

**Progress Report** (Mar 2016 – Sept 2016 inclusive)

**1. Weed management**

Weed clearance commenced in earnest in March this year – about a month earlier than usual – in an attempt to get a headstart on removing the invasive Water Soldier. The new weedboat has been in operation 4-5 days a week until September and will continue to be used 2-3 days per week until mid – late October.

Although Craig Saunderson is the main operator of the boat, both Jo Roberts and Mark Baker have spent many days driving it and have become proficient in its use. The boat is proving to be much faster and more reliable than the old weed harvester. As a result, despite the apparent continued increase in quantity and extent of Water Soldier in the Canal, the Canal Rangers have managed to prevent it from dominating the whole channel in any section (as often happened in recent years).

90% of the new boat's work is done using the large rake on the front arm, but the T-cutter and the trailing knives have both been used effectively to cut back reeds and horsetail (which are both rooted into the bed of the canal) in order to keep the central channel clear.

However, despite these improvements in the effectiveness of removal techniques, it is apparent that a large quantity of Water Soldier always escapes removal (slips between the tines or is inaccessible along the edges of the canal) and that any thought of completely eradicating the plant from the canal is probably unrealistic.

**2. Depot embankment tree project**

Following advice provided by an arboricultural consultant, a major programme of coppicing was undertaken along the offside embankment between the Post Hill depot and the golf course, on the Swan's Neck. All of the trees along the water's edge were felled and a large number of less stable trees along the slope of the embankment were also felled. It is anticipated that the majority of these will grow back to create a thick understorey, softening the effect on the landscape and providing excellent nesting cover for birds.



The work generated about 65 tonnes of firewood. 45 tonnes were sold wholesale to a firewood merchant in Sampford Peverell and the remaining 20 tonnes has been sold directly to domestic customers by the Canal Ranger Service.

The large Weeping Willow near Sampford Peverell was due to be felled as it has been slowly tipping into the canal for a number of years and would have been extremely difficult and expensive to remove were it to have tipped over completely. An adjacent conifer was felled for the same reason. However, some extensive pruning work has removed the risk of it tipping into the canal, whilst keeping a large stem and retaining the tree as a prominent feature in the canal landscape at this location. The photos below show the scene before and after the work.



### 3. Fallen trees



High winds in March and April brought down several trees along the canal, including three very large oaks – one near East Manley Bridge, one near the golf course on the Swan's Neck and one near Warnicombe Bridge

On each occasion the Canal Ranger Service managed the situation and with the help of a team of tree surgeons and a local telehandler operator, and were able to clear the trees promptly so that towpath users and the horsedrawn barge were affected as little as possible.

#### **4. Other tree works**

The crown of a very large Ash tree near Waytown Tunnel has died back considerably in recent years and has required some extensive work to be undertaken by rangers and tree surgeons to eliminate the risk of it falling into the canal. It had two main stems and the one which leaned over the canal has been coppiced to ground level, whilst the stem which leans back has been retained as a high pollard. If it continues to decline and then die then the remaining stem will eventually fall back away from the canal.

The Canal Ranger Service have commenced the annual task of crown-lifting and cutting back trees and branches which overhang the canal from the offside and this will continue during the autumn and winter.

#### **5. Fenacre water transfer system**

As members who attended the summer site visit will have heard, Aggregate Industries have submitted a licence application to the Environment Agency for consent for a new and improved water transfer system. The Canal Manager has recently been copied into email correspondence showing that AI's consultants AMEC Foster Wheeler have been chasing the EA for a decision. Apparently the EA is currently assessing any potential impact on two hydropower schemes near Exeter before making a decision.

