Evolution of HDS

Jack Skifano

StormTrap®

What is HDS?

HDS has become one of most common treatment technologies used in all regions

Sediment removal in a small footprint with low headloss and easy maintenance

Primary treatment method is gravity settling

Stokes Law: the smaller the particle, the slower it falls

Slow the water and lengthen the flow path to promote settling

The HDS story begins with ponds…but ponds require a large footprint

From the need for a more confined footprint, HDS was born

Manufacturers' challenge is to provide large settling times in the smallest footprint possible

Evolution of HDS

1st Generation

Settling vaults that used flow modifiers

Forced flow to traverse more of the available volume

Baffles from the floor - trap sediment

Baffles from the ceiling - trap floatables

2nd Generation

Flow modifiers for swirl action

Efficient use of round structures

For low WQ flows, more cost-effective than vault-based baffle systems

Con to “swirl” units: higher headloss

3rd Generation

Plate settling technology in lieu of swirl action

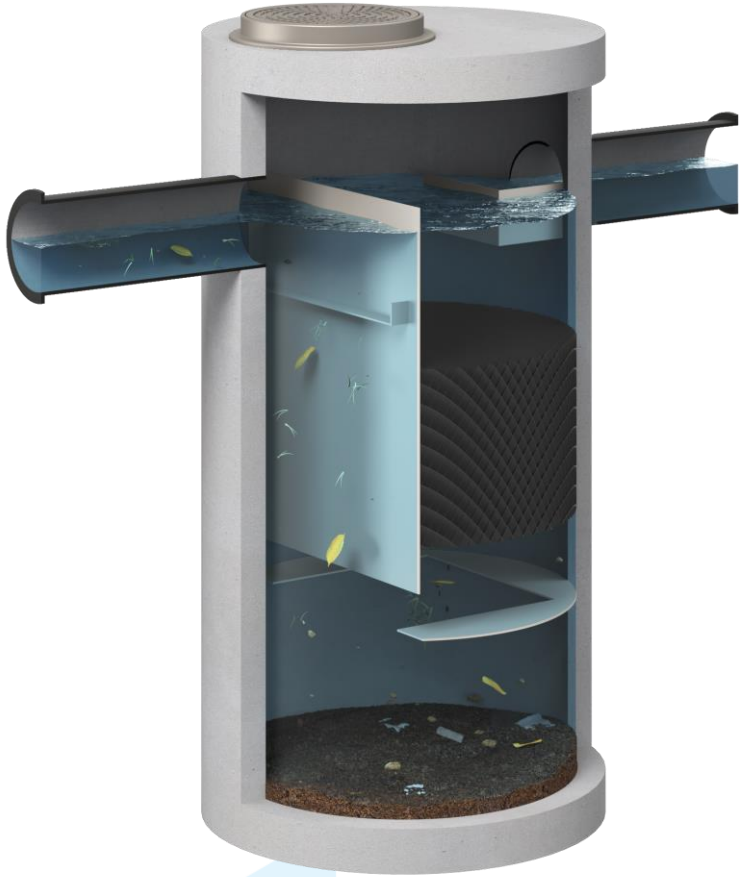
Used in wastewater treatment for decades

Reduces distance particles must fall

Captures particles in a shorter time

Pros: low headloss + reduced scour

StormSettler™



StormSettler is a highly efficient stormwater treatment settling device that improves the quality of stormwater runoff. The device efficiently removes sediment and heavy debris, with options for floatables, including hydrocarbons.

