

Progress Report (March 2017 - September 2017 inclusive)

1. Tilting weir

The new tilting weir beside the old main sluice in Burlescombe has been operational since the spring and during the summer had metal gantries fitted to provide safe access for staff. The Canal Manager and the DCC engineer who oversaw the installation of the tilting weir have both received training on the use and maintenance of the weir and the control system.



Members of the JAC attending the summer site visit saw the tilting weir and were impressed. Some sought assurances regarding the safety of the structure. The Canal Manager raised these queries with the suppliers during the training session and the following was confirmed:

- The tilting weir cannot accidentally open due to a power surge or failure.
- In the event of an artificial surface being placed below the sensors, the system would not be fooled into thinking the canal levels were suddenly very high and it would instead, just report a fault.
- There are no previous instances of one of this company's tilting weirs or automated systems malfunctioning.
- The stop boards which provide a safety back up in case the weir gets stuck in an open position have now been received by the contractor and are due for delivery before the end of September.



The Canal Manager is working with the supplier of the automated control system to fine tune the automated response to rapidly rising canal levels. During the storms on September 16th the canal levels spiked and although the tilting weir did open automatically, further manual opening was also required. Experience will enable further fine tuning, but vigilance on the part of the Canal Ranger Service (supported by the remote monitoring and alarm system) will always be needed during severe weather.

2. Canal Basin wall-moving project

Work has commenced on the project to improve visibility for drivers leaving the Canal Basin car park and to improve safety for pedestrians crossing Canal Hill to and from the towpath. This will be achieved by moving the wall back between the car park and the towpath by 2m and creating a pavement below. Throughout the summer the Canal Manager has been

liaising with the designers and planners developing the scheme which is funded by developer contributions relating to the Tiverton Eastern Urban Extension.



It is expected to take nine weeks to remove the existing wall, dig out the tons of earth behind it, build a new retaining wall, and to create the new pavement. A temporary telegraph pole has been installed to preserve the power supply to the Duck's Ditty floating café-bar whilst the underground cables are disconnected. The new concrete wall will be faced with stone from the existing wall so that the historic

appearance of this location is preserved.

To enable contractors to complete the work safely, the section of Canal Hill near the entrance to the car park will be closed, with diversions in place for light vehicles via Tidcombe Lane and Blundells Road, and via the M5 and A361 for heavy goods vehicles. Access at weekends will be open whenever possible, with traffic management. A short section of the towpath beside the road will be closed during the works, with a diversion route available along the ramp beside the public toilets.

Once planning permission for the project was secured and a programme had been confirmed, letters were sent to local residents explaining the plans. Whilst there was understandably some frustration at the length of the road closure, some useful feedback was received regarding implications of the closure and diversion route which has been acted on (e.g. parking restrictions on Tidcombe Lane near the primary school to reduce congestion in this area).

Once the wall-moving project has been completed a play area will be installed on the land above. This is currently scheduled to take place in January and February 2018.

Prior to these wall-moving works taking place, the wall which runs from Canal Hill towards the public toilets was repointed and had new coping added, in order to ensure it was in good condition prior to the extra weighting and disturbance that the main works would entail.



3. Other walls around the Canal Basin

The growth of trees planted some decades ago along the southern boundary of the Canal Basin car park has begun to cause some damage to the adjacent retaining walls. Concern was expressed by the bowls club and homeowners below, and following an inspection by a DCC Bridges and Structures engineer, two trees have been felled on his advice. Further work is required to repair and repoint the damaged sections of wall and we are presently awaiting the outcome of an application for DCC corporate funding.



