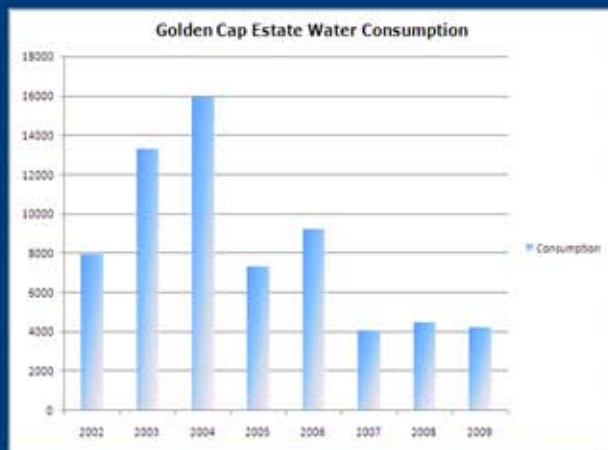




Golden Cap Estate, Dorset, 2005-2006.

## Water main replacement and distribution system improvements reduce consumption and saves £4,800 on annual running costs!

A sharp rise in water consumption in 2003-04 prompted The National Trust to engage Pipefix to investigate and address the failings of an aged water supply system. The site had a number of issues. It is amongst very steep hills, causing high and low pressure issues, there were not enough control devices in the existing system to manage the water effectively and running costs were escalating due to the rising leakage levels across the whole system.



Resolving the problems was made more complicated because the site is a SSSI and an area of Archeological interest with a number of Highways, bye-ways and other public rights-of-way transecting the route of the water distribution system.

Our solution had to take all of the above into account, be ecologically sound and not harm available spring water for livestock or local organic farming.

The graph (left) shows the water consumption rising steeply over 2003-4 and falling dramatically once Pipefix had started to bring the consumption under control and replace the corroded pipelines.

Our Solution involved creating a new, manageable water system featuring:

- Valves on all branches and at regular intervals on the distribution pipe work to improve control
- A number of water meters to monitor billing and as an aid to leak detection
- Pressure reducing valves to moderate water pressure in low lying areas
- Rationalised pipe work, sized to minimise frictional losses and improve water pressures in highest areas
- Fire fighting provision in case of heath fires
- Separate systems with connections to the mains water system to enable the use of spring water for livestock watering

Our strategy not only solved the short term losses through leakage but also enabled the estate to reduce the overall water consumption from their lowest previous level of 7300m<sup>3</sup> to just 4200m<sup>3</sup> per year, reducing their water bill by around £4,800 each year.