



Fisheries Annual Report 2017 to 2018 Solent and South Downs

We are the Environment Agency. We protect and improve the environment.

We help people and wildlife adapt to climate change and reduce its impacts, including flooding, drought, sea level rise and coastal erosion.

We improve the quality of our water, land and air by tackling pollution. We work with businesses to help them comply with environmental regulations. A healthy and diverse environment enhances people's lives and contributes to economic growth.

We can't do this alone. We work as part of the Defra group (Department for Environment, Food & Rural Affairs), with the rest of government, local councils, businesses, civil society groups and local communities to create a better place for people and wildlife.

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Foreword

In each of our 14 areas we carry out a wide range of work in order to protect and improve fisheries. Below are some examples of what has been happening in the Solent and South Downs (SSD) Area, much of which benefits fisheries from funding from both rod licence fees and other sources. For a wider view of the work we do across the country for fisheries please see the national Annual Fisheries Report.

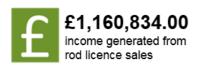
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1. Fishing licence checks and prosecutions

During the 2016 to 2017 financial year (the last complete year of data) a total of 63,039 fishing licence checks were carried out by our fisheries enforcement staff across the country. Our checks show us that evasion was relatively low with a national average of 5.5%. Below are details from SSD:





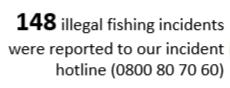






2. Illegal fishing

Illegal fishing remains a threat to game and coarse fish stocks in England and the fisheries they support. The Environment Agency uses a combination of covert and overt patrols to deter and detect poachers, as well as responding to reports of illegal fishing where there is a credible threat to fish stocks and where we have a realistic chance of apprehending the alleged offenders. We cannot respond to every report of illegal fishing so we must prioritise where we focus our efforts. For SSD:





Illegal fishing with nets on Lymington River

In September 2017 Environment Agency bailiffs saw a small dinghy in the Lymington River estuary retrieve then clear a net of fish. Southern Inshore Fisheries Conservation Authority (IFCA) byelaws prohibit the use of nets in that area for the protection of migratory fish, primarily sea trout. The Environment Agency and Southern IFCA work closely in partnership and are joint-warranted. In this instance Environment Agency Officers gathered the evidence and produced witness statements which were provided to Southern IFCA resulting in the case being taken to court.

The case went to Southampton Magistrates Court where the result of the case was a

guilty conviction with fines and costs of £2,500. In addition to the fines and costs imposed by the court, Magistrates made an order under Section 164 Marine & Coastal Access Act 2009 for the forfeiture of the net involved in the commission of the offence.

This is a positive outcome, and demonstrates the value of partnership working in addressing illegal fishing in our harbours, estuaries and along our coastline.



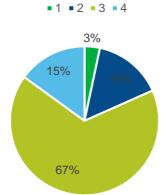
The net seized as part of the case

3. Incident management

Responding to fish kills and other environmental incidents is a vitally important part of what we do. We respond to thousands of substantiated incidents annually. Members of the public report incidents through our Incident Hotline (0800 80 70 60) and we are able to respond 365 days a year and on any day, at any time, providing an effective and proportionate response.

All incidents are categorised according to potential and actual impact on the environment and the impact on our resources. We can then break this figure down into categories of incident as shown below. Category 1 is the most serious and Category 4 is a reported incident with no impact.

Solent and South Downs Incident Management Catorgories



Top mouth gudgeon eradication

Solent Fisheries and Biodiversity Technical Officers have been working with the National virtual non-native management team to eradicate the last known populations of a non-native fish species in Hampshire. The winter of 2017 to 2018 saw an eradication of Top Mouth Gudgeon take place at one of the last remaining sites in Hampshire located on a sub-catchment of the River Test.

Top Mouth Gudgeon are classified as an ANNEX 1 Species' being a - Nonnative species of 'highest' risk under the Keeping and Introduction of Fish Regulations 2015 and considered one of the most 'potentially' damaging nonnative fish species to invade Western Europe.

Environment Agency Fisheries
Officers isolated the waterbody from
the wider environment and applied a
'piscicide' called 'Rotenone' to the
water to kill the Top Mouth Gudgeon
population. A piscicide is a chemical
similar to a pesticide or herbicide
specifically designed to kill fish.

We have one more site to investigate in this sub-catchment now that this eradication has concluded. We will only be able to declare Hampshire free of this fish species after several years of monitoring has been completed and shown that Top Mouth Gudgeon are no longer detected.



Highly trained officers on the National virtual non-native management team undertaking the eradication in Hampshire in 2017

4. Fisheries improvements

The boxes below highlight some projects we have delivered followed by the table below listing many of our environmental improvement projects that have helped to deliver benefits to fisheries; many in conjunction with our partners. We have included the time of our fisheries officers in the funding considerations for the projects as their posts are funded by rod licence income. Considerable amounts of their time and expertise has been provided for the projects. Many projects have also received funding from government or from other parts of the Environment Agency e.g. flooding, the Environment Programme or Water Framework Directive budgets however where contribution has included rod licence income, this has been noted.

EA Funding Match Funding Fisheries Improvement

In 2017 to 2018 SSD installed 4 fish passes, 2 fish easements and opened up to 9.1 km of habitat or spawning ground for fish.