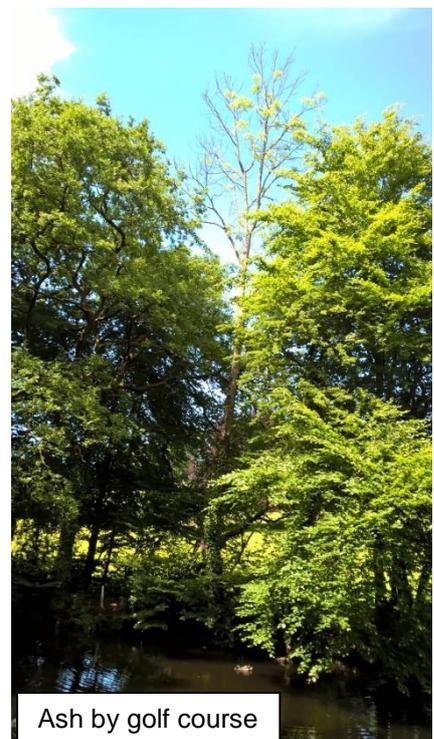
There is also a gradually worsening problem with the wall between the garden of The Moorings and the road. Spray from cars is slowly eroding the soft breccia stone and undermining the wall along the bottom 40cm. Corporate funding has been secured to address this issue by installing a kerb and adding a shoulder of cement to protect the bottom courses of the wall from further erosion. This work will be undertaken whilst the current road closure is in effect in order to avoid further disruption.

4. Ash Dieback

Most JAC members will be aware of this fungal disease which has been predicted to have a devastating impact on the country's Ash tree population. After attracting a lot of media attention a couple of years ago when it was first discovered in the East of England, it has become apparent that it has been present in that part of the country for many years, maybe a decade or more, but had gone unnoticed.

The importation of diseased saplings from the continent has certainly accelerated the disease's spread around the UK, with an early outbreak at Bickleigh, being an example of this. The disease is now present all around Mid Devon and it is clear that many Ashes along the canal are suffering.

We are seeing classic signs of the disease in saplings and coppice regrowth – which are supposed to be the most susceptible – and also a rapid decline in several mature trees, such as those located at Greenway car park,



Tidcombe Bridge, beside the golf course on the Swan's Neck, opposite The Globe Inn in Sampford Peverell and opposite the offside pond between Holbrook and Ayshford Bridges.

It is likely that most, if not all, of these trees will need to be felled as they die in order to avoid the safety risk they will pose, and to offset the higher cost of hauling them out of the canal if they fall or break up into the water. Fortunately it seems likely that the Country Park will be able to access the funding that DCC is setting aside for dealing with this burgeoning problem.

The Canal has a large stock of Ash trees, particularly between Halberton and Lowdwells, and as many trees will have to be felled when they die and become a safety hazard, the character of the Canal landscape and the habitat value for wildlife will undoubtedly be affected, particularly in the short to medium term. The Canal is not a planted landscape and the majority of trees along the canal are likely to be self-seeded. This process will continue and so over time many of the gaps left by Ashes will be filled by other species. However, it is with great regret that many of these landmark and wildlife-rich trees will need to be felled.



Ash in Greenway car park

5. Ramp beside Ebear Bridge

Access to and from the towpath beside Ebear Bridge was previously provided by a narrow and uneven combination of ramps and steps and was not accessible to wheelchairs or mobility buggies. Following the same approach that was used last year at Battens Bridge, a new ramp with handrails has been installed to provide better access at this point.



6. Fenacre water transfer system

Whilst the intention to provide an improved water transfer system for the Canal was reiterated in a recent planning application to extend mineral extraction at Westleigh Quarry, there has been little apparent progress in bringing this to fruition. A meeting with the AI Estate Manager fell through due to an apparent misunderstanding of timings. When the

promised re-arrangement of the meeting failed to materialise, Councillor Radford was asked to use his influence to engage with AI at a more senior level in order to raise the priority of this project within AI. It is anticipated that Councillor Radford will be able to provide an update at the meeting.

7. Lowdwells interpretation panel

JAC members were shown a proof of the design for this panel at the March 2017 meeting. The finished panel has now been installed and has attracted lots of positive comments. Thanks to Councillor Radford for providing Locality Budget funding and the Friends Group for their help.



8. Weed management

Water Soldier: Once again, the Canal Ranger Service has spent a great deal of time this year operating the weedboat, and has succeeded in keeping the canal largely clear of weed. A key to their greater success in removing Water Soldier has been the development of a new technique using the boats trailing blades (the boat has one set, similar to the two sets shown in the photo). These disturb and release the plants when they are on the bed of the canal but are at the point in their lifecycle during the summer when they are naturally buoyant.



