

SITA Project 6007 and NE Special Project

Improving the Conservation Status of Freshwater Pearl Mussel Targeting the Clun SAC and Upstream Waters

Project Report

July 2012 to December 2012

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*Volunteer tree planting on the River Clun SAC (Dec 2012)*

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## 1. New Funding

In recognition of the importance of the River Clun SAC and its population of Pearl Mussels, the Shropshire Hills AONB Partnership has secured additional £100,000 of funding from Natural England for the 2012-13 financial year. The majority of this funding is capital and allocated to riparian management works, complementing work delivered through the SITA's Enhancing Nature Scheme.

The AONB is also funded by Natural England to undertake Wetland Opportunity Mapping and Highways/Sediment research with regard to impact on the River Clun.

This represents a significant increase in project outputs and requires the support of an additional member of staff. The AONB has recruited Ewa Prokop as Catchment Management Assistant who started October 2012. This post is supported by a Natural England/AONB memorandum of agreement.

## 2. Sites for Autumn/Winter Work (*SITA and NE Funded*)

This period, work has focussed on preparatory work for the capital works programmed for autumn and winter. Good progress has been made on identifying sites for riparian works. Contact has been made with the landowners at the sites listed and most have been quoted, surveys undertaken and consents obtained.

Work is underway and/or materials are on site (see below). The extreme wet weather has delayed start or interrupted site work due to flooding making sites inaccessible. Subject to better conditions the project hopes to deliver on the sites listed below:

**NB** Allocation of funds (SITA or NE) will be decided when final costings are in place and grant claims submitted on this basis.

*The Sites:*

### 2.1 *R. Clun at Bryndrinog – Newcastle - This farm is not in any Stewardship Scheme*

**Status:** – Tree Management complete – fencing materials on-site

Total riverbank length to be managed = 1.96km

Issues:

- Uncontrolled stock access (cattle) throughout – heavy poaching promoting accelerated erosion, over-wide channel
- Diseased and over-mature riverbank trees – creating erosion bays
- Simple vegetation structure due to under-management and poor natural regeneration.

Proposals

- Coppicing and pollarding to rejuvenate
- Total livestock exclusion by fencing
- Mains water supply to drinking troughs
- Possible stock bridge

### 2.2 *River Clun at The Garn – Newcastle – The farm is in ESA - going to ELS*

**Status:** – Tree Management complete – fencing complete

Total riverbank length to be managed = 0.65 km

Issues

- as above

Proposals

- Coppicing and pollarding to rejuvenate
  - Stock crossing/livestock watering point
  - Total livestock exclusion by fencing
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### **2.3 Clun SAC Step-a-Side Farm**

The Farm is in HLS (but included due to complexities of HLS modification (Agreed with NE and to be funded by NE)

**Status** – Order placed with contract Tree planter – programed for January 2013

Total riverbank length to be managed = 0.37km

Issue

- Site lacks tree cover (vital to sustain pearl mussel)

Proposal

- Undertake contract tree planting to establish wooded riparian zone

### **2.4 Folly Brook- Upstream of Brook House – Farm In ELS**

**Status** – Materials on site

Total riverbank length to be managed = 0.65km but includes 2000m of water pipe

Issues

- Uncontrolled stock access (cattle) throughout – heavy poaching promoting accelerated erosion of headwater stream
- Simple vegetation structure due to under-management and poor natural regeneration.

Proposal

- Estimated 2km of pipework to provide water troughs throughout the holding
- Fencing along headwater stream

### **2.5 River Clun Shelderton House/Gatley Farms – Immediately U/S of Clun SAC In ELS**

**Status** – Tree Management complete. – Fencing started

Total riverbank length to be managed = 2.85km

Issues

- As Bryndrinog

Proposal

- Coppicing and pollarding to rejuvenate
- Total livestock exclusion by fencing
- Controlled livestock watering



*Managing diseased and over-mature trees at Shelderton just upstream of Clun SAC*

### **2.6 River Unk - Mainstone House – in ESA going into ELS**

**Status:** – Materials on-site

Total riverbank length to be managed = 0.57km

#### Issues

- Uncontrolled stock access (cattle) throughout – heavy poaching promoting accelerated erosion of headwater stream
- Simple vegetation structure due to grazing and poor natural regeneration.

