

# **New Forest Catchment Partnership**

**Dr Naomi Ewald**  
**Freshwater Habitats Trust**



# New Forest Catchment Partnership



## New Forest 'Catchment' Area

Showing sub-catchment groups

### Sub-catchment groups

- Bartley Water
- Beaulieu Heath
- Beaulieu River
- Lepe
- Lymington River
- New Milton
- Waterside

### Rivers



© Crown copyright. All rights reserved.  
New Forest National Park Authority Licence no. 1000114703 2012

Contains Environment Agency information  
© Environment Agency and database right

Figure 1 - New Forest catchment boundary and groups

# New Forest Catchment Partnership - Objectives



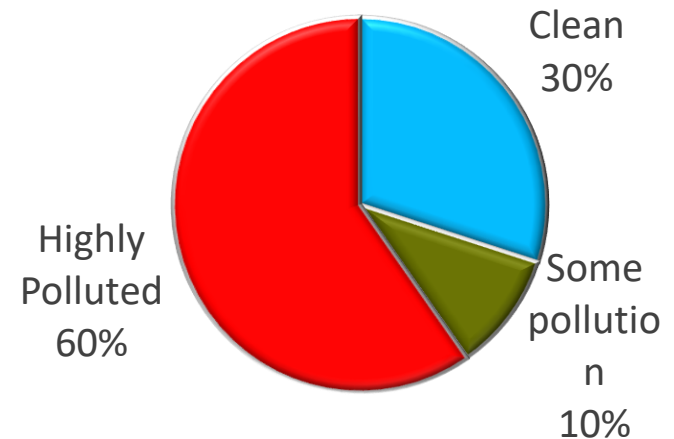
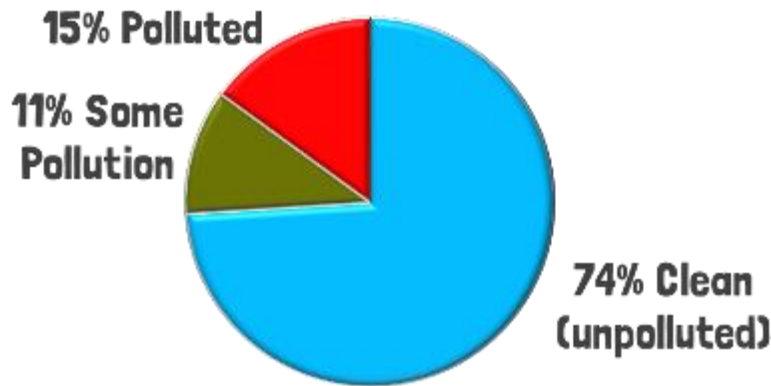
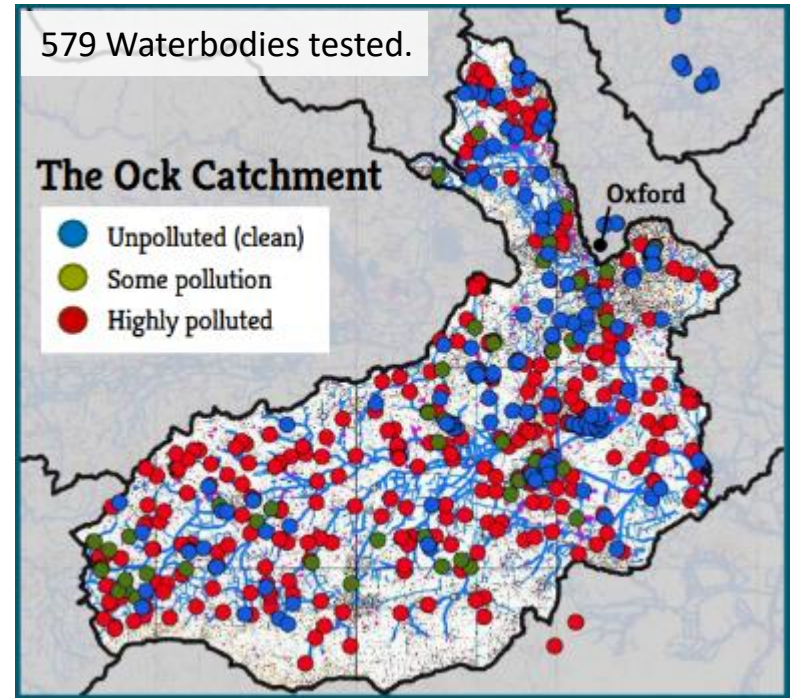
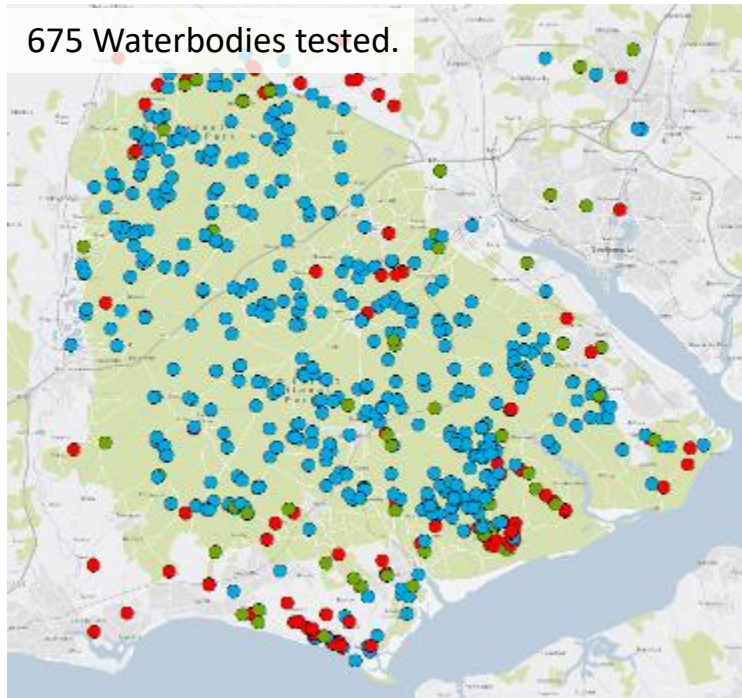
- Raising awareness of all fresh + coastal water habitats in the New Forest
- Maintenance of habitats at the highest standard: unimpacted by pollution + functioning naturally
- Improving water quality and ecological value to minimum standards under the WFD
- Supporting an integrated approach to catchment management with stakeholders



