



Annual Review 2016/17





Making a Difference

Our organisation's strategic priorities are to protect and create high-quality freshwater habitats and expand and connect these through:

- **Research, monitoring and information:** investigating better ways to protect freshwater biodiversity, understanding national trends, reviewing the effectiveness of our work and teaching others what we know.
- **Practical projects:** implementing practical solutions to protect species and habitats based on best practice.
- **Public outreach and partnership:** working with people to achieve our aims and enable greater enjoyment of freshwater habitats for everyone.

- **Policy and advocacy:** championing freshwater biodiversity at regional, national and European levels.

During 2016/17 our work was underpinned by important new sources of evidence and through the efforts of hundreds of people who have worked with us in many different ways to protect life in freshwater.

Registered Charity 1107708

Email: info@freshwaterhabitats.org.uk

Freshwater Habitats Trust, Bury Knowle House, North Place, Headington, Oxford, OX3 9HY

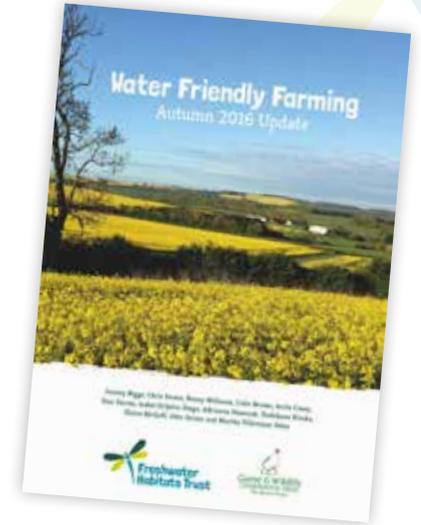


Pillwort - *Pilularia globulifera* - one of the rare pond species we are working to protect

Water Friendly Farming

This research project is aiming to develop and test methods to maintain and enhance freshwater biodiversity, together with the services provided by the water environment, within landscapes where the predominant land use is commercial farming. This year the project focused on the critical stage of reporting the effects of putting in measures to improve the landscape for freshwater biodiversity, for reducing pollution and for holding back water.

In October 2016 we presented an update of the project's findings at a meeting in Portcullis House, Westminster.



Early lessons from the project

Include both new findings and support for existing approaches to managing land to protect the water environment:

- Even in an intensively cultivated landscape there are small patches of clean water and some habitats achieve Good or High status for specific biological metrics.
- Most freshwater species are found in ponds, followed by streams and ditches.
- Landscape-scale freshwater biodiversity is enhanced by clean water pond creation.
- Large buffer strips (10-20 m or more) reduce sediment loss substantially – perhaps by as much as 30%. Complete afforestation of the catchment would reduce sediment losses by c.50%.
- Permeable dams, which are being implemented across the Water Friendly Farming demonstration site, are expected to reduce stream peak flows in 1:100 storm events by up to 20%.
- Product substitution or alternative cropping regimes are likely to be needed to reduce pesticide levels.



Water Friendly Farming project in Leicestershire is an evidence-based demonstration programme developed by Freshwater Habitats Trust, Game & Wildlife Conservation Trust, Environment Agency, University of York and others

People, Ponds and Water

Our People, Ponds and Water project, funded by the Heritage Lottery Fund and covering England and Wales, had a hugely successful year addressing the project's two overarching aims:

- To make a nationally significant difference to the protection of freshwater biodiversity in the UK.
- To engage many thousands of people with activities that help them to learn about, participate in and enjoy their freshwater heritage.



The People, Ponds and Water team

Flagship Ponds

The 70 Flagship Pond sites that we are focusing on support 55 priority pond species (S41/S42) and an additional 18 species of conservation importance (Red List). None of the work at these sites would have been possible without the collaborations between partner organisations and local volunteers.

During the year:

- 15 national species experts very kindly gave us their time to help protect these sites.
- Over 300 volunteers attended 40 training sessions to learn about the importance of their local site.
- New pond creation was undertaken at 10 sites, to build out from the existing high quality pond habitats.



