



## Making Advances in Water Quality

While there have been tremendous strides in the area of water quality over the last 40 years, we still have important – and achievable – goals remaining. Sediment and fine soil particles from exposed soil surfaces at construction sites contribute significantly to the pollution load in storm water. Today, regulations and best management practices are used to address velocity, the quantity and duration of storm water runoff in order to effectively improve water quality.

“Polluted storm water runoff is a leading cause of impairment to the nearly 40 percent of surveyed U.S. water bodies which do not meet water quality standards.”

- Environmental Protection Agency

## Introducing the Reverse Q Pond Outlet

Help protect the quality of our waterways and meet EPA Phase II goals to reduce pollutant loads with the Reverse Q Pond Outlet.

### RQ Pond Outlet: The Engineer's Advantage

- Gives engineers the ability to pick a specific pond drawdown duration and peak flow that will meet the storm water goals of the project.
- Protects downstream waterways from experiencing peak flows, normally occurring early on in a storm event.
- Allows for the delaying of higher flows until later in the drawdown cycle.
- Increases average retention time without increasing total drawdown time.

For more information on the Reverse Q Pond product, go to [lane-enterprises.com/Reverse-Q-Pond-Outlet](http://lane-enterprises.com/Reverse-Q-Pond-Outlet)



## Improved Performance for Sediment Basins

The Lane Reverse Q Pond Outlet provides design and municipal engineers with the opportunity to improve the performance of sediment basins by optimizing the balance between pond retention time, sediment settling, and pond discharge rates.

By reversing the shape of the outlet discharge hydrograph from the typical higher head/higher discharge pattern with a unique lever arm outlet, the Reverse Q can significantly improve the quality of the discharge from a settling pond.

## An Old Standard

Historically, sediment basins have been designed with an outlet riser and orifice at the bottom of the riser that restricts the flow out of the basin. The discharge increases as  $3.3(w_o)^{-3.04}(h)^{4.6}$  (C 18 0 0 18 36 403.3351 Tm [.5 (r(p)-4.1t)12.9



## Sizing the Lane Rev

There are eight (8) standard  
In addition, the RQ ori ce pl  
the outlet lever arm, is desig  
required. For example, a 6" n  
an average of 47,000 ft<sup>3</sup>/day  
ori ce will discharge 66,000

Engineers and designers c  
**lane-enterprises.com** that  
different maximum discharg  
A hydrograph is produced fo  
being released over the who  
designer to balance dischar  
requirements and achieve s

Improving water quality from  
rate of discharge to reduce c  
when designers specify the