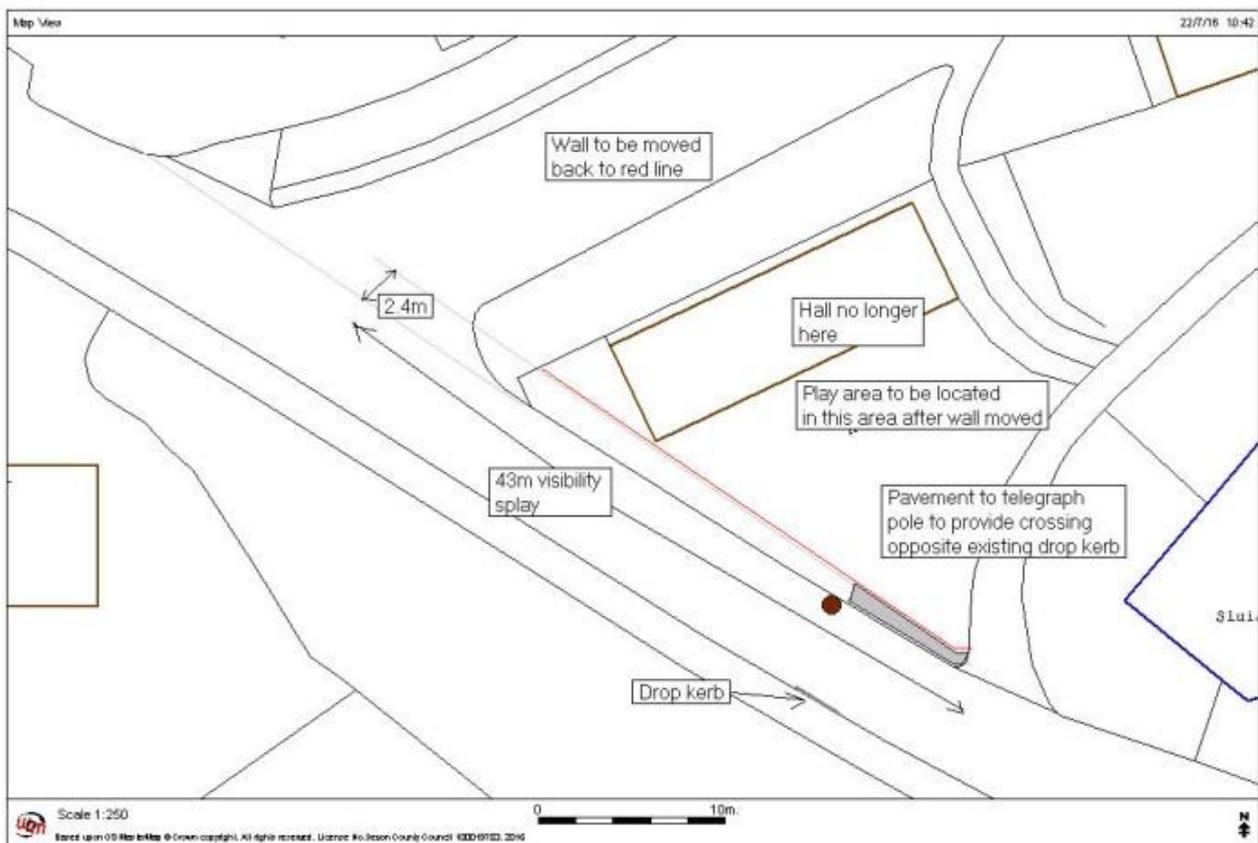
#### **6. Canal Basin play area / wall**

Tendering for the new play area was completed in the early spring with a view to installing and opening it before the school summer holidays. Proludic won the contract and together with assistance from Philip Brind, their designs for the play barge - which forms the centrepiece of the scheme - were tweaked to provide a more authentic looking canal-going vessel. Colour images of the latest designs are appended at the back of this report.

However, before installation was organised, the Canal Manager became aware of potential funding for a project to move back the wall between the play area site and Canal Hill by approximately 1.5m. This would dramatically improve visibility for vehicles leaving the canal Hill car park, without affecting the range of play equipment which could be incorporated to a slightly smaller site.

However, there is a significant impact in terms of timing as the wall project will take many months to design, tender and execute, before the play area can then be installed.

The funding for this project would come from a Section 106 agreement between DCC and developers building houses as part of the Tiverton Eastern Urban Extension. There is a facility for DCC to spend against the agreed income from such an agreement even though the actual payment will not be made for several years. A developer has recently pulled out of the EUE and so it is likely that this may lead to some further delays in the wall project. However, it has been agreed that the design work may be able to proceed in the meantime, subject to a reasonable quote for design costs being submitted by DCC's designer, Jacobs. At the time of writing we are awaiting that quote.



