

Progress Report (October 2019 – February 2020 inclusive)

1. Badgers in Wilcombe embankment

Following the construction of an artificial sett on the land below the embankment last summer, evidence was secured showing the badgers using the new sett. This paved the way for an application to be made to Natural England to exclude the badgers from the embankment sett and then fill it in. The licence was issued with the standard condition that the badgers must be kept out of the original sett for at least 21 consecutive days before it could be filled in, and that the work had to be completed by the end of November.

One-way doors were fitted on all 21 of the sett entrances, but the badgers made nightly attempts to dig back in around the doors and succeeded on several occasions, resetting the 21-day countdown each time. In mid-November, a licence extension until early January was secured, based on an email from the DCC Chief Engineer for Bridges and Structures, emphasising the seriousness of the situation.

However, the badgers continued to find ways to dig back into the embankment and in the end, a fencing contractor was engaged to install a badger proof fence, complete with a buried skirt all around the entire section of embankment containing the original sett. This proved successful and the 21-day period was reached between Christmas and New Year.



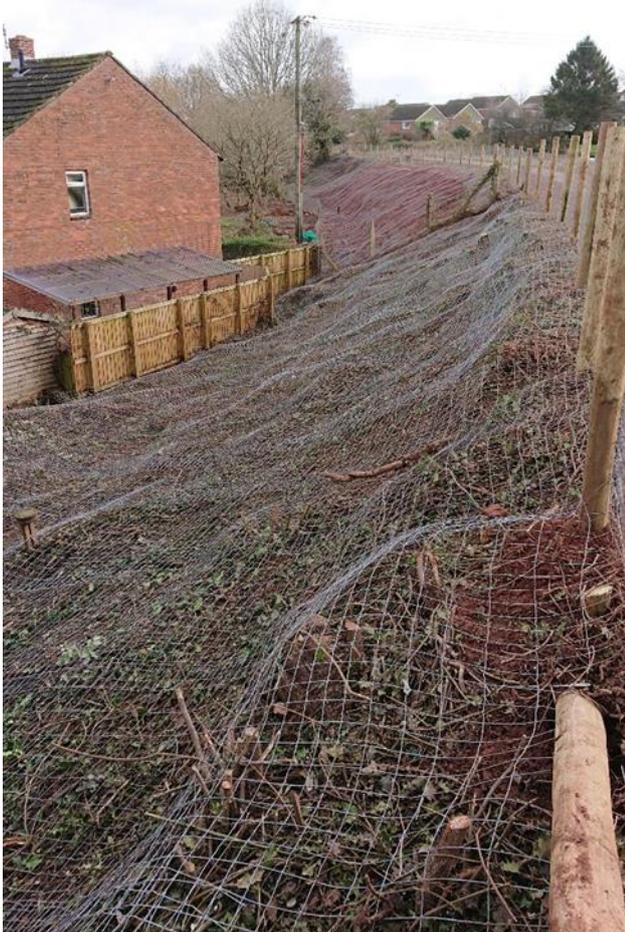
On January 7th a specialist contractor began work on filling the embankment sett tunnels with an expanding foam resin. The material was pumped in at high pressure and filled the voids, preventing reoccupation and any future subsidence.

The following week, tree surgeons and Canal Rangers coppiced the hedge along the top of the embankment – as required for the subsequent stages of the project to be completed.

On the 22nd and 23rd of January an excavator contractor was engaged to regrade all of the spoil heaps on the embankment.



In the last week of January, a fencing contractor was engaged to cover the entire embankment with badger-proof steel netting. This is connected to the fences at the top and bottom of the embankment covering the coppiced hedge stumps, which will regrow through the mesh.



The following week, the Canal Ranger team fitted rolls of green polypropylene netting along the top fence line to restore the privacy of the adjacent properties and the school's outdoor classroom. This netting will remain in place for one to two years until the hedge has regrown to its previous height.

