

Hampshire Water Partnership

Water Facts

Factsheet No 2: Hampshire's Water — Our most precious resource

This is one of a compendium of Factsheets published by the Hampshire Water Partnership to provide factual information and statistics about water in Hampshire. This one provides information about Hampshire's water resources. Other factsheets explore different aspects of water in Hampshire. All can be seen on the Partnership's website at www3.hants.gov.uk/hampshireswater.htm.

Introduction

Water is essential for life. It has a value to society, the environment and the economy; it grows our food, supports our wildlife, generates our power, is vital to industry and is a basic requirement for people and their homes.

Hampshire's water environment has been adapted since Roman times for water mills, fisheries, land drainage and defence. Subsequent intensification of agriculture, including the development of water meadows, water cress growing and fish farms has resulted in largely man-made river systems which are easy to create in Hampshire's soft-rock geology.

Increases in population, changes in lifestyles and climate change all have an impact on our water resource. Long-term planning is essential to ensure this precious resource continues to be able to provide for our and the environment's needs. At present, any removal of water from the environment of more than 20m³ a day needs an abstraction licence administered by the Environment Agency. Most small abstractions of water are for farms, often with no mains supply, and represent a small proportion of the total water usage by volume. Large amounts are taken from rivers for fish farming and from groundwater via boreholes and springs for watercress cultivation, but all this water is returned to the catchment with only local hydrological impacts.

A Resource for People

Most water in Hampshire is consumed by people and is taken by water companies directly from the River Itchen at Otterbourne and Gaters Mill and from the River Test at Testwood. The latter two intakes are close to tidal limits and have no effect on the river upstream but can deter migrating fish such as salmon.

Water is also pumped out of wells and boreholes in the chalk valleys which can have the same long-term impacts as direct river abstractions. Otterbourne, for example, is a key source of water with a river intake plus extensive wells and boreholes that is situated at the southerly boundary of the Hampshire chalk aquifer at the point of maximum water flow during dry weather.

Settlements on the Chalk such as Winchester, Overton, Whitchurch and Alresford are supplied from local boreholes and have their own sewage treatment works discharging locally and recycling water within the catchment.

The majority of water in the county is committed to supplying the south of Hampshire where the population is over one million. Waste water from this area is discharged to the sea from coastal sewage works, bypassing freshwater catchments and depleting flows in rivers and wetlands. Environmental problems accumulate in these lower reaches due to the impacts of abstraction, the discharge of treated sewage effluent, urbanisation of the banks of rivers and diffuse pollution.

Industry and commerce are generally supplied by water companies although there are a few industrial abstractions such as paper-making on the upper Test. Power generation in Hampshire uses seawater for cooling but the Fawley Industrial Zone uses large amounts of freshwater from the River Avon as well as the River Test.



Managing Hampshire's Water Resource

Hampshire's traditionally reliable water supplies are not free from environmental cost and we need to manage our water resource effectively. Our water environment is under pressure because of abstraction. The amount of water taken through abstraction may not be sustainable today and the environment may be damaged if more water is taken. Water abstraction needs to be managed carefully to ensure that it does not exceed the amount of water that is available and leaves enough for the natural environment to function. To do this each river catchment needs to be considered in its entirety, including water quality and ability to deal with discharges. The amount and quality of water that enters the environment can be altered by changes in land use and drainage. The Water Framework Directive will help ensure we manage our water resources sustainably.

The Impact of Climate Change

Climate change scenarios suggest that as the climate warms we are likely to experience hotter, drier summers and warmer, wetter winters. Although winters may be wetter, it is predicted that rainfall may come in heavy bursts and result in more flooding and droughts. This may mean that less water will naturally reach Hampshire's vital groundwater supplies and the rivers will also be negatively affected.

This could mean a changing water environment that will affect where plants and animals can survive and the quality of their habitats. The existing ecology needs to adapt to these changes. The better the quality of the habitat for wildlife, the better the quality of water resource for us.

In the face of climate change, today's water treatment plants, pumping stations and sewers (designed for past and present climate) may no longer be adequate and the reliability of existing reservoirs, groundwater sources and river intakes may also change.



The Economy of Water

It is important to stress how vital water is to the economy, society and wildlife. Therefore a true value needs to be placed on water and the environment it supports. A greater understanding, by water consumers and users, of the true cost of water for home, business and industry is required.

Wildlife relies on water and in Hampshire we have some of the most heavily protected watercourses both nationally and internationally. It is important that Hampshire's wildlife is supported by a high quality environment, and this in turn will mean the better the water resource for people. Therefore it is vital that there is investment in protecting and managing wildlife habitats.

The pricing of water needs to reflect its social value. Communication about how investment in technology such as water meters, more efficient domestic appliances and industrial processes, can help with this understanding of the true cost of water.



Hampshire Water Partnership

The Hampshire Water Partnership exists to facilitate better understanding and knowledge on the issues. Options and solutions related to the pressures on Hampshire's water environment. It comprises private, public and voluntary bodies who have a role or interest in the sustainable management of this unique water environment. The Partnership has no executive powers, but provides a forum for closer working relationships, information dissemination and discussion on topical issues. The main public event is the annual Hampshire Water Festival.

Please see our website for further information:
<http://www3.hants.gov.uk/hampshireswater.htm>.

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