Skipwith Common volunteer work party - ready for a day of pond management at the Flagship Pond site

Project highlights during 2016/17

- Adder's-tongue spearwort has returned to Inglestone Common thanks to reinstatement of grazing and conservation work in collaboration with the Millennium Seedbank, Kew.
- The future of Glutinous Snail looks brighter at Llyn Tegid thanks to the tireless efforts of our associate Ian Hughes and his innovative snail refuges.
- Tubular Water-dropwort, Water Vole and dragonflies have made a new home in ponds created at Rawcliffe Meadows in the heart of York.
- Volunteers have undertaken delicate dune restoration work at Aberffraw for rare mosses last seen at this site more than 15 years ago.
- Over 40 volunteers helped to undertake pond management work on Strensall and Skipwith Commons for pillwort, and other rare pond plants found on the reserves.

PondNet

This portion of our Heritage Lottery Funded People, Ponds and Water project had another successful year gathering high quality data about the trends in pond quality and pond species across England and Wales – none of which would have been possible without our incredible volunteers.

"Our volunteers are such a remarkable bunch of people, from all parts of the country, all ages, and from beginners to experts. We've loved getting to know them and sharing our love of ponds with them. We now have an army of PondNetters championing our cause."

Project Coordinator Naomi Ewald

During the year:

- Over 1800 volunteer collected data records – smashing the overall target for the project
- Approximately 400 individuals attended training events.
- Volunteers contributed over 680 days worth of time helping us gather vital data.
- Volunteers completed the second year of environmental DNA (eDNA) surveys for Great Crested Newts from more than 600 ponds.

Project highlights during 2016/17

- Spawn survey – collecting widespread data on breeding frogs and toads, this was a great transition activity for new recorders and those who had previously undertaken Clean Water Surveys. Each week we produced a map showing the spawn sightings recorded by volunteers and shared it on social media – one post on Facebook shared by



Frog and spawn – taken by a participant in the Spawn Survey in spring 2017



Aquatic plant and invertebrate identification training event for PondNet volunteers

BBC Springwatch received 879 reactions, comments and shares triggering 250 records in just 3 days!

- Surveys of some of the best sites in the UK using the National Pond Survey methods.
- Laying the groundwork for rare plant and animal species surveys in 2017/18.

Clean Water for Wildlife

This citizen science project is aiming to find the hidden clean water gems - places which are free from pollution and where wildlife still thrives. The survey also aims to show – for the first time – the true extent of nutrient pollution facing freshwater wildlife today. Volunteers can use a quick test kit to test the levels of nitrate and phosphate then record their results on our website.

During the year this project has made some pioneering progress:

- Over 2100 citizen scientists collected data from just under 7000 sites.
- We engaged with 128 volunteer survey groups.
- We disseminated results at four bespoke Clean Water for Wildlife events.
- Five stakeholder group meetings were held to discuss the importance of this work.
- Online resources were launched including leaflets, activity packs, 'how to' videos and case studies.



Volunteers Pam and Trevor helping collect Clean Water results in the New Forest

Project highlights during 2016/17

- Additional funding from Thames Water allowed us to run the sub-project Thames Water for Wildlife – enabling communities to access and engage with their local freshwaters, receive training to conduct extra monitoring activities and helping spread the message across the Thames Water region.
- Publication of the technical report outlining results of the quick test kits compared to laboratory results, plus contextual information defining the term clean water and reviewing the effect of nutrients on freshwaters. The full report can be found on our website.
- We sent out 'Activity Packs' to approximately 50 schools across England, some in partnership with the Thames Water for Wildlife and Living Waters projects. During the next year we will be distributing further packs to schools in Wales.
- Case studies produced following successful Water Blitz events within the New Forest and London.



Clean Water test kit – the stronger the colour, the higher the levels of phosphate or nitrate in the water

Don't just take our word for it, this is what our volunteers said:

"Simply brilliant!"