Due to these uncertainties, it is difficult to say at present exactly when the wall project will go ahead and then when the play area will subsequently be installed.

In order to maximise visibility for drivers leaving the car park and pedestrians crossing the road at the end of the towpath in the meantime, the Canal Rangers and volunteers spent a day removing all of the ivy and brambles which had grown on the walls. Stop / go traffic control was used to provide a safe work space and the stumps of the ivy were treated with glyphosate to prevent re-growth.

## 7. Stopboard trial

Following the breach in 2012, DCC reviewed its systems for damming off sections of canal. It was concluded that the wooden stopboard system - which was developed in the 1980s - is unsuitable for emergency situations and for working behind (in a drained section of channel) during routine maintenance.

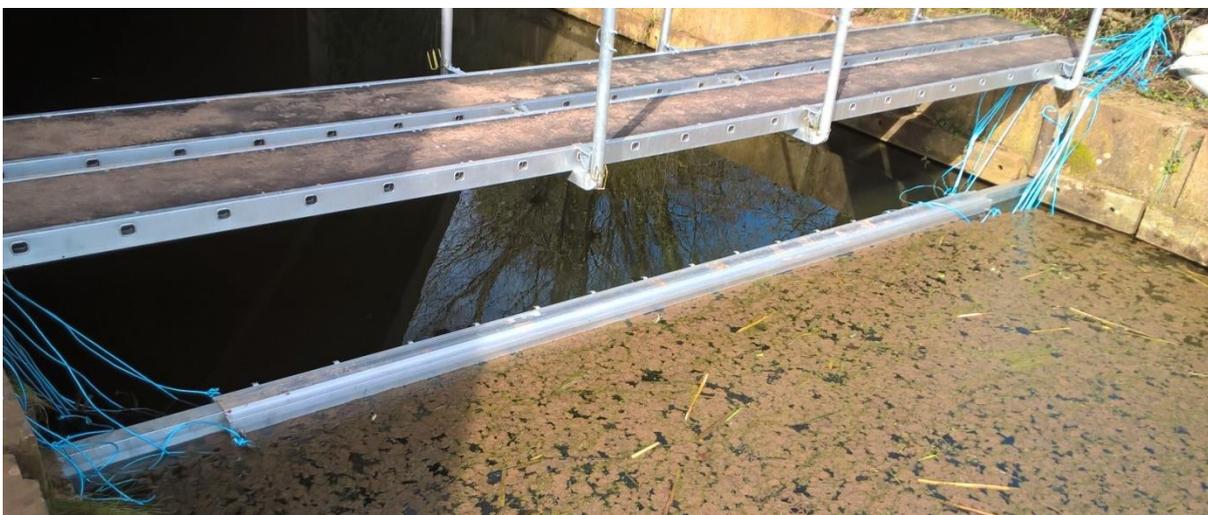
Last year the Canal Rangers took delivery of 22 new aluminium stopboards which are based on a design developed in recent years by the Canal and River Trust. These boards are hollow and accommodate arms at either side, the length of which can be set to fit any of the damming off points under the Canal's bridges.



The key advantages of this system are:

- They can be deployed using Youngman boards (lightweight bridges) so there is no requirement for any staff to enter the water.
- As they are hollow, they fill with water and sink, and so can still be deployed if there is a flow of water (e.g. if a breach has already occurred)
- Unlike the timber boards, the structural properties of the boards are uniform, unchanging and easy to calculate, and so are safe and reliable for staff or contractors to work behind if a section of canal has been drained.

In April a purpose-made chain-hemmed tarpaulin was delivered, which is used to seal the gaps between the arms. The Canal Rangers, engineers from DCC's Bridges and Structures Team, and contractors with experience of deploying the tarpaulin system, conducted a trial.





The trial was conducted at Boehill Bridge where there are stop plank grooves on either side of the bridge. Aluminium stopboards were deployed on the northern side and the timber ones were deployed on the southern side. Once the tarpaulin was laid out, a large pump was used to draw down the water level underneath the bridge and ensure that the tarpaulin achieved a good seal against the aluminium boards.

