

## SCHOOL CASE STUDY 1

Wastewater Treatment and Infiltration Systems

## Drip Distribution System National School -Latton 2014

As part of a school extension an upgrade to the existing septic tank was essential but no suitable space was available for an infiltration area. A solution was found when a design was proposed by Ashtecs to put a drip distribution system into the school playing field.

The design was approved with 100% funding by the Department of Education based on the drip solution. An upgrade from the septic tank to a secondary treatment system and mole ploughing of the dripline into the playing field was completed in November 2014. The dripline was Geoflow pressure compensating with root inhibitor and anti-microbial coating. The system has been operating satisfactorily since 2014 to date.

Site Address: Latton NS, Castleblaney, Co Monaghan

Design details:

Flow: 10,800 litres/day

Wastewater quality: Secondary treated domestic strength wastewater

Infiltration rate: 10 l/m2/day Area: 1,080 m2

Nominal dimensions: 27 m x 40 m in a single zone

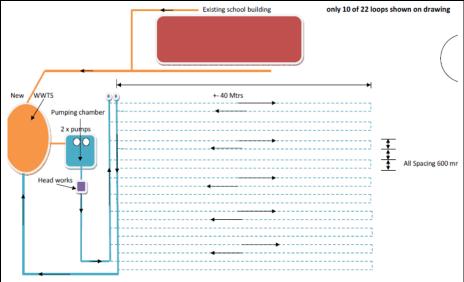
Pump capacity: 130 litres/min Head (TDH): 30 metres

Pump tank: 14 m3 concrete tank (2 x 7000L)



Existing septic tank was polluting the adjoining stream.

## Design Schematic





secondary treatment system



Drip headworks with 130  $\mu$  filter and backwashing solenoids



Mole ploughing of dripline into the playing field using a farm tractor attachment with little or no damage to the soil structure and no aggregate



Drip distribution system completed and the playing field back in use.



Connections to PVC manifold by Ashtecs