#### Proposal

- Fencing along headwater stream
- Pipework to provide water troughs
- Culverts across stock track/gateways
- Tree planting

### **2.7 River Redlake - Jay Barns– Tributary immediately upstream of Clun SAC – In ELS**

**Status:** Pending

Total riverbank length to be managed = 2.0km

#### Issues

- Uncontrolled stock access (cattle) throughout – heavy poaching promoting accelerated erosion of headwater stream
- Simple vegetation structure due to poor natural regeneration.

#### Proposal

- Fencing along stream just upstream of SAC
- Drinking Bays
- Sediment trap?

### **2.8 River Clun and Riddings Brook - Weals Farm — In ESA (not going to HLS)**

**Status:** Pending

Two Headwater streams - total riverbank length to be managed = 2.33km

#### Issues:

- Uncontrolled stock access (cattle) throughout – heavy poaching promoting accelerated erosion, over-wide channel
- Simple vegetation structure due to under-management and poor natural regeneration.

#### Proposals

- Coppicing and pollarding to rejuvenate
- Livestock exclusion by fencing
- Livestock drinking bays

### **2.9 Middle Clun - Hurst Barns - not in any scheme**

Total riverbank length to be managed = 1.96km

**Status:** Pending

#### Issues:

- Uncontrolled stock access (sheep) throughout – limited poaching, but no natural regeneration due to grazing.
- Diseased and over-mature riverbank trees – creating erosion bays

#### Proposals

- Coppicing and pollarding to rejuvenate
- Livestock exclusion by fencing

## **3. Other Site Management Work**

### **3.1 Solar Livestock Pump (SITA funded)**

The solar powered livestock pump installed by EA is still undergoing trials. As soon as we feel this is a satisfactory solution for the farm we should be in a position to install a unit at Upper Duffryn Farm on the upper Clun.

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### 3.2 Re-wetting/ditch and drain blocking (SITA Funded)

The project has identified most of the farms in the Upper Catchment as having potential for upland re-wetting. This element of the SITA project is proving difficult to implement due to the uncertainty/eligibility of long-term compensatory payment through agri-environment schemes. Compounding this uncertainty, most of the upper Clun is in transition as ESA is due to end 2013/14.

To move this element forward, the project has met to discuss hydrological restoration at a farm near Newcastle. The landowner is willing to explore ditch blocking prior to entering HLS agreement, however, this is subject to appropriate HLS management options. Natural England is looking at this.

### 3.3 Sediment Traps (SITA Funded)

This element to be brought forward in the light of issues associated with upland rewetting

We have progressed this element of the project and have proposals for a number of sites – Site visits made and plans drawn up for:

- Jay Lane on the Clun SAC - Negotiating with Amey (Herfs Council). For a sediment trap to intercept sediment running down Jay Lane
- Upper Duffryn (Upper Clun) - For a sediment trap to control sediment runoff through the farmyard
- Jay Barns - immediately upstream of Clun SAC - sediment traps to control sediment runoff to minor watercourse
- Cow Hall (upper Clun) - For a sediment trap and track improvements to control sediment running to highway and to river Clun

## 4. Community Engagement (SITA Funded)

The project continues to support the Land, Life and Livelihoods (LLL) community initiative. The project supports LLL e.g. by liaising with agencies and helping with grant applications.

- Supported LLL Water Harvest Festival held 13<sup>th</sup> October 2012
- Exploring LLL application to River Restoration Fund and other funding "streams". A Collaborative Partnership with EA and the LLL initiative has submitted an EA MURCI waters funding bid to look at Septic Tanks in the Upper Clun Catchment. With support from CEH Survey/assessments of resident's septic tanks will be undertaken during Jan and Feb (see Clun Chronicle article).
- LLL held a social event in July to raise awareness of LLL, 80 people attended.

## 5. Working with Volunteers (SITA Funded)

The next round of tree planting is lined up for autumn and winter. 16 individuals and 4 organisations have pledged support.