Advice was also given by the contractors on how to deploy the tarpaulin in a breach situation when there would already be a considerable flow of water through the gaps between the arms.

It was agreed that the trial had been very useful. Not only did it provide valuable experience for the Canal Ranger Service and DCC engineers on how to use the system, but also identified and resolved some issues with the equipment and how it is deployed. Hopefully they will never have to be used in an emergency situation, but if necessary, the Canal Rangers now know exactly what to do.

## 8. Public toilets

The public toilets in the Canal Basin car park are an important facility for Canal visitors and in April some important maintenance work to the exterior of the building was undertaken:

- Three external doors which were rotting at the base



have been replaced and improved magnetic timer locks have been fitted to the Gents and Ladies doors (the disabled toilet had a new maglock fitted last year).

- Several rotten sections of fascia board and soffit have been replaced
- All exterior timber has been painted.

At the time of writing quotes are being sought for repainting the interior suspended ceilings, replacing some missing tiles and re-fitting some slipped roof slates.

## 9. Leaks

In early April the Canal Rangers and contractors spent a couple of days looking for leaks near Tidcombe Bridge. The owner of the house beside the towpath has been complaining of water coming up in his garden for some time and so after divining some possible leaks on either side of the bridge, trenches were dug to try and intercept them.

On the northern side of Tidcombe Bridge, a JCB was able to access the site and bring in a few tonnes of puddling clay to back fill behind any leaks. After digging two deep trenches, only one minor leak was discovered.

On the following day, a small excavator (which was able to fit under the William Authers Footbridge) was brought in to search for a potential leak on the southern side of Tidcombe Bridge. Once again, only a small leak was found which suggests that the water in the neighbours garden is coming from somewhere other than the canal.

Another persistent leak near Warnicombe Bridge has been sealed several times this year. A more permanent solution is being planned, but may require the felling of a large oak on an embankment, underneath which the water flows.



## 10. 'All Aboard!' sculptures

This year, Tiverton Museum has organised the production, decoration and installation of a number of 'Tivvy Bumper' models in and around Tiverton. The initiative – titled 'All Aboard!' has included two sculptures placed beside the canal. There is one beside the visitor centre in the Canal Basin which was designed by the Olympic runner, Jo Pavey, and another is located beside the towpath next to The Globe Inn in Sampford Peverell. Colour photos of both are appended at the back of this report.

## 11. Ranger Service training

Jo, Craig and Mark have completed a Working safely in Water training day held at the canal in March. As well as general principles relating to water safety, the course focussed on the safe use of drysuits and the effective use of throwlines in various situations. Although they have been using drysuits for many years, it is reassuring to now have the appropriate training to back up their practical experience.



## 12. Green Flag Award

The Country Park has once again been successful in retaining its Green Flag Award. Two judges spent a day at the Canal in June and were clearly very impressed with the site and its management.

In addition to visiting a number of points along the canal and spending time reading the management plan, they also had lunch at the Duck's Ditty with the Friends Group Chairman, Robert Hodgson, and Tiverton Canal Co. MD, Philip Brind. Thanks to Robert and Philip for giving up their time to discuss the management and maintenance of the canal with the judges.



The Canal Ranger Service celebrated the announcement of the Award with members of the Friends of the Grand Western Canal at the Mid Devon Show, where they shared a stall.

### **13. Tilting weirs**

A verbal update will be provided at the meeting.

### **14. Fenacre Farm / flooding**

A verbal update will be provided at the meeting.

### **15. Fringed lily control**

The invasive Fringed lily (which has yellow flowers) has continued to spread and so a specialist contractor has spent a day treating all of the outlying patches between Tiverton and Sampford Peverell with glyphosate (under licence from the EA). The main area of infestation around the Swan's Neck was treated last year and just a thin band beside the bankside vegetation remains.

