
- Eliminate Septic Conditions
- Minimize Bacteria Growth
- Eliminate Bad Odors

Nutrient Separating Baffle Box

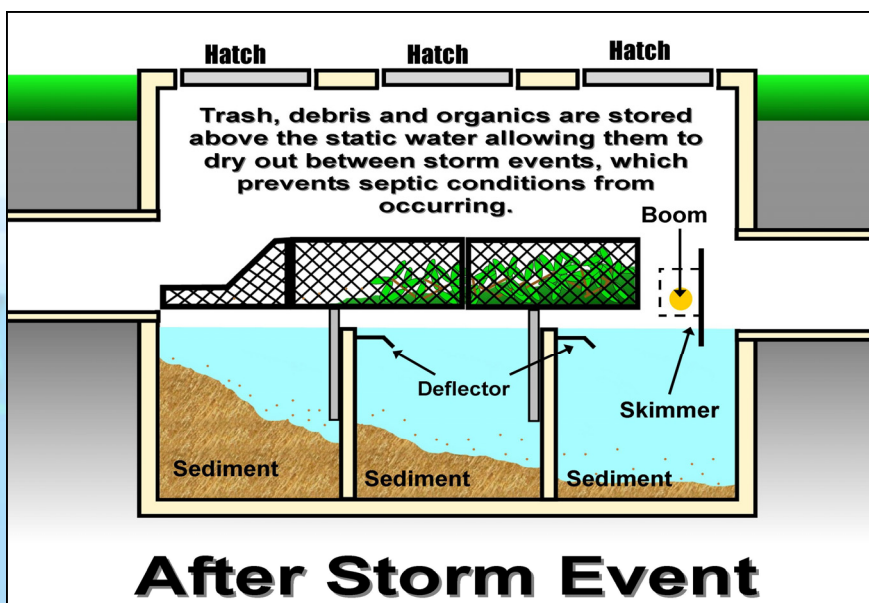


Standing Water is Clear & No Bacteria Growth Visible.

Other Systems



Standing Water is Not Clear & Bacteria Growth Visible.



After Storm Event

Operation:

Skimmer & Boom

Collects hydrocarbons & controls flow velocity which improves removal efficiency.

Deflectors

Prevents re-suspension of captured pollutants at higher flows by directing water currents above sediment chambers.

Filtration Screen System

Collects and stores trash, debris, organics, and oxygen demanding substances in a dry state above the standing water. As mentioned above this has many performance benefits along with simplifying maintenance.

Multiple Sediment Chambers

Maximizes TSS removal and eliminates scouring during extreme flow rates.