
Reducing WC flush volumes in schools – are we overestimating the savings?

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Water savings from school toilets?

- 4.3 million primary school pupils in England
- 2.9 million secondary school pupils in England
- Approximately 50-50 split between girls and boys

- At 3 flushes per girl pupil per school day
2,150,000,000 (2.15 billion) litres of water a year
could be saved just by fitting a save-a-flush bag in
every school toilet ... or could it?

What are school toilets actually like?

- Industry norm is to assume 3 WC uses per pupil per day. Same as for office workers
- But how robust is this assumption when school toilets are often run down, perceived as 'dirty' environments, potentially dangerous because of bullying and are being designed out in new schools in favour of single cubicles accessed directly from corridors?

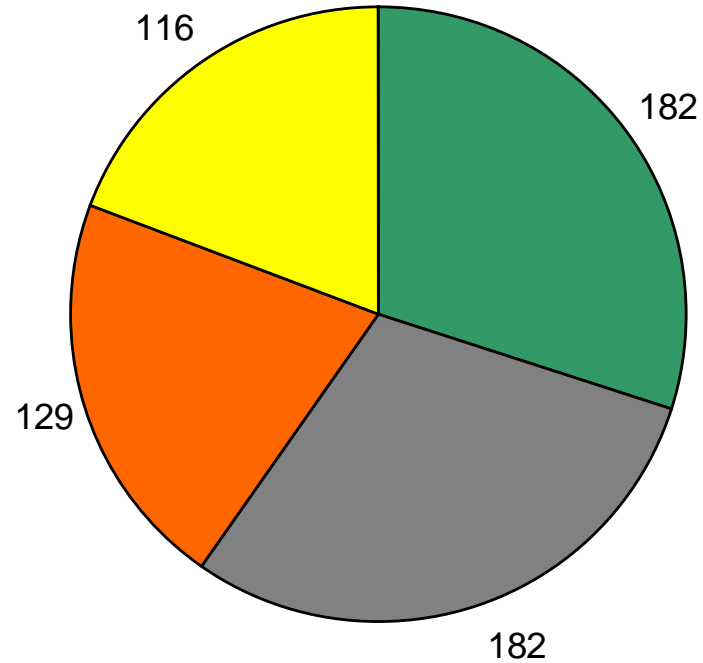
The survey

- 609 school pupils between Jan 2010 and April 2012 answered an anonymous questionnaire about how they use water including the question: 'How often do you use the toilet at school per day?'
- 457 primary school children
- 152 secondary school children
- 65% in London schools. Majority of rest from schools in Sussex

Can 609 pupils be wrong?