"It's been great to get out and discover the countryside - visiting ponds on private land that no-one would otherwise know about."

"It is brilliant to know that my work is contributing towards something so great. Particularly in a reserve that I didn't fully realise was so important for such threatened [pond] species"

"I liked how it raised the profile of ponds and ditches and their importance for wildlife. It also included a what's next section which is very useful and will hopefully encourage people to get involved in their local community and take pride in their surroundings."

"The [Flagship Pond] event provided us with an opportunity to visit a site that we had not before explored, even though it is relatively close to where we live"

"I really enjoyed undertaking the surveys and it's satisfying to think I may have a role in bringing about positive change for this species, albeit a very small one!"

"For someone like me the training sessions made a huge difference, because it got us 'doing' something, not just reading about it or looking on the internet. It boosted my confidence a lot, and made me start doing practice instead of just theory. So I hope you and the team know that all those miles and hours do pay off, little by little, and thank you for doing it. Its proper real-world hands-on experience."

Important Freshwater Areas



During this year we have continued to develop the Important Freshwater Areas (IFA) concept.

- With funding from the Patsy Wood Trust, we were able to collect and collate data on around 1000 species of plant and animals, either aquatic or from 'wet' habitats.
- Using this unique dataset, we developed a methodology for identifying where we should focus our efforts to halt extinctions regionally.

Catchment hosting

We are working with Catchment-based Approach (CaBA) groups and other stakeholders in three river catchments - the New Forest, the Thames and the Ock - to improve the water environment through practical projects and by supporting volunteer monitoring:

(a) New Forest (Hampshire)

We are co-lead in this catchment with the New Forest National Park Authority and other key partners including the Forestry Commission, the Hampshire & Isle of Wight Wildlife Trust and the Beaulieu Estate. During the year we ran a series of events and activities to raise awareness of pollution and biodiversity issues in the water environment:

- New Forest Water Blitz - highlighted the importance of small water bodies in the Forest as clean water refuges. Three-quarters of the water bodies surveyed in the New Forest were unpolluted by nitrate and phosphate. There is a summary of results on our website.
- Living Waters - this Heritage Lottery funded project is now well under-way and we have installed two water harvesting systems to reduce diffuse pollution from local small businesses.

- We established a volunteer monitoring network - to sample nutrients throughout the River Beaulieu catchment in all types of water bodies - ponds, streams, rivers, ditches - and the River Beaulieu itself.
- In partnership with the Beaulieu Estate, with funding from the Environment Agency, we also coordinated the delivery of measures to reduce diffuse pollution from agricultural sources throughout the catchment.

(b) River Thames (Oxfordshire/Buckinghamshire)

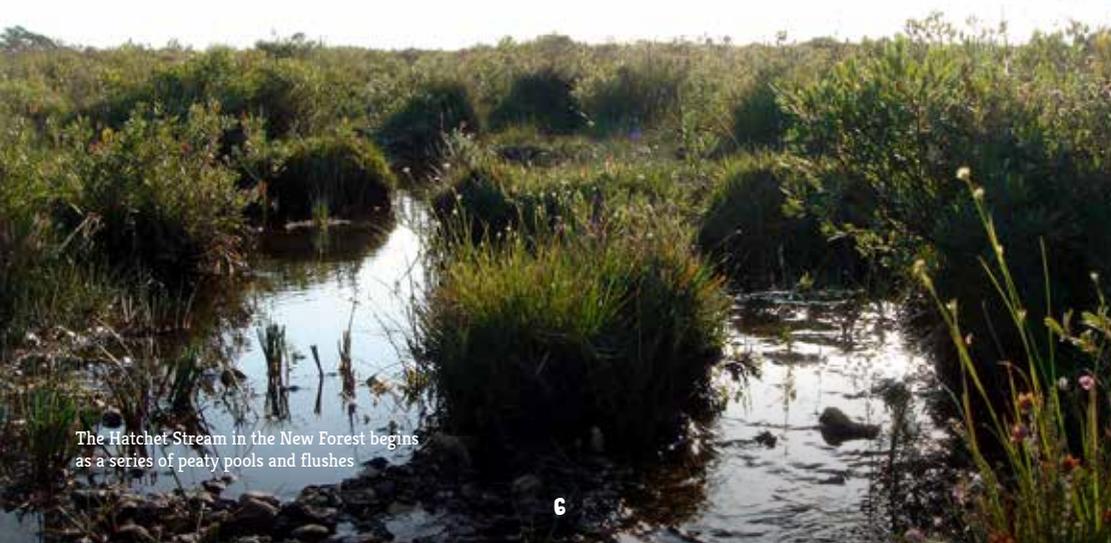
In this catchment we are working closely with the River Thames Conservation Trust and have been piloting our Important Freshwater Area approach:

- Preliminary results have highlighted data gaps, but also revealed critical information about where we should focus our attention in terms of practical work to maximise benefits to freshwater wildlife.
- We have also been engaging with landowners, who are critical if we want our work to restore the freshwater wildlife of the River Thames catchment to succeed.

(c) River Ock (Oxfordshire)

We are the CaBA hosts for this catchment and during the year we have continued with the development of the strategy for the area - building around the piloting of the Important Freshwater Areas concept and developing a good evidence base:

- Modelling optimum areas for holding back water - as the prelude to practical action.
- Working closely with local groups in the area to develop work that will add extra value to the Oxford Flood Alleviation Scheme, one of Britain's largest inland flood management projects.
- River Ock Water Blitz - undertaken in spring 2016, this survey provided the foundation for practical action, helping local groups working to protect fen habitats and emphasising the importance of protecting water quality. There is a summary of the results on our website.
- We also produced the first draft of the catchment's Water Environment Improvement Plan, which is now being reviewed by partners and other local organisations.



The Hatchet Stream in the New Forest begins as a series of peaty pools and flushes



River Thames at Cuddington Mill - copyright Doug Kennedy

Pinkhill Meadow 25 years on



Evidence-gathering is a crucial part of our work, so this year we revisited the 'new' ponds at Pinkhill Meadow, 25 years after their construction. This is now the longest running monitoring dataset from new ponds in Europe. This year's survey was particularly valuable because grazing is just about to be introduced to the site, so it was important to have a baseline to look at how grazing (for which the site was designed) affects the ponds:

- Overall diversity of freshwater plants and animals at Pinkhill has continued to slowly grow, plateauing at around 70 wetland plant species and about 100 aquatic macroinvertebrates.

- The length of the study is revealing important new information – including that some individual ponds have declined slightly in richness as they have been over-run by Common Reed.
- Particularly interesting is that, after 25 years, none of the plants and animals characteristic of old, unpolluted wetlands have colonised the site. This includes species such as Frogbit, Tubular Water-dropwort, Water Violet and the old fen water beetles such as *Enochrus nigrita* or *Peltodytes caesus*, all of which occur in ancient wetlands within 10-15 km of Pinkhill. These are likely to become the subject of future experimental introduction projects to see if we can fully recreate the old fen plant and animal community.





FHT staff preparing to film a 'How to...' video in the New Forest – copyright Louis Grant

Brexit

June 2016 presented us all with a new and uncertain future in light of the referendum result. Nature conservation policy nationally is now dominated by the decision to leave the European Union and what this may mean for the natural environment. This has to some extent cut short our European work on better integration of small water bodies in EU water management and biodiversity legislation. Our focus is firmly back home now until there is more clarity on how key legislation for the protection of the water environment will look post-2020.

The break from Europe may pose considerable risks, particularly if laws to protect freshwater ecosystems are weakened and essential funding to prevent further damage is withdrawn.

On the other hand, there are also considerable opportunities to:

- Improve on relevant legislation and policies.
- Better integrate agriculture and nature conservation.
- Expand the implementation of natural capital accounting in land management.