NJCAT Corporation for Advanced Technology

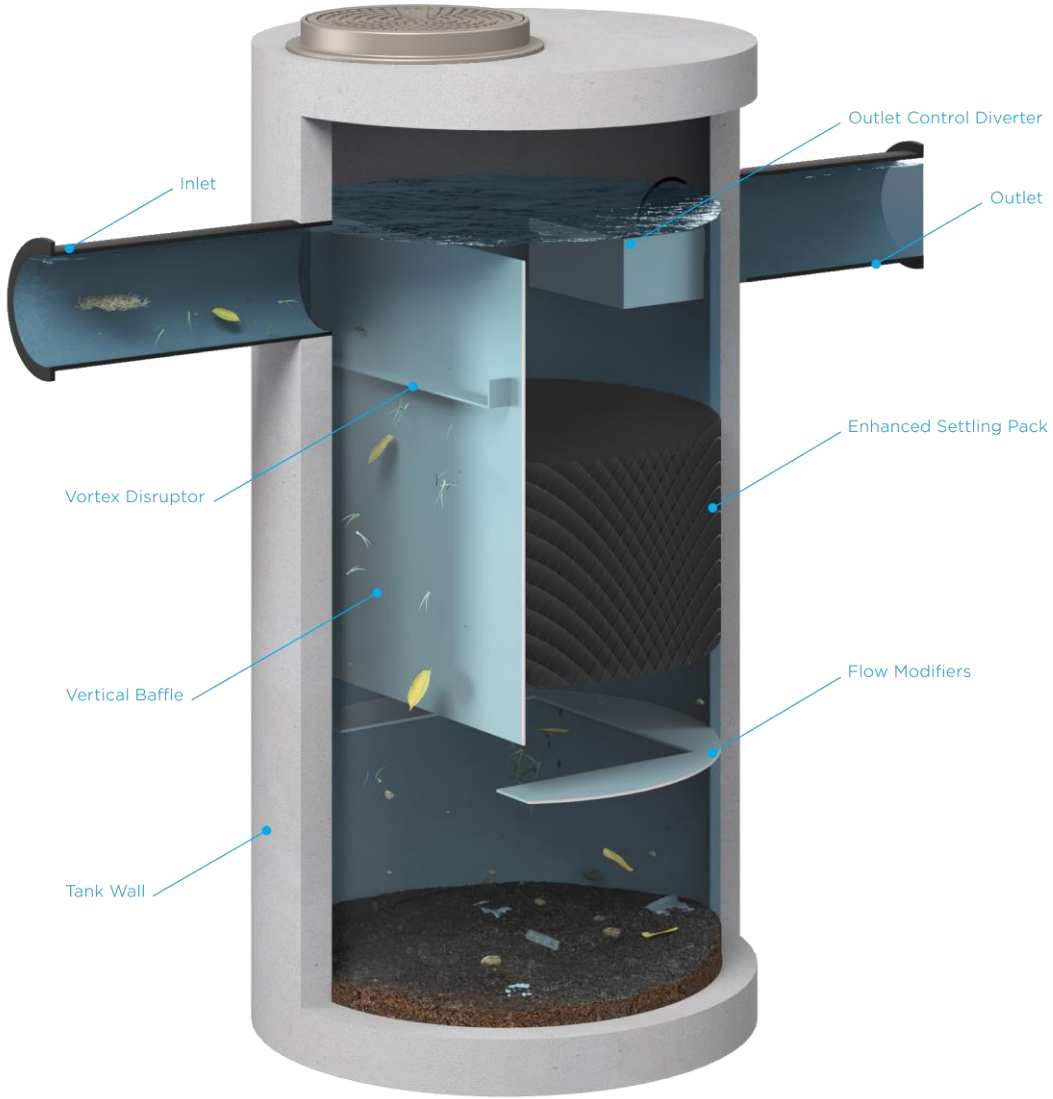
Verified

Department of Environmental Protection New Jersey

Certified HDS

Components

StormSettler™



Treatment Train

StormSettler™

Utilized as a stand-alone device or work in a treatment train approach.