Tree planting lined up for:

- Broadward Hall – Clun SAC – **Completed Dec 2012**
- Upper House Farm – Clun SAC **Planned Jan 2013**
- Jay Barns Farm - **Planned Jan 2013**
- The Garn - **Planned Feb/Mar 2013**
- Shelderton House/Gatley Farms - **Planned Feb/Mar 2013**

### Land, Life and Livelihoods

**G**ood news! The Land, Life and Livelihoods steering group has succeeded in securing funding to help identify any problems people living in the Upper Clun valley might be having with septic tank maintenance. Following the conducting of assessments of septic tanks in the early months of 2013 and subject to the analysis of the results obtained, there may then, possibly, be further financial support made available for improvements or repairs to the tanks considered to be of greatest risk to water courses in the Upper Clun.

It is hoped that what we learn will inform us as to steps we can take to further the improvement of the condition of the River Clun and the life within it, since it is possible that our septic tanks could be affecting the river in ways we need to know about.

During January and February, the residents in the Bettws-y-Crwyn, Mainstone and Newcastle parishes will be contacted and invited to help participate in the project. The contact and analysis of findings will be made by members of our own community.

This is a really forward thinking project, one of the first of its type in the UK, so please, when you are contacted, DO say yes! The survey is short, but the information we hope to receive could be incredibly significant.

The project will contribute to the work of Land, Life and Livelihoods to support thriving farms and communities in balance with the local environment and wildlife of the Upper Clun valley.

Sue Wilks  
and Michael Whithouse



Stakes, shelters and trees ready for planting

## 6. Community Water Monitoring (SITA Funded)

During August the project organised a training day at Middle Spoad on the River Clun. The Environment Agency Analysis and Monitoring team came along to train up volunteers of these 11 will undertake invertebrate monitoring (started) The Environment Agency has also provided the project with a flow monitor and have trained volunteers in its use - 4 volunteers have agreed to do flow monitoring.

ADAS also came along to train up volunteers for sediment sampling/finger printing, this is a separate but allied project managed by Bob Harris of DEFRA.



Flowtracker Training

## 7. Awareness Raising (SITA Funded)

- The Wastewater awareness leaflet (Get to Know Your Septic Tank) has now been produced (copy included) – (SITA Funded)

**Getting to know your SEPTIC TANK**

**How to maintain your septic tank**

**What to do**

- Locate your septic tank, where it disposes and whether you have a soakaway.
- Check all parts of your septic tank regularly.
- Ensure access points are secure and in good working order.
- Monitor your water usage to prevent your septic tank over filling and potential sewage being pumped through the system.
- Keep a record of your system, where it was last emptied, its location, date, age and size. This will be useful for any emergency repairs and if you have to sell or move your property.
- If you have a blockage, contact a licensed contractor and have your system checked.

**What to avoid**

- Look out for products that are 'suitable for septic tanks' and 'environmentally friendly'. These products will have had no impact on the bacteria that live in your tank, helping it perform to its full potential.
- Look for products that contain phosphates. High phosphates can encourage algae to grow in your septic tank and increase the risk of blockages and overflowing.

**What to avoid**

- Avoid using cleaning products which kill bacteria, as these are essential for septic tanks to work.
- Do not connect a dishwasher, washing machine, or clothes dryer to your septic tank. These appliances are not designed to be connected to septic tanks and they do not have drain inlets in your home and can cause blockages.
- Avoid the use of disinfectants, bleaches, drain cleaners and other powerful chemicals. These can kill the bacteria in your septic tank and cause your system to fail.
- If you spread your kitchen rubbish through the week, the impact on your system will be reduced.
- Do not dispose of paints, sanitary waste, papers or other liquids in your wastewater system as they can cause blockages and do not break down easily in the tank.

**Useful Information**

**Engaging and Servicing Your Tank**

To find a suitable septic disposal contractor in your area search the Yellow Pages under:

- Septic Tank Services
- Drain and Pipe Cleaning
- Seepage Contractors

Contractors should be registered with the Environment Agency.

**Information on Managing Your Tank**

Before Water

www.beforewater.co.uk and click on "Publications" to download technical guides and fact sheets to help you manage your tank.