We are working with other NGOs as part of Wildlife and Countryside Link so that these once-in-a-lifetime opportunities are realised and freshwaters are better protected in future.

The State of Nature Report

A case study on the successes of the Million Ponds Project was published in the 2016 State of Nature report. This showcased how creating clean water ponds can benefit freshwater wildlife, cheaply and quickly.

- Almost 10 years after the project was first launched, thousands of clean water ponds have been created, and a number of monitoring projects - including a doctorate with Sheffield University - provide evidence to show the benefits of new clean ponds for the protection of freshwater wildlife is now incontrovertible - to our delight!

Public Outreach and Partnership

We use our information to make a practical difference in freshwater conservation through advice to the public, technical guidance, strategic planning, dissemination in the media, network co-ordination, training, education and policy. Our public advice and engagement continued to grow, with outputs from the Heritage Lottery funded People, Ponds and Water project crucial for the effective protection of freshwater biodiversity.

Engagement

- Website - With over 300,000 page views to our website during the course of the year, we are aware that this is our most valuable resource and as such try to keep it as up to date as possible. The areas that attract the most visitors are our advice on how to make a pond, creature identification pages and surveys such as the Spawn Survey that ran in the spring of 2017.
- Advice line - Although the advice on our website is extensive we are also contacted a lot by the public wishing to gain more advice - during the year we helped over 200 people looking for advice, guidance or identification of creatures.
- Social media - This remains our main outlet for communications to the wider public. Our Facebook and Twitter accounts both continued to grow by approximately 20% during the course of the year, giving us a total audience reach of over 11,200 people by the end of March 2017.
- Electronic newsletters - During 2016/17 the audience of our newsletter Ripples continued to grow with an above industry average open rate of around 35% - plus a new technically-focused newsletter dealing with our Research and Policy work was launched in March 2017 which we will continue to develop in the coming year.
- Media and articles - During the year we continued to comment on freshwater wildlife in the widely-read conservation magazine British Wildlife, led or fed into various articles including in Defra's Biodiversity News and in various blogs, plus made TV appearances on Countryfile, the BBC Wales show Great Welsh Parks and Countryfile Diaries.
- Videos - Our YouTube channel continued to grow and we launched a further 7 videos including one on our Flagship Pond Appeal and some in the popular "How To" series linked to surveys in our PondNet project.



One of our youngest volunteers - Tiegan Mansfield collecting an eDNA water sample

Public Outreach and Partnership

Dissemination

Disseminating our information, and encouraging others to do so, is an important part of our work and this year papers published included:

- A special edition of the scientific journal *Hydrobiologia*, published towards the end of 2016, contained papers highlighting the importance of small waters.
- A paper highlighting the collection of professional and citizen science data on clean water, published in the journal *Science for the Total Environment*.



Medicinal leech training at Barkbooth Lot in Cumbria



Invertebrate training with Bromley Friends of the Earth group

Plans for the Year Ahead

- It is vital that we continue to communicate our findings so that they can bring most benefit to freshwater biodiversity.
- For our Water Friendly Farming project we now have six years of data and two summary reports which provide unique information about how we can best achieve the triple wins of biodiversity gain, flood protection and pollution reduction in the farmed countryside. 2017 will produce our first scientific papers for this project.
- As we reach the end of the year, our final reporting for the People, Ponds and Water project will be a celebration of all that the project has achieved. Not only will we be producing a range of reports on the project's critical findings, we will also be running events that help us get together and say thank you to the many people that have made the project such a success.
- 2018 will be the 30th year since our founding as a charity and during 2017/18 we will begin planning for how we can celebrate our work over the past 30 years and how we hope to continue it for the next 30 years.
- We will undertake a wide consultation and review for our Important Freshwater Area project to ensure this work can effectively feed into policy, planning and practical catchment work – and can also support CaBA groups in delivering Biodiversity 2020 objectives as well as those of the Water Framework Directive.
- 2017 will see the culmination of our three-year Flagship Ponds Project. It has been wonderful to work with landowners and volunteers at these 70 critical wildlife sites - and we are confident that the sites will remain in safe hands, with their rare species better protected for the future.
- We are fortunate to have secured a further year of funding to continue our CaBA hosting in 2017/18 in the New Forest, River Ock, and River Thames catchments. This will enable us to continue to engage with landowners and fund capital works that reduce diffuse pollution and extend high quality freshwater habitats.
- After the success of Phase 1 of the Million Ponds Project, we will be seeking new opportunities to use pond creation as a highly effective way to increase the extent of clean water in our countryside. A new opportunity to do this may come through Natural England's revision of Great Crested Newt licencing for development projects. Working with the Environment Bank, Amphibian and Reptile Conservation and others, we will aim to ensure that any additional funding for new ponds is used to create high quality high quality habitats that will benefit both newts and a wide variety of other freshwater wildlife.