Recognising the importance of the New Forest as one of the most important areas for coastal and freshwater biodiversity in the UK.

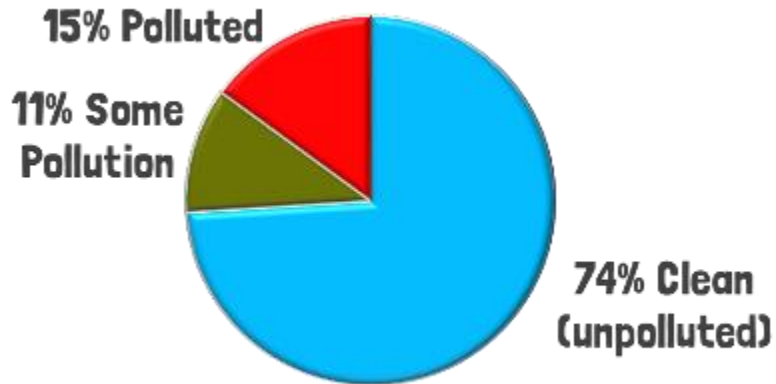


# So how special is the New Forest?

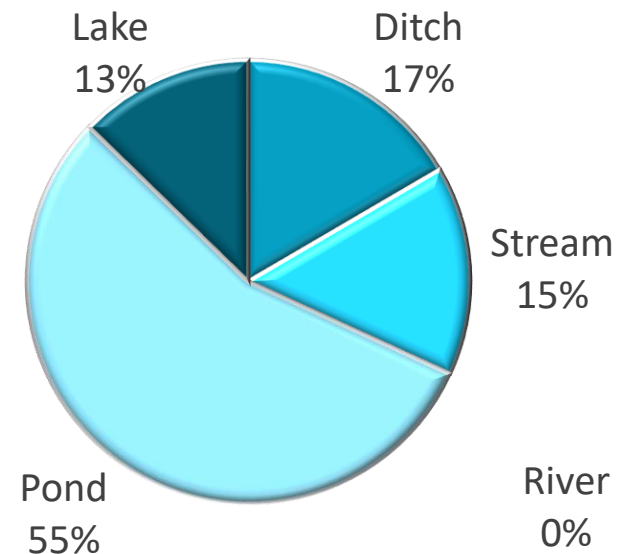
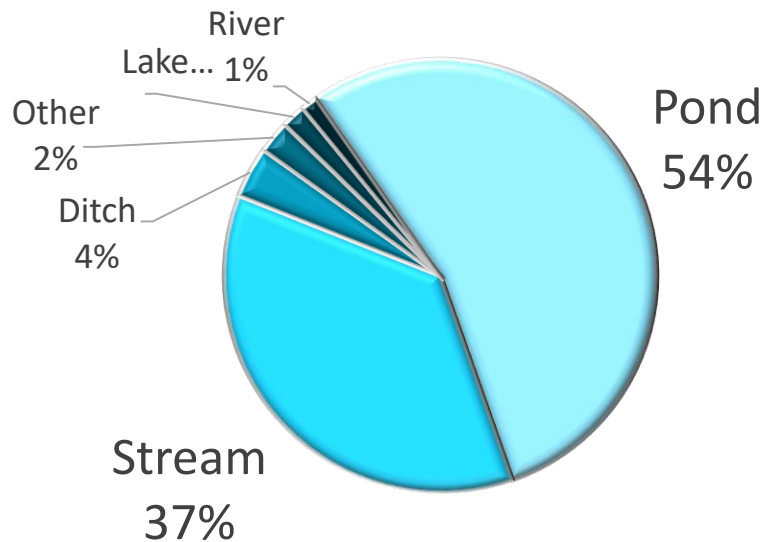
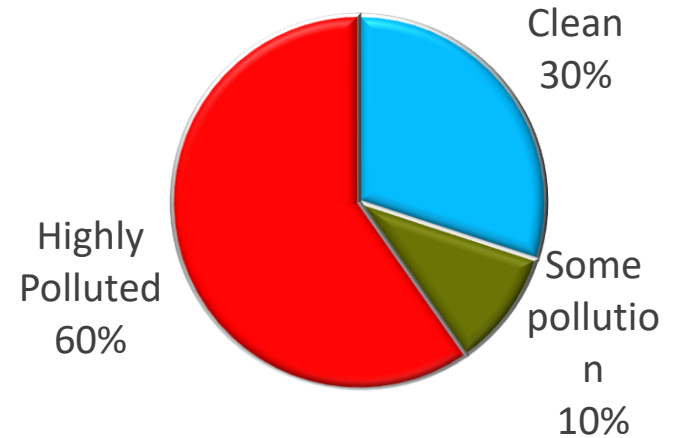


# Where's the clean water?

## The New Forest Catchment



## The Ock Catchment



# New Forest Catchment Partnership - Vision



Figure 4 - New Forest Biodiversity Action Plan species - Coral Necklace, Pillwort, Southern Damselfly, Marsh Clubmoss, One-grooved Diving Beetle, Bullhead, Yellow Centaury, Mud Snail, Tadpole Shrimp, Starlet Sea-anemone and Eel

*'In the New Forest we have the opportunity to protect and restore freshwater and coastal habitats to the very highest standards.*

*The Catchment Group's vision is to go further than the Water Framework Directive by including ponds, small lakes, headwater streams and mires.*

