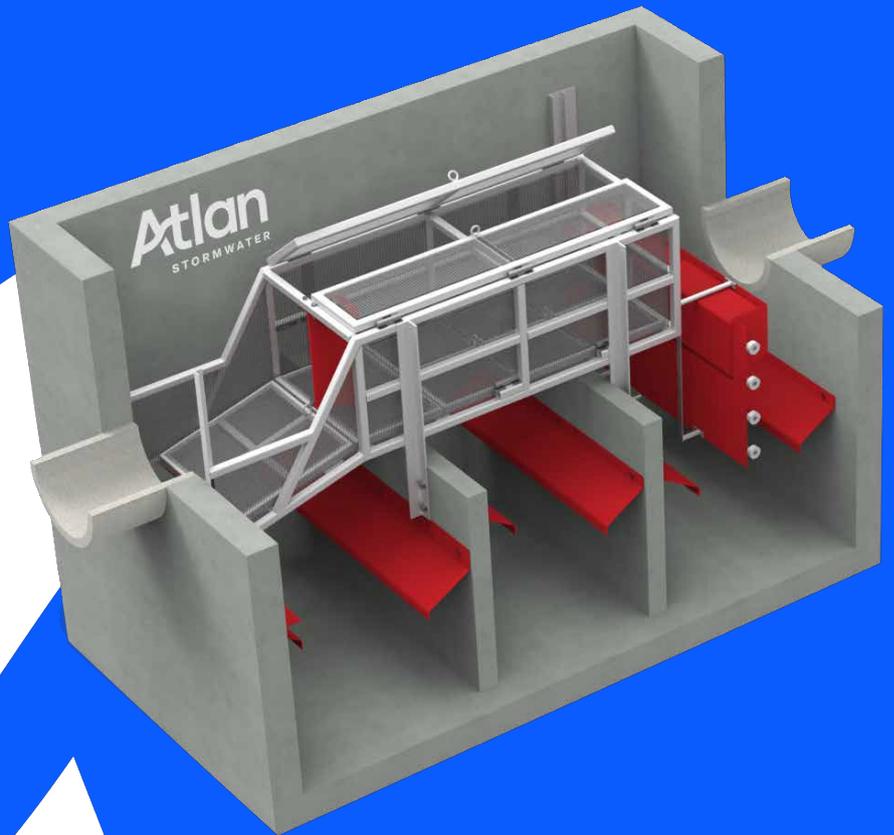


OPERATION & MAINTENANCE MANUAL

Atlan BaffleBox





CONTENTS

READ THE FOLLOWING INFORMATION, WARNINGS AND INSTRUCTIONS BEFORE INSPECTING, PERFORMING MAINTENANCE OR CLEANING THIS STORMWATER TREATMENT DEVICE.

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This manual is attended to explain the specifics of the Atlan BaffleBox and to review the common aspects of the existing regulations and safety procedures.

It is the responsibility of all personnel to familiarise themselves with, understand, and comply with all applicable local, state and federal laws, BEFORE attempting to inspect or service this unit.

All precautions and procedures in this manual are current at the time of printing if this manual and are subject to change based on new processes and procedures.

Atlan Stormwater assumes no responsibility and will be held harmless for any injuries, fines, penalties or losses that occur involving any procedure in this manual or other non-addressed actions taken.

The Atlan BaffleBox performance is based on the procedures being followed in this manual. Non-Compliance with these measures will be the responsibility of the owner.

OVERVIEW

The Atlan BaffleBox is a precast concrete structure containing a series of sediment settling chambers separated by baffles.

The primary function of Atlan BaffleBoxes is to provide primary treatment, and remove sediment, suspended particles, plastics, debris and associated pollutants from stormwater.

Atlan Stormwater recommends inspections be conducted twice a year for optimal pollutant removal efficiency.