Pond at High Elms Country Park in Bromley

Financial Review 2016/17

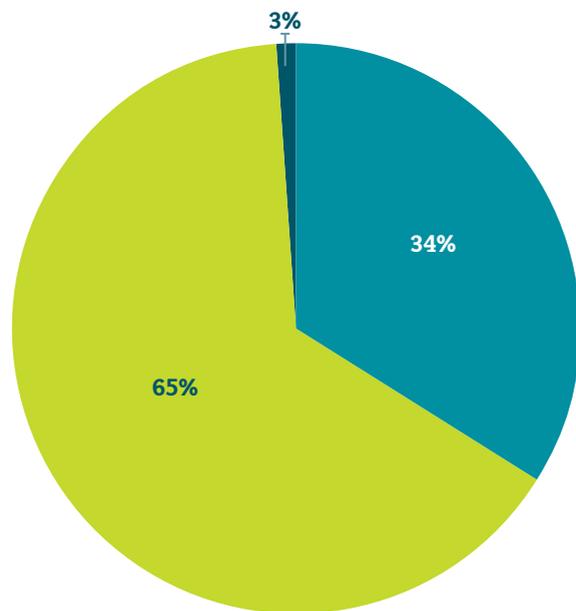
Income

Freshwater Habitats Trust's total income increased by 18% in 2016/17 to £962k (2015/16: £818k). Most of this increase is in Contract Income, particularly from the Water friendly farming project.

Voluntary income of £638k (2015/16: £752k) still represents the majority of Freshwater Habitats funding: People Ponds & Water received £398k Heritage Lottery Fund. Continuing grants included the Citizen Science Water project funded by Earthwatch Institute (£45k), Water Friendly Farming research funding (£26k),

Environment Agency (30k), Patsy Wood Trust funding Important Freshwater Areas in Oxfordshire (£26k) and Thames Water for Wildlife (£51k). Whilst new grants began from New Forest National Park (£24k).

Charitable activities income of £323k is significantly higher than the prior year (2015-14: £65k) this mainly was from Environment Agency, Water Friendly Farming project (£135k) and other smaller projects (£43k). Natural England £51k, eDNA Great Crested Newt monitoring (£25k).



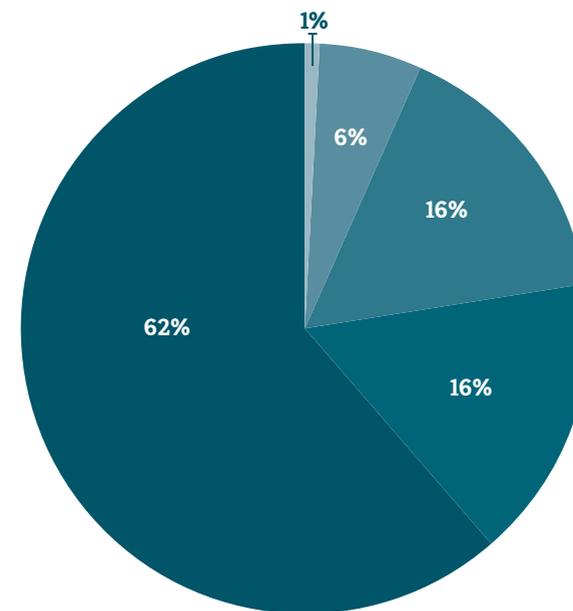
- Restricted grants £724k (2014/15: £494k)
- Income from charitable activities £29k (2014/15: £21k)
- Unrestricted grants and donations £65k (2014/15: £254k)