### **16. Tiverton Road Bridge car park works / issues**

- Earlier in the year, a number of potholes that had been forming in the car park were patched.
- A new mobile catering stall has been operating under agreement with DCC at the car park this year. Feedback has been good and the proprietor seems keen to continue next year.
- At the time of writing the Tiverton-Halberton waymarker located beside the towpath and the Dudley Weatherley Jubilee Bridge has been snapped off at ground level by vandals. The Canal Ranger Service will organise the repair or replacement of this waymarker as soon as possible.
- A number of the planks decking the Dudley Weatherley Jubilee Bridge are cracking or becoming uneven and so the Canal Ranger Service plan to fit new decking this autumn.
- The timber seats and tablet of the picnic bench at the far end of the car park will also be renewed this autumn.

### **17. Towpath mowing and strimming**

The Canal Rangers and volunteers have once again done a great job of keeping the towpath clear this year. In terms of time, it is the second most time-consuming for the Rangers (after weed-cutting) and when the volunteers time is taken into consideration it is easily the biggest task in terms of man-hours. As well as mowing the towpath edges and picnic sites and strimming around benches, fishing swims are cut at regular intervals to provide swims for anglers, landing points for boats and views of the water for walkers.

The bank and hedge-side vegetation is sided up once it starts to fall across the towpath using the Canal Ranger Service's Kubota tractor and side arm flail.

## 18. Erosion and drainage works

Contractors have completed a number of works to the north of Burlescombe. A very muddy area of towpath (due to water draining from land above) south of Fenacre Bridge has been dried out through the installation of a French drain. An area of eroded bank near Waytown Tunnel (caused by water drainage and dogs climbing out of the canal) has been reinforced by installing a stone-filled gabion basket.

## 19. Spot dredging at Manley Bridge

A road drainage channel empties into the canal at Manley Bridge and most years a large volume of soil and gravel is washed in at this point, forming a spit of 'land' which extends into the canal. An excavator contractor was engaged to dredge this out in late March, prior to the first horsedrawn barge trip of the year.

## 20. Sampford Peverell picnic site

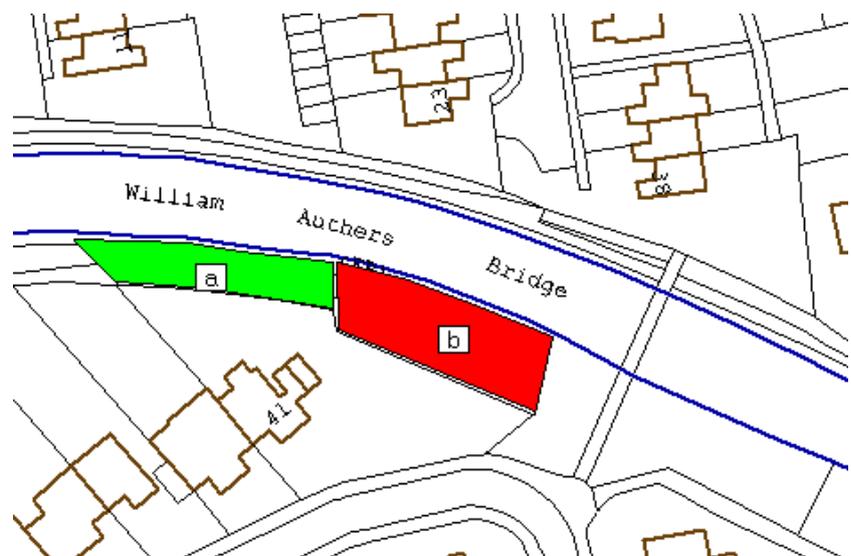
A group of three Silver Birches have been planted within the picnic site in the area where a horse chestnut was felled last winter (due to being ring barked by something / someone).

A similar problem of bark being peeled off the orchard trees in the corner of the picnic site has been spotted by the Sampford Peverell tree wardens. In order to protect the trees, the Canal Ranger Service has provided them with fencing material and tools so that they can build guards around them. At the time of writing, five guards have been built and six are due to be built shortly.

## 21. Land beside William Authers Footbridge

JAC members will be aware that planning permission has been granted for a new bungalow to be built beside 41 Spurway Road. The owner has enquired about renting some of the land in front of the site under a Garden Agreement.

