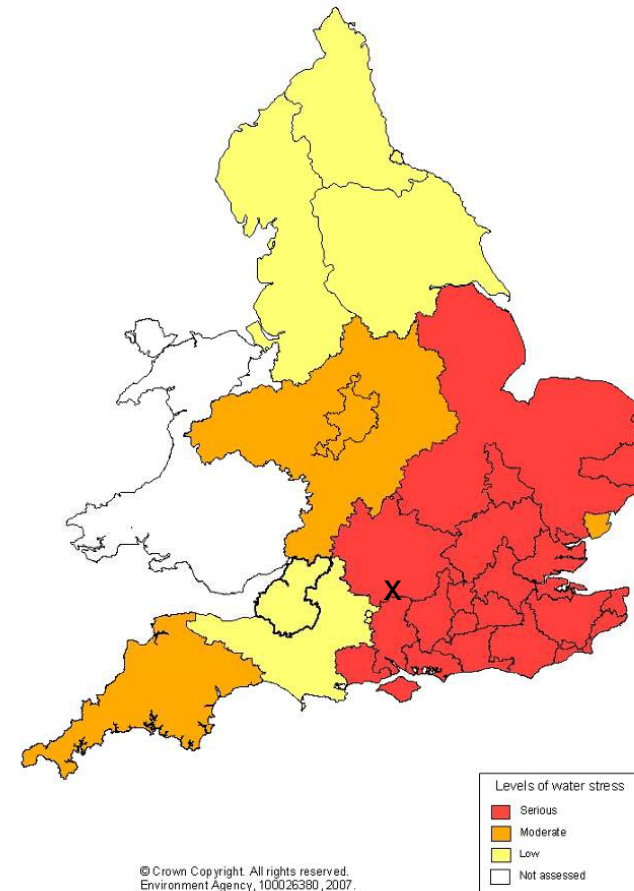

Drinking our Rivers Dry?

How behaviour change can help save
the Kennet.....



Water use needs to be reduced

- Swindon, where the McRobie family live, is in the South of England and is classified by the Environment Agency as under severe water stress
- It takes most of its water from a borehole that also feeds the River Kennet, and the effect on the river downstream of the borehole is stark



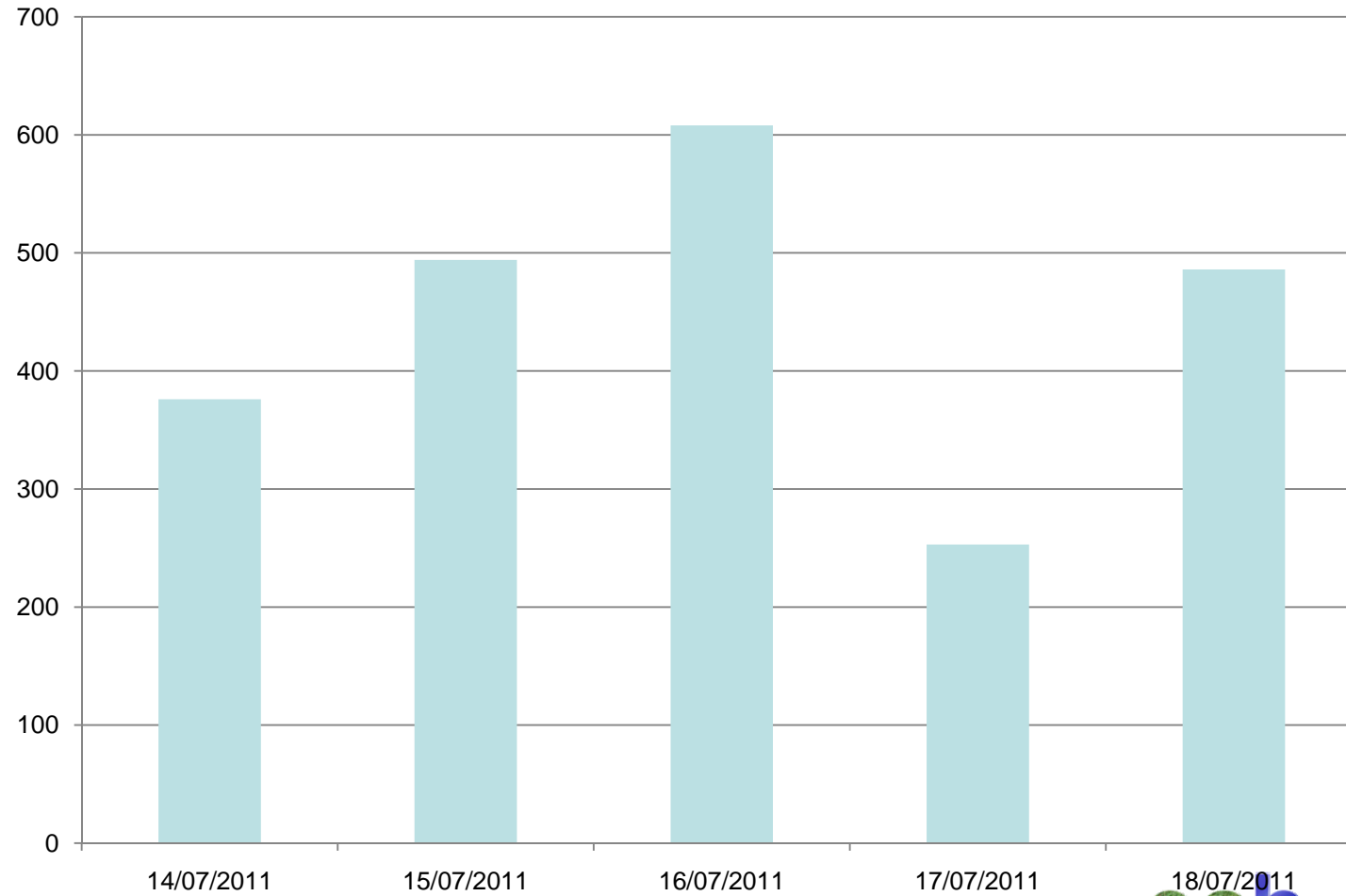
Logging the McRobie family's water use

- A data logger shows the amount of water that has passed through a meter over a 15 minute period
- By analysing the raw data, overall daily consumption can be calculated
- By comparing the data with the family's movements a picture can be built up of where they are using the most water
- The following slides are a snapshot of the data we collected and analysed