Tested Treatment Efficiencies*

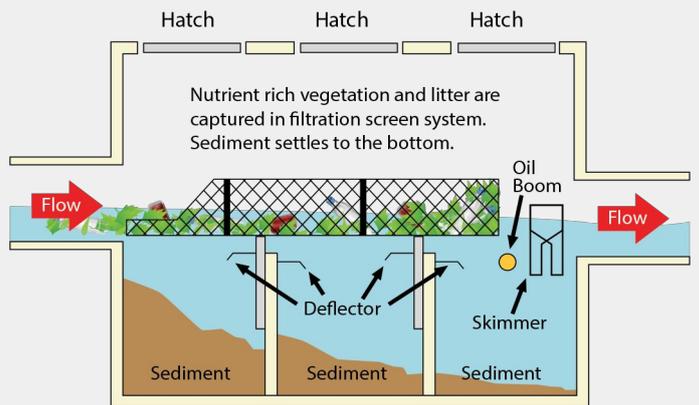
POLLUTANT	EFFICIENCY
Total Suspended Solids (TSS)	73%
Total Phosphorus (TP)	59%
Total Nitrogen (TN)	39%
Gross Pollutants (GP)	99%
Microplastics	66%

*Contact Atlan to confirm approved performance for the project LGA

FUNCTIONAL DESCRIPTION

During the storm event

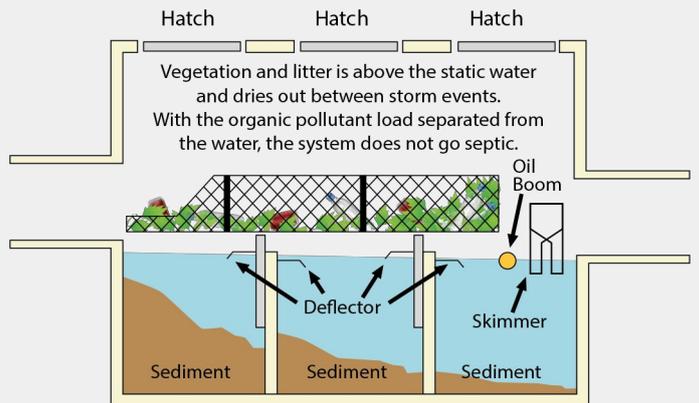
The inflow pipe is the same size as the outflow. Turbulence deflectors prevent captured sediment from re-suspending. Hydrocarbons collect in front of skimmer and are absorbed by Storm Boom.



1.1 Bottom of concrete structure is only 1.2m below pipe.

AFTER the storm event

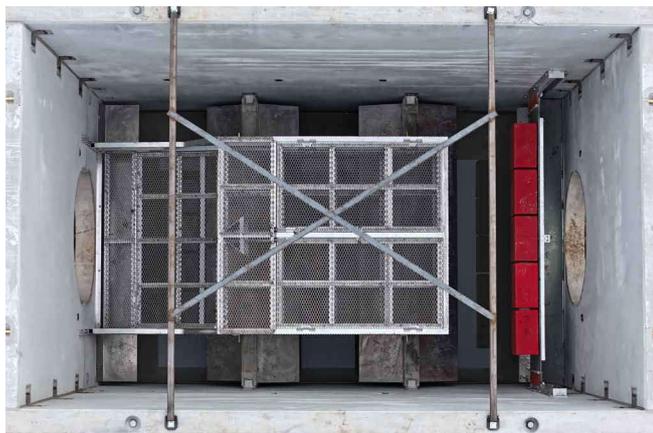
Nutrient pollutant load is not lost to static water and flushed out at the next storm event. Separating organic matter from the static water prevents bacterial build-up.



1.2 During servicing, the screen system hinges off to the side give easy access to the sediment collected in the lower chambers.



