Executive Summary

This report summarises maintenance and operation expenditure on the Kennet and Avon Canal, as divided by Local Authority Area, for Business Year 2017 - 2018. The report sets out information that fulfil the Trust’s reporting obligations that are set out in the HLF (Restoration of the Kennet and Avon Canal) agreement.

Role and Objectives of the Canal and River Trust

The Canal & River Trust (the Trust) was established in July 2012 and has responsibility for canals, rivers, docks and reservoirs, along with historic buildings, archives and three waterway museums, including the National Waterways Museum.

These valuable assets are recognised as a national treasure and a local haven for people and wildlife, and they are held and managed by the new Trust on behalf of the nation. The principal role of the Trust is to care for this unique legacy, holding it in trust for the nation in perpetuity.

The Canal and River Trust has been working hard during the last twelve months to develop and refine its long term strategy, recognising that the Trust has a different focus to British Waterways.

Guided by the Trust’s Chief Executive, Richard Parry, the organisation is under-going a significant change in emphasis and structure to ensure that this longer term strategy is achieved.

The Trust continues to work towards its key values that will provide the context for all of its future work; Excellence, Openness, Caring, Inclusive and Local.
Funding

Funding streams remain as reported in previous reports, noting that the Trust is becoming increasingly engaged with raising money from individual donors and sponsors. Income is derived from the following sources:

- individual donors and corporate sponsors;
- commercial income including revenue from the licensing of boats, moorings and angling; and revenue from property and utilities;
- grants from the other organisations e.g. HLFP; and
- an 11 year contract with government.

Many individuals and organisations are supporting the Canal and River Trust on both local and national levels. The Trust has been able to raise funds to address local, specific issues. For example, locally, the Kennet and Avon Canal Trust recently made a significant donation toward funding flood damage repair works on the River Kennet.

With respect to grants and contributions from other organisations, the Trust is similarly continuing to explore new opportunities all of the time. For example, the Trust hopes to secure funding to rebuild lengths of public towpath that were washed away during winter floods. West Berkshire Council is attempting to obtain government funding to pay for repairs to flood damaged lengths of towpath.

The Trust is proactive in utilising its property assets and joint venture vehicles to bring forward land to deliver regeneration, wider benefits to the community and to attract private sector investment. As a charitable trust, all net rental income and capital receipts generated from our property estate and other commercial activities are used to maintain the waterways.

Waterway Partnership

We have continued to work across the Trust with a total of 10 local waterway partnerships who all help with the Trust’s shape and strategic plans. The Partnerships guide the Trust’s decisions about spending and help develop local engagement, external funding while championing the interests of the waterways.

The three year strategic action plan for the Kennet and Avon Waterways has been published and is reviewed at the Partnership Meeting. This plan was developed in consultation with the waterway’s many partners and stakeholders.
Kennet and Avon Canal: Key Statistics

The following tables summarise key statistics about the Kennet and Avon Waterways:

<table>
<thead>
<tr>
<th>Canal length in each area</th>
<th>Km</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td></td>
</tr>
<tr>
<td>R Kennet - London St to Fobney lock</td>
<td>3</td>
</tr>
<tr>
<td>Reading</td>
<td></td>
</tr>
<tr>
<td>Fobney Lock to boundary</td>
<td>2</td>
</tr>
<tr>
<td>West Berks</td>
<td></td>
</tr>
<tr>
<td></td>
<td>43</td>
</tr>
<tr>
<td>Wilts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>65</td>
</tr>
<tr>
<td>B&amp;NES</td>
<td></td>
</tr>
<tr>
<td>Boundary to R Avon</td>
<td>9</td>
</tr>
<tr>
<td>B&amp;NES</td>
<td></td>
</tr>
<tr>
<td>R Avon to Hanham Lock</td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td>140 km</td>
</tr>
</tbody>
</table>

In addition to the towpath there are numerous engineering, environmental and heritage assets which are managed and maintained by CRT;