How often do you use the toilet or urinals at school?
All School Pupils

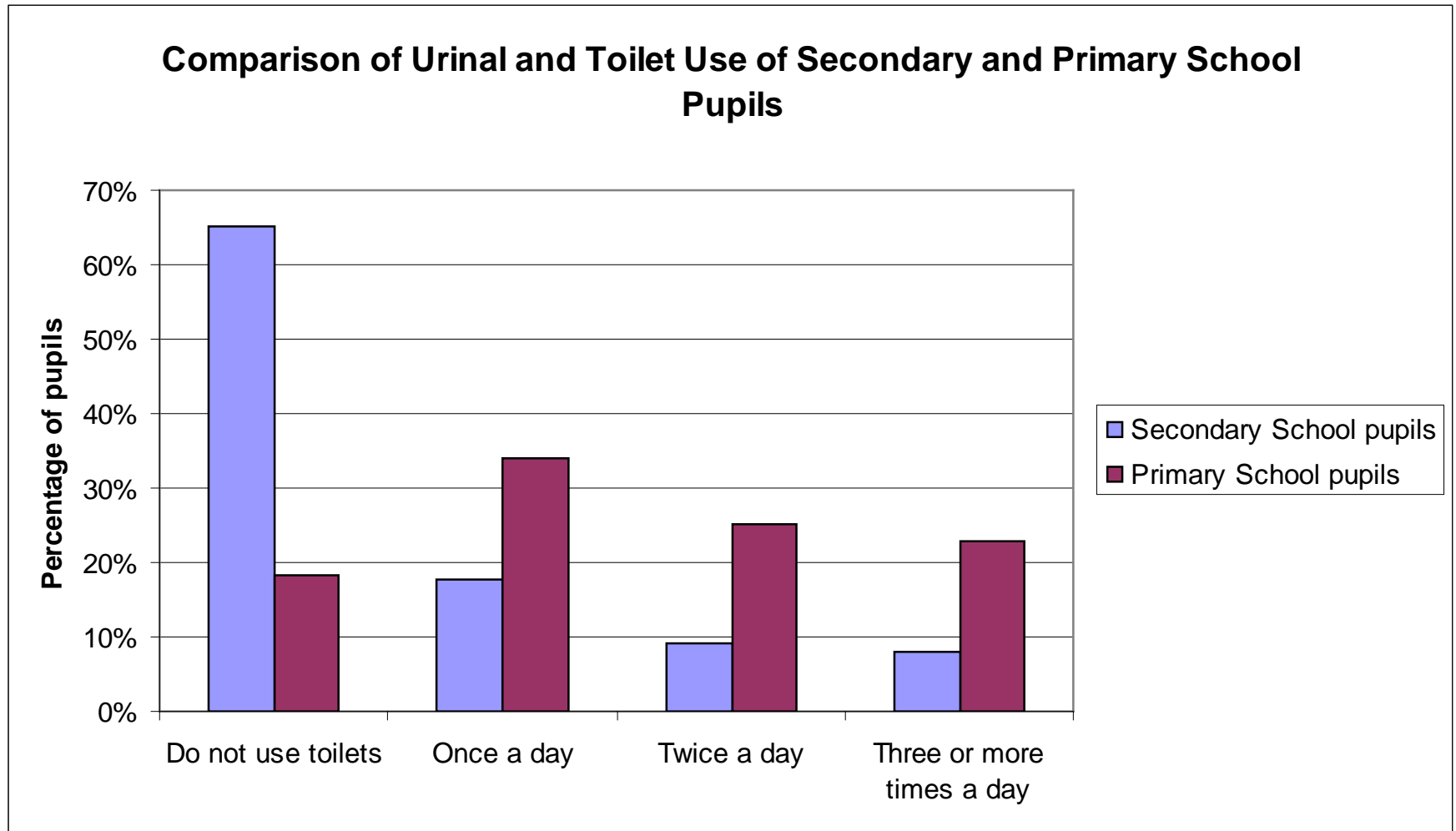
- Do not use toilets
- Once a day
- Twice a day
- Three or more times a day



