

Living Rivers Roundup 2016/17

PROJECTS

1/2 km of **river channel** enhanced

1/2 km of **over-shading trees** cleared

55 ha of **still water** habitat made available to eels

VOLUNTEERING & TRAINING

3 active **Living River** champions

5 river habitat **restoration workshops** held

50 **people trained** (River Stort)

ENGAGEMENT

2 conferences

7 events

2 talks

12 **riparian landowners** engaged

River Lea Catchment Partnership update

HMWT has hosted the River Lea Catchment Partnership since 2014. The partnership brings together stakeholder groups in the Lea Valley that have an interest in the River Lea and its tributaries. The partnership has identified objectives for each river and developed catchment management plans in order to deliver these.

In 2016/17 there were five Catchment Partnership meetings in addition to the first Lea Catchment Conference. The conference was held at the University of Hertfordshire's Bayfordbury campus and attracted around 50 attendees. Over the past three years the partnership has achieved significant accomplishments, completing a total of 25 projects with a further 53 projects ongoing and 26 planned for the future.



Looking forward the Lea Valley Nature Improvement Area (NIA) are now developing a funding bid led by HMWT that will deliver a landscape scale project for the Stort Valley which will deliver key objectives for the River Stort. Work is also underway within the catchment partnership to develop an action plan for barbel in the Lower Lea as well as continuing to deliver on European eel conservation and projects planned for the rivers in the Catchment Management Plan.

Catchment partnership projects delivery progress

CATCHMENT	POTENTIAL	PLANNED	ONGOING	COMPLETED	TOTAL NO. PROJECTS
Upper Lea	4	2	10	4	20
Middle Lea	0	3	3	0	6
Lower Lea	5	2	2	1	10
Mimram	13	2	16	7	38
Beane	14	5	13	5	37
Rib & Quinn	1	3	1	0	5
Ash	3	2	2	5	12
Stort	10	7	6	3	26

livingrivers

2017



Herts and
Middlesex

NEWS ON YOUR LOCAL RIVERS IN HERTS & MIDDLESEX

JACK PERKS



» **SLIMY WRIGGLERS**
See how we've been helping the european eel

» **RIVER LEA CATCHMENT PARTNERSHIP**
Read how the partnership is helping local rivers



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River Lea Catchment
Partnership

PROTECTING **WILDLIFE** FOR THE FUTURE



Welcome Welcome to the first Living Rivers newsletter - your annual end of year report on Herts and Middlesex Wildlife Trust's Living Rivers' project.

The project began in 2012 as a partnership between Herts and Middlesex Wildlife Trust (HMWT) and Environment Agency (EA) and forms part of the Trust's Living Landscapes approach that recognises that the best way of securing a future for wildlife is to work at a landscape scale - beyond just nature reserves. Living Rivers emphasises the importance of partnership working, with work taking place together with landowners, delivery partnerships and volunteers.

Conserving slimy wrigglers



2016 saw the completion of Conserving Slimy Wrigglers; a project to improve European eel stocks in the River Lea.



Critically endangered, the European eel has seen drastic declines in global stocks over the last three decades. Declines are attributed to a number of factors including climate change, overfishing and migration barriers. Completion of the project was the most significant achievement of the Living Rivers Project last year and the first step in restoring European eel populations in the River Lea.

In 2015 the European eel became a priority species of the Lea Catchment Partnership and a subgroup was formed to identify opportunities to improve European eel stocks with a focus on improving access to important freshwater habitats. Holyfield Weir in Lea Valley Regional Park was identified as a major barrier to eel migration as well as blocking access to high quality still water habitat at Nazeing Marsh and was made a subgroup priority. This formed the basis of Conserving Slimy Wrigglers, a pilot between Living Rivers, Environment Agency (EA) and Lea Valley Regional Park Authority, funded

by the Catchment Partnership Action Fund and the EA, to design and install eel passes on Holyfield Weir.

