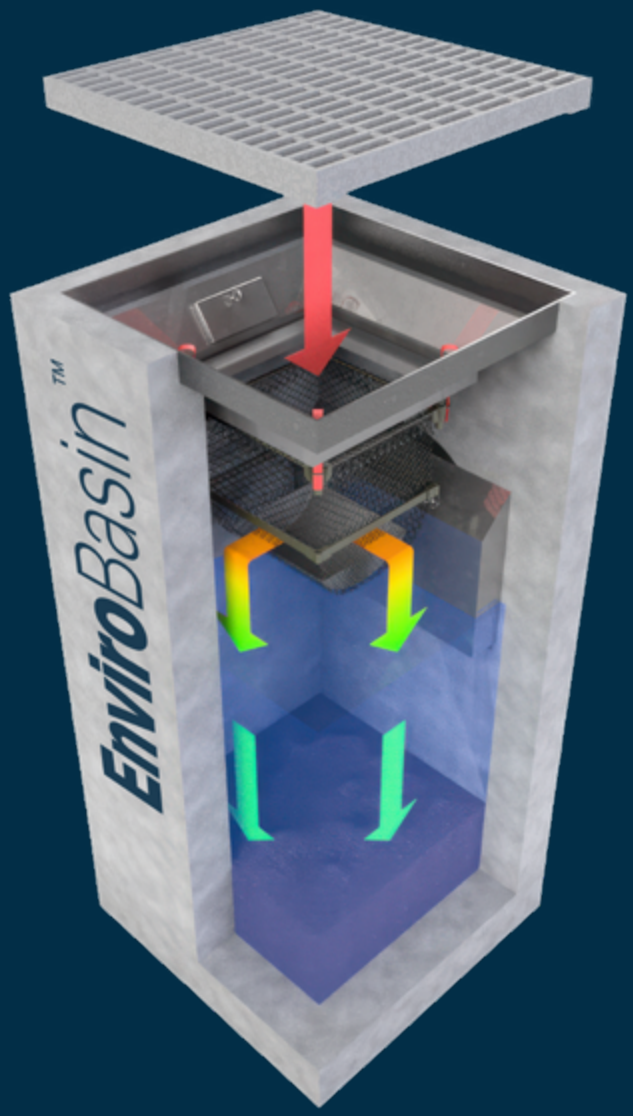
ENVIROPOD.COM

# EnviroBasin™

The Engineered Catch Basin Hydrodynamic Separator




**Full Trash Capture Certified**
California State Water Resources Control Board — Trash Amendments

**ISO 14034 ETV Verified**
Canadian Environmental Technology Verification Program

**Washington TAPE CULD**
Conditional Use Level Designation — State of Washington

## At–Source Trash and Sediment Capture

ISO 14034 ETV Certified · Canada

CSWB Certified · US

TAPE CULD State of Washington

ENVIROPOD™

Patented — U.S. Patent No. 9,642,658

# The EnviroBasin™

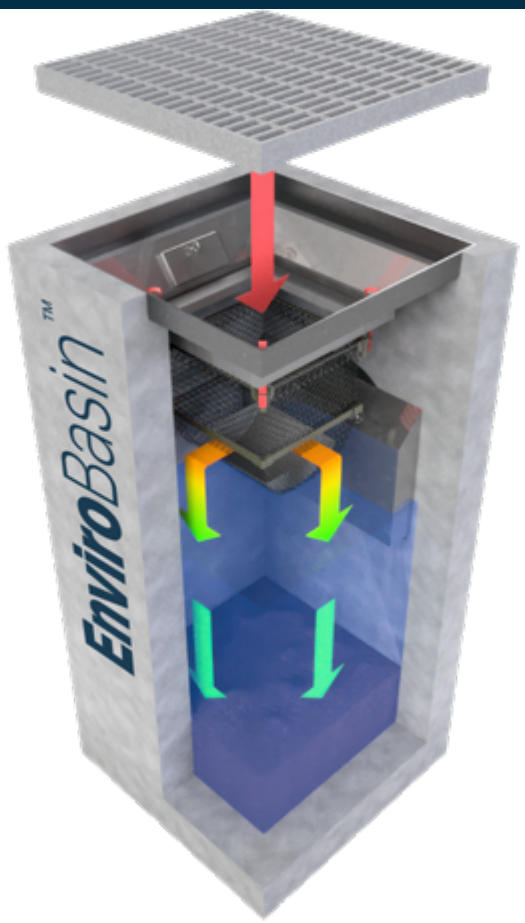
**The EnviroBasin™ is an at-source hydrodynamic separator catch basin that captures trash and sediment where stormwater first enters the drainage network.**