<table>
<thead>
<tr>
<th>Eng. Assets</th>
<th>Wilts</th>
<th>B&amp;NES</th>
<th>West Berks</th>
<th>Reading</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locks</td>
<td>57</td>
<td>12</td>
<td>34</td>
<td>3</td>
<td>106</td>
</tr>
<tr>
<td>Bridges</td>
<td>90</td>
<td>42</td>
<td>78</td>
<td>12</td>
<td>222</td>
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<tr>
<td>Aqueducts</td>
<td>8</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>Tunnels</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Reservoirs</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>B&amp;NES</th>
<th>Wiltshire</th>
<th>West Berkshire</th>
<th>Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Conservation Areas</td>
<td>Non stat wildlife sites</td>
<td>SSSI</td>
</tr>
<tr>
<td>-------</td>
<td>-------------------</td>
<td>--------------------------</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>Entire canal corridor</td>
<td>5 (in or adjacent)</td>
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<td></td>
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</tbody>
</table>

1 World Heritage Site
2 historic Parks and Gardens
6 Grade II
1 Scheduled and Grade 1 Aqueduct
1 Scheduled lock flight
1 Grade 1 Pumping Station
1 Historic Battlefield
1 Grade II*
7 Grade II
1 Grade II*
Expenditure - Kennet & Avon Waterway April 2017 to March 2018

Canal & River Trust has undertaken an analysis of what was defrayed on the K&A Waterway in 2017/18 on activities ranging from lock repairs and vegetation management to bank and weir maintenance.

In 2017/18, the cost to the Canal and River Trust of operating and maintaining the Kennet and Avon Canal was £5,983,997.

CRT also analysed what should be spent on the waterway if sufficient revenue resource were made available, a model it refers to as ‘Steady State’. This model however does not take in to account the expenditure it would need to spend on arrears to reach a position at which ‘Steady State’ could be adopted. In comparison, the ‘Steady State’ model suggests that a budget of £5,516,640 + RPI would be needed each year to maintain the waterway within the three funding council areas. The Council contributions therefore make a significant step toward bridging the gap between the waterway budget and the Steady State figure.

Maintenance works along the canal are prioritised every year, taking account of factors such as public safety, structural condition, amenity and usage. This being the case, the proportion of total expenditure in each Local Authority area varies from year to year, depending on current priorities. Note also that each of the Local Authority areas is different in both length and number of principal assets (bridges, locks, aqueducts, culverts etc.) that fall within its boundaries (see Key Statistic information, above).

The figures below have been abstracted from the Canal and River Trust’s accounting system. As such, they will be largely accurate with the exception of possible cost coding errors that may not have been identified and corrected.
Planned Future Works

The Canal and River Trust operates a three year rolling programme for more significant works. The works programme is subject to variation and is updated to account for unforeseen arising works; for example repairs to flood damage. Major works (generally works that will cost in excess of £100k) are part of a National programme; therefore works arising on other waterways can have an impact on the Kennet and Avon programme.

At present, significant forthcoming works on the Kennet and Avon Waterway are as follows:

K&A Priority & Capital Projects FY 2018 - 21

A. K&A Priority & Capital Projects FY 2018-21:

1. Froudes Culvert, Culvert 3 Repair
2. Dredging Upstream of Monkey Marsh
3. Crofton Pumping Station Improvements;
4. River Avon Weir Booms;
5. Devizes Redevelopment
6. KA Dredging Lock 76 to 77
7. K & A Pumping Resilience
8. River Avon Navigation Improvements

B. K&A Enterprise Projects FY 2018-19 (7 No):

9. Newbury S106 towpath;
   a. Development project, confirmation of S106 funds (£300k approx.), which has been triggered. Development works are behind plan.
10. Towpath Improvements Works Devizes Phase IV