**Environment Agency**  
Customer service number: 0300 300020  
www.environment-agency.gov.uk and search for PWC 4

**Shropshire Hills AONB Partnership**  
The Old Post Office, Shrewsbury Road, Caven Arms, SY7 5NZ  
Tel: 01951 829000  
Email: shropshirehillsaonb@shropshire.gov.uk  
www.shropshirehillsaonb.co.uk

**SITA trust**  
Shropshire Hills  
AONB Partnership

**Happy Tank Healthy Environment**

A well managed septic tank reduces the risk of contamination to watercourses, providing a healthier environment for your household.

**YOUR WASTEWATER TREATMENT SYSTEM**

**5 Key Steps to Maintaining a Happy Tank & Healthy Environment**

- Have your tank emptied (desludged) regularly (every 1-2 years) with a licensed contractor.
- Check your system – the effluent should be relatively clear and odour free.
- Maintain a healthy bacterial community by using cleaning products and detergents in moderation and products that are 'suitable for septic tanks'.
- Avoid putting anything hazardous down your drains.
- If you have a problem with your system always consult a licensed contractor.

**How to Locate Your Septic Tank**

- Usually downhill from the property – look out for a metal or concrete lid.
- If you are new to the property, check the title deeds or ask your landlord.
- You may share the system – check with your neighbours.
- Usually it should not be within 10m of a watercourse or 50m of a bore hole, spring or well.

**How a Septic Tank Works**

- Wastewater from your property goes into the septic tank or sewage treatment plant.
- The heavier substances sink to the bottom of the tank, separating from the liquid.
- A septic tank is home to a living ecosystem where helpful bacteria work to digest poo and other solids.
- Oils and fatty substances float above the liquid (as do some white gases are trapped at the top of the tank).
- The liquid effluent then drains away from the tank into a soakaway.
- Once in the drainage field the effluent is filtered through the soil and into the ground water table.

**5 Signs of an Efficient Tank**

- The effluent should be pale or clear with little or no odour (use your inspection checklist to check).
- If your wastewater treatment system is running correctly it should not emit, the drainage field should not be overtopped and it should have little impact on your local environment.
- To keep your system running efficiently have it emptied and serviced regularly as the build-up of sludge is the most common cause of problems.

**Warning Signs**

- Unpleasant odour from the discharged effluent.
- The soakaway may be blocked if the area is swampy, smelly or has prolific grass growth.
- Discoloured grey or dark effluent.
- Patches of visible effluent or sewage fungus (grey) white cotton wool in appearance on the drainage field.
- Slow-draining pipes or gurgling sounds from the drains.

**Warning signs should be acted on immediately to prevent environmental damage or risk to health.**

**Do I Need to Register My Tank/System?**  
Visit [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk) or call 03708 506506 for latest information

**Shropshire Hills AONB Partnership**

- Presentation to Freshwater Biological Association (Windermere) re recent pearl mussel conservation work in the Clun Catchment (joint with EA)
- Pearl Mussel talk given to Clun and Bishop's Castle Branch of the Shropshire Wildlife Trust

- Pearl Mussel talk in support of Teme Catchment Pilot consultation exercise
- Clun Pearl Mussel display and gave Pearl Mussel Talk at LLL's Water Harvest Festival, Newcastle



*Display detailing AONB pearl mussel project work – LLL Water Harvest Festival Event*

## **8. Research Elements** *(NE funded)*

The project has been commissioned to undertake Wetland Opportunity Mapping to better understand the potential of the catchment to retain water, as a 'natural flow regime' is vital to pearl mussel survivorship. The project is also undertaking Highways Sediment research to assess the how highways act as a conduit to transport sediment within the catchment.

The AONB is working Shropshire Council's Natural Environment Team to deliver this element and will report at the end of the financial year.

## **9. Partnership Working**

The project continues to work closely with Natural England, The Environment Agency, Catchment Sensitive Farming Initiative, Severn Rivers Trust and Community groups.

The project is represented on the:

- Clun Field Officers Group
- Clun Delivery Group
- Clun Catchment Partnership (AONB host)
- Teme Pilot Partnership
- Land, Live and Livelihoods community group

**NB** As most of the riparian management is planned for Jan to March an end of year report will be submitted at the end of the current financial year – this will report on sites activity in more detail.