The McRobie family's usual water consumption



Average daily use = 443 litres

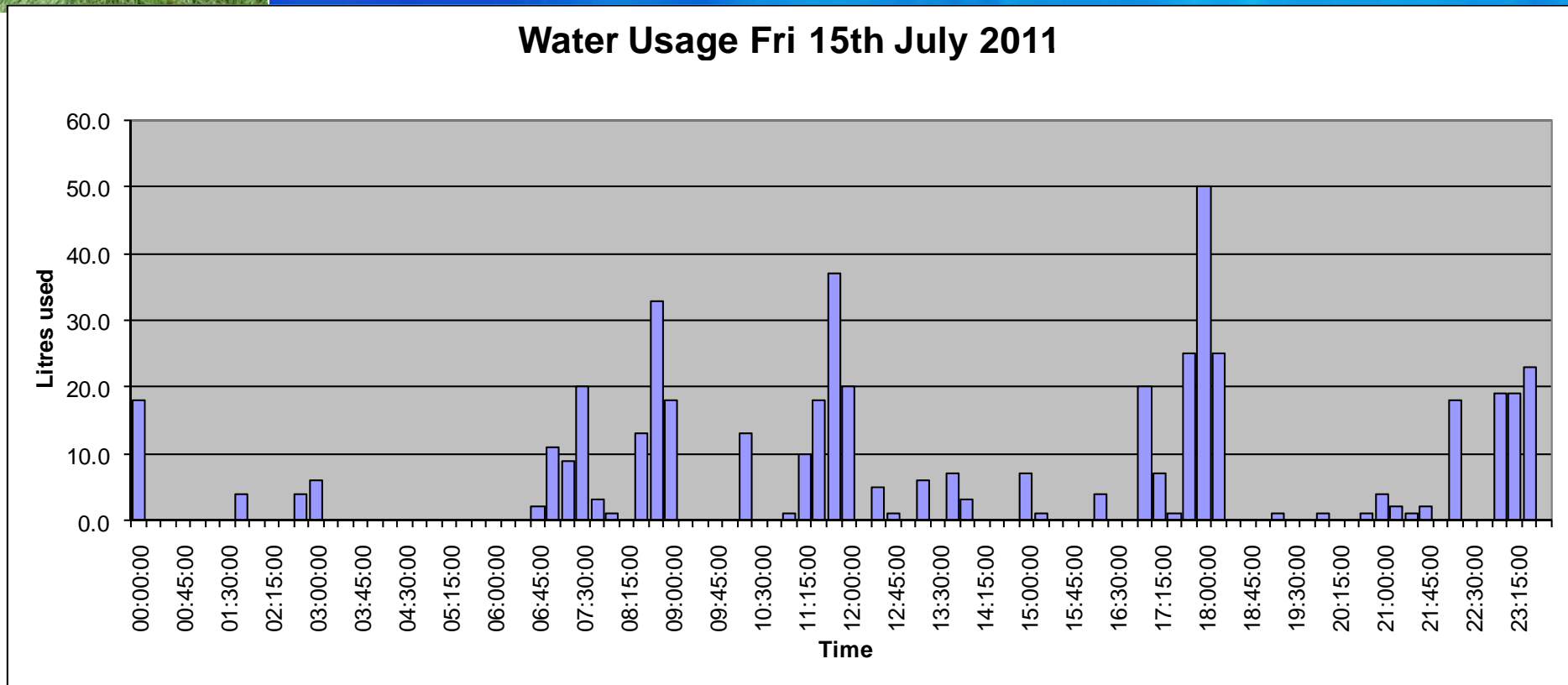


Analysing the data - before

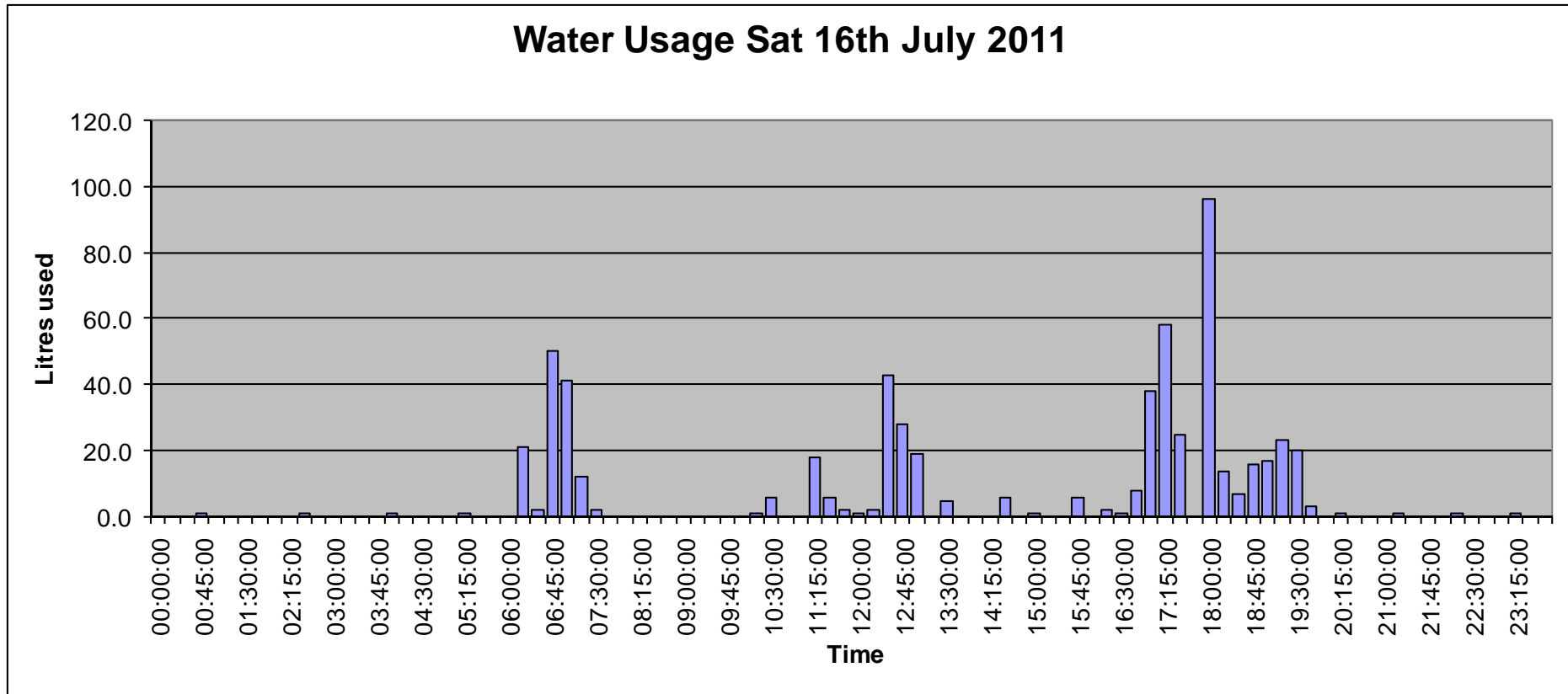
- Data was analysed from five full days of use, Thursday July 14th - Monday July 18th
- Average was 443 litres per day. The range was 253 – 608 litres a day
- Marie is at home during the day so on some weekdays washing or cleaning is done during the day
- It can be seen that showering and bathing is sometimes in the morning and sometimes in the evening, and the later start times on Sunday
- The next four slides show water use at 15 minute intervals for Friday - Monday