The project began by visiting the Duke of Northumberland River in London with the EA and Zoological Society London (ZSL) to see working eel passes. ZSL have been monitoring eel stocks since 2005 and installing eel passes in London's rivers since 2013, including on the lower reaches of the River Lea. Visiting existing eel passes provided a foundation for our designs and how to optimise their usability for eels. With a concept in mind, in early 2016 we commissioned engineering firm Unitspark to design, fabricate and install the eel passes. The designs went through three revisions to ensure they would function correctly, be safely accessible and not impede the flood defence function of Holyfield Weir. A final design was agreed in spring 2016 and fabrication and installation took place in summer 2016.

With the eel passes installed, eels migrating up the River Lea now have

Monitoring river restoration projects

It can be difficult to quantifiably measure outcomes of river restoration projects such as the channel enhancements on the River Stort.

In 2016 HMWT became training providers for the Modular River Survey (ModRS) developed by Queen Mary University London and the EA. The ModRS allows volunteers to record and assess physical habitat and hydromorphological function of rivers.

A pre enhancement ModRS was completed for the River Stort site and a post works ModRS will allow us to compare indices and measure outcomes of the project on the quality of the physical habitat of the river. In 2017/18 Living Rivers will train more users in the ModRS method and begin using this tool to record the physical habitat of Hertfordshire's rivers and monitor the outcomes of restoration and enhancement works we complete.

access to a 3 km stretch of river as well as 55 ha of good quality still water habitat at Nazeing Marsh.

The passes were designed to allow monitoring which will run through summer 2017 to determine the success of the project and give a better indication as to how many eels are moving up through the River Lea. As a pilot project, the outcomes of Conserving Slimy Wrigglers will form the basis of future decisions as the Lea Catchment Partnership continues to work to improve European eel stocks in the River Lea.

River Stort channel enhancements

In 2014 Living Rivers produced a management plan for a stretch of the River Stort near HMWT's Rye Meads Nature Reserve on behalf of the riparian landowner.

Included in the management plan was the pollarding of over-shading willows on the river's banks, as well as a number of in-channel enhancements. The landowner completed the pollarding in 2014 and retained the material for future use in delivering the in-channel enhancements.

The installation of log flow deflectors and brush berms was planned at strategic locations to deliver multiple benefits to channel morphology and biodiversity including: increased habitat complexity within the uniform channel, protecting the river banks from erosion, scouring silt from the gravels on the river bed to increase available fish spawning habitat and creating refuge areas for juvenile fish from predators and high flows.

The installation of small scale in-channel enhancements can readily be delivered by local groups once they have received a small amount of training, the results of which can have a big impact on the biodiversity of a river. Delivery of the in-channel enhancement works on the River Stort was delivered through a series of River Habitat Workshops where project delivery was achieved with the additional outcome of training people in how to deliver similar projects on their own rivers.

Summer group workshop →



The first two River Habitat Workshops were delivered in July 2016 as a partnership between Living Rivers, The Environment Agency, Wild Trout Trust and Affinity Water, who also funded the two sessions. Following this, in February 2017, Living Rivers ran an additional three workshops after receiving funding from the Thames Water's Rivers and Wetlands Community Days Fund. In addition to training in the delivery of the practical aspect of river restoration, the workshops also covered aspects of project planning including environmental permitting, flood defence considerations and funding.

As a result of the work by the landowner and River Habitat Workshop programme, 1/2 km of the River Stort has been improved for wildlife. In addition 50 people have received the training and skills needed to be able to deliver their own river restoration projects, with two attendees already beginning project planning on their own rivers. Work will now continue in partnership with the landowner to deliver further enhancements identified in the 2014 management plan.

European eel

The European eel has a complex and mysterious life cycle which takes it from its freshwater habitats in the rivers of Europe and North Africa to the Sargasso Sea off the coast of Florida where adult silver eels are believed to spawn. Living in freshwater and spawning at sea is a process known as catadromy and eels are one of the few species to do this. On their journey to freshwater, juvenile eels (known as elvers) are often prevented from moving upstream once they reach our rivers by manmade barriers like flood defence weirs.



Eel pass →