- Pre-treatment
- Storage
- Enhanced treatment

SiteSaver®

SiteSaver is a unique hydrodynamic separator that utilizes trash containment devices, inclined plate technology and baffles to capture and easily remove trash and debris, floatables, hydrocarbons and sediment from waterways

NJCAT Corporation for Advanced Technology

Verified

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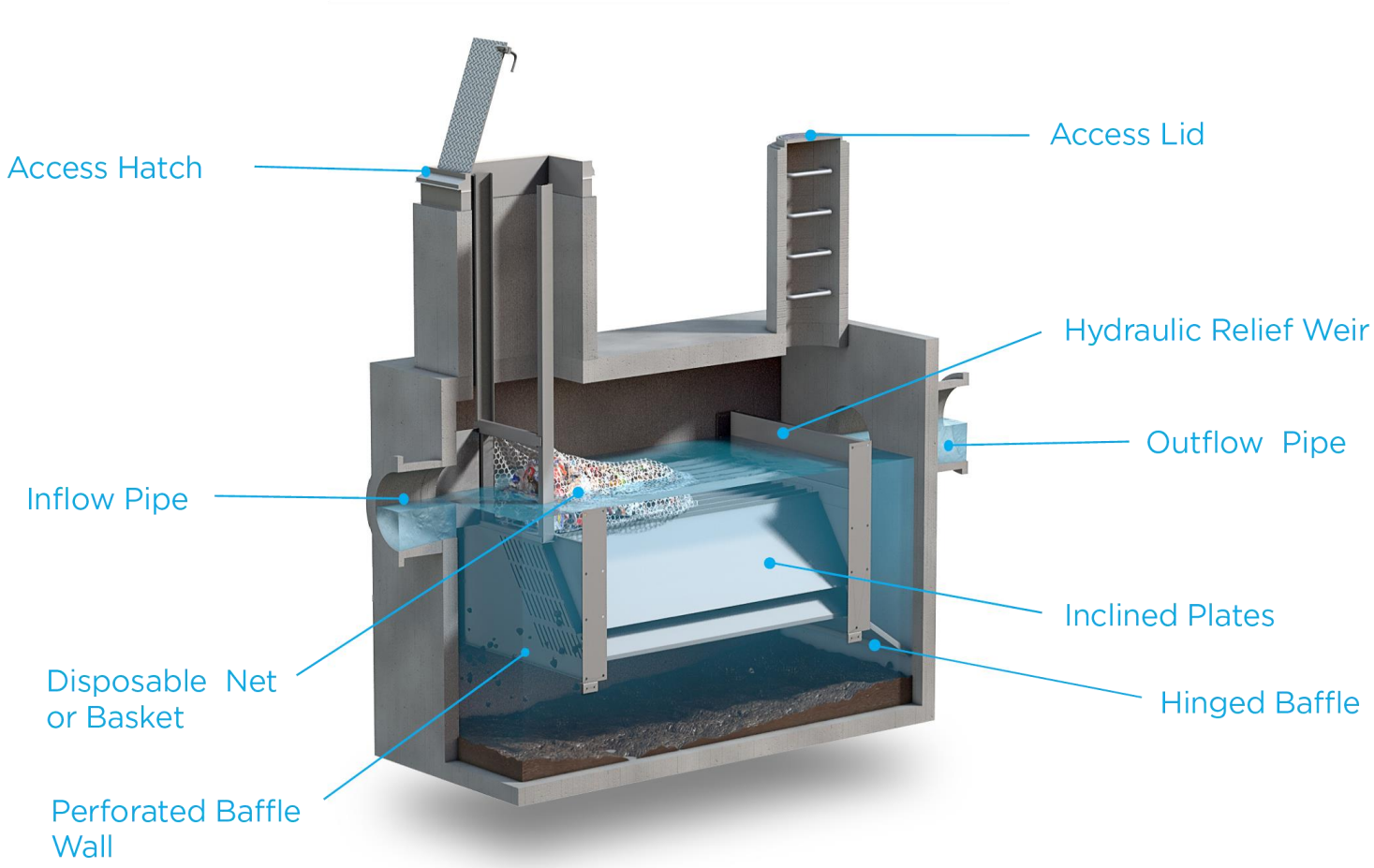
Certified HDS

