

Annual Report on Conservation, Access & Recreation 2015/16



Introduction

Portsmouth Water operates within an environmentally sensitive area, with internationally important inter tidal mudflats and saltmarsh along the coast, and the chalk streams of the South Downs which provide a very special wetland habitat and water resource. This provides major challenges to the Company at a time when customer expectations are also rising. The requirements of European legislation provide extra constraints, in addition to climate change, extreme weather events, and the day to day operating challenges of supplying water to more than 700,000 people, while minimising our environmental impact.



Wild flowers at the Walderton Service Reservoir site in the South Downs National Park

Biodiversity Update

Portsmouth Water has a statutory duty to have regard to conservation and biodiversity in exercising our functions. The Company recognise that we operate in an environmentally sensitive area and we are committed to ensuring compliance with all environmental legislation and obligations, carefully assessing the impact of our activities, especially construction projects on the environment, to ensure that the impact of such schemes is minimised.

As part of our wider commitment to improving environmental quality, we aim to conserve and, where possible, enhance biodiversity on the 44 operational sites we own, which include 19 water treatment works. Sites are located in a variety of habitats including chalk down land, river catchments and coastal margins. Habitat management plans have been agreed between the company Environment & Biodiversity Specialist and the Supply Department for all operational sites.

We own one Site of Special Scientific Interest (SSSI) at the Itchen Water Treatment Works, which we manage in conjunction with Itchen Valley Country Park through a Natural England High Level Stewardship agreement, to allow cattle grazing at the meadow to maintain the wet grassland habitat in favourable condition.

The Company employs an Environment & Biodiversity Specialist to;

- Maintain an up to date environmental screening mapping tool to enable project managers to ensure that they are aware of all environmental constraints when they investigate the feasibility of new schemes, and seek appropriate advice to ensure any impacts are minimised.
- Provide advice to the engineering teams on all aspects of environmental legislation and biodiversity.
- Work with the Supply Department who look after our operational sites, to ensure that we manage the habitats in a way that protects and where possible enhances their biodiversity potential.
- Ensure that we have up to date ecological survey information for all our sites to enable us to be aware of any protected habitats and species likely to be present and act accordingly.
- Identifying and managing projects on our land holdings to specifically to protect and enhance biodiversity.
- Liaise with external stakeholders to ensure that Portsmouth Water is able to play its part in wider initiatives, such as providing 'stepping stones for nature'.

In 2014/15 the budget allocated specifically for biodiversity work was £25,000. In 2015/16 this was supplemented by additional funding through the Business Plan process of up to £50,000 for new biodiversity projects. Following a meeting with stakeholders in January 2015 it was clear that our first priority should be to update base line ecological survey information for all our sites, in order that we could then prioritise where the new funding should be spent, as the majority of sites had not been surveyed for 15 years the old surveys did not form a sound basis for decision making.

In spring 2015 we appointed a specialist consultant to complete phase 1 ecological surveys at 52 sites, including some sites no longer in operational use where we wanted to investigate the potential for biodiversity enhancements. The information is being used to produce a prioritised list of biodiversity actions which could be implemented over the next 5 years. Following completion of the survey work the consultant worked with the Company Environment & Biodiversity Specialist to identify what they considered to be the highest priority projects for action during the winter of 2015/16. These tasks were then agreed with Natural England and the Customer Challenge Group. The following prioritised conservation tasks have now been completed.



Phase 1 ecological survey at Clanfield Service Reservoir (ECOSA)

- Restoration of chalk grassland on south facing slopes at our Farlington WTW by the removal of invasive non-native scrub. This will be an ongoing project for a number of years to ensure any regenerating scrub is removed.
- Replacement of fences and removal of scrub at Nore Hill reservoir to facilitate sheep grazing which is the optimum site management to help us restore the chalk grassland habitat. Working in partnership with a local organic farmer the intermittent use of grazing animals will keep the grass short and inhibit

scrub regeneration, which will benefit wild flowers such as orchids and butterflies. The use of sheep at Nore Hill is only possible because the site is no longer in active service as a water supply reservoir.