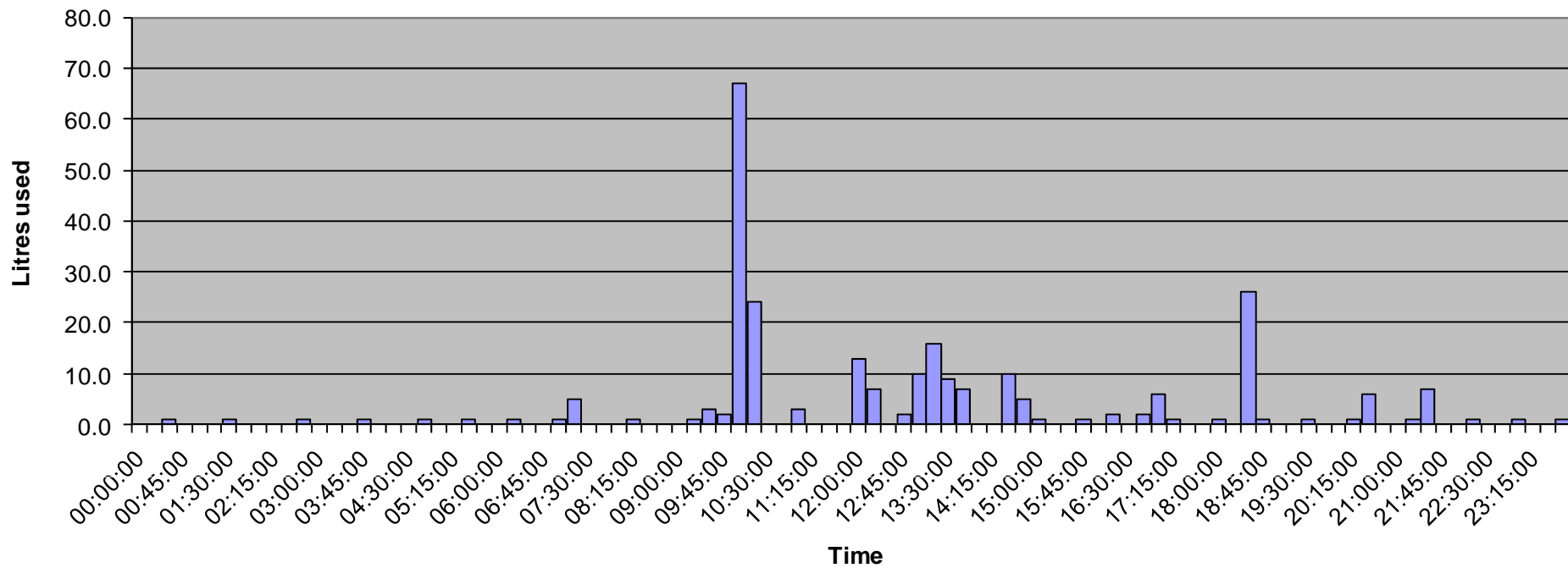
Water Usage Fri 15th July 2011



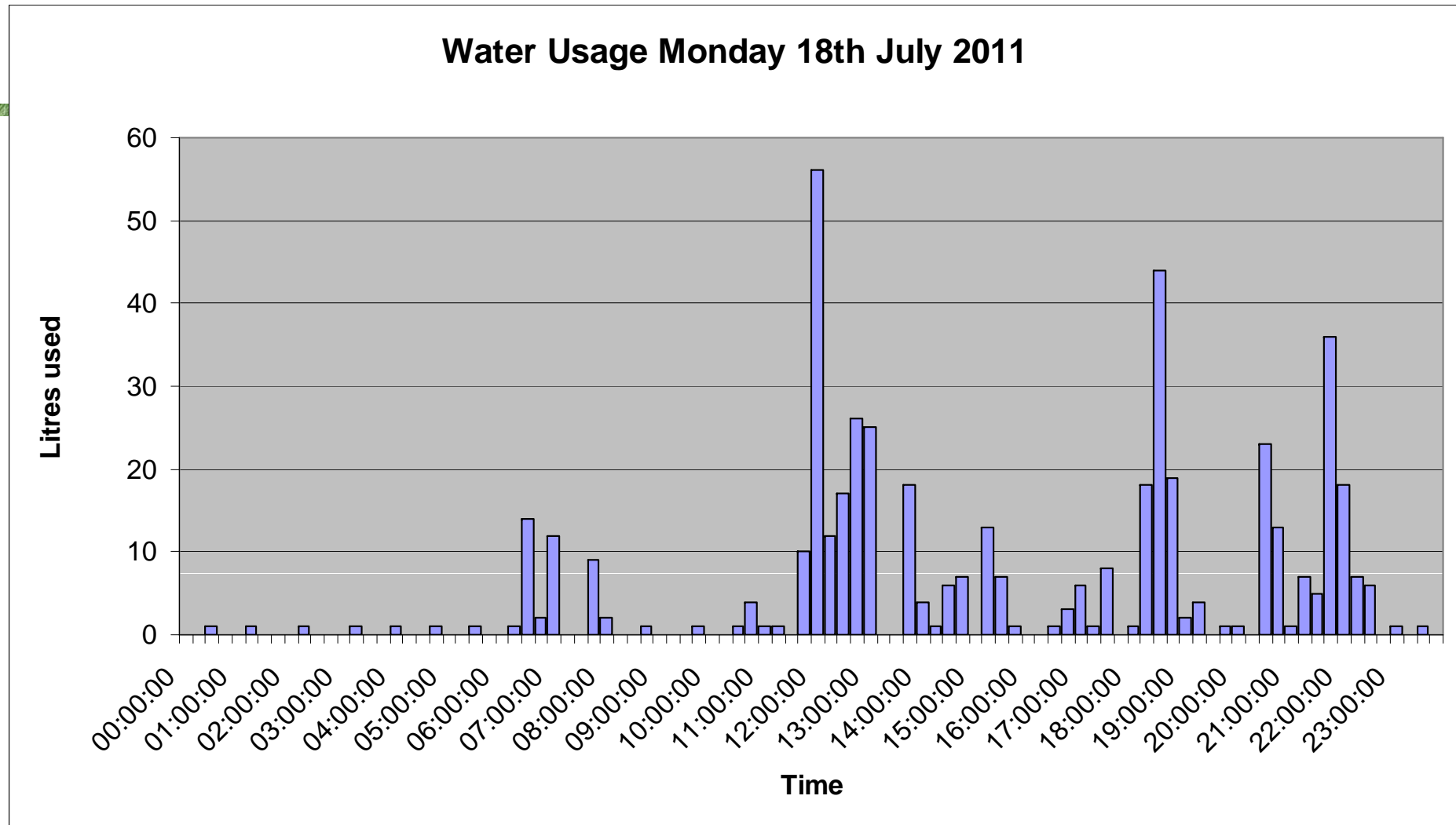
Water Usage Sat 16th July 2011



Water Usage Sun 17th July 2011



Water Usage Monday 18th July 2011

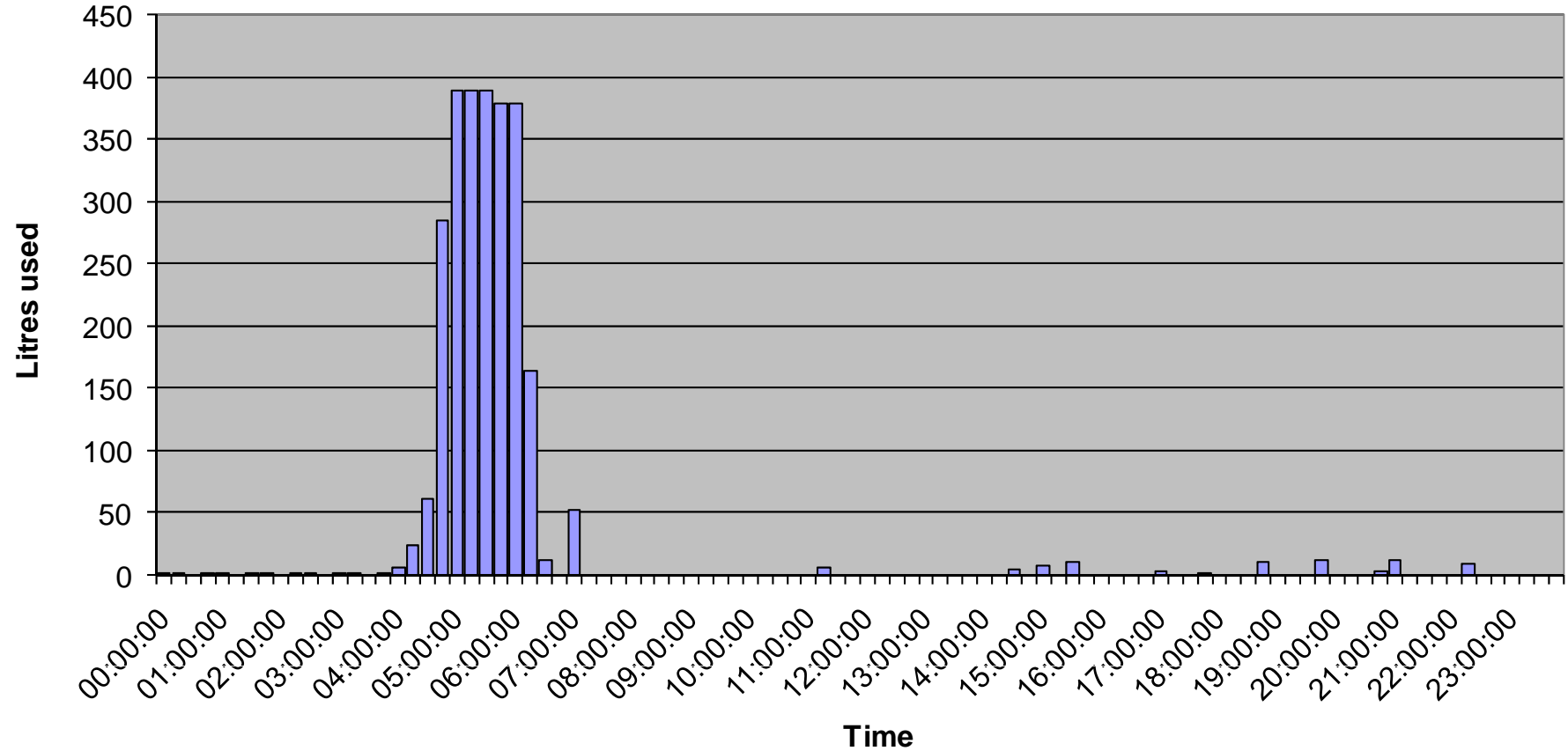


The leak.....

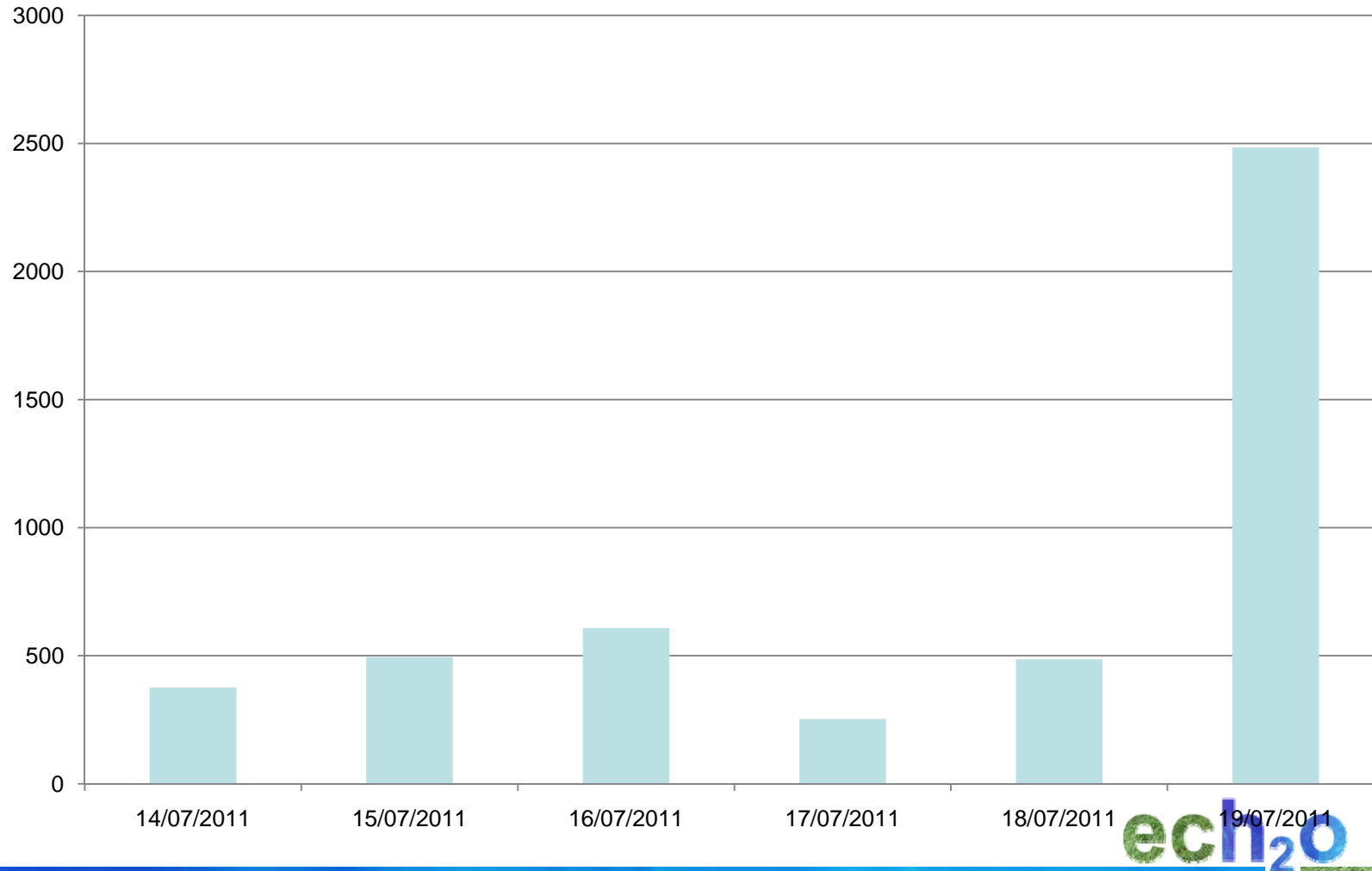
- As we analysed the data we could see unexplained use happening during the night. This can be seen on the graphs as about 1 litre of use every 30 minutes
- We assumed it was a dripping tap or WC overflow, until we were rang on Tuesday morning to hear the hose had been running “all night”. It was the hose trigger letting by until it was finally pushed right off!
- Actually it was only from about 5 am but the effect on the graph is dramatic.....
- As is the fact that the family felt so bad about it they virtually didn't use any more water the rest of the day!