Since then, the badgers have made a couple of attempts to dig back into the embankment beside the towpath, but these holes have been filled back in by the Rangers before they could be excavated enough to be occupied. One or more of the badgers has also

excavated an outlying sett on the offside bank towards William Authers footbridge. This sett is perched above the canal and angled away and so poses no threat to the canal.

In March, the embankment will be sown with grass seed and the vegetation will quickly hide the mesh which lines the slope. Various works have been undertaken to reduce the impact of the works and the presence of the badgers on the school and the local residents, and the Canal Ranger Service is grateful for their patience and understanding during these disruptive works.

The project has taken up a significant amount of the Canal Manager's time during the autumn and winter and some other projects and tasks have had to be postponed whilst this essential work has been completed.

2. Aqueduct relining

The other major project taking place on the Canal this winter has been the relining of the aqueduct. The aqueduct had been leaking for some time and flows had increased in the last 18 months leaving the cutting below permanently flooded. DCC's Bridges and Structures engineers completed a principal survey of the structure in 2018 and designed and tendered the repair works, with Dyer and Butler winning the contract to reline the canal.

In November 2019 the canal was dammed and drained and a fish rescue was undertaken. As the aqueduct channel was cleaned out it became apparent that the brickwork on the approaches to the aqueduct was in poor condition and in need of replacement.

This extended the programme significantly giving an end date in February rather than December.

Most of the brickwork was replaced

before Christmas, and the dams were partially dismantled for the Christmas break to allow water to flow through thereby making it easier to manage canal water levels during the Christmas break.



The structure was re-drained in January and the installation of the liners commenced. These consisted of several protected layers enclosing a waterproof butyl liner. The final layer is concrete canvas which sets to provide a very tough protective layer.

The portable dams were taken out at the start of February, enabling boats to pass through. At the time of writing, recycled plastic fenders are being fitted along the brickwork approaches to the aqueduct and oak fenders are being mounted to steel frames within the narrower aqueduct channel

section. The use of two different fender styles is apparently necessary to avoid putting holes through the liner and invalidating the warranty. All in-channel work should be completed, and the site cleared and reinstated by the end of February. Later in the year, some repairs to brickwork in the arches and external faces of the structure are due to be undertaken, but this should not impact Country Park users.

During the recent storms the Aqueduct interpretation panel was blown over and the wooden frame was broken. This will be replaced in due course with an updated panel which makes reference to the recent relining and which also shares the recent discovery that the Aqueduct can be presented as an Isambard Kingdom Brunel-designed structure. This follows research by members of the Institute of Civil Engineers' Panel of Historic Engineering Works. Although he had left the employment of the Great Western Railway by the time the aqueduct was built, he was the chief engineer when the structure was designed, and it is similar to other aqueducts attributed to him elsewhere in the country.

3. Management Plan

When not working on the Wilcombe embankment project, most of the Canal Manager's time during the winter has been spent on drafting a new management plan for the Country Park. The plan has been completely re-written based on the Green Flag Award guidance which it was felt was more appropriate than traditional nature reserve-type management plans that focus on specific objectives, prescriptions, rationales, actions, performance criteria and monitoring requirements for individual species or habitat types/zones. Given the long-standing broad-brush approach to habitat management and the absence of any rare species requiring specialised management; combined with the importance of the Country Park to local communities and for tourism, it was felt that the Green Flag Award criteria provided a more suitable approach to outlining present and future management of the Country Park.

The plan is being shared with JAC members ahead of the March 2020 meeting, in the expectation that they will read it before the meeting and that it can be endorsed at the meeting subject to any amendments that are agreed. Progress with action plan targets would then be reviewed at each March meeting in subsequent years and the plan will be fundamentally reviewed and updated in 2025.