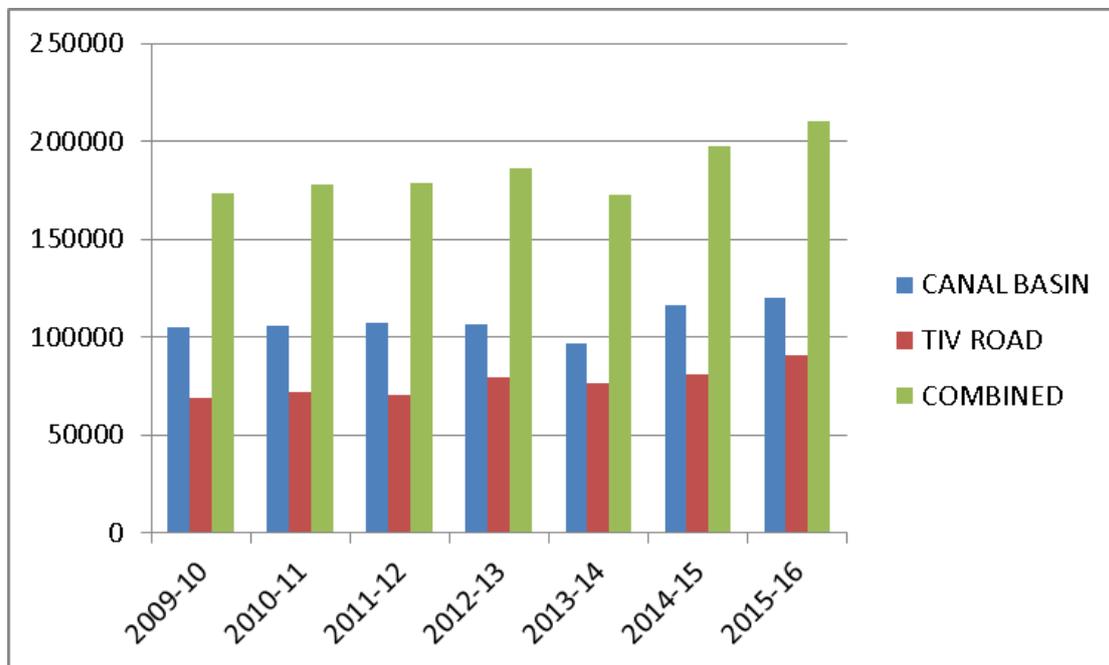
Given that the existing and proposed properties may end up with different owners the suggestion is to have two agreements from the outset, as per the plan, with a) for number 41 and b) for the new bungalow, but with both being taken up by the present owner until such point as he sells either property. The Canal Manager has explained that the terms of the agreement enable DCC to dredge onto the land after providing a period of notice and the land owner is still keen to proceed.



As the areas of land are much larger than in most other garden agreements, the rent would reflect this. An area of land beside the bridge would not be rented to preserve access for boaters to moor under the bridge and walk to the Canal Basin. The Canal Manager is minded to proceed with the agreements, but given that the JAC has discussed the land around the bridge before (on that occasion in relation to a potential sale of land) and is aware of the recent planning application, wished to share the proposals with members first.

## 22. Visitor numbers

The annual totals for vehicles using the Canal Basin and Tiverton Road car parks have been supplied by DCC’s Highway data technician and reveal a continued increase in vehicle numbers at both car parks over the period between August 2015 and July 2016. The figures below show projected visitor numbers arriving at the two car parks based on an assumption of an average of two occupants per vehicle.



Taking this 6% increase into account, our estimate for total annual visitor numbers to the Country Park now stands at 310,000.

## 23. Atherton Way

In recent years a number of properties at the end of Atherton Way in Tiverton have suffered from flooding incidents and have had to live with an ongoing threat of further flooding.

A range of works have been undertaken by various agencies to address this issue. Attention has now turned to the ditch which carries water between number 14 Atherton Way and number 34 Francis Crescent. There is concern that the ditch is filled with debris and has a number of bottlenecks and partial blockages along its route and so is not draining water as effectively as it should. As a result there is a danger that:

- a) Debris may be deposited within the recently cleaned culvert that leads to the open ditch, reducing its capacity and adding to future cleaning costs;
  - b) During high rainfall, water may back up and cause flooding;
  - c) During high rainfall, water may overtop into the canal, contributing to rapidly rising water levels and causing siltation of the canal.
- In order to address these concerns, Devon County Council – which owns the land between the gardens and the canal is planning some works to clean out the ditch and standardise the capacity of the ditch along its length.