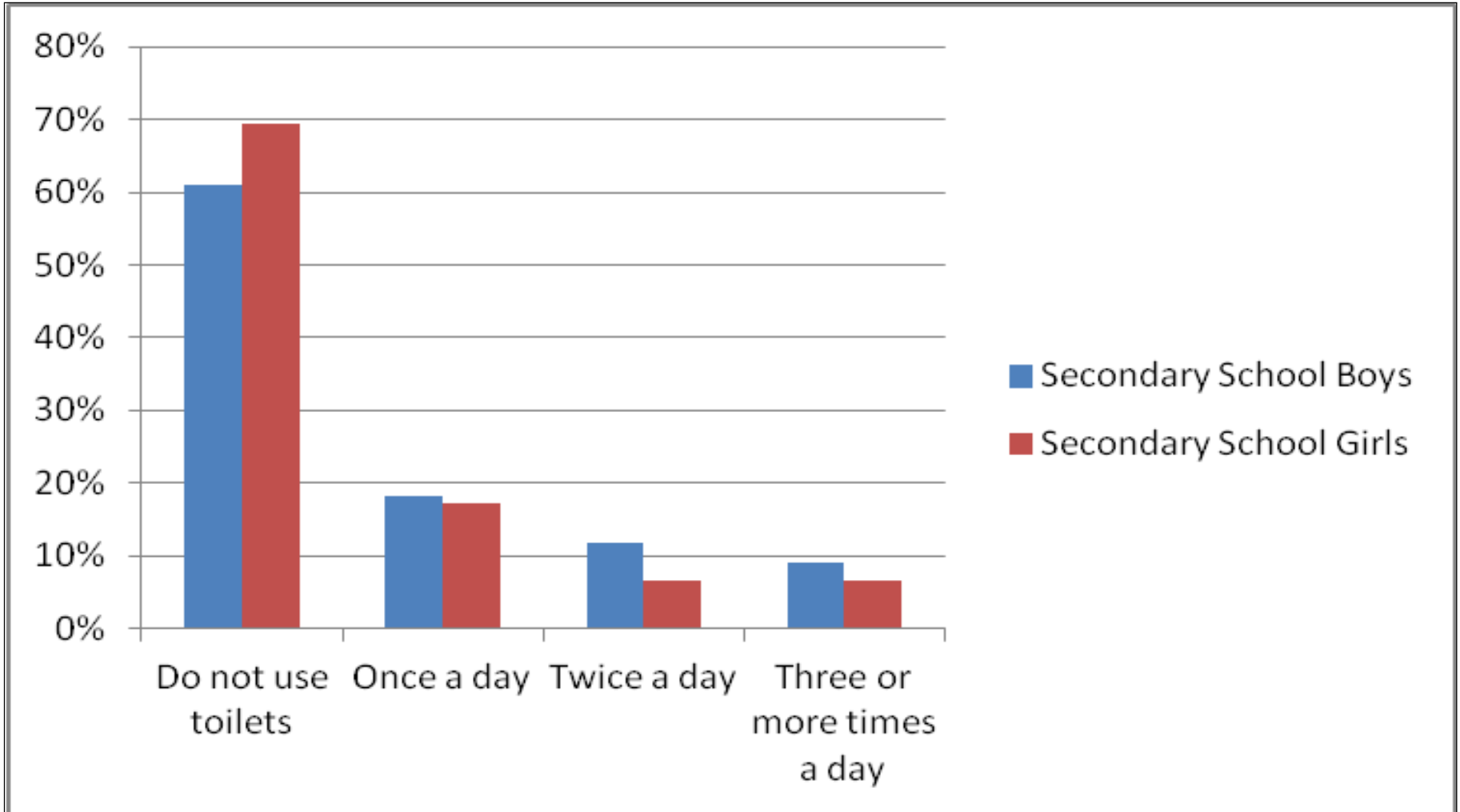
Pupils do *not* use the school toilets three times a day

- Over 75% of pupils use the toilet less than three times a day
- Over 50% of pupils use the toilet either once or not at all
- The average pupil uses a school toilet 1.3 times per day
- Download the report here:
http://www.ech2o.co.uk/reports_wc_schools.shtml