4. Tree works

A number of tree surgery / felling works have been undertaken by contractors since October 2019, including:

- The felling of a diseased and dying weeping willow near Tidcombe Bridge
- Crown reduction work on an offside oak below Tidcombe Hall
- Crown reduction work on a heavily leaning offside oak in Snakes Wood
- Felling of two diseased ash clumps near Manley Bridge
- Deadwood removal from an oak tree between Manley and East Manley Bridges
- Felling of a diseased ash tree opposite East Manley landing stage
- Felling of several diseased ash trees near the Aqueduct
- Felling of several diseased ash trees near Battens Bridge
- Felling of several very large diseased ash trees near Whipcott Bridge

The Canal Rangers and volunteers have completed the annual winter programme of cutting back overhanging offside branches using the maintenance barge. Whilst the barge worked its way from Tiverton to Waytown Tunnel between mid-October and mid-February, the Rangers also crown-lifted a number of towpath side trees, re-pollarded some willows and poplars in Sampford Peverell and cut scrubby growth on a number of offside banks and bridge abutments.

5. Hedge laying and planting

Volunteers and Rangers have laid two sections of hedge – near Manley Bridge and Sellake Bridge and have undertaken hedge planting at Ebear pond and Wilcombe embankment. More hedge laying and planting will take place near Manley Bridge during the Volunteer day on March 8th, and several gaps in hedges will be replanted during February and March.

6. Fenacre Water Transfer system

Following stern encouragement to progress the improved water transfer system design by the relevant DCC Planning Development officer in October, DCC was given designs for a new system by Aggregate Industries in December. Aggregate Industries have submitted the relevant abstraction and impoundment licence applications to the EA in order to meet a statutory deadline.

DCC engaged Jacobs hydrologist Marcus Francis to assess the Aggregate Industries' designs and he produced a memo outlining his belief that the proposed system would yield little extra water from the canal than the current system. The design appeared to be focussed mainly on meeting the EA hand's off flow requirements with the minimum of expense, rather than maximising the water transfer to the canal (whilst also meeting the hands-off flow requirement). He provided some examples of how the design can be adapted to achieve the latter.

DCC responded to the EA consultation on the abstraction and impoundment licence applications outlining our concerns. A meeting was held with the DCC Planning Development Officer who advises that DCC liaises with the EA to establish which of the improved design concepts suggested by Marcus Francis would meet with EA approval. This recommendation would then be presented by the Development Planning Officer to Aggregate Industries with an expectation that it would be installed.

The requested timeline of this issue will be supplied to JAC members ahead of the meeting.

7. Trim Trail

Members of the Sampford Peverell Village Hall and Recreation Ground Committee approached the Canal Manager in 2019 regarding a proposal to provide some trim trail equipment to be located in the picnic site in the village. The funding for the equipment would be provided by the 'Sampford Peverell 200 Club'. The Canal Manager agreed that the provision of some simple, low-maintenance, timber fitness equipment would be a good use of some of the space on the eastern side of the picnic area and so plans have been taken forward.

Playdale have been identified as a supplier and five pieces of equipment are due to be installed around Easter time 2020. The Country Park will be funding one of the pieces of equipment at a cost of £500 and will take on responsibility for maintenance and inspection once installed.

The health and wellbeing benefits of the Country Park are one of its key advantages in terms of justifying ongoing funding. New fitness facilities that have been provided in response to a request from the local community, have the potential to help both local residents and the Country Park.

8. Canal Basin fencing

Some new fencing has been installed in the Canal Basin to improve safety. A new Sweet Chestnut post and rail cleft fence has been installed at the top of the steep slope between the towpath and the ramp beside the Canal Tea Rooms and Garden. The fencing style was chosen to compliment the adjacent thatched cottage. Following on from that towards the visitor centre a length of stock netting fence has been installed to prevent dogs or children from squeezing through gaps in the hedge at the top of the wall. The hedge will grow through the fence and hide it by the end of the summer.

In order to install this fence, some brambles and scrubby growth was cut back at the end of the parapet wall by the Visitor Centre. This revealed a gap in the parapet wall railing (most likely due to the gap being smaller than the railing panels which were installed some decades ago). A new panel has been fabricated by Morrish Engineering to fit the gap and this has recently been painted and installed.