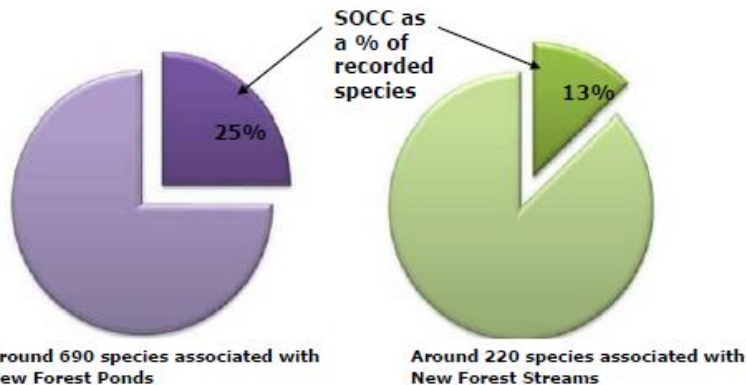


Figure 6 - Species of Conservation Concern

*We are aiming to improve to **High status** where this is achievable.'*

# New Forest Catchment Partnership



- Raising awareness of all fresh + coastal water habitats in the New Forest
- Maintenance of habitats at the highest standard: unimpacted by pollution + functioning naturally
- Improving water quality and ecological value to minimum standards under the WFD
- Supporting an integrated approach to catchment management with stakeholders



Recognising the importance of the New Forest as one of the most important areas for coastal and freshwater biodiversity in the UK.



# Hatchet Pond





# Hatchet Pond

**Hatchet Pond (6.7ha) is one of the highest quality standing water habitats in the country, with a suite of endangered and protected species.**

Water quality is expected to be high, as Hatchet Pond is fed by nutrient poor heathland.

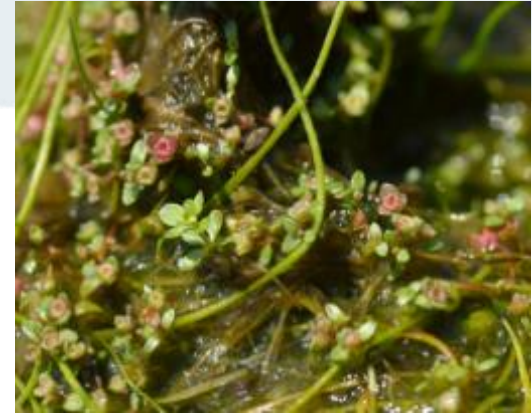


**A section of the 1814 Driver's map, based on a survey of 1787**

Changes recorded in the lake are indicative of the early stages of eutrophication. Although the biological signal is not strong yet, there is clear evidence of deterioration..

# Exceptional plant richness

- **133 wetland plant species** have been recorded in total from Hatchet Pond. This is more than a third of all wetland plants recorded in the UK.
- **On a single visit 58 wetland plant species** were recorded at Hatchet Pond, the average for high quality UK lakes is just 36.
- **Hatchet Pond supports a total of 11 uncommon plant species.** The total number of uncommon species recorded for all lakes in the UK Lakes dataset is 13.



# Exceptional insect and animal communities

- **99 macroinvertebrate species** have been recorded in total from Hatchet Pond (excluding Diptera), including 8 species of conservation importance.
- **On a single visit c.60 species** were recorded at Hatchet Pond, the third best lake in that survey in the UK (13 small lakes surveyed). *Only exceeded by Upton Broad (the best remaining, least polluted, Norfolk Broad) and '10 Acre Lake' on Westhay Moor in the heart of the Somerset Levels).*
- **Five of our native amphibians** use Hatchet Pond as a breeding site, including great crested newts and common toad (both of which are priority species).



# Hatchet Pond

**PROBLEMS:** Stressors have been identified; namely bottom feeding fish and associated fishing practices, erosion of the lake margin from the adjacent car park along with increasingly heavy recreation pressure (including feeding birds and feeding local livestock), and obstruction created by the sluice structure which is preventing common eel passage into the lake.