C. K&A Stoppages FY 2018-19:

<p>| Kennet &amp; Avon Canal | Lock 93, Heales Lock, near Midgham, Kennet &amp; Avon Canal | Carry out repair works to the lock |</p>
<table>
<thead>
<tr>
<th>Kennet &amp; Avon Canal</th>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kennet &amp; Avon Canal</td>
<td>Lock 89, Widmead Lock, near Thatcham, Kennet &amp; Avon Canal</td>
<td>Repairs needed to replace missing brickwork</td>
</tr>
<tr>
<td>Kennet &amp; Avon Canal</td>
<td>Culvert 9, between Bridges 67 and 68, near Newbury, Kennet &amp; Avon Canal</td>
<td>Repairs needed to the culvert</td>
</tr>
<tr>
<td>Kennet &amp; Avon Canal</td>
<td>Lock 64, Church Lock, Great Bedwyn, Kennet &amp; Avon Canal</td>
<td>Reline top and bottom gates and repairs to be made to copings. Replacement of missing bricks and quoin stone.</td>
</tr>
<tr>
<td>Kennet &amp; Avon Canal</td>
<td>South of Bridge 199, Bath, Kennet &amp; Avon Canal</td>
<td>Installation of new pedestrian and cycle bridge. Please be aware the end date of this closure is outside our published winter stoppage period, but third-party contractors will build in navigation windows into their programme wherever possible.</td>
</tr>
<tr>
<td>Kennet &amp; Avon Canal</td>
<td>Bath Deep Lock 8/9, Kennet &amp; Avon Canal</td>
<td>Replacement of penstock at Bath Deep Lock Pumping Station</td>
</tr>
</tbody>
</table>
Press Release:

GREEN FLAG AWARDED TO KENNET & AVON CANAL

The entire length of the Kennet & Avon Canal has been awarded Keep Britain Tidy’s coveted Green Flag Award making it the longest canal to have been awarded this green space award.

Owned by the charity, Canal & River Trust the Kennet & Avon Canal was opened in 1810 and stretches for 87 miles from Reading to Bath. It is a haven for people and wildlife and has over 15 million visits made to its towpaths by boaters, walkers, cyclists and anglers every year.

Winning this Green Flag award, one of seven to have been award to the Canal & River Trust since 2017, is a sign to the public that the space boasts the highest possible environmental standards, is beautifully maintained and has excellent visitor facilities.

For the third year running, canals join a range of parks, cemeteries, universities and community gardens which have met the high standard needed to receive the Green Flag, Heritage or Community Award, in what is another record-breaking year for the award scheme.

Mark Evans, waterway manager for the Trust, said: “We’re delighted that the entire stretch of the Kennet & Avon Canal from Reading to Bath has been awarded with a Green Flag.

“The canal is a wonderful outdoor green space which is ideal for families to enjoy a lovely day out in the countryside. Winning this award is testament to the huge amount of work that everyone puts into looking after the canal, whether that is our teams, the people living or working along the waterway or our hundreds of volunteers. They do a fantastic job and deserve this recognition.”
West Berkshire

We have spent £1,958,611 in the West Berkshire area, a navigation length of approximately 43km during 2017/18 on day to day maintenance.

This includes a breakdown of:

- General waterway costs: £542,641
- Maintenance of the structures: £459,309
- Contract spend: £579,250
- Projects: £377,411

Here are some of the works we have been doing:

**Cranwell’s Weir Sluice Replacement**

Works were carried out to replace the sluice structure and paddle at Cranwell’s Weir. A new rack and pinion was manufactured as the original had long disappeared. A fabric dam was installed and WHH’s crane boat was used to remove the old structure and insert the new.

*Cranwell’s Weir fabric dam installation*
Newbury Nico span Works

These works were all completed apart from a small section that needs to be piled. Areas of backfill were not completed due to water vole habitat.
Guyers Lock Lower Landing Stage Repairs

Works were complete at Guyer’s Lock lower landing stage. The piling was visibly out of line and the bank was collapsing. It was thought that the failure was due to the piles not being properly tied in to the bank with ‘back piles’. The 14m section of piling was removed, re-piled and properly tied in to back piles.
Bridge 99 Parapet Rebuild (Help4Heroes Project)

Works have continued through the year at Bridge 99.

The parapets and piers are complete (apart from some minor pier stone chamfers) and the only work yet to be finished on the top of the bridge is the new palisade fencing between the bridge and network rail’s land.