Project Title	Outcome or benefit	Partners	EA Funding (£)	Match funding (£)	Total Cost (£)
Southington	Improved habitat, river restoration, improved fish passage	Private Landowner	£40,000	£46,000	£86,000
Bossington	Improved habitat, river restoration, improved fish passage	Private Landowner	£70,000	£130,000	£200,000
Timsbury Canal	Improved habitat, river restoration	Private Landowner	£5,000	£5,000	£10,000
Wherwell Estate	Improved habitat, river restoration	Private Landowner	£9,000	£9,000	£18,000
Cheriton	Improved habitat		£1,501	£0	£1,501
Candover	River restoration	Private Landowner	£6,000	£2,000	£8,000
Lukely Brook	Purchase of materials to improve fish passage in 2018/19		£5,364	£0	£5,364

North Fareham, Wallington	Improved fish passage		£1,600	£0	£1,600
Abbots Worthy, Itchen	Improved habitat		£800	£0	£800
Meon middle fish pass	Installation of pre- barrages		£3,400	£0	£3,400
Dun	Improved fish passage	Wessex Chalk Stream Rivers Trust	£114,000	£105,000	£219,000
		Private Landowner			
Topmouth Gudgeon Eradication	Invasive Species Control		£30,000	£0	£30,000
Test and Itchen Catchment					
Ouse & Adur Habitat Improvements	Improved habitat for fish and invertebrate populations		£14,000	£5,000	£19,000
Sussex Flow Initiative	Improved riparian and riverine habitat, reduced sediment loading, improved water quality	Sussex Wildlife Trust, Woodland Trust, Lewes District Council	£15,400	£61,200	£76,600
Total			£316,065	£363,200	£679,265

Bossington River restoration

A total of 800m of channel was restored at Bossington Estate on the River Test as part of the Test and Itchen River Restoration Strategy. Reducing the water level by removing two historic structures also allowed the banks to be lowered. In many places these had historically been built up with dredged material from the river, creating a ridge along the bank top. Removing this ridge and re-profiling the banks to a more natural gradient has reconnected the river with the flood plain and created an additional area of flood storage.

The project also created one 100m long purpose-built salmonid spawning channel Salmon were seen spawning on the newly introduced gravel upstream of the old structure only weeks after the project had finished.

Fish surveys in Summer 2018 have recorded thirty salmon 'parr' caught in a five-minute 'Catch-Per-Unit-Effort' survey of the newly restored site – the highest number ever recorded in the River Test using this type of survey. The previous record using this technique was 13 salmon caught on the river at Mottisfont.



River restoration

Southington River restoration

A total of 400m was restored at Southington on the River Test as part of the Test and Itchen River Restoration Strategy. The collaborative river restoration at Southington House was one of the most challenging and interesting of all the restorations undertaken by the Strategy so far. Not only was it technically challenging, but historic records showed that there had been a structure at this site since the 15th century and a working Silk Mill straddled the river here from 1769 to 1848. Consequently this valuable historical heritage had to be taken into account. The river was temporarily diverted through a series of pipes and pumped to downstream of the works area (after fish were safely relocated downstream) so that work could take place in a dry river bed. This also allowed the archaeologists the opportunity to search the river bed prior to the start of the works.

Two rock ramps were subsequently installed to ensure that post-restoration the reach still ensured flow down an offtake to a separate SSSI channel. Each of these had to be designed to allow up and downstream fish passage for all species.

Providing up and downstream fish passage for all species was a major part of this restoration. Fish had not been able to get past the structure for maybe centuries. Once removed and the river reinstated trout and grayling were seen swimming up and downstream immediately



Southington River

River Dun Fish Passage- the Dun is done

Fish monitoring for the Water Framework Directive classified the fish population on the Dun as 'Moderate' largely as it was missing key migratory species such as trout and eels which after investigation was attributed to a number of structures along the catchment.

Much time and effort has been invested by the Environment Agency and the Wessex Chalk Stream Rivers Trust (WCSRT) (alongside other stakeholders) over recent years to improve fish migration opportunities along the River Dun. A number of small weirs having been removed and in-channel habitat improved. The river is just over 18km in length with two mills (Lockerley and Holbury) located on the lower reaches of the Dun representing a complete obstruction to fish migration that consequently limited fish access to approximately three-quarters of the remaining upstream reaches of the Dun.

In 2017 through a partnership project the Environment Agency and WCSRT completed the works on the ground to address fish passage at these two remaining structures.

As well as the installation of two Larinier fish passes, fish easements and eel substrate, the sites also underwent renovations to various flow control structures to ensure that fish passage was optimised under the full range of flow conditions the site experiences.



Larinier fish pass installed at Lockerley



Larinier fish pass installed at Holbury with eel substrate attached to right side of the fish pass

5. Monitoring

Monitoring of all fish species is vital to our assessment of the condition of the environment. Surveys of fish populations, including coarse fish, are used to assess the status of stocks and contribute to the overall assessment of ecological status of a water body. In SSD:

102 Waterbodies 39% of waterbodies assessed for fish 2016/17

assessed were at good status or above for fish

You can look at our Catchment Data Explorer for more information.

Tichborne Lake

This monitoring followed on from the Tichborne Lake restoration project carried out in 2016/17. The project involved the creation of 800 metres of new and restored chalk steam habitat, whilst simultaneously addressing long-term issues of the online lake being a source of sediment to downstream reaches of the River Itchen. The project, delivered by Aquascience Ltd, was made possible due to the partnership formed between the Environment Agency, Tichborne Estate and Natural England.

The first fish survey was carried out just four months after the project was completed.

The catch was dominated by wild brown trout, the majority of which were young of the year, although a couple of parr and an adult were also caught.

A 227mm European eel and a brook lamprey were also found, as well as bullhead and 3-spined stickleback. During our survey it was evident that the restored channel was already producing a good flow diversity and macrophytes were starting to establish and it was promising to find that a number of trout had already colonised the stretch.

The restored channel will be surveyed annually in order to track the establishment of the fish population and the habitat.



An example juvenile and the adult brown trout caught in the restored stream

Our fish count data is now available online here

For information on what we are doing across the rest of the country read our other Area reports

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