Water Usage Tues 19th July 2011



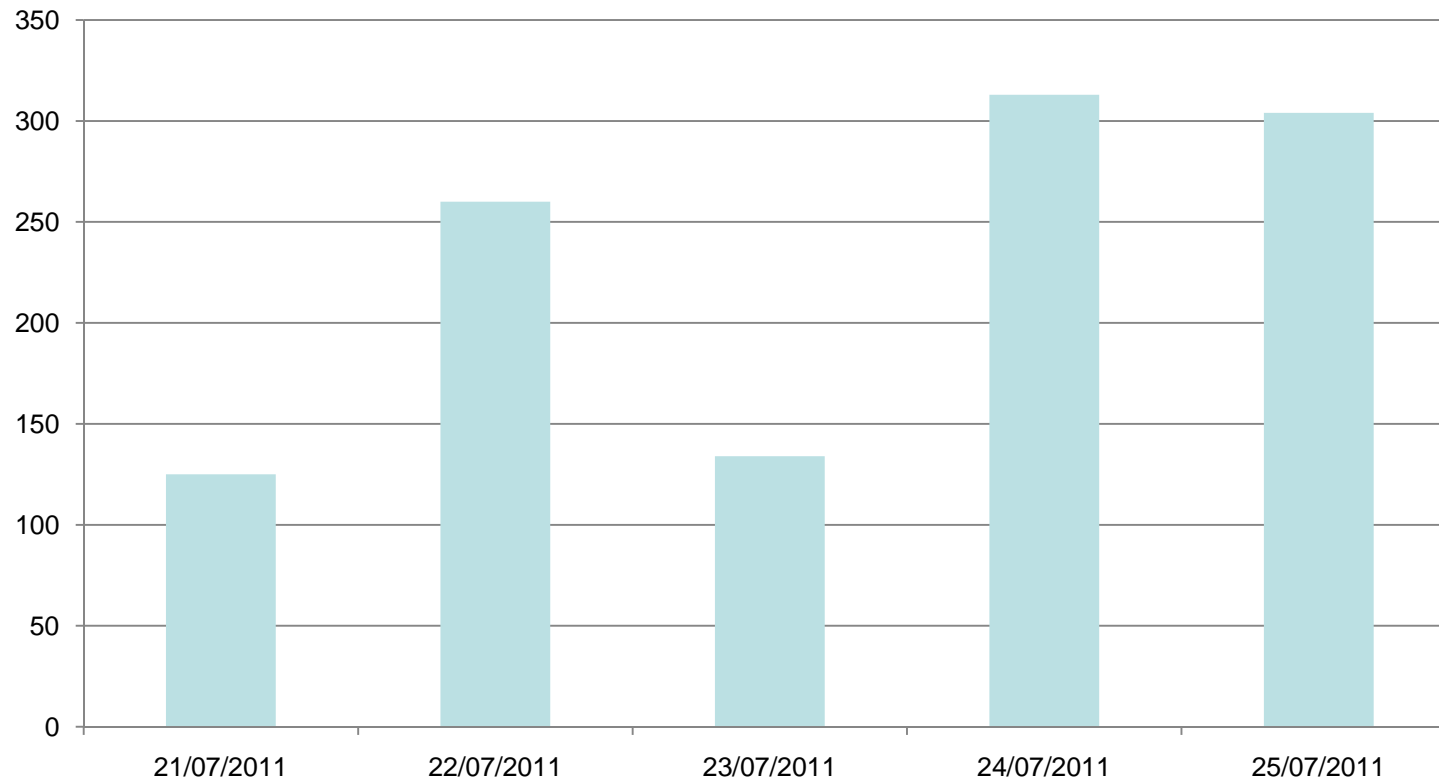
Running hose in 1.75 hours wasted 2484 litres, 5.6 days average water use!



**The Mcrobie family's water
consumption after understanding
where and how they use water and how
best to reduce their use**

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New average daily use = 227 litres - a 49% reduction!