## **ACTIONS:**

- (1) removal of carp and transition to a natural fishery in collaboration with the local fishing community;
- (2) installation of an eel pass at the pond outlet;
- (3) feasibility study and stakeholder consultation followed by work to the car park to reduce erosion and better manage recreation at the pond.



# New Forest Catchment Partnership



- Raising awareness of all fresh + coastal water habitats in the New Forest
- Maintenance of habitats at the highest standard: unimpacted by pollution + functioning naturally
- Improving water quality and ecological value to minimum standards under the WFD
- Supporting an integrated approach to catchment management with stakeholders



Recognising the importance of the New Forest as one of the most important areas for coastal and freshwater biodiversity in the UK.



# Sowley Pond



# Sowley Pond

**OVERVIEW:** Sowley Pond is a shallow 16ha artificial lake which was originally created in the 14th Century as a fishery and then extended in the 17th and 18th Centuries to power a local ironworks. Today, it is used to provide irrigation for nearby potato farms and is also used for low intensity coarse fishing. This is the largest body of standing water in the region and has records for the only known breeding population of Variable Damselfly in the New Forest. It is designated as a SSSI for ducks and other wetland birds.

**ISSUES:** Under WFD, Sowley Pond is classified as having Poor Ecological Potential, due to failures for Total Phosphorous and biological elements sensitive to Total Phosphorus – chironomidae, macrophytes, phytobenthos and phytoplankton.

# Sowley Pond

**PROBLEMS:** Historical build-up of nutrient rich sediments from the lake's catchment, including from a small sewage treatment plant, diffuse agricultural and urban (septic tank) pollution, and inputs of organic matter from recent development of thick willow scrub around the lake margin.

**OPPPORTUNITIES:** Nutrient inputs are being reduced through a wider catchment partnership project, including whole catchment nutrient management measures, and it may now be expedient to consider removal of nutrient rich sediments from the lake.

**ACTIONS:** Undertake feasibility study to determine (1) the quantity (depth) of sediment, (2) composition of the sediment with regard to hazardous substances, (3) the options for sediment disposal, and (4) project costs for removal.