Later this autumn/winter we plan to undertake these works. A topographical survey has been completed and DCC engineers are currently finalising designs prior to tendering the works. Adjacent residents have been informed of the proposed works and will be contacted individually to explain what work will be undertaken beside their properties. It is likely the works will require the felling of some medium-sized willows and conifers growing beside the ditch.



Dredging debris from the canal that had been washed in when the ditch overtopped during storms in 2012

## 24. Wildlife Advisory Group

In recent years it has become increasingly difficult to find dates that all members of this group could make, and the meetings had become rather repetitive. Members have agreed that rather meeting at set periods regardless of whether there are any specific issues to discuss, it is preferable to just meet when we need in order to discuss a particular topic.

To that end a site visit was recently held to discuss the management of fringing reeds in the Ebear Bridge area. A significant amount of reed clearance was undertaken by excavator contractors last year in the section between the sluice and Ebear Bridge. The next section (Ebear to Westcott) is the most sensitive along the canal for dragonflies, and so it has been agreed that this will be broken down into two sections with two or three years gap between work in each section, so that all of the towpath-side habitat is not disturbed at once.



## **25. Events**

The Canal Ranger Service have run or attended the following public events this summer:

- Uffculme Green Day – 14<sup>th</sup> May
- Canal Bat Walk – 8<sup>th</sup> July
- Mid Devon Show – 23<sup>rd</sup> July
- Fun on the Water – 31<sup>st</sup> August
- Petroc Fresher's Fayre – 22<sup>nd</sup> September

## **26. Talks**

The Canal Manager has given talks about the Canal to the following groups:

- Bovey Tracey Primary School -16<sup>th</sup> March
- Halberton Village Meeting – 3<sup>rd</sup> May
- Clayhanger WI – 10<sup>th</sup> May
- Haldon National Trust Association – 2<sup>nd</sup> August

## **27. Volunteers**

288 volunteer days were completed between March and September (inclusive).

## **28. Ranger-led Walk and Talk (Healthy walks)**

- Halberton – 16<sup>th</sup> March – 18 participants
- Holcombe Rogus – 18<sup>th</sup> May – 27 participants
- Sampford Peverell – 20<sup>th</sup> July – 25 participants
- Tiverton – 21<sup>st</sup> September – 13 participants

## **29. Ranger-led school / community group visits**

- Castle Primary – 83 pupils
- Home educators – 26 children
- Heathcoat Primary – 56 pupils
- Blundells Prep. – 24 pupils
- Sampford Peverell Primary – 22 pupils
- Clyst Hydon Primary – 20 pupils
- 3rd Tiverton Brownies (pond-dipping) – 21 children
- 2<sup>nd</sup> Tiverton Beavers (pond-dipping) – 15 children
- Willand Scouts (bat walk) – 15 children

### **Future programme of practical works by Canal Rangers over next six months**

- Cutting back overhanging branches throughout the canal
- Laying several sections of hedgerow
- Weed harvesting – collecting as much Water Soldier as possible before it sinks
- Coppicing trees on embankments
- Hedge and bank cutting
- Mowing and strimming towpath and picnic sites
- Crown-lifting low branches above towpath and in front of bridges
- Scrub-clearing to enable more thorough inspections of embankments

### **Major projects for next six months**

- Installation of tilting weirs
- Re-profiling Atherton Way / Francis Crescent ditch
- Reed removal in Ebear Bridge area
- Relining of section beside Westcott Bridge
- Sharing and testing of Emergency Response Plan
- Finish drafting new Canal Management Plan
- Movement of Canal Basin wall / installation of new play area in Canal Basin
- Interpretation panel improvements in Canal Basin and Lowdwells
- Visitor Information Guide update and reprint

## Appendices

### Appendix 1

#### Canal Play Area – Updated designs for ‘Play Barge’



## Appendix 2

### All Aboard! – Tivvy Bumper models located at the Canal