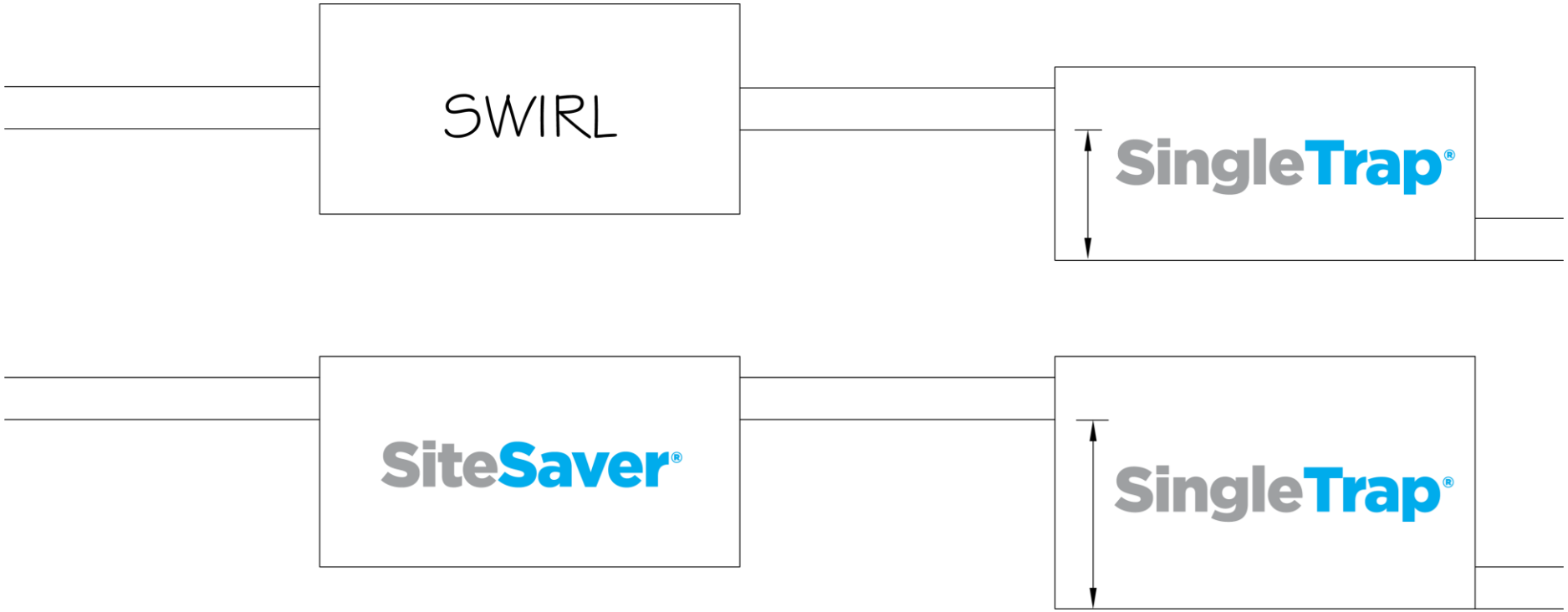
Components

SiteSaver®



Minimal Head Loss

SiteSaver®



- Standard design for head loss shall not exceed 4” throughout the entire water quality device

StormTrap Complete Services

Design

- Flow calculations
- Budget estimate for the system & installation
- Complete set of drawing
- Written CSI specification
- 24 – 48 hour turnaround

Installation

- Pre-construction meeting
- Predetermined shipping sequence / schedule
- Project Manager on site during installation
- 6 – 8 week lead time

Maintenance Services

- Maintenance services available for all products utilizing netting technology
- Replacement nets
- System Monitoring

Questions?

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