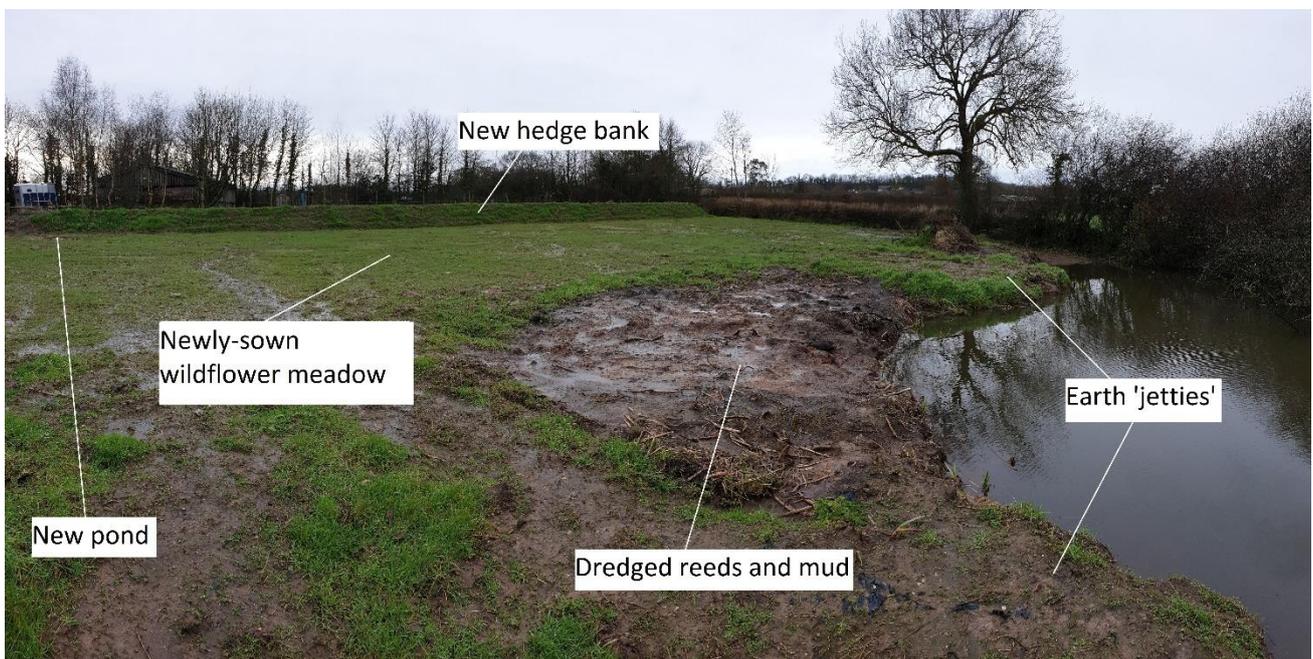
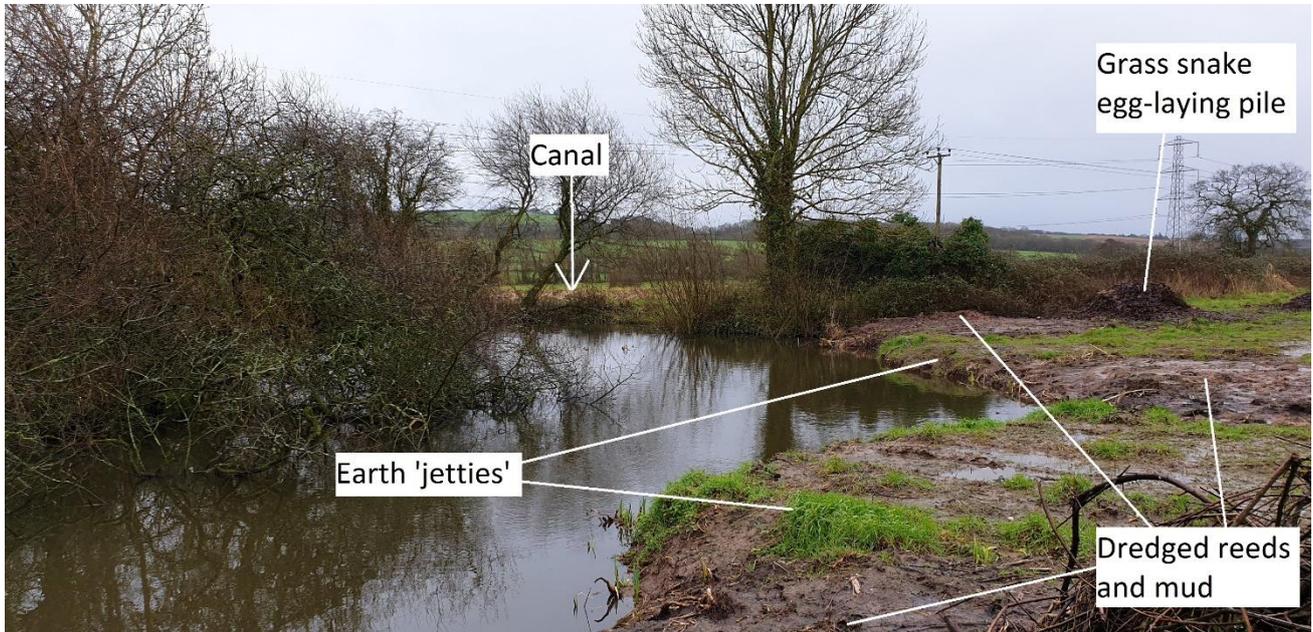