It combines the EnviroBasin™ Basket inlet filter, certified by the California State Water Resources Control Board for full capture of trash 5 mm and greater, with EnviroPod's patented Energy Dissipator to capture and retain sediment in the sump.

The EnviroBasin™ is an alternative to the conventional catch basin, delivering stormwater treatment together with the collection and conveyance of stormwater flows in a single structure.

It is a pre-engineered, manufactured solution. Supplied with the following pre-installed components, the EnviroBasin™ is a "plug and play" treatment device:

- Standard concrete catch basin structure with maximized sediment storage
- Easy-access cast iron grate and frame
- EnviroPod EnviroBasin™ Basket FC with Energy Dissipator
- PODBox™ outlet baffle
- Adjustable outlet boot




EnviroBasin™ Standard Grate Inlet

> **Treating stormwater at the source, the EnviroBasin™ reduces or removes the need for downstream hydrodynamic separators and protects infiltration, filtration and LID systems from clogging.**

## CONFIGURATIONS

The **Standard** grate inlet EnviroBasin™ is available now for California projects. Alternative configurations, including **Combination** (curb and grate inlet), **Air, Manhole, Ditch inlet** and **Twin inlet,** are available on request. EnviroPod™ develops these configurations to comply with the applicable local, regional and state catch basin and drainage infrastructure standards, so every unit fits the jurisdiction in which it is installed. Each configuration uses the same trash capture and energy dissipation treatment train.




Standard



# Operation

Stormwater enters the EnviroBasin™ grated inlet in the same manner as it enters a standard catch basin. Below the grate, flow passes through the EnviroBasin™ Basket, which captures gross pollutants and stores trash and debris dry, above the water line. Flow then meets the patented Energy Dissipator, which reverses its direction and distributes it evenly across the surface area of the sump, as shown in Figure 1.

This process improves settling, prevents captured sediment from being scoured and resuspended at high flows, and stores gross solids dry, limiting the release of nutrients and contaminants from decaying material.



Figure 1: Turbulence in a sumped stormwater inlet (left) & in the EnviroBasin™ (right)

## FEATURES:

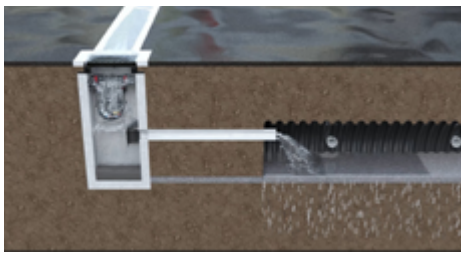
- Full trash capture (≥5 mm), stored dry
- Energy dissipation and even flow distribution
- Sediment capture with negligible resuspension
- Capture of sediment-bound metals
- Sediment storage of 11.3 ft3 (320 L) and trash storage of 1.4 ft3 (40L) per unit
- No confined space entry for maintenance
- Laboratory and field tested in North America