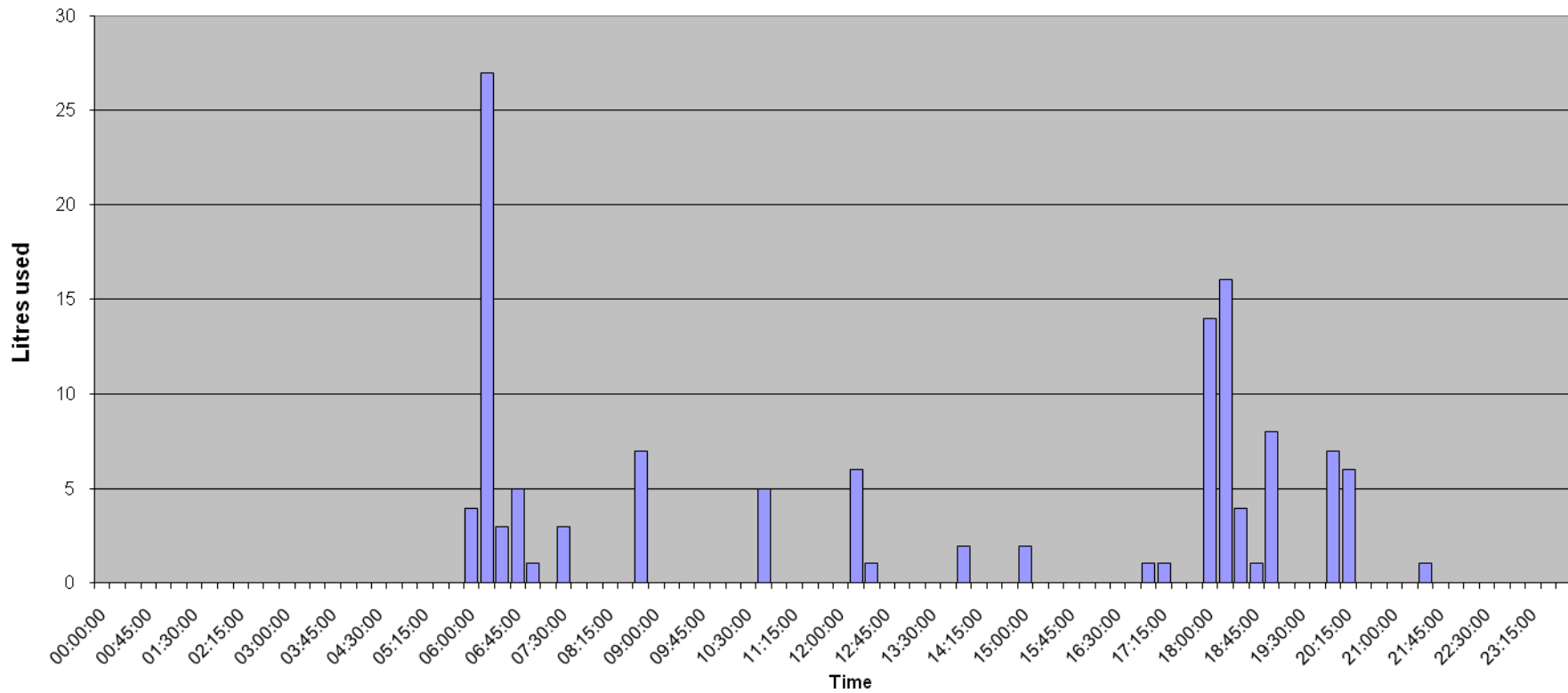


ech₂o

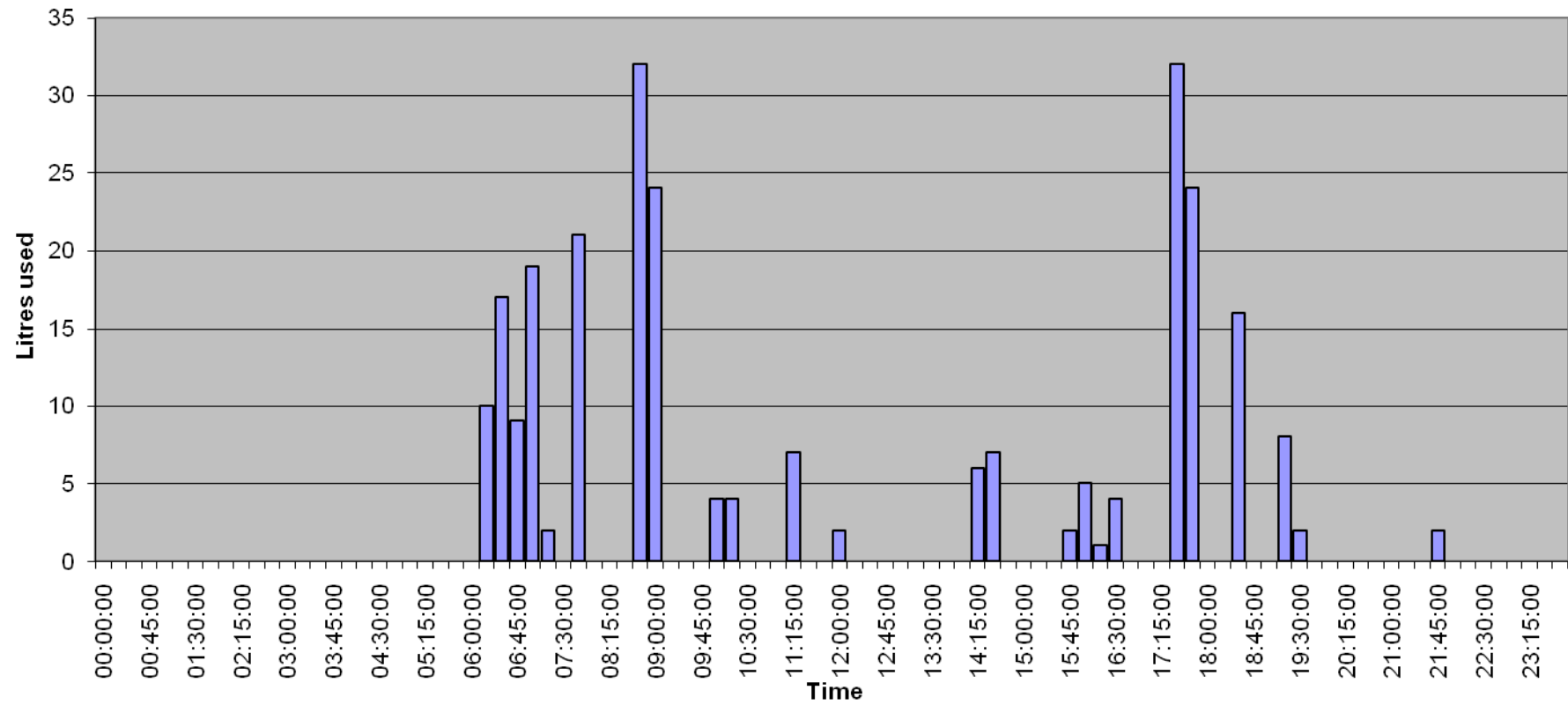
Analysing the data - after

- Data was analysed from five full days of use, Thursday July 21st - Monday July 25th
- Average was 227 litres per day. The range was 125 – 313 litres a day
- Water usage is still spread across the day but with less used in the morning and evening times showing the reduction in shower times and bath depths
- The next five slides show water use at 15 minute intervals for Thursday - Monday