- Removal of scrub at the Fort Southwick Reservoir site to restore chalk grassland and provide sheltered bays for butterflies and other insects.
- Opening up the abandoned underground reservoir at Slindon in the presence of the National Trust and a local bat specialist to establish whether it may be suitable for a bat roost / hibernation site, and to assess its structural integrity. This is with a view to establishing a partnership project to create a new bat roost, in an area which surveys have shown is very good for a variety of bat species. Data loggers have been purchased to monitor temperature and humidity in the underground chambers.

In addition the following projects were also completed in 2015/16;

- A river restoration project on the River Ems as part of our National Environment Programme commitments.
- Bat surveys undertaken by a Hants & IOW Wildlife Trust specialist at 5 Portsmouth Water buildings known to house bat roosts and 2 buildings identified as having a high potential for bat roosts. The purpose of the survey was to establish the species present and the number of bats using the roosts in order to determine if maternity roosts were present.
- Comprehensive botanical surveys at 6 sites to identify priority habitats, provide detailed habitat maps, assess whether the current site management was appropriate and make recommendations on future site management.
- Woodland management at our Highwood Reservoir site.
- Removal of historic fly tipped waste from woodland at the Itchen and Maidell WTW.
- Construction and erection of owl and kestrel boxes at a number of sites.
- Purchase of bat boxes and bird boxes for smaller birds.
- Purchase of a remote control Roboflail mower which will help with scrub removal and maintenance of grassland on steep banks

In February / March 2016 the following boxes were put up at a variety of Portsmouth Water sites;

- 4 Kestrel boxes
- 2 Tawny owl boxes
- 3 Little owl boxes
- 12 small nest boxes (25 & 32mm hole)
- 12 bat boxes



The Environment & Biodiversity Specialist was also pleased to report that in summer 2015 the barn owl nest box erected in a disused building near Slindon in 2014 was occupied by a pair of barn owls that successfully raised three chicks.

Six volunteer staff conservation working parties were held and tasks have included;

- Removal of the invasive non-native Himalayan balsam plant from the SSSI fen at the Itchen WTW.
- Removal of ragwort at Nelson SR.
- Removal of buddleia scrub at Maindell WTW.
- Native scrub removal from chalk grassland at Farlington WTW.
- Hazel coppicing at Southleigh Forest.



Portsmouth Water conservation working party at Nelson Service Reservoir

Case Study - A new home for Barn Owls

We are very pleased to report that in 2015 a pair of Barn Owls took up residence in the nest box erected in 2014 in one of our disused buildings near Slindon in West Sussex. In mid-February two barn owls were found using the building, and by June chicks could be heard calling from the nest box.

Barn Owls nest between March and August and lay small eggs (in relation to their body size), the female normally does all the incubation and once the eggs have hatched she continues to sit, brooding the young until the eldest is around three weeks old.

As Barn owls are Schedule 1 protected species we were not allowed to check the nest box ourselves. Instead the National Trust arranged for their licensed expert to check the box and ring the chicks before they fledged. They found 3 healthy chicks in the nest box, two male and one female. The female chick was slightly larger. The photo shows just how cute the fully grown chicks were.

On average a wild Barn Owl eats about 4 small mammals per night, that's 1,460 per year. Thirty owl pellets were collected from below the nest box, these comprise the indigestible fur and bones of the owls prey regurgitated through their beaks. The pellets were given to the local Wildlife Trust to use at an environmental education event for youngsters who dissected the pellets to identify the bones. They identified the jaw bones of at least 79 small mammals of 7 different species including; 4 harvest mouse, 7 shrews, 24 house mice, 22 wood mice and 22 field or bank voles.

There were two birds in the building in February 2016 and we have our fingers crossed that they will stay and nest in our box again.

For more information on Barn owls visit <http://www.barnowltrust.org>



Barn owl chick at Slindon



Common spotted orchids

Case Study - Restoring Chalk Grassland at Farlington WTW

Chalk grassland is a national and county priority habitat. A number of our conservation projects in 2015/16 have been focused on restoring chalk grassland. In the summer of 2015 an ecological survey at our Farlington WTW site identified that a significant area of chalk grassland had been invaded by scrub which included non-native invasive species such as cotoneaster and pyracantha. These are typically garden plants and are thought to have been spread on to the Portsmouth Water land by birds dropping the colourful berries as they move between the adjacent gardens and the scrub.