## WHY ENVIROBASIN™:

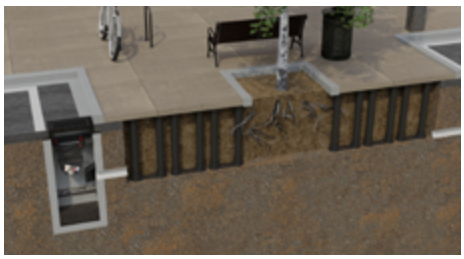
- Replacing a catch basin and downstream HDS unit with one EnviroBasin™ reduces the number of stormwater assets to install and maintain, saving costs for the developer and the owner.
- Meets the full trash capture requirement of the California Trash Amendments and delivers sediment pretreatment in the same structure.
- A pre-manufactured, easily handled product that saves the drainage contractor time and installation cost.
- Simple maintenance, with separate trash storage and a large sediment storage volume.
- Conveys peak stormwater flows without resuspending captured sediment.

## APPLICATIONS:

- **Pretreatment for infiltration and drywells**. Most California cities and counties require pretreatment ahead of infiltration to TAPE Pretreatment (50% TSS), TAPE Basic (80% TSS), or equal. The EnviroBasin™ keeps coarse sediment and trash out of infiltration systems, extending their service life and reducing maintenance.
- **Pretreatment for proprietary media filters**. Capturing trash and coarse sediment upstream reduces clogging and extends media life in downstream filtration devices.
- **Pretreatment for LID, bioretention and tree cells.** EnviroBasin™ units allow distributed entry into these systems while holding back the gross solids that seal surfaces and blind media.
- **Stand-alone treatment** in parking lots, access roads, retail and industrial sites, and other high-pollutant generating areas, with catchments up to approximately 0.5 acre (21,500 sq ft) per inlet.
- **Coastal and receiving-water protection** at waterfronts, marinas and ports, where catch basins often discharge directly to the ocean, bays or lakes.



**Extending infiltration system lifespan.**
The EnviroBasin™ removes trash and coarse sediment before flow enters perforated pipe and infiltration galleries.



**Pretreatment for tree cells.**
Street runoff is treated at the inlet before it reaches soil cells and tree roots.



**Pretreatment to LID.**
Roadside EnviroBasin™ units protect bioretention from sediment and gross pollutants.

# Laboratory and Field Testing

The EnviroBasin™ has been laboratory verified under the ISO 14034 ETV program and field tested in the United States and Canada.

**89%**
Median TSS concentration reduction, UNH Stormwater Center (USA field)

**84%**
Sum of loads TSS reduction, London,Ontario

**>80%**
Removal of 50–150 pm sediment

**100%**
Capture of trash 25 mm (CSWE certified)

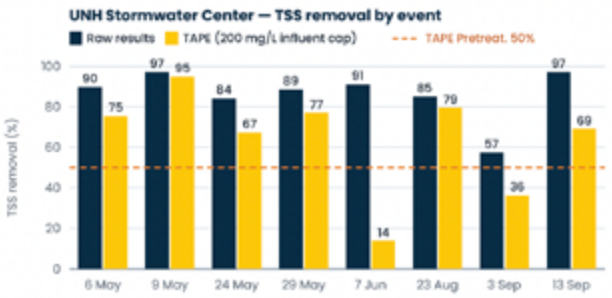
## Laboratory Verification

The EnviroBasin™ was laboratory tested under the Canadian ETV Program (ISO 14034) to the CETV Procedure for Laboratory Testing of Oil–Grit Separators. This procedure is technically consistent with the NJDEP laboratory protocol for hydrodynamic sedimentation devices. Both use the same test sediment particle size distribution (PSD); the CETV procedure expresses performance as a function of surface loading rate rather than flow rate, so results can be applied directly to any sump size. Sediment capture was 62% at the lowest loading rate (approximately 1 gpm/ft²), and **scour testing averaged 1.3 mg/L** across five loading rates up to approximately 64 gpm/ft², well inside the 20 mg/L performance standard.