INSPECTION



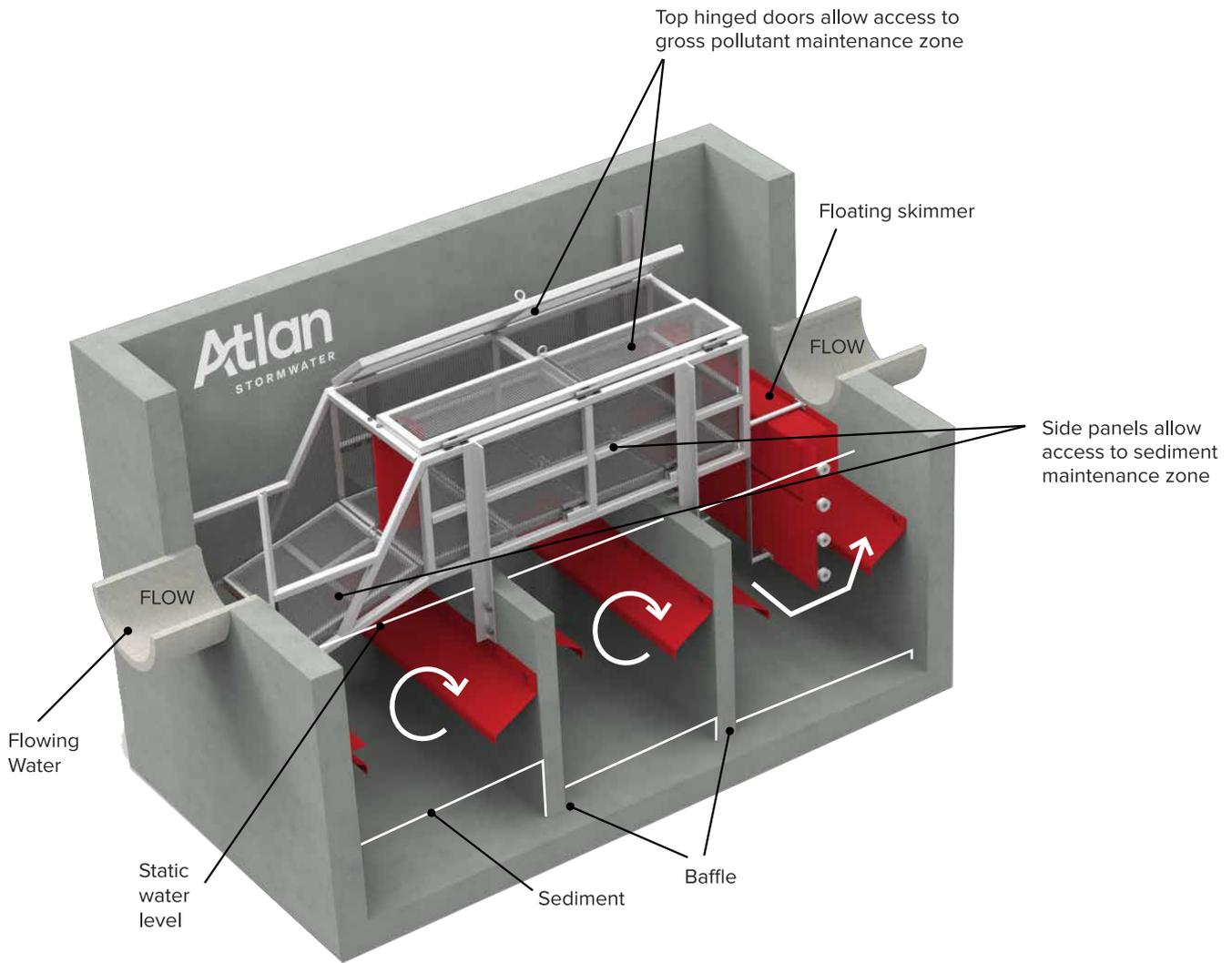
Atlan Stormwater recommends the following inspection guidelines. After installation and the site has stabilised inspections should be conducted after every runoff event for the first thirty (30) days to ensure that the Atlan BaffleBox obtains optimal pollutant removal efficiencies.

Subsequent inspections of sediment accumulation should be conducted a minimum of twice a per year. In the event the sediment accumulation equals or exceeds 50% of the Minimum Sediment Storage Volume (fig 2.1) then all accumulated sediment must be removed. All inspections must be documented (page 6).

TYPICAL INSPECTION PROCEDURES:

1. Visually inspect the unit from the surface for broken or missing hinges or handles.
2. Open access points (ie manhole covers or hatches) and secure properly.
3. A visual inspection should be made of the basket screen system to determine the capacity of debris, cracks or damages.
4. A visual inspection should be made of the stormboom. Check for missing or broken parts.
5. A visual inspection should be done of the sediment chambers. This may require opening the bottom doors of the screen system (if possible).
6. A visual inspection should be made of the overall condition of the vault. Typically joint areas as well as inflow and outflow pipe grout areas.