The plants are very lightly rooted in the silt and the cutting and disturbance caused by the blades being towed behind the boat is enough to cause the vast majority of plants to rise to the surface at once, forming a thick carpet on the water's surface. The plants are then easily seen and collected up using the boat's rake as shown in the after-blading (left) and after-raking (right) photos below:



Azolla: Amongst the range of alien invasive plant species that are colonising the UK's waterways is one called *Azolla filiculoides* (also known as Water Fern or Fairy Fern, but commonly just referred to as Azolla). Originating in the Americas, it was first recorded in

the UK in around 1840 and has been continually arriving ever since as a popular garden aquatic.

Azolla has a remarkable ability to multiply; fronds grow rapidly and elongate until fragments finally break off to form new plants. The mats that form on the water's surface can be 30cm thick, and during hot weather, can double in size in just 4 or 5 days. These mats:

- block out light, killing our rich and diverse aquatic flora
- reduce the oxygen availability which can lead to the death of fish and invertebrates
- can hamper water-based recreation including angling and boating

On the Grand Western Canal the plant is present in most years along the margins in sections of the canal, where it causes few problems. Occasionally however, climatic conditions are just right enable the population to explode and cover sections of the canal. This year we have seen this in Snakes Wood, where the plant covered the whole channel along a 200m stretch in just a couple weeks. Shelter from the wind has also helped it to happen at this location.



There are no organisms native to the UK that feed on Azolla and the imported plant has not brought all the native American natural enemies with it that keep it in check. Removal by mechanical means is almost impossible and control using herbicide is also difficult, time consuming and contentious.

Research has shown the tiny 2mm long North American weevil *Stenopelmus rufinasus* (right) to be one of Azolla's main natural enemies. The weevil has already been used to control the weed very successfully in South Africa, where after extensive host range testing and climatic matching, it was released as a biocontrol agent. As they can only feed on Azolla species, they won't harm other plants. They can also consume large quantities of the weed.



The weevil is already present in parts of the UK (first recorded in 1921), most likely hitching a ride on Azolla plants imported by garden centres and aquarists. In recent years the government has approved the use of these weevils as biocontrol agents and having been released around the country they are now becoming quite widespread and naturalised.

The Canal Manager was investigating the possibility of releasing weevils to control the outbreak at Snakes Wood, but on closer investigation discovered that the weevils were already present. The infestation at Snakes Wood had completely disappeared within a few weeks due to the population of weevils expanding naturally.

The likelihood is that in most years a small population of weevils is surviving the winter and is on hand to keep the Azolla in check, but when winter or spring weather conditions favour

the Azolla and/or hinder the weevils, the Azolla for a short time can expand rapidly and for a month or so keep ahead of the grazing pressure applied by the weevils until their population catches up.

9. Landing stages

This year the Canal Ranger Service has repaired and re-decked two landing stages along the canal beside Minnows Touring Park (left) and beside The Globe Inn (right).



In the case of the one beside The Globe Inn, the Rangers were assisted by members of the East Devon District Council Countryside Team. A joint work day is held twice each year at the Canal and Knapp Copse LNR or White Cross Picnic Site (two DCC-owned sites in East Devon for which the Canal Manager has responsibility, but where the day to day management is undertaken by the EDDC rangers).

10. Community Patrol Boat

The Community Patrol Boat was officially launched on 27th June. The Canal Ranger Service is supportive of this initiative and the Canal Manager attended the launch and also attended the first steering group meeting held in early September. It is anticipated that Dion Howells (the driving force behind the scheme) will attend the forthcoming JAC meeting to provide members with an introduction to his work on the boat and to answer any questions.



11. Boat permits

As reported at the last meeting, a review is being undertaken of boat permit processes, terms and conditions. The Canal Manager has had meetings with Pat Brind, Adam Pilgrim and the DCC Assistant County Solicitor to discuss the necessary changes. Examples of processes for dealing with 'problem' boats have also been obtained from the Basingstoke Canal Authority. The Canal Manager is in the process of combining the procedures and suggested changes provided by these various sources to draft the new processes and boating regulations for the Grand Western Canal, with the intention of completing this during the autumn.