## USA FIELD VERIFICATION – UNIVERSITY OF NEW HAMPSHIRE STORMWATER CENTER

The EnviroBasin™ was monitored at the University of New Hampshire (UNH) Stormwater Center, a leading independent U.S. testing facility, following the Washington State TAPE field protocol under which it holds a Conditional Use Level Designation (CULD). The unit drains an impervious parking lot catchment of approximately 5,000 sq ft.

**Eight qualifying storm events have been monitored to date** (May to September 2026), and the results are evaluated on two bases, shown below. Influent sediment at the site was coarse (D50 approximately 250 µm), typical of parking lot runoff.




### RAW RESULTS – AS MEASURED

**86%** mean **89%** median

TSS concentration reduction from measured influent and effluent, with no adjustment. Event range 57–97%.

### TAPE EVALUATION – 200 MG/L INFLUENT CAP

**64%** mean **72%** median

Influent limited to 200 mg/L before removal is calculated, against the 50% TAPE Pretreatment benchmark.

## FIELD TEST EFFICIENCY

| Site | Qualifying events | Mean concentration reduction | Median concentration reduction | Sum of loads reduction |
|---|---|---|---|---|
| UNH Stormwater Center, New Hampshire, USA – raw results | 8 | 86% | 89% | – |
| UNH – Tape evaluation (influent capped at 200mg/L) † | 8 | 64% | 72% | – |
| London, Ontario, Canada | 11 | 53% | 61% | 84% |
| London, Ontario – sediment coarser than 53 µm | 11 | ~80% | – | ~95% |

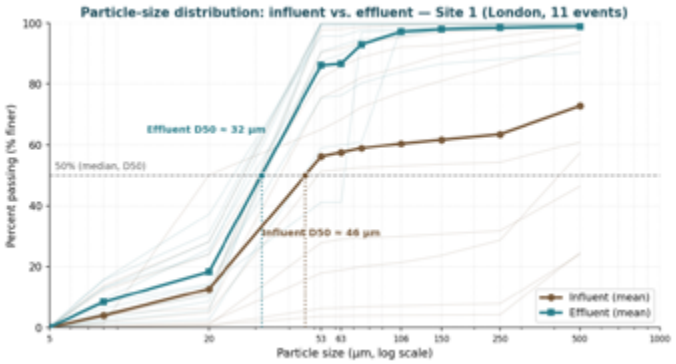
† TAPE caps influent TSS at 200 mg/L when calculating percentage removal. Each UNH event's influent is limited to 200 mg/L and removal recalculated against its measured effluent. The capped result is lowered mainly by the 7 June event (measured influent 1,931 mg/L; 91% measured removal, 14% capped) and the 3 September event (57% measured, 36% capped). Qualifying events have influent TSS above 100 mg/L. Sources: EnviroPod, EnviroBasin™ Field Performance Evaluation (July 2026), MTFR Determination (2026) and Follow-Up Memorandum: Additional UNH Monitoring Events (October 2026).

## SUPPORTING FIELD DATA – LONDON, ONTARIO: PARTICLE SIZE

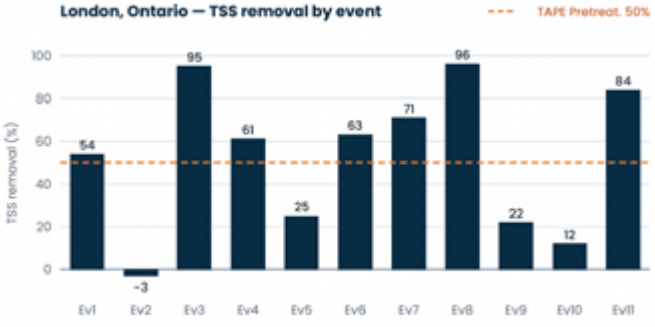
A second EnviroBasin™ was monitored on an arterial road catchment of approximately 6,800 sq ft carrying about 10,000 vehicles per day. **Across 11 qualifying events, the mean and median TSS concentration reductions were 53% and 61%, and the sum of loads reduction was 84%.** The outlet pipe was found disconnected during monitoring, so these results understate rather than overstate performance.

