

UrbanPond™

Precast Concrete Modular Detention

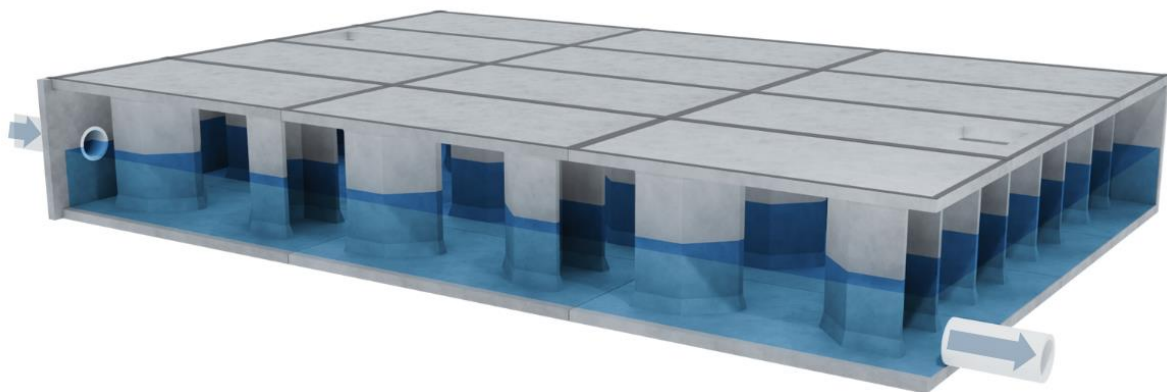
UrbanPond™ is a modular precast concrete underground storage that can be placed under roadways, parking lots and landscape areas in various shapes, sizes, and depths, taking zero land-space.

The Ocean Protect UrbanPond™ is a trafficable precast concrete below ground storage system for detention and retention purposes, replacing above ground basins. It has a high void ratio to maximise volume, and its robust precast form allows systems to be buried deeper without the need for specialised backfill, increased wall thicknesses, or extra reinforcement.

How does it work?

As storms occur, generated runoff is collected and diverted via the pit and pipe network to the UrbanPond™ system. Inlets are accommodated around the system, leading to a traditional below ground detention tank. The internal modular design has a leg configuration that provides channel-less water distribution for stormwater flowing throughout the system. Combinations of

inlet and outlet structures are incorporated for associated componentry. The system is installed with a grade on the base, stormwater will make its way through the system towards an outlet chamber with orifice controls. Maintenance is simple and, if required, GPT's and filtration systems can easily be configured to work in conjunction with UrbanPond™.





Features

- Incremental change in height from 0.6m to 3.6m internal
- Installed on up to 2% grade
- Keyed joint between top and bottom segments
- Large volume installed per module
- Lightweight design
- Fully trafficable 0.2 – 2m fill
- No in-situ concrete required
- Optional inlet and outlet chambers easily configured and connected

Benefits

- Design flexibility while maximising storage space
- Flexibility of multiple configurations, double or single precast modules (alternative option of cast in-situ base for single)
- Supply only and installation option available on request
- Up to 40% less crane lifts compared with alternatives
- Fully engineered unique thin wall design
- Suits many sites and maximises depth
- Quick and simple installation
- Filtration systems, like StormFilter®, are easily integrated
- Unmatched quality and identical segments every time

Configurations and Applications

UrbanPond™ can be used in a number of applications including detention, treatment train design options and infiltration solution options.

The standard module dimensions of 4.88m x 2.44m are combined for simple design versatility and efficiency. Each segment will provide 11.48m³ of volume per 1m clear internal height. Sizing and arrangement is easily determined using the Ocean Protect UrbanPond™ calculator. Please contact Ocean Protect for complimentary designs and advice.

Maintenance

All stormwater systems require routine maintenance. The UrbanPond™ system is designed to be maintained from the finished surface via a vacuum truck. Access points can be strategically placed throughout the system to facilitate maintenance. Modules can be modified to act as clear wells or pretreatment chambers for capturing trash, debris and sediment. The large void space and option to include access covers in each module, offers the opportunity to satisfy most if not all Council requirements. Ocean Protect can provide flexible options and contract terms.