



School Water Audit Survey Report

Client: School Thames area

Mains water meter information

Size (mm)	15-28		32-50		75-100		125-200		Above 200mm	
Serial number	310231546									
Reading	24713				Time:	18/04/2023				
Reading (Meter 2)	30569				Time:	03/04/2024				
Average daily use from meter read to meter read	16.73m ³ per day x 365 days = 6,106.45m ³ per annum									

Background Information

To attend site and carry out a water check / loss survey as the site has high water consumption in relation to the 155 pupils and 30 staff.
 = 33m³ per head when this should be 5m³ per head maximum per year.
 Should be around 925m³ per annum.

Summary of Survey

Initially we hoped to carry out a leak check by turning off the stopcocks and checking the flow at the meter.

However, the Site Manager and his colleague were not sure that all supplies were fed from the main tank, and our findings backed this up.

To add to this, water was being used for onsite works by another Contractor and excavation works were being carried out as part of major building renovations.

We carried out checks on all water outlets throughout the school that are fed by the meter serial no. 310231546

The reading taken on the day was 30569 (picture unclear as under water) **Photo 1**.

Looking at the previous reading of 24713 on 18/04/23, we can calculate an average daily usage of 16.73m³ since last known reading, which is slightly larger than previous calculations indicating that the issue is still relevant.



Photo 1

We checked all wc`s for overflows and none were found.

All classroom sinks were also checked.

We checked the 2 main tanks (east and west) and there were no overflows or leaks.

The separate Childrens Centre had limited water outlets and no problems were identified.

We found one push button tap constantly running. This was located in the 1st floor boys toilet, and was freed, **Photo 2**, but this will stick again so you will need to arrange for a plumber to attend and replace / repair this.

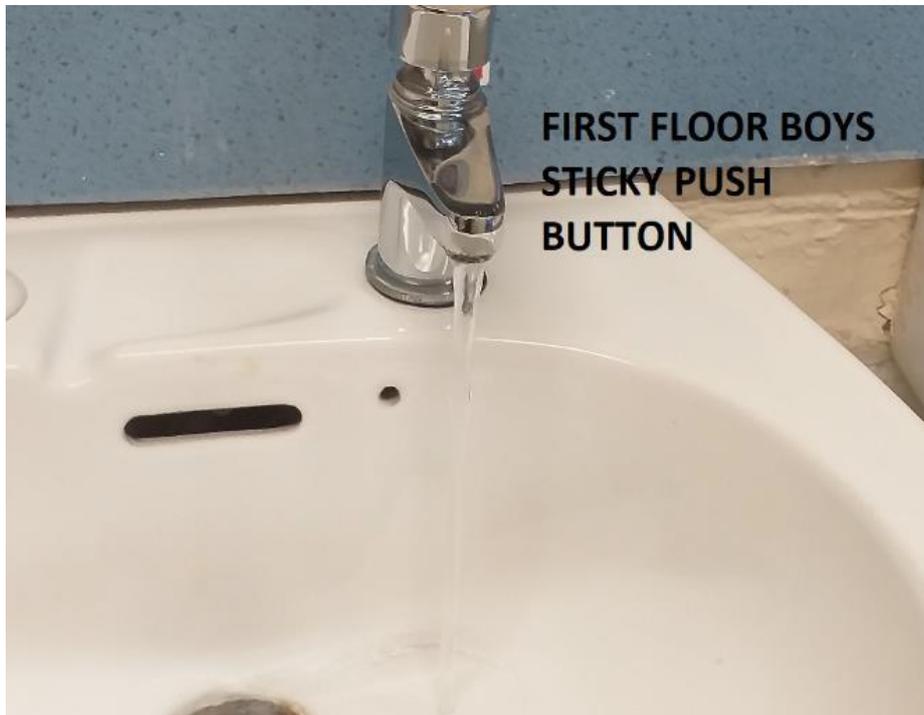


Photo 2.

There was also a minor drip on the middle push tap in the outside girls toilet **photo 3**, where there was also a drainage leak under the sink



Photo 3.

There are 2 urinals in the school.

The 2nd floor boy's toilet urinal was uncontrolled and flushing every 2 minutes.

The cistern capacity was estimated at 9 litres, and allowing for flow whilst emptying, this would equate to approximately 5 litres per minute x 300 litres per hour, = 7.2m³ per day x 365 = 2,628m³ per year. **Photo 4.**

Based on a tariff of £1.94 per m³ wastewater and £1.18 per m³ wastewater = £8,199 per annum.

By installing our recommended urinal controller, set to flush 10 litres every 30 minutes during occupancy only, the estimated consumption would be:-

0.01m³ x 2 (flushes per hour) x 10 (school hours/day) x 5 (days/week) x 41 (school weeks/year) = 41m³ per annum or £128.

Which is a saving of £8,000 per year.

NOTE: Even allowing for this annual saving the water consumption is still going to be around 9m³ per day.

BUT we do not know how much of the historical consumption was going through the outside urinal now that it is switched off. This could be a factor or there may be an underground leak, which was not identifiable on the day due to onsite essential activity.

Please see recommendations.



Photo 4.

The outside boys was fitted with a Cisterniser unit which was not working. Derek explained that this had been turned off quite recently **Photo 5**.



Photo 5.

Summary & Recommendations

Recommendations:

1. Replace or repair sticking push button tap in 1st floor boy's toilet by plumber / maintenance department.

2. Install 2 x H2O Building Services recommended Urinal Controllers at a cost of £XXX + VAT supply and install or if you wish to install them yourselves via a local plumber or your maintenance department then this would be £XXX + VAT supply only.

Installing these will save the school £8,000 per year so on the supply and install price this would be a payback of less than a month.

3. Take weekly meter reads and submit to H2O for analysis to see if the extra 4m³ per head is down to the urinal that was switched off in the outside boy's toilets.

But this could be down to the construction works as water is being used from your meter.

The only way we will know is when all works have been completed but the site should not be using any more than 925 – 1000m³ per year.

Survey carried out by

Engineer: Team:	H2O Building Services	Date	3 rd April 2024.
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