The 30 tonnes of waste vegetation, bridge deck, soils were removed by boat.

All comments about the works have been extremely positive and David Viner has indicated that he will be entering the finished bridge for a heritage award.

*Coping stones in place on the West side of the bridge*

*East side southern pier complete, all piers and parapets completed by 16 June*
Wiltshire

£2,866,631 has been spent on the 65km of waterway and towpath within the Wiltshire Council area in 2017/18 on day to day maintenance.

This includes a breakdown of:

General waterway costs £802,411
Maintenance of the structures £648,223
Contract spend £856,224
Projects £571,402

Some of the projects which we have carried out over the year are:

**Seend Lock 18 Stoppage**

The new gates were successfully fitted and a new bottom gate cill has been fitted. The top gates just needed clap cills. We lost two days at the start of the job due to live trackway, but as the engineer agreed the top cill was fine, we made the time up here. We had to break out the brickwork quoin and replace with stone as the brickwork was loose and some parts missing. We had a school visit (Friday 9th) and the open day on Saturday the 10th which despite the weather was a success.

![New quoin stone fitted and being fixed with threaded bar](image-url)
Seend Lock 17 Stoppage

Lock 17 started on the 19\textsuperscript{th} February. All the gates have been relined and we also had to do some extra work on the top gates as they were not holding water. We made these extra works a priority as the beams could be fitted when the fabric dam was taken out. After having a site meeting with the engineer, it was decided the brickwork on the bottom gate wingwall should be rebuilt in stone as it would be stronger and in keeping with the heritage.
Stone found in the canal which was cleaned off ahead of rebuilding the wingwall

Rebuilding the bottom gate wingwall
The completed wall

Fabric dam installed
Seend Lock 19 Stoppage

All gates are hung, all cills concreted in, work on quoin stones complete, work on hole in brickwork in chamber complete, new handrails fitted on gates. Other works have been completed, repair to brickwork on damaged by-weir and pointing to brickwork in the chamber above waterline. Apart from one day lost when the dam above the lock overtopped during extreme rainfall and more silt than anticipated needing to be removed from the lock (60 tonnes) the works have gone according to plan.
60 tonnes of silt removed from 19

Misty morning top gates at Seend 19
New top gates at Seend 19

New bottom gates at Seend 19
Extra work carried out to repair boat damaged by weir

Hole in brickwork
Repaired brickwork

Every piece of masonry has a 'maker’s mark', including the invert
Longmans Cottage Lock 62

A stoppage commences on 8 January at Longman’s Cottage near Crofton, Marlborough. The work is to carry out gate relining to top and bottom gates, major brickwork repairs to the upstream wing walls and replace quoin stones and brickwork in the chamber. Mobilisation is underway as all plant and materials must be boated in to this remote lock and all lifting will be done from a crane boat (Wood Hall and Heward).

This lock was pre-dredged before Christmas to allow for a full physical inspection. Circa forty tonnes of debris and silt was removed from the chamber and sent to landfill.

All planned work has been completed on time. Also, extra work has been carried out: Patches of brickwork chopped out and re-bricked in lock chamber. Bottom gate paddle rod has been straightened. Some loose brickwork has been re-laid on top of lock.

Upstream fabric dam in position
Keith Pithouse and Sam Pointer repairing wing wall

Robin Hunter and Jake King relining bottom gate mitre
Wingwall almost rebuilt

Adam Barnes shaped this quoin stone from Bath Stone’s ‘Ancaster’

Caen Hill Lock 45 Chamber Brickwork Repairs

Works were carried out to replace missing brickwork and repoint the offside chamber wall at Lock 45 on Caen Hill Flight. Three bricklayers and an apprentice carried out the works while
the rest of the team scraped down the gates and recesses. Works were completed three days ahead of schedule.