12. Bridge cleaning

During the spring, the Canal Rangers continued the task of clearing ivy from the Canal's bridges and also removing soil and plants growing beside the walls on the bridge decks. This work will continue during the autumn and winter initially focussing on the bridges which do not require traffic control in order to undertake the work safely.

13. Flag pole repairs

The flag pole in the Canal Basin which flies the Green Flag Award flag was damaged in the spring during a storm. The flag pole suppliers offer maintenance and repair service and so they were engaged to undertake the necessary work. The banner arm now stands at 90° to the pole rather than drooping (as it had done before), and the broken halliard hatch has been replaced.



14. Public toilet repairs

The Canal Ranger Service is working with the cleaning company that looks after the toilet block to try and improve standards of cleanliness and presentation in the public toilets as for many visitors this is their first impression of the Country Park. Following ongoing problems in the accessible toilet, a new cistern and flush mechanism has been installed.

15. Thistle control on Swing Embankment

The works to repair the breach, install the plastic liner and standardise the offside crest level at Swing Embankment left a lot of bare ground, and whilst most of this was sown with a grass mix that took well, there is ongoing issue with creeping thistles which managed to colonise the bare ground. At the request of adjacent landowners, the Canal Manager (who holds the necessary pesticides certificates) has spent a couple of days spot-spraying thistle rosettes with a thistle-specific herbicide and used a propane torch to burn off thistle down before it was blown away, in order to reduce the numbers of thistles and to stop them spreading.

16. Benches

There has been a flurry of demand for new memorial benches along the Canal, with one recently installed and six more on order. Once an appropriate location is agreed with the Canal Manager, they are built to a standard design by Canal Ranger Craig Saunderson at a cost of £350 with any plaque to be provided by the person ordering the bench. The new benches will be spread along the Canal between The Basin and Ebear Bridge.



17. Wetland Bird Survey

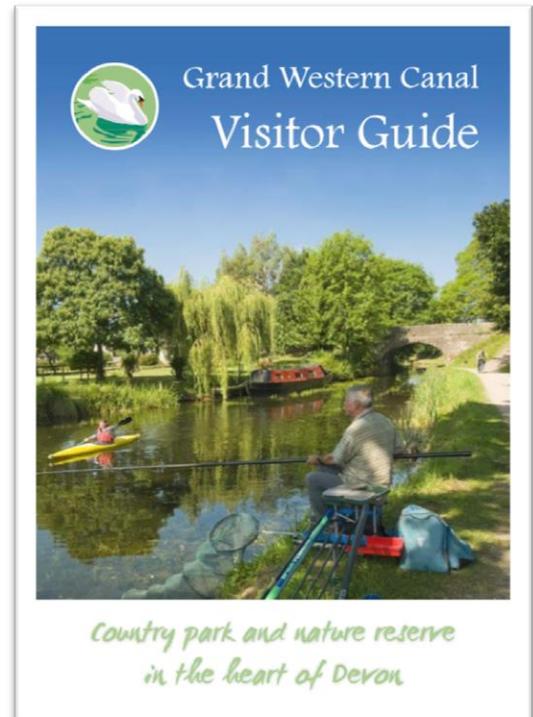
For over 20 years, Ray Jones has been undertaking the British Trust for Ornithology (BTO) Wetland Bird Survey along the Canal once every month. For much of this time he has been assisted by Andrew Cunningham. Earlier this year the two decided that they were no longer able to keep up this commitment and needed to pass on this work to some new volunteers. The Canal Ranger Service wishes to pass on its sincere thanks to Ray and Andrew for all their work in undertaking these surveys. Their records provide a valuable long term data set which is useful for spotting immediate issues and long term trends and it is very much hoped that new volunteers will be found to continue this important work.

18. Canal Visitor Guide

The Canal Manager and the DCC design team liaised to provide an updated version of the Canal Visitor Guide which was distributed ahead of the Easter holidays. The annual print run now stands at 8000 and the cost of printing is covered by the advertising inside the guide.

19. Fencing repairs

As part of the Canal's Countryside Stewardship Scheme which ran from 2003 to 2013, much of the canal's offside boundary was fenced. In the last few years many fence posts have been found to be rotting at the base. As a result the Canal Ranger Service is replacing rotten posts and fencing contractors are replacing box strainers and gate posts where necessary.