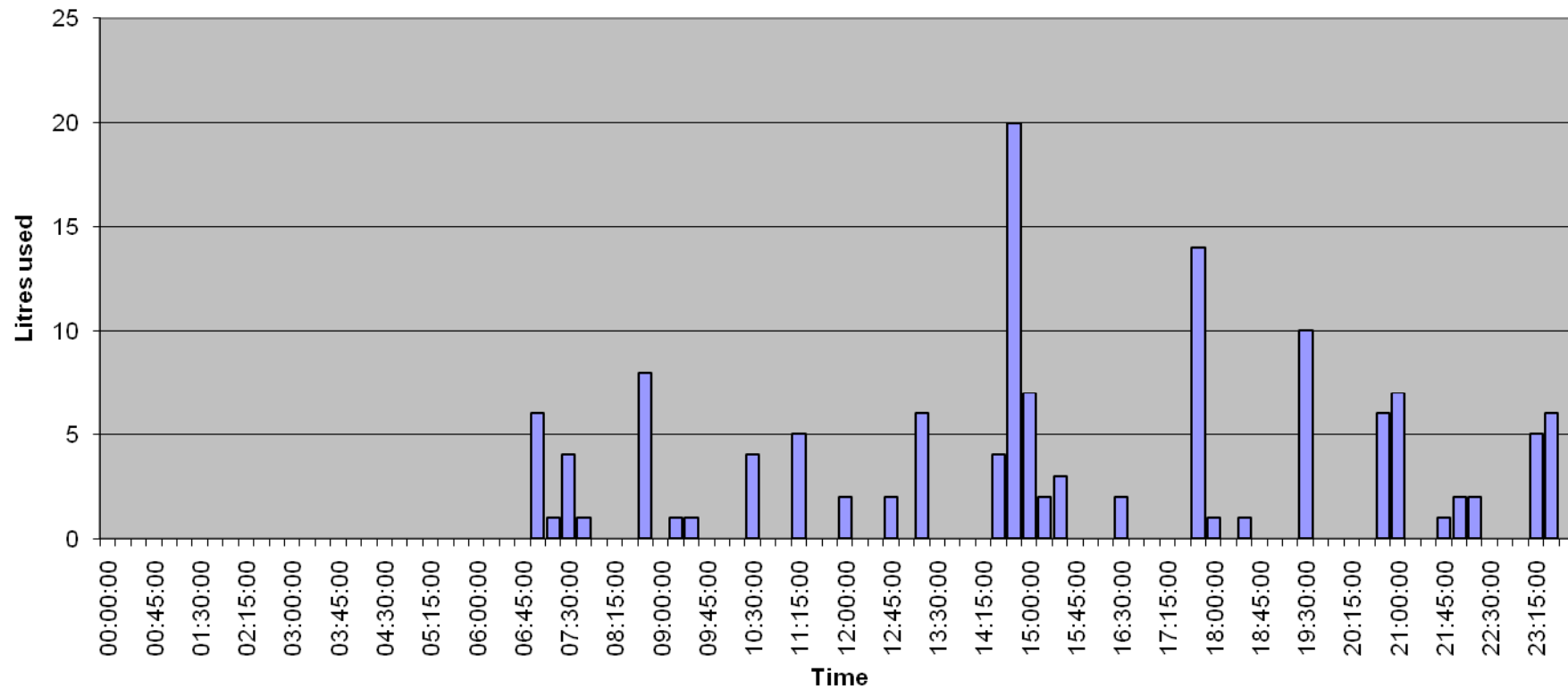
Water Usage Thurs 21st July 2011



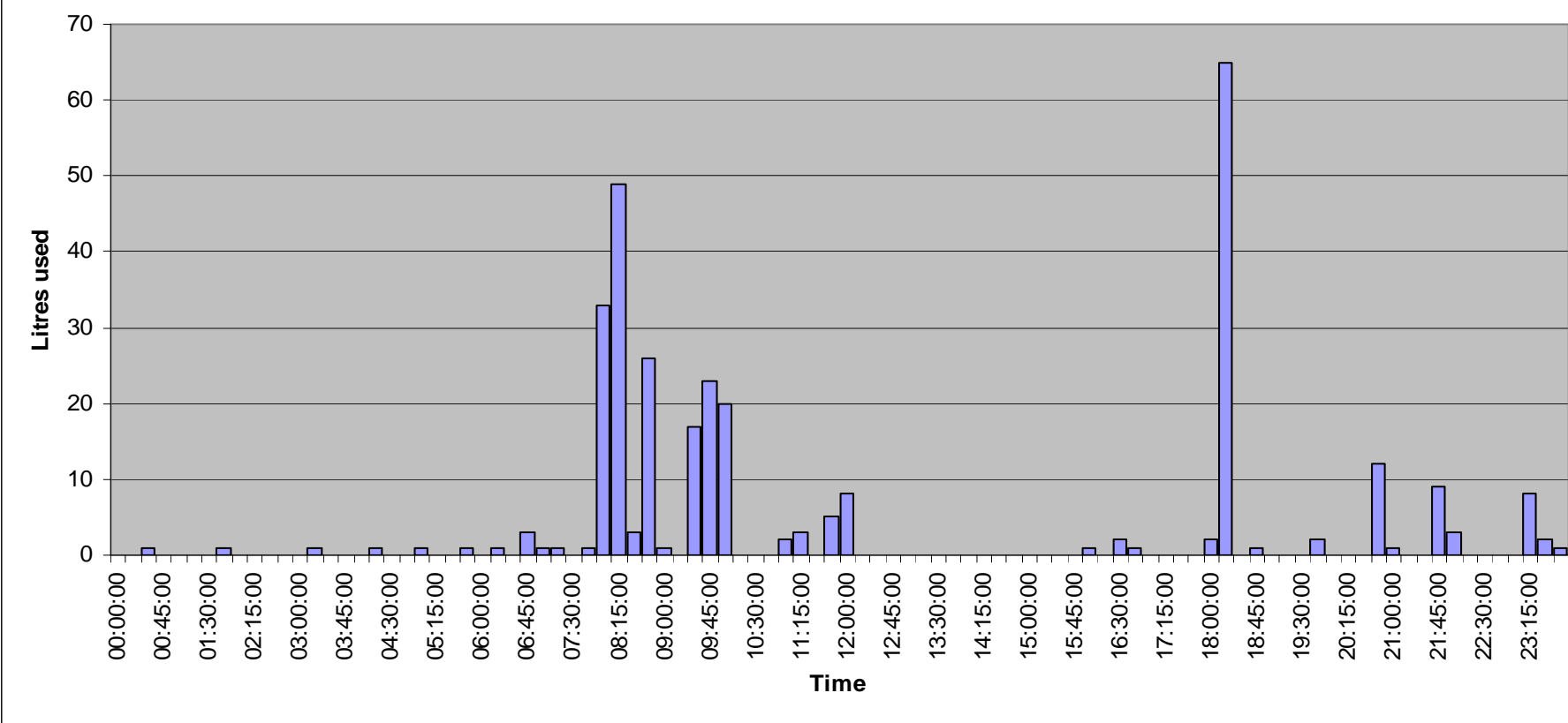
Water Usage Fri 22nd July 2011



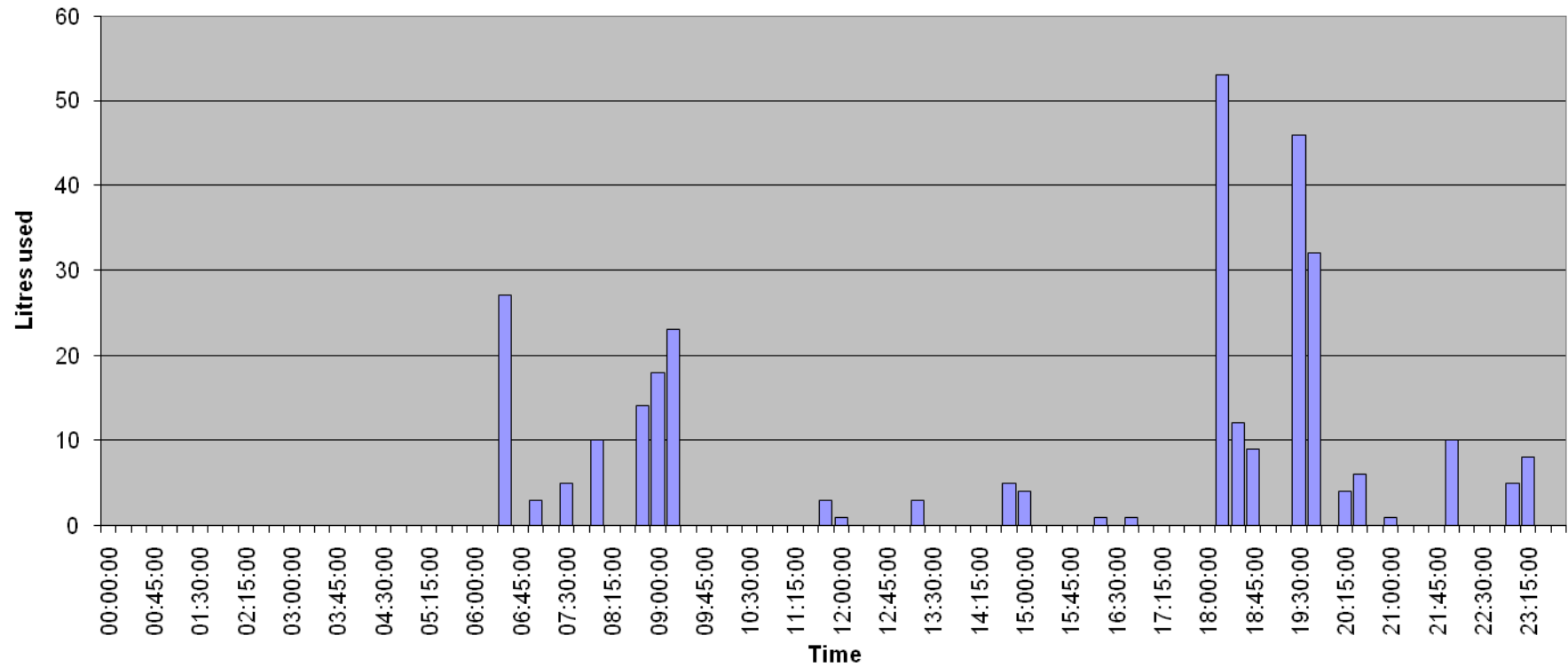
Water Usage Sat 23rd July 2011



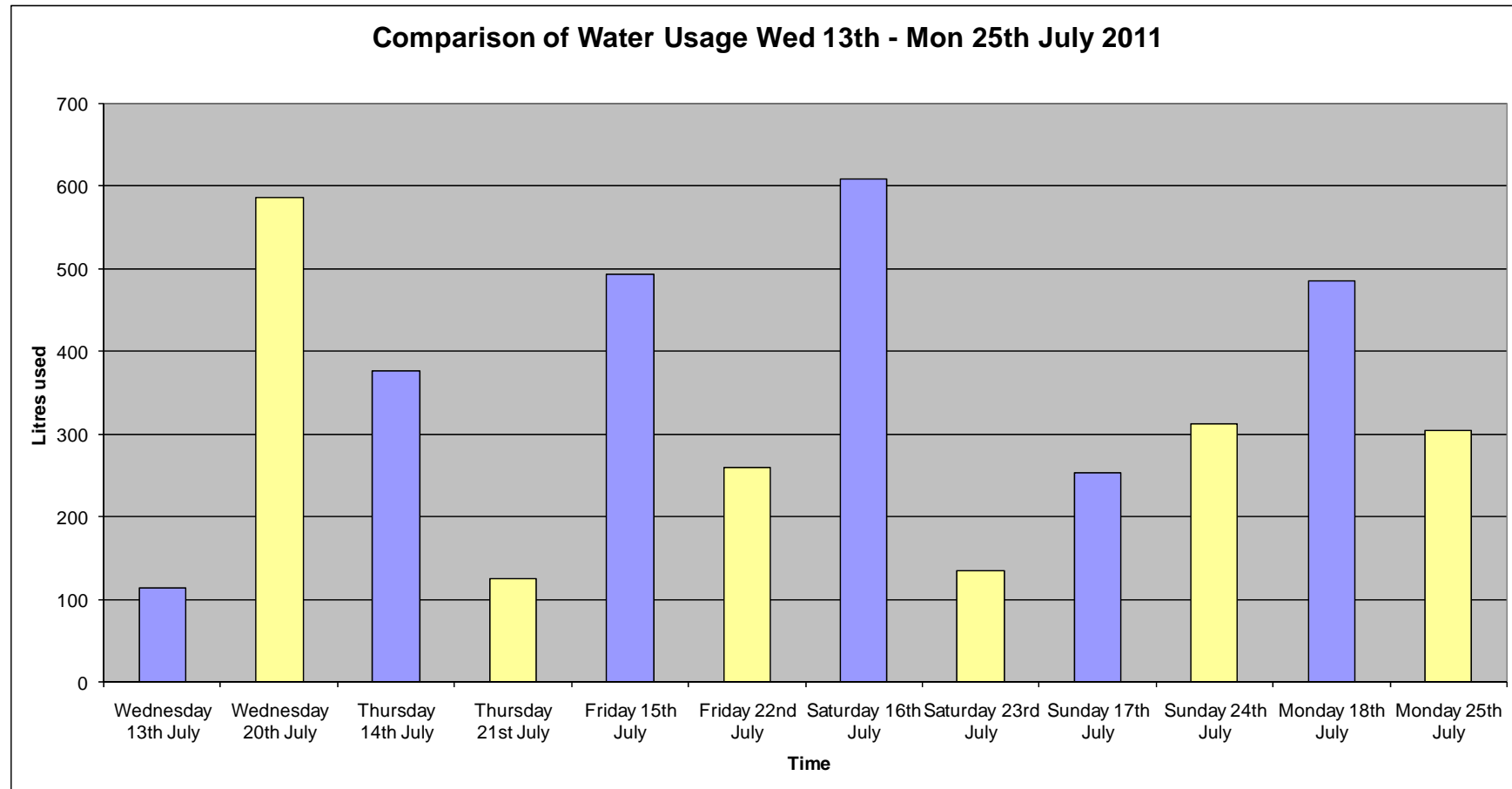
Water Usage Sun 24th July 2011



Water Usage Mon 25th July 2011



Comparison of water use before and after



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Comparison of water use before and after

- We show the Wednesday before and after to show how much water was used during the filming! (Wednesday 20th July was date of filming).
- The marked difference in use can be seen
- On the Sunday after filming the family used more than the Sunday before filming, though still only 300 litres between them for the day.
- Most of their excessive use was deep baths and long showers.

The family's water bill if on a meter

- £1.77/m³ (Cost for 2011/12 from Thames Water)
- 227 litres/day = 82.9m³/year. Metered costs = £147
- Standing charge for water = £27. Standing charge for sewerage = £48
- **At 227 litres/day total cost = £222**
- (At 300 litres/day = 109.5m³/year = £194 plus standing charges. **At 300 litres/day total cost = £269**)
- The family currently pay over £400 via the rateable value



**With thanks to the McRobie family -
Jamie, Marie, Matthew and Olivia**

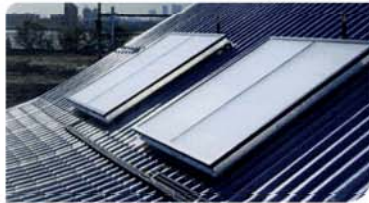
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The South East is Under Water Stress

A glass of beer with a cracked texture, symbolizing water scarcity.

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