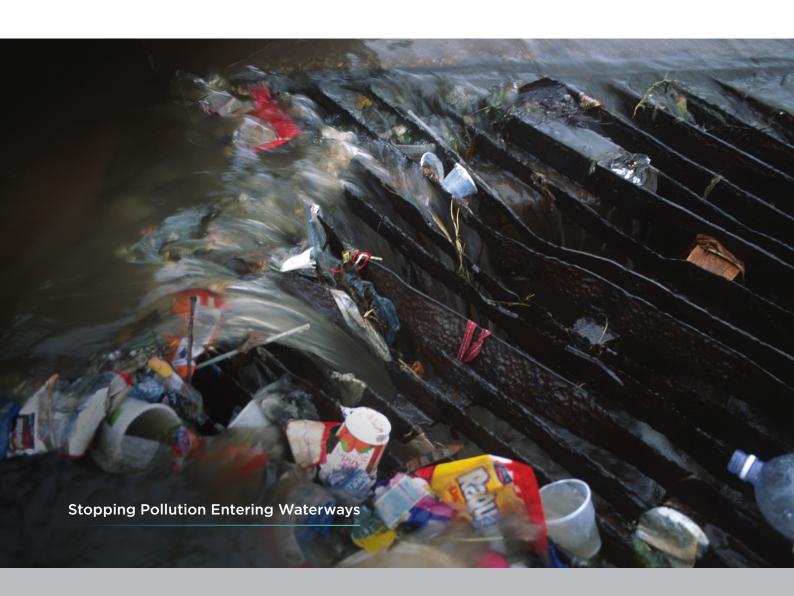
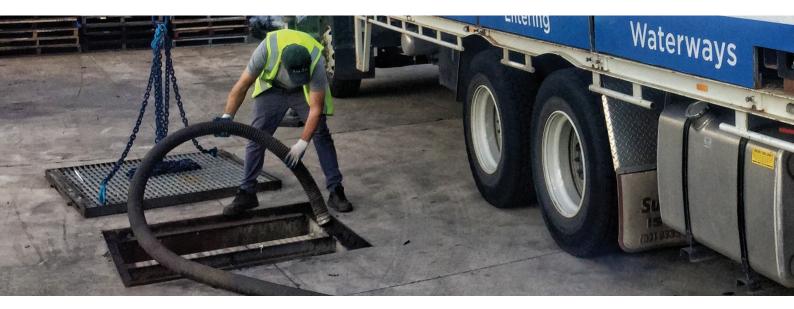
Ocean Protect maintenance service

Inspect. Clean. Report.









Integrated end-to-end stormwater management solutions

Ocean Protect is a leader in developing innovative and efficient site-specific solutions that manage the impact of urban stormwater runoff on the built environment and prevent contaminants in the runoff from entering aquatic ecosystems.

Our turnkey solutions cover every aspect of stormwater management from conceptual design and product supply, through to implementation, construction and ongoing infrastructure or facility management.

Just as importantly, with stormwater regulations and water quality standards becoming increasingly complex and onerous, our best management practice filtration, screening and treatment systems meet the most stringent regulatory requirements, while our comprehensive maintenance services ensure optimal performance and ongoing regulatory compliance.



The Ocean Protect Maintenance Service has been designed to assist you achieve a costeffective turnkey solution for maintaining your stormwater system while also ensuring ongoing regulatory compliance.

Total stormwater system maintenance

Optimising performance and ensuring ongoing regulatory compliance

The effectiveness of stormwater management systems is largely based on three factors:

- The suitability of the implemented solution to deal with the site's stormwater runoff
- The ability of the installed products (such as screening, filtration and treatment devices) to remove the pollutant load
- The existence of a comprehensive maintenance regime that includes regular inspection and cleaning

While many stormwater management facilities meet the first two criteria, the failure to conduct timely maintenance is one of the leading causes of inadequate performance, system malfunction and a failure to achieve acceptable standards in water quality. It can also lead to the degradation of the downstream aquatic ecosystem's health.

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Why maintenance matters

Maintenance is as integral to every stormwater management system as it is to any other item of machinery or equipment. While the capital costs of constructing and installing a stormwater facility are usually given careful consideration, it is important to ensure that there is also an ongoing allocation of funds for operational costs, including a system-specific maintenance schedule for the life of the facility.

A lack of proper maintenance can lead to:

- Stormwater structures or storage facilities becoming clogged with debris or sediment, leading to reduced flow or storage capacity, which in turn may result in flooding of the site and damage to Stormwater assets and nearby infrastructure
- A reduction in the ability of stormwater treatment devices to efficiently and effectively remove and prevent pollutants from entering waterways
- A failure to comply with local authority regulations relating to stormwater quality standards, which may result in penalties for the site's owners or property managers
- The likelihood of costly repairs, increased ongoing maintenance costs and the potential of damage to other infrastructure or drainage assets
- An erosion of the asset's capital value



Comprehensive service across all stormwater systems

The Ocean Protect Maintenance Service covers all major types of stormwater systems, and is not limited to those we have designed and installed.

The maintenance solutions we develop are tailored to the specific needs and attributes of each site, including its usage, the type and quantity of pollutants, as well as the frequency and extent of storm activity and its associated stormwater runoff. We also take into account the primary focus of the installation, such as flood mitigation, water quality, runoff management or stormwater harvesting.

While we design our own tertiary filter systems to meet the requirements of a minimum 12-month maintenance frequency, primary and secondary pollution control devices will require more frequent inspection and cleaning.

How maintenance is carried out

Ocean Protect has developed a systematic maintenance approach to inspecting, cleaning and repairing different types of stormwater systems. We utilise fully trained experts who are familiar with the characteristics of each type of system, and the processes required to optimise its efficiency and performance.