These results need to be read against the influent particle size distribution (PSD). London influent was fine: the mean influent D50 was approximately 46 µm, so roughly half of the incoming sediment was finer than 53 µm, below the range a hydrodynamic separator is designed to settle. Removal was lowest on the fine-sediment events. On the coarse storms, D50 fell from 419–634 µm in the influent to 31–65 µm in the effluent, leaving effluent fines at 25–35 µm in almost every event.

**Truncating the PSD to sediment coarser than 53 µm gives approximately 80% mean removal, with about 95% of the coarse load removed, meeting the 80% coarse-sediment pretreatment target.**




**Particle size.** Mean influent and effluent PSD, 11 events. Faint lines show individual events.




**TSS removal by event,** all particle sizes, against the 50% TAPE Pretreatment benchmark.

Paired-event analysis showed total aluminum, copper, iron and zinc were lower in most events, with efficiency ratios of 25–51%, consistent with capture of sediment-bound metals. Source: Blackburn (2026), Western University.

## INSTALLATIONS



**Southdale Rd. & Talbot Rd., London, ON**




**Appaloosa Project, Kelowna, BC**



**Worcester St., Etobicoke, ON**

## WHAT THIS MEANS FOR CALIFORNIA DESIGNERS

U.S. field testing across eight qualifying storm events shows the EnviroBasin™ achieved an 89% median TSS concentration reduction on raw results and 72% with the TAPE influent cap applied, on a typical parking lot site. Field PSD data show the device removes about 95% of the sediment load coarser than 53 µm, the fraction that clogs infiltration and filtration systems. The EnviroBasin™ meets the TAPE Pretreatment benchmark of 50% TSS removal and provides certified full trash capture in the same structure. This is the combination California drywell and infiltration guidance calls for when it specifies pretreatment to TAPE or equal.

# Maintenance

**Routine maintenance** of EnviroBasin™ basket by hand or vactor truck typically once or twice a year depending on site-specific loading.

**Periodic maintenance** of the EnviroBasin™ sump by vactor truck, typically every 2- 3 years dependent on site specific loading.





### EnviroBasin™ Basket Hand Maintenance

Empty the EnviroBasin™ basket when it is 75% full. To empty the basket, simply "Lift, Tip, Reuse". :

1. Establish a safe working area following standard catch basin service practice.
2. Remove grate or access cover.
3. Remove the basket with two lifting hooks or lift it by hand using the loops on the top of the basket. If the basket is over half full, scoop out excess debris first.
4. Empty the basket contents into a disposal container.
5. Replace the grate.

### EnviroBasin™ Sump Vactor Maintenance

1. Establish a safe working area following standard catch pit service practice
2. Remove the grate or access cover.
3. Vacuum the accumulated debris from the basket.
4. Vactor the contents from the sump of the catch basin (if required).
5. Inspect the EnviroBasin basket™ and EnviroBasin™ for any damage then reinstall the basket.
6. Replace the grate or access cover.

## Free design and sizing service

EnviroPod offers a free design service that models the cumulative performance of multiple EnviroBasin™ units for a specific project, based on local rainfall and treatment requirements. Stormwater consultants can use this service to optimize the number and location of EnviroBasin™ units on their projects and to document compliance with local pretreatment and trash capture requirements.

## ABOUT ENVIROPOD™

EnviroPod is the world's leading catch basin insert technology provider, with more than 50,000 installations worldwide, including catchment-wide retrofits. The EnviroBasin™ is the result of more than 25 years of research, implementation and operation of at-source stormwater treatment solutions.

**For further information please see www.enviropod.com**

Patented — U.S. Patent No. 9,642,658
International patents: CA 2,810,974 · AU 2011302712 · NZ 588049. Other patents pending.

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