DRAWING



INSPECTION CHECKLIST

Location _____

Owner name _____

Address _____

Phone _____ Date _____ Time _____

Site conditions _____

Inspection Items	Condition	Notes
1. Access Openings		
2. Screen System		
3. Rear Skimmer and Storm Boom		
4. Sediment Chambers		
5. Vault Condition		

- Visually inspect accessibility into the Atlan BaffleBox.
- Visually inspect screen system for volume of debris and broken or missing parts.
- Visually inspect skimmer for missing or broken parts and storm boom for discoloration.
- Visually inspect sediment chambers for estimated quantity.
- Visually inspect general condition of vault for any clogged areas.

Maintenance Items	Approximate Volume Collected	Date	Notes
1. Screen System			
2. Sediment Chambers			
3. Skimmer Storm Boom	Replaced Y / N		

- After opening access vacuum out screen system—estimate volume collected.
- After cleaning screen system—open bottom doors and vacuum out sediment chambers—estimate volume collected.
- Replace storm boom if completely blackened.

Notes

SERVICE

CAUTION! ANY SERVICE WORK CONDUCTED IN TRAFFIC AREAS MUST MEET ALL RELEVANT GUIDELINES FOR ROADWAY WORK AND ADDITIONAL SAFETY PROCEDURES WILL BE NECESSARY.

Maintenance activities including the removal of captured sediment and debris. Maintenance can be performed from outside the Atlan BaffleBox through access points such as manhole covers or hatches installed in the vault surface above the sediment chambers.

During maintenance, the screen system may have either Sliding Top Doors or Hinged Doors. These top doors open to gain access to the debris captured by the screen system.

The screen system also has bottom doors that open to give access to the sediment collected in the settling chambers. A vacuum truck is required for debris removal.

Although not every circumstance can be covered in this manual a situation may arise when the structure needs to be entered.

MINIMUM EQUIPMENT REQUIREMENTS

A vacuum truck is required for the servicing of the Atlan BaffleBox. Safety equipment will be determined by local, state and federal guidelines.

STRUCTURAL COMPONENTS

The structural components are designed to have a life span of several decades. Structural inspections are not required unless stipulated in guidelines set by local council or state agencies.

REPLACEMENT PARTS

All interior components are designed and sized to be unassembled and removed from the nutrient.

SEPARATING BAFFLE

Box for servicing or replacement. For replacement parts and instructions please contact us.

CAUTION! All OH&S confined space requirements should be met while servicing Atlan BaffleBox structures.

TYPICAL SERVICE PROCEDURES

Step 1

Open the access openings on top of the Atlan BaffleBox. These access openings are typically manhole covers, hatches or grates.

Step 2

Vacuum the debris captured by the screen system to expose the sediment collection chambers.

Step 3

Open the bottom doors to the basket system to expose the sediment collection chambers. These doors are provided with eye bolts to attach a hook to lift open the doors which will hinge off to the side (fig 3.1).

Step 4

Vacuum each of the lower sediment chambers until they are empty.

Step 5

After cleaning the sediment chambers close the bottom screen doors of the screen system. Lower or slide the top doors and assure they lock correctly.

Step 6

Visually inspect the Storm Boom in the skimmer system for oil accumulation. Change Storm Boom if it is significantly discoloured or if it is close to one (1) year of service.

The Storm Boom has ropes attached to each end which are fastened to eyelets adjacent to the access cover. These ropes act as a leash to prevent the bottom from washing away, and to allow the bottom to be easily pulled out of the containment bracket system on the face of the skimmer. Attach a rope on the end of the new boom to a rope on the end of the old boom.

As the old boom is pulled out it will pull the new boom into position. The booms will trade places. Attach the rope ends of the new boom to the eyelets adjacent to the access cover (fig 3.2).

Step 7

When all maintenance work is completed, close the access covers.

Joy in water

'We believe clean waterways are a right not a privilege and we work to ensure a Joy in Water experience for you, with your children and grandchildren.'

Andy Hornbuckle



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