20. Events

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| 12.3.17 | Volunteer Day – Hedge laying and planting: 8 volunteers + MB |
| 10.5.17 | Walk & Talk – Swans Neck: 29 walkers + JR |
| 13.5.17 | Fun on the Water Day – Paddle boarding taster sessions, model boats, canoeing: well attended +JR & CS |
| 16.5.17 | Devon Recovery Learning Community (providing courses for the wellbeing of people in Devon who have mental health difficulties) - Tiverton to Manley Bridge: 6 walkers + JR |
| 20.6.17 | Devon Recovery Learning Community - Sampford Peverell to Ayshford Chapel: 6 walkers + JR |
| 28.6.17 | Walk & Talk – Holcombe Rogus: 25 walkers + JR |
| 18.7.17 | Devon Recovery Learning Community – Bat Walk – Cancelled due to |

bad weather

- 21.7.17 Bat Walk – Tidcombe to Snakes Wood: 17 people (12 adults + 5 children) + MB
- 22.7.17 Mid Devon Show – stall with Canal displays and craft activities
- 2.8.17 Wild Wednesdays – Bird Box Making: 30 people (11 adults + 19 children) + MB, CS & volunteer Lizzie
- 9.8.17 Wild Wednesdays – Pond dipping: 41 people (14 adults + 27 children) + MB & Lizzie
- 16.8.17 Wild Wednesdays – Forest Crafts: 35 people (13 adults + 22 children) + JR & Lizzie
- 23.8.17 Wild Wednesdays – Pond dipping: 32 people (12 adults + 20 children) + JR
- 30.8.17 Wild Wednesdays – Insect Box Making: 39 people (15 adults + 24 children) + JR, CS & Lizzie
- 6.9.17 Walk & Talk – Tiverton to Manley: 17 walkers + JR
- 13.9.17 DCC Stars Guided Walk – Swans Neck Circular Route: 9 participants + MB
- 19.9.17 Devon Recovery Learning Community – Swans Neck: 6 participants
- 20.9.17 Insight Dynamics Ltd (Tiverton-based company, offering a day service for adults with learning disabilities including activities within the community): 11 service users with learning disabilities + 5 staff to support them & JR



21. School and community group visits – all led by Joanne Roberts

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| 22.5.17 | Bampton (Reception & Year 1) – Pond dipping: 31 children |
| 23.5.17 | Blundell's Prep – Tree Walk from TRB to Basin + Pond dipping: 31 children |
| 8.6.17 | Tiverton Brownies – Pond dipping: 29 girls |
| 15.6.17 | Tiverton Beavers – Pond dipping: 15 boys & girls |
| 25.9.17 | Culmstock Brownies – Pond dipping: 20 girls + 4 adult leaders & 1 young leader |

22. Volunteers

Weekday volunteers - 245 man-days (mainly two long-term volunteers working with the Canal Rangers 3 – 4 days per week).

FUTURE PROGRAMME OF WORKS (October 2017 – February 2018)

- Repair Canal Basin landing stage
- Replace broken gate post at Ayshford Bridge
- Replace interpretation panels on rocks in Canal Basin
- Usual trimming / coppicing of overhanging offside trees
- Works to fell Ash Dieback trees as necessary
- Crown-lifting and formative pruning of trees along the towpath
- Laying tall hedge between Aqueduct and Crownhill Bridge to thicken base and screen views of Anaerobic Digester. (This may increase views initially but will provide better screening after a year or two)
- Hedgelaying and planting at various locations as required
- Oversee installation of play area and Ranger Service to receive training for play area inspection (programmed for Jan/Feb)
- Oversee project to deepen, surface and regulate width of Atherton Way / Francis Crescent water channel running parallel to Canal (programmed for Jan / Feb)
- Canal Manager to finish drafting new management plan
- Canal Manager to finish Boat permit / regulations / procedures review
- Construction of new material bins and landing stage at Post Hill depot.
- Liaise with owners of Minnows Touring Park to create new gateway / gap-up old one when their new house is built.
- Repair damaged fishing platforms
- Finish off fencing and surfacing works beside tilting weir