The ecologist identified that the amount of scrub was starting to have an adverse impact on the chalk grassland, and that if left unchecked would completely take over the slopes resulting in the loss of a national priority habitat. Sunny south facing slopes create particularly high value chalk grassland habitats, so it was a priority to remove the majority of the scrub from these slopes. Specifically it was important to remove the cotoneaster and pyracantha bushes which were laden with berries without spreading the berries across other areas of the site.

The Environment & Biodiversity Specialist employed by Portsmouth Water visited the site with Doug Kite from Natural England, who agreed that removal of the scrub and the non-native species in particular was a clear priority. The Customer Challenge Group agreed and in December 2015 a small team of contractors were employed to remove the scrub from the south facing slopes. The cotoneaster and pyracantha bushes were carefully cut down and put in to large sacks, so that they could be transported to the fire site without dropping the berries. The fire was lit on corrugated metal sheets to ensure the berries and wood were burnt while causing minimal damage to the chalk grassland. It took 5 days to remove and burn all of the scrub.

The location of each stump was marked with orange spray paint. A specialist contractor was then employed to spray all of the fresh stumps and any tiny plant rosettes with a carefully selected herbicide to kill the stumps. The final area of scrub was removed with the help of a staff volunteer working party. Having cleared the thorn trees and bushes, areas of bramble were then cut down with a remote control roboflail, which was purchased in 2015 to enable scrub to be removed safely on steep reservoir banks.

It is anticipated that there will need to be an ongoing programme of herbicide treatment over the next few years to kill any re-growth. Regeneration of native scrub and bramble will also be controlled by rotational cutting with the roboflail.



Before – Non-native scrub invading the chalk grassland at Farlington WTW



Branches of cotoneaster laden with berries being carefully removed and placed in sacks



View across the slope in summer 2016 showing the restored chalk grassland recovering

River Ems Restoration Project

The Regulations Team led a National Environment Programme scheme supported by the Environment Agency to restore a section of the River Ems north of Westbourne. The scheme involved restoring meanders, removing weirs and reconnecting the flood plain. Portsmouth Water worked with the Rivers Trust and Catchment Partnership to also encourage improvements to remove downstream obstructions to fish passage.



Before – River Ems north of Watersmeet where channel was historically artificially straight



After – River Ems restored channel with meanders, graded edges and gravel base

Recreation & Access

Staunton Country Park; The proposed Havant Thicket Winter Storage Reservoir site is owned by the Company but managed through an agreement with Hampshire County Council as part of the Staunton Country Park (SCP). In 2013 the Company extended the tenancy to enable the whole of the 167 hectare site to be managed by the Staunton Rangers. The site includes a public bridleway and network of permissive paths through woodland and grassland. Portsmouth Water has worked with other stakeholders in the area to upgrade key paths to provide all weather access for the local community.

Highwood Reservoir; This raw water storage reservoir site owned by Portsmouth Water is located within the popular Itchen Valley Country Park, managed by Eastleigh Borough Council. The site is open to the general public, with a circular permissive path around the building that houses the reservoir. In winter 2014/15 scrub clearance work was completed on the banks around the reservoir building to maintain public access and enhance biodiversity. The Company have also provided some assistance to help the Council develop a new woodland school within the Park.

Special arrangements have been made for access at other company owned sites.

- At the Itchen Water Treatment Works this enables schools, universities and other organised groups to participate in educational visits.
- Part of the Clanfield Reservoir site is leased to the Hampshire Astronomical Society to utilise. They have erected a number of structures and a sun dial. They organise a number of events for the benefit of their members. Small groups of members of the public are able to visit by prior arrangement with the Society.



Sun dial and astronomical observatory at Clanfield Reservoir (Hampshire Astronomical Society)

Community Engagement

The maintenance of the grounds at our Head Office site in Havant, the Itchen WTW and some smaller sites is undertaken with the help of the New Blendworth Centre. This is a facility that was set up to help local people with learning difficulties / disabilities, who attend the centre on a full or part time basis. The centre provides work experience in landscape maintenance and Portsmouth Water is proud to have supported this initiative for many years.

The Horizon Angling Club have sole use of the West Lake at our Head Office site in Bedhampton. The club promotes the sport of angling for the disabled.

The Company is an active corporate member of the Hampshire & IOW Wildlife Trust.

*Tracey Viney
Portsmouth Water
Environment & Biodiversity Specialist*