

Cambridge Water

Annual Environmental Activity Report 2009



Introduction

Cambridge Water supplies high quality drinking water to a population of 300,000 and covers an area of 453 square miles. This includes Cambridge city and extends to the surrounding towns and villages of Ramsey in the north, Gamlingay in the west, Balsham in the east and Melbourn in the south.

Our number one priority is to ensure that a constant supply of high quality drinking water remains available to households and businesses for generations to come. However, to achieve sustainability, we must also consider the impact of our actions on the environment, particularly when it comes to abstracting water and reducing our carbon footprint.

To do this Cambridge Water adopts a stringently managed water plan and follows well-established procedures to ensure environmental interests are protected wherever possible. As part of this process we always consult with a wide range of interested parties prior to undertaking any work that may have an impact on our local ecology.

This may include consultations with the local planning authority, The Ramblers' Association, The Wildlife Trust, English Heritage, Natural England, The Environment Agency, the county archaeologist, and in some cases the owner(s) of the land where the work is taking place.

This report is published annually in accordance with the Code of Practice on Conservation, Access and Recreation. It summarises the aspects of our work which have an impact on the environment, particularly with regard to conservation, access and recreation.

Activities during 2008 – 2009

Water Resources Management Plan

Cambridge Water's number one priority is to ensure a consistent supply of high quality drinking water is available for its customers now and in the future.

The amount of water Cambridge Water has available for use, compared with the quantity actually used is referred to as the "supply demand balance".

The supply demand balance can be influenced by a range of factors. Some of these are external, like whether or not we have a drought and how many new homes will be built, and some are influenced by the decisions we make as a company, like whether we increase our metering programme.

The draft Water Resources Management Plan (WRMP) sets out these factors and assesses their likelihood, and what impact they may have on our water supply over the next 25 years.

Having published our draft WRMP in May 2008, there followed a period of public consultation, during which representations were received from a number of environmental bodies including the Environment Agency, Natural England, the Middle Level Commissioners, and the Conservators of the River Cam, as well as from planning authorities and consumer organisations.

Among the issues raised by these bodies was the impact future water abstractions would have on environmental sites. They also noted that, despite a forecast increase in demand due to ambitious plans for new housing in the Cambridge area, our draft WRMP contained no proposals to develop new resources.

They also raised questions around the issues of accelerated metering programmes, leakage, per capita consumption, and enhanced water efficiency measures.

In February 2009 we published our Statement of Response to the representations we received, and updated our draft WRMP accordingly. We expect to receive a decision from Defra, later in the year, on the publication of the final version of the plan.

National Environment Programme

Within our relatively small area of supply there are some 41 sites of special scientific interest (SSSI) and various other nature reserves and heritage sites. The company also owns Fowlmere Watercress Beds (shown as location 16 on the map) which is managed by the RSPB.

As part of the National Environment Programme, which is carried out in conjunction with Natural England and the Environment Agency, Cambridge Water carries out investigations at SSSIs and other environmentally significant or sensitive sites. These are to assess whether any of our activities, such as the need to abstract water, affect the ecology of these potentially vulnerable sites.

During the past year we have continued with our commitment to undertake environmental investigations at Ninewells Local Nature Reserve near Great Shelford, Dernford Fen SSSI near Sawston and Thriplow Meadows SSSI.

Ninewells Local Nature Reserve

Cambridge Water abstracts water from the chalk aquifer in the vicinity of Ninewells Nature Reserve, which is recognised as being a regional site of ecological importance, as well as the source for Cambridge's Hobson's Conduit.

In order to determine the environmental effects of these abstractions on chalk spring flows at the site, we undertook a series of pumping tests and continue to monitor water flow at the site.

Ecological surveys of aquatic invertebrate fauna were also carried out in the spring and summer of 2008. Results of this data analysis were submitted to the Environment Agency for comment in June 2009.

Thriplow Meadows SSSI

Cambridge Water has carried out investigations at Thriplow Meadows SSSI and as a result submitted an options identification and appraisal report to the Environment Agency. Following discussions with the Environment Agency and Natural England, we will also be undertaking further modelling and a national vegetation classification (NVC) survey at the site. The results of these, and the report options, will be used by the Environment Agency to determine its preferred solution for the site.

Dernford Fen SSSI

Investigations at this fenland meadows site have determined that if we chose to abstract from a source that is currently not in use, this could have a significant impact on the site.

As part of our commitment we have submitted an options identification and appraisal report to the Environment Agency and Natural England for comment in March 2009.