9. Ebear Pond

On the offside bank near Ebear Bridge is a small paddock with a pond. This land was transferred from the County Farm Estate to the Canal holding around 15 years ago in order to provide unhindered access to the offside bank and embankment and so that its nature conservation potential could be realised.

The land had been used as a dumping ground by previous farm tenants and as the soils was very nutrient rich, the vegetation was dominated by rank species such as nettles, docks and thistles, with little chance of a more diverse flora ever establishing whilst the nutrient levels and weed seedbank remained. The pond was also becoming dominated by reeds.

In October, an excavator contractor was engaged to dredge some of the reeds and accumulated mud from the pond and to scrape off the nutrient-rich and weed-dominated topsoil within the paddock. The scraped soil was used to make two earth 'jetties' to give the machine access to the pond, and a new hedge bank along the western side of the paddock. Another small pond was excavated beside the gateway to the paddock.



Removal of the topsoil revealed a clay subsoil. A wildflower meadow seed mix tailored for clayey soil conditions was sown around the paddock, a wetland wildflower mix was sown beside the new pond and a hedge seed mix was sown on the new hedge bank. Some bluebell bulbs were planted in clusters along the hedge bank. All of the seed mixes and bulbs are UK grown and provided by a reputable supplier (Meadowmania). The seed mixes took well despite the wet autumn conditions.

In January, a new hedge was planted along the western side of the hedge bank and a grass snake egg laying pile (made of leaves, brash and horse manure) was created near the pond.

10. Country Park signs and fingerposts

A regular wet-weather job for staff and volunteers during the winter has been the repainting of a number of the original 'cast' country park signs. These are gradually being repainted and fitted onto new posts at access points along the Canal. Most recently they have been installed at two new locations – one at the entrance from the car park to the picnic area in Sampford Peverell and one at the start of the towpath in the Canal Basin (pictured).

Rangers and volunteers are also repainting the two cast metal fingerposts in the Canal Basin car park, following the repositioning of these posts to make them less likely to be hit by cars.



11. Towpath scraping

The section of towpath between Boehill Bridge and Holbrook Bridge, near Minnows Touring Park, was surfaced with compacted stone in the mid-2000s, but since then grass has slowly grown in from the edges, significantly reducing the available width of the stone surface.

In late November, an excavator contractor was engaged to carefully scrape back the grass and soil which had accumulated at the edges of the path. As can be seen from the colour difference on the photo of the path below, the available width has been doubled by this work, providing more space for towpath users to pass each other, and a firm surface for maintenance vehicles to drive on.



