



# Lowflo saves North Monastery Secondary School €19,440

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**Lowflo**  
Water Control & Leak Detection

## Case Study with North Monastery Secondary School and Lowflo

Next year water charges in schools will be based on water meters and actual consumption in every school instead of the flat rate per student per annum (€3.50 - 2008, €4 - 2009). Lowflo and the Principal of the North Monastery Secondary School, Cork, decided to get proactive in Water Conservation.

### Stage 1

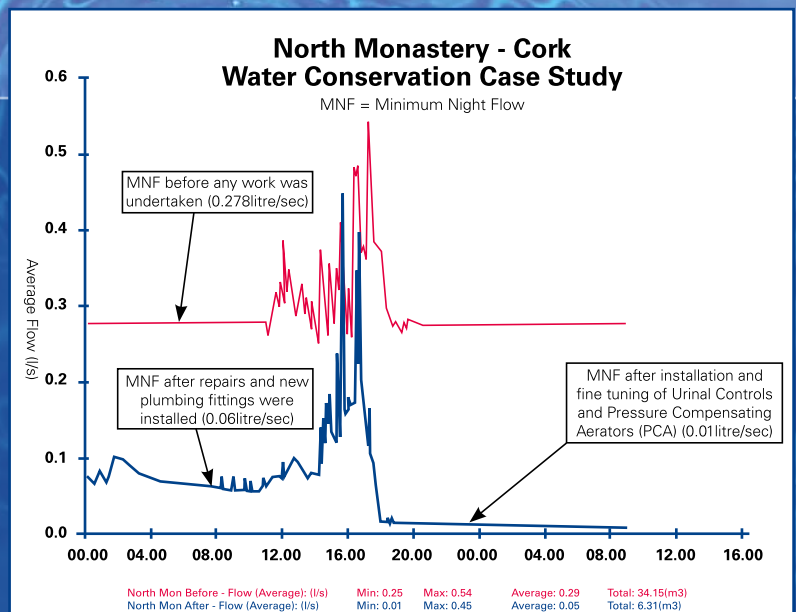
Flow logging of the water meter during an average week showed a minimum flow into the site 0.278 litres/sec at night time when the school was vacant.

This could be due to several problems:

- Leaking underground
- Leaking Central Heating
- Urinals flushing constantly
- Overflowing tanks/cisterns
- Faulty fittings (Taps, Ballcocks, Showers etc.)

After a full walkthrough of the school we found that the constant excess water use was due to:

- Overflowing toilet cisterns (Repaired)
- Overflowing storage tanks (Repaired)
- Constantly flowing urinals (Installed Hydrocells – Infrared Urinal Flushers)



The RED graph shows an average days consumption by the school before the study was carried. A constant flow exists after the school is vacated 0.278 litres/sec costing the school.

**Before - €20,164/year**

The BLUE graph shows an average days consumption by the school after the study was completed. Losses had been reduced to 0.01 litres/sec.

**After - €725/year**

## Stage 2

In the majority of schools, 90% of water is consumed in the toilet areas. Consumption is minimised by reducing the amount of water that Taps, Urinals and Toilets deliver. In the case study this was achieved by:

- 1.) **Urinals** – Installed infrared Hydrocells
- 2.) **Taps** – By installing Push-taps flooding and overuse is prevented
- 3.) **Aerators** – These reduce flow in the taps. Reduced from 12 litres/min to 6 litres/min on each tap (50% saving per activation)
- 4.) **Toilets** – Capacity of the 10litre systems were reduced by 3 litres each using Hippo Bags (30% saving per flush)

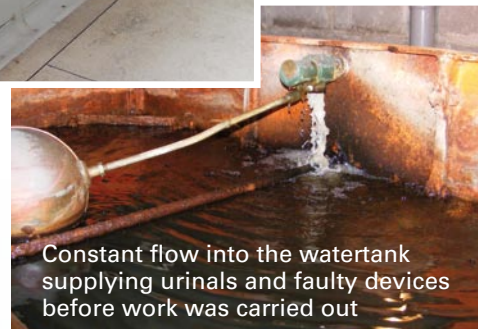
It is always difficult to predict the exact savings after the above changes. Nevertheless the fact that water consumption was reduced on every appliance speaks for itself. And weekly meter readings taken by students is an excellent way of monitoring going forward.

### Investment Payback:

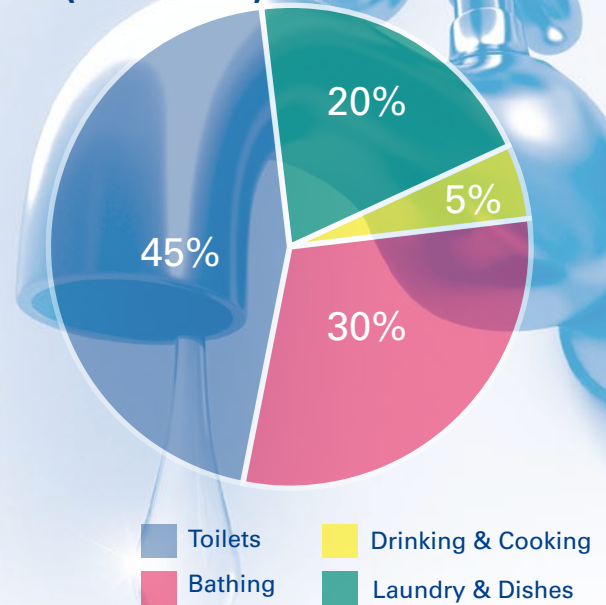
**Stage 1** - The payback period on repairing all the faulty appliances was immediate (Repairs cost - €500)

**Stage 2** - The average payback period for installing Water Saving Devices is:

- ✓ **Urinals** – 3-6 months
- ✓ **Taps** – 12 months
- ✓ **Aerators** – 3 months
- ✓ **Toilets** – 1-2 months



## Average Daily Water Consumption (Per Person)



### Leak Detection

- Services – Acoustic, Gas, CCTV, LeakfinderTM
- Leak Repair Crews
- Equipment - Sales, Training & Support

### Flow Surveying & Pressure Control

- Flow logging
- Clamp-on Meters
- Flow & Time based pressure controllers

### Water Saving Devices

- Urinal Controls
- Aerators
- Lowflo Shower Heads etc...

### Pipe Location & Site Mapping

- All pipe materials & sizes

# Lowflo

For further information on conducting water audits please contact:

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