As a result of previous investigations the Environment Agency has informed us of indicative reductions that could be imposed on our abstraction licences to assist in managing the sustainability of the resource.

Other sites

Additional sites identified for possible future investigations between 2010 and 2015 are the River Granta and Little Wilbraham River.

Reducing Carbon Emissions

At Cambridge Water we are committed to playing our part in progressing towards a low carbon economy and are actively seeking ways to reduce our carbon footprint against a backdrop of increased demand for water in our area.

We aim to make carbon emissions an integral part of the investment decision-making process and in our five year business plan (2010-2015) we included carbon emissions accounting as part of the cost benefit analysis for our investment decisions.

As well as looking at operational carbon emissions we also took into account the embodied carbon emissions of our investments. These are the direct and indirect emissions caused by the extraction, transportation and processing of raw materials, and from site activities, to create or maintain an asset.

Although still in its infancy, this is an area of carbon accounting where the water industry is leading the way.

We have also consulted with the Carbon Trust to improve our operational energy use and to receive advice on how to establish a lower carbon culture. We have also improved our carbon accounting by developing better recording techniques.

The table below sets out the company's carbon emissions for 2007/08 and 2008/09. These have been calculated according to the Water UK revised methodology (UKWIR Carbon Accounting Methodology, 2007).

In our accounting we have included direct emissions, indirect emissions and also selected scope 3 emissions, where those scope 3 emissions relate to the day-to-day operations of our business, for example our contractor's transportation emissions.

While this improved recording has led to a perceived increase in our annual emissions we are committed to addressing the issue of reducing our carbon emissions and will be working closely with our contractors and our suppliers to make savings where practically possible.

Item	Description	Unit	07/08	08/09
1	Annual operational emissions according to the Defra GHG guidelines	Tonnes of CO ₂ equivalent emissions	5,891	6,800
2	Operational GHG emissions per MI of treated water	Kg of CO ₂ equivalent emissions per MI	211.57	212.06

Land acquisitions and disposals

Cambridge Water owns 58 sites which contain pumping stations, service reservoirs, booster stations and water towers. Together this land amounts to 29.5 hectares. While the company has no land of recreational value we do own Fowlmere Watercress Beds, which is managed by the RSPB and is available for public access. During 2008/2009 there were no acquisitions or disposals of land having any conservational or recreational value.

Staff training and awareness

In view of the fact Cambridge Water does not manage any areas of "open land" such as forest, downs or lakes, no formal staff training programme exists in this area. Staff training is, however, provided to managers, supervisors and operatives working at Cambridge Water sites as appropriate.

Further information

Members of the public can access this report via our website www.cambridge-water.co.uk or at our offices in Fulbourn Road, Cambridge. Copies are also sent to the environmental health officers for the three local authorities in the company's licensed area; the Wildlife Trust for Bedfordshire, Cambridgeshire, Northampton & Peterborough; the Water Services Regulations Authority; the Consumer Council for Water Eastern; Water UK; and the Department for Environment, Food and Rural Affairs.

For further information please contact Bob Hardy, Planning Engineer on 01223 403027 or email bobhardy@cambridge-water.co.uk

Sites of Special Scientific Interest within the Cambridge Water Company area of supply

1. Warboys & Wistow Woods; Warboys Clay Pits
2. Berry Fen Earith
3. Ouse Washes
4. Papworth Wood
5. Elsworth Wood
6. Overhall Grove
7. Gamlingay Wood
8. Hayley Wood
9. Kingston Wood & Outliers
10. Buff Wood & St Denis Churchyard
11. Eversden Wood
12. Orwell Church Pit
13. Barrington Pit
14. L-Moor Shepreth
15. Holland Hall Railway Cutting
16. Fowlmere Watercress Beds
17. Demford Fen
18. Whittlesford Thriplow Hummocky Fields; Thriplow Meadows; Thriplow Peat Holes
19. Sawston Hall Meadows
20. Alder Carr
21. Furze Hill
22. Hildersham Wood
23. Langley Wood
24. Over & Lawn Woods
25. Balsham Wood
26. Carlton Wood
27. Roman Road
28. Gog Magog Golf Course
29. The Beechwoods
30. Fleam Dyke
31. Fulbourn Fen
32. Great Wilbraham Common
33. Wilbraham Fen
34. Cherry Hinton Pits
35. Stow-cum-Quy Fen
36. Histon Road
37. Traveller's Rest Pit
38. Madingley Wood
39. Hardwick Wood
40. Caldecote Meadows
41. Cam Washes