Expenditure

Total expenditure for 2016/17 is marginally higher by 4% at £868k (2015/16: £834k) in part due to the higher level of project funds carried forward and spent from the previous year. The fundraising and governance costs of the organisation remain low at 1% of total expenditure (2015/16: 4%), with no dedicated fundraiser during the year.

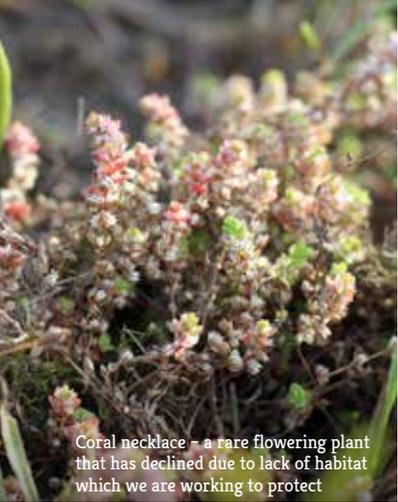
Charitable expenditure is dominated by public outreach and partnership projects due to the People, Ponds and Water project, although this does have both practical and research and monitoring elements:

- Practical Projects including the Catchment Partnership Projects and New Forest projects make up 16% (2015/16: 18%).
- Public Outreach and Partnership, including People, Ponds & Water, make up 62% (2015/16: 53%).
- Research and Monitoring, including the Earthwatch Citizen Science Project and Water Friendly Farming make up 16% (2015/16: 22%).
- Policy spending at only 6% (2015/16: 3%) remains relatively small, but does not require extensive practical costs.



- Public outreach and partnership £535k (2016/17: £437k)
- Research and monitoring £135k (2016/17: £185k)
- Practical projects £141k (2016/17: £152k)
- Policy £50k (2016/17: £28k)
- Cost of generating funds £6k (2016/17: £5k)





Coral necklace - a rare flowering plant that has declined due to lack of habitat which we are working to protect



The pond mud snail is one of Britain's most endangered freshwater animals - the new Forest is one of its few remaining stongholds - copyright Ian Hughes



Flagship Pond site Inglestone Common where rare Adder's-tongue Spearwort plants, grown by Kew, were reintroduced - thanks to funding from Valpak and the Heritage Lottery Fund



Grass snakes thrive in wetland areas with flourishing amphibian populations - copyright Matt Lodge



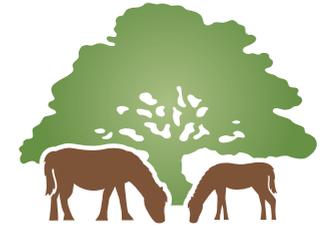
Let's take care of our finest ponds...

Flagship Pond Appeal graphic

Acknowledgements

We continue to work with numerous partners and allies - Our sincere thanks to the many organisations and individuals who work together with us to support life in freshwater.

Our funders in 2016/17:



NEW FOREST NATIONAL PARK



Plus all our generous regular donors and corporates.

We also owe a huge thank you to all the volunteers that have contributed to our projects over this year.





Medicinal leech - one of the rare species we are working to protect and monitor. Copyright Neil Phillips

To read the full Annual Report and Accounts for 2016/17 please visit our website

www.freshwaterhabitats.org.uk/about

Please help us to continue our work by supporting us through a regular gift

www.freshwaterhabitats.org.uk/get-involved-2/support-us/make-a-donation