Catch basins with gross pollutant traps

Indirect maintenance can help minimise the build up of trash and sediments, which is usually best achieved by simply cleaning the surrounding areas regularly. An example of this would be a public car park that is cleared of debris daily by using an industrial sweeper.

In many stormwater systems, gully pits form the front-line defence for controlling stormwater pollution. Gully pits can be fitted with gross pollutant traps such as litter baskets that prevent trash and debris in the stormwater runoff from entering the attached drainage system. They can also be fitted with fine mesh screens and absorbent material that will help trap products such as oil and nutrients like phosphorous.

Our regular maintenance of these devices includes inspection, recording and reporting, and is accompanied by periodic cleaning to remove accumulated debris and ensure optimal performance. Depending on the size of the system, it may be cleaned from the surface by hand, or may need to be accessed via a manhole and the debris removed using a large vacuum hose attached to an inductor truck.



With more than 12 years experience in maintaining stormwater management assets, we can inspect the system and determine the key issues that need to be addressed for effective ongoing maintenance.

Stormwater treatment systems

A gully pit litter basket is usually one element of a stormwater treatment train, and depending on the facility may include a siphon-actuated cartridge-based filtration product (such as the StormFilter®) that can target the full spectrum of Stormwater pollutants, or a hydrodynamic separator (such as the Vortechs[™] system), which removes suspended sediment, hydrocarbons and floating debris.

In other facilities, such as public reserves along roadways, biofiltration methods provide small-scale, at-source treatment of runoff that blends biological processes and engineered media filtration to create the perfect balance for the removal of pollutants.

As the primary purpose of these stormwater treatment trains is to remove and prevent pollutants from entering waterways and impacting on aquatic ecosystems, it is important that these pollutants are periodically removed to restore the device to its full efficiency and effectiveness.

The Ocean Protect Maintenance Service carries out every aspect of this cleaning process, which may involve sediment removal and disposal (following regulatory mandates), cleaning of the vault or manhole, and replenishing cartridges or components. A visual inspection and comprehensive data tracking of the system is also undertaken to assist with the ongoing management of the infrastructure. Data identifying the pollutant type and load can be fed back to the client to ultimately help reduce pollutant build up and the cost of maintenance.

Vegetated assets

In addition to the above systems, Ocean Protect's services can extend to the management of other treatment systems. We utilise the expertise of our specialists in inspecting and maintaining vegetated assets and bioretention systems, which help reduce stormwater impacts and create buffers that arrest the flow of nutrients into waterways.

With more than 12 years experience in maintaining stormwater management assets, we can inspect the system and determine the key issues that need to be addressed for effective ongoing maintenance. We are also able to provide a cost-benefit analysis for retrofitting devices that will increase the efficiency of the overall WSUD design.





The Ocean Protect difference

Driven by a passion for better stormwater solutions

Ocean Protect has widespread experience and expertise in managing every aspect of stormwater management. We are focussed on mitigating the impacts of stormwater run-off on infrastructure and built environments, but equally passionate about protecting Australia's waterways, estuaries, coastline and marine life from the rising levels of harmful containments found in stormwater runoff. We view stormwater within the context of delivering one of the earth's most precious commodities - water - and have the products to cover every aspect of harnessing this resource, including rainwater harvesting, retention and detention.

Maintenance of your stormwater system not only ensures the facility operates in the manner for which it was designed, but also lies at the core of maintaining downstream water quality health. For our own designed and installed applications we always offer an ongoing operations and maintenance service. Now, we have extended that service to all site owners and property mangers, regardless of their systems origins.

Benefit from the Ocean Protect **Maintenance Service today**

The ongoing efficiency and reliability of all stormwater management systems relies on reliable, effective and repeatable maintenance regimes.

Outsourcing your system's maintenance program including inspection, reporting, cleaning and repairs to Ocean Protect delivers you the most cost-effective solution for optimising the performance of your asset and provides the assurance of compliance with the current regulatory environment.

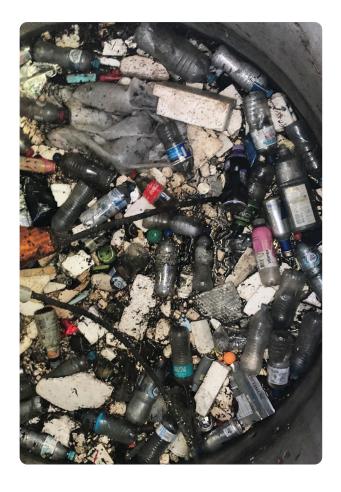


For more information about the Ocean Protect **Maintenance Service, visit** www.oceanprotect.com.au or call 1300 354 722

With more that 12 years of expertise in maintaining stormwater devices, Ocean Protect can also provide advice on ways that may reduce the pollutant load coming off your site and assist you reduce the overall cost of stormwater infrastructure maintenance.

Ocean Protect Maintenance Service contracts also include a warranty on all filter parts serviced. Should any filter part be damaged, Ocean Protect will replace it freeof-charge at the time of servicing.

With maintenance such a key component to the effective operation of a stormwater management system, an Ocean Protect Maintenance Service contract makes sound economic and environmental sense. Such ongoing maintenance not only ensure the optimal functioning of the system, but also provides you with the peace of mind that you are protecting the built infrastructure from the impacts of stormwater damage, while also maintaining the quality of water flowing into downstream aquatic ecosystems.



Ocean Protect supplies and maintains a complete range of filtration, hydrodynamic separation, screening and oil/water

Call 1300 354 722