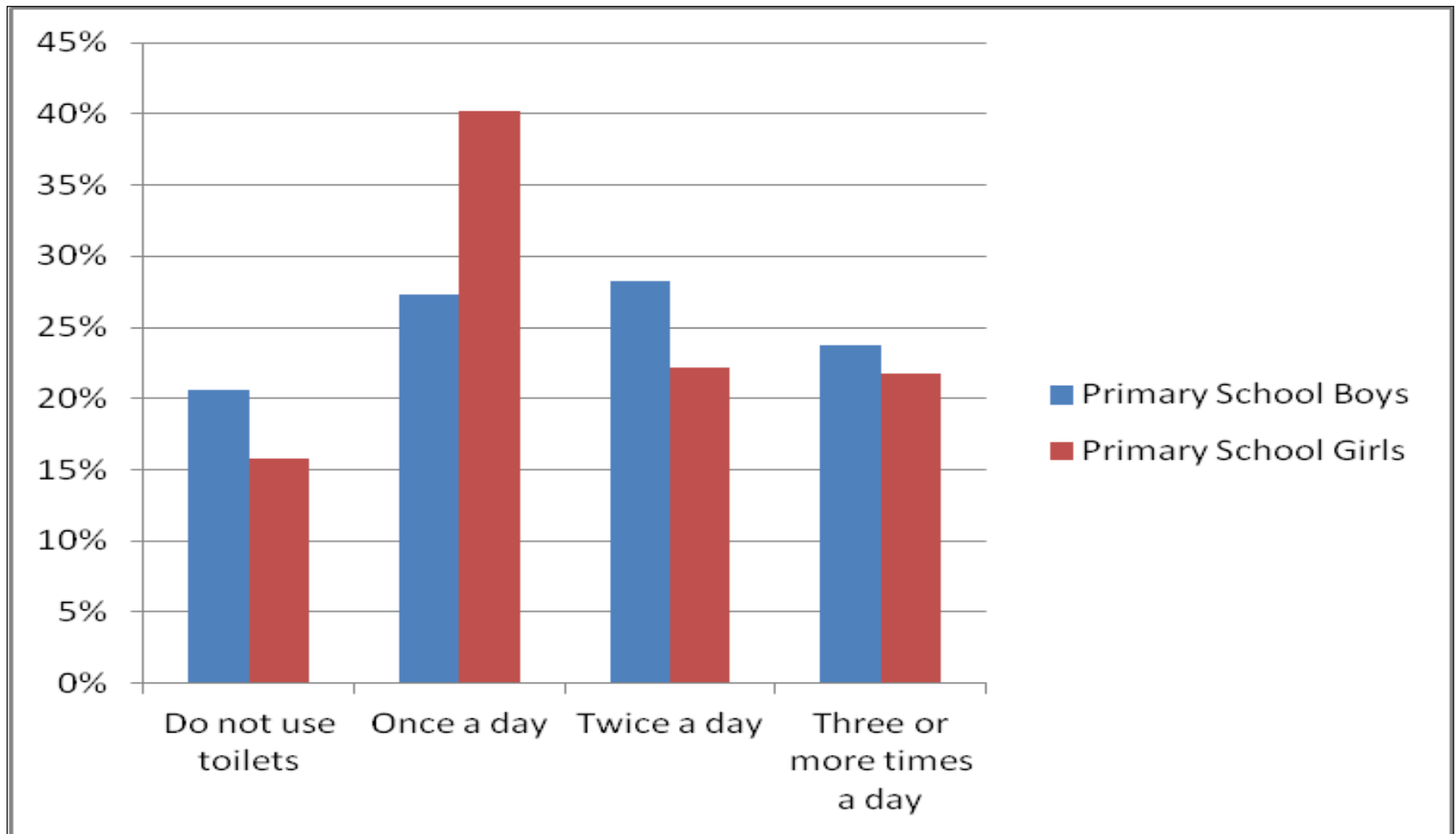
Secondary v primary school pupils



Secondary schools – girls v boys



Primary schools – girls v boys



Headline figures from our survey

- The average school pupils uses the toilet or urinal 1.3 times a day
- The average primary school pupil uses the toilet or urinal 1.6 times a day
- The average secondary school pupil uses the toilet or urinal 0.6 times a day
- The average secondary school girl uses the toilet 0.5 times a day

What that means...

- A secondary school with 1200 pupils, 600 girl pupils. Save-a-flush bag put in all WC cisterns
- Estimated savings of 360m³ of water a year costing £738 a year in Thames Water area and £1,915 in South West Water area
- Actual savings likely to be 60m³ of water a year costing £123 a year in Thames Water area and £319 in South West Water area

Does it matter if savings are less than predicted?

- Emphatically, Yes it does.
- Whether or not the school has paid for the retrofits/upgrades they need to be given robust savings figures so that expectations are not incorrectly raised.
- Confidence in the technology is undermined
- Confidence in the industry is undermined
- Headteachers talk to each other. We want them to be sending out a positive message

Does it matter if savings are less than predicted?



- Clarence shows Frankie an angry letter from a secondary school head after he calculated savings from the girls toilets using three WC uses a day instead of 0.5!

The mysterious case of the sinking flamingo
<http://www.ech2o.co.uk/frankie.shtml>

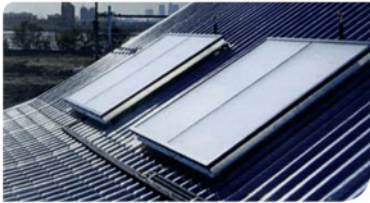
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ech₂o consultants ltd work with a range of stakeholders to successfully incorporate sustainable water and low carbon solutions into the built environment.



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