# WEIF Sowley Pond



# WEIF Sowley Pond



# WEIF Sowley Pond

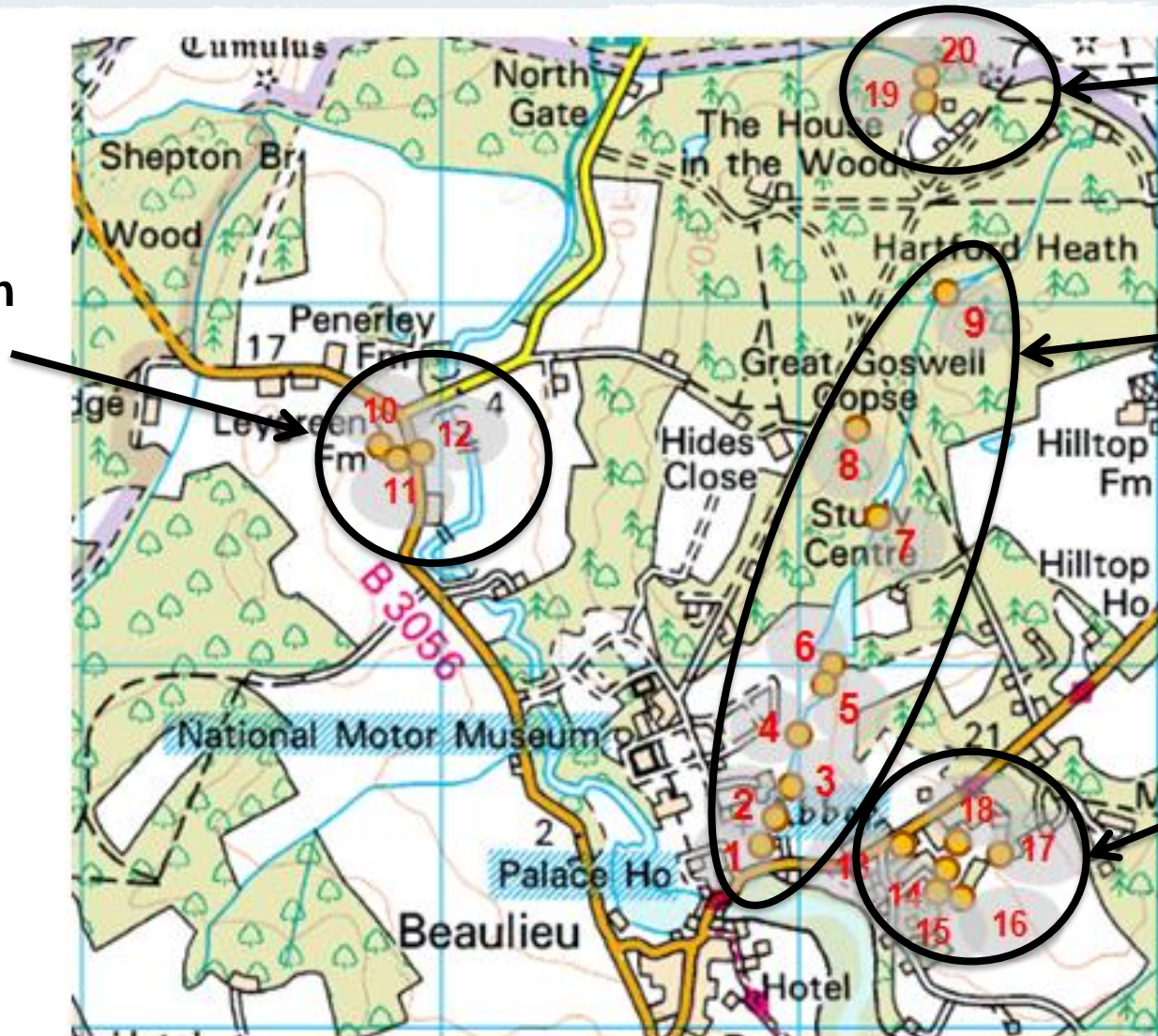


# WEIF Sowley Pond



# Beaulieu Estate

Leygreen Farm



Chichester Trees & Shrubs nursery

Abbey Stream (or Hartford Stream)

Countryside Education Centre (CET)

# Rainwater and farmyard run off capture at Leygreen Farm



# Retrofitting water harvesting at Chichester Trees & Shrubs nursery



# Nutrient management and rainwater harvesting at CET



**Engaging children in water quality issues with Clean Water School Packs** (photo credit: <http://www.cet.org.uk/>)



# Improving connectivity of the Hartford Stream for European Eel



Photos courtesy of  
Dominic Longley

# New Forest Catchment Partnership



- Raising awareness of all fresh + coastal water habitats in the New Forest
- Maintenance of habitats at the highest standard: unimpacted by pollution + functioning naturally
- Improving water quality and ecological value to minimum standards under the WFD
- Supporting an integrated approach to catchment management with landowners, stakeholders and volunteers



Recognising the importance of the New Forest as one of the most important areas for coastal and freshwater biodiversity in the UK.



# Community support Blackwater Conservation Group



# Landowner partnerships Beaulieu Estate, Sowley Estate and farmers



# Organisational partnerships

## New Forest Land Advice Service



# New Forest Catchment Partnership - success



Principles of Catchment Based Approach have been demonstrated to work well in the New Forest:

- **Harnessing the passion** and interest in conserving the area and giving it a focus
- **Pushing the water environment up the agenda** – local and national organisational/operational agendas
- **Increasing our understanding** and evidence
- **Establishing new partnerships** and ways of working together
- Bringing in **new resources**
- **Engaging a wider audience** - citizen science
- **Delivering action**

# Thank you