12. Silt trap cleaning

Another useful job completed by the excavator operator was the cleaning out of a silt trap that was installed earlier in the year near Manley Bridge. The silt trap captures sediment washed down from the southern end of Manley Lane before it enters the canal.



The silt trap has been emptied again in January by a wheeled digger which was able to expand the size of the silt trap and increase its capacity.

13. Annual winter hedge and bank trimming

The annual bank and hedge cutting programme undertaken each winter by a contractor using a tractor-mounted side arm flail has been completed. The section between William Authers footbridge and Tidcombe Bridge cannot be accessed by the contractor's tractor and so will be topped and sided by the Canal Rangers before the end of February.

14. Bank erosion repairs

Rangers and volunteers have continued to repair eroded banks (usually caused by dogs entering and leaving the canal) using deltalok bags. Repairs have been made at locations in Snakes Wood and near Follett Road steps, Tiverton, but a recent survey located several dozen more erosion points which will require several hundred deltalok bags to fill them as they are repaired over the coming months.

15. Tiverton Road wharf wall fenders

In response to a request from Mid Devon Moorings on behalf of boaters, four timber fender planks have been bolted to the wharf wall at Tiverton Road car park, to protect boats from scraping their hulls on the wall as they moor before and after passing through the Dudley Weatherley Jubilee lift bridge.



16. Staining seats and benches

Rangers and volunteers have begun the annual task of re-staining picnic benches and the memorial seats with backrests. Following a spell of dry weather in early February those in the Canal Basin were stained and the memorial seats with backrests located along the towpath will be re-stained in March or April depending on the weather.

17. Canal Visitor Guide

The Canal Manager is in the process of organising an update and reprint of the Canal Visitor Guide, with the aim of printing and distributing it ahead of the Easter holidays. The update will include some minor amendments to the text and maps and new adverts from a number of established advertisers. Space will also be made available beside the Code of Conduct page to explain the new horse-drawn barge zone and cycling under bridges signage.

18. Events

The following events have taken place during the period of this report:

- 13/11/19 – Walk & Talk – Holcombe Rogus – 31 people
- 7/12/19 and 8/12/19 – Christmas Wreath workshops – 76 people



- 8/1/20 – Walk & Talk – Swans Neck - 25 people

- 19/21/20 – Bird Box Day - 43 people



19. Volunteers

During the period October 2019 to February 2020 inclusive, the Canal Ranger Service has been assisted by 188 days of volunteer time. Over this period, most of the mid-week volunteering has been made up by five students from Bicton, Cannington and Petroc Colleges undertaking work experience, each for one day per week; and two recently graduated countryside / land management students from Bicton College and Lancaster University who are seeking to develop their practical skills and improve their CVs.

Future programme of works

Management tasks

- Fenacre water transfer system
- Visitor Guide update, printing and distribution
- Organise towpath resurfacing between Canal Basin and William Authers Footbridge in March 2020
- Organise repainting / replacement of corroded / missing bridge nameplates
- Complete update of boating regulations and procedures
- Ongoing Canal Basin signage improvements
- Working with DCC engineers on Asset Management Plan
- Review and scenario-based test of Emergency Plan
- Potential new interpretation panels (subject to funding)
- Exploring potential for Canal Basin public toilet refurbishment (subject to funding)
- Seek funding for replacing disabled fishing platform decks

Practical works

- All usual mowing strimming and weed-cutting work
- Ongoing sign / panel post replacement work
- Ongoing daltalok bank repairs
- Landing stage extensions in Sampford Peverell
- Concreting towpath under bridges with persistent puddle problems
- Reed clearance on towpath side near Battens Bridge
- Filling gaps in hedges with hawthorn whips
- Replace wooden handrails at Greenway Bridge and Sampford Peverell Bridge
- Re-stain seats
- Pressure wash benches, panels and dog bins as necessary