Brickwork repairs and repointing at Lock 45

Caen Hill Lock 41 Top Gate Relining

Works were carried out to reline the top gates at Lock 41 on Caen Hill Flight. A timber dam was inserted and a forebay scaffold. Half of the team carried out the works while the bricklayer and apprentice worked at Lock 37. Works were completed three days ahead of schedule.
Above and Below: Lock 41 before and after relining
Caen Hill Lock 37 Chamber and Approaches Brickwork Repairs

Works were carried out to repoint chamber walls and below the bottom gates at Lock 37 on Caen Hill Flight. All works were carried out from a Jet-float system (CRT owned). Works were completed two days ahead of schedule.

Jet-float system in use in chamber

Cadley Lock Brickwork Repairs

This repair was attempted in July but an obstruction on the bottom of the canal mean that the timber dam could not be sealed. This time, divers were employed, and steel planks were used. The divers found a section of brickwork in the stop plank groove channel, removed it and helped to insert the dam. Radio BBC South carried out an interview with the Construction Supervisor and the dive team, this was broadcast on 8 November. Missing and damaged brickwork was found and repaired, extra repair work was carried out to brickwork next to the stop plank grooves. The dam was removed on 16 November and canal reopened 2 days early.
Maton Lock 49 Top Gate Relining

A stoppage was carried out for relining works to lock 49 top gates on Caen Hill Flight. The pound above the lock was lowered and a timber dam inserted. These gates are steel with greenheart mitre and quoin posts. The dam was removed on 15 November and the lock reopened 3 days early.
After completing the emergency repair at Hilperton, the team could return to Foxhangers to carry out and complete the Nico span works. The job was also affected by water vole habitat meaning only partial back filling could be carried out.
Foxhangers after backfilling carried out but prior to planting, areas had to be left low for water voles

Seend Soft Bank Repairs

80 metres of eroded bank Nico span works have been completed at Seend, Devizes. Back filling has been problematic as this area has a large water vole population. All repairs carried out with close cooperation with local environmental advisor, and to their satisfaction.

Seend Bank Protection Works awaiting back fill and planting
Devizes Taskforce
The Devizes Taskforce, as well as keeping up with their Maintenance chores, have continued to improve the towpath at Caen Hill. The “before and after” photos above show just some of The Caen Hill Flight that the group have managed to make much more accessible for our towpath users.
Bath & North East Somerset

A length of approximately 27 kilometers of the Kennet and Avon Waterways falls within the Bath and North East Somerset Local Authority area. £1,205,275 was spent within the B&NES area during 2017/18.

This includes a breakdown of:

- General waterway costs £352,091
- Maintenance of the structures £233,371
- Contract spend £376,135
- Projects £243,678

Projects have included:

**Pulteney Gardens Lock Top Gate Leaks**

A stoppage was carried out to refit the top gates to lock 12 on the Bath flight. It was thought that the gates had been struck by a boat causing high leakage. The pound above the lock was drained and a fish rescue carried out.

A live interview was carried out, with the Construction Supervisor, and broadcast on Radio BBC Bristol on Friday 10 November. Also, the Site Supervisor was interviewed for BBC South West which will appear on their website in due course. The team leader was asked to give a talk to a team of volunteers working on the flight which was much appreciated by the group.

The gates were relined and the pound reflooded on 14 November, 4 days early.
Deep Lock

New signage, path repairs and vegetation work carried out by the Bath taskforce group.

Bath taskforce group helped pull up and reinstall 10 loose bollards with post mix at deep lock.

Lloyds bank group who came out and painted lock 7 on the Bath flight.
If you haven’t walked through along the canal through Sydney Gardens recently, you may not be aware of all the hard work taking place here. Volunteers and staff have been working meticulously to reclaim the tunnel façade which has been covered in spoil for around 50 years! Improvements at Dundas continue.
Water space Study

Focusing on the River Avon and Kennet and Avon Canal (Dundas Aqueduct to Bath to Hanham Lock), Bath & North East Somerset Council has worked in partnership with the Environment Agency, the Canal & River Trust and Wessex Water through the Water Space Study to develop an evidence base, undertake public and stakeholder consultation to identify opportunities to deliver enhancements to these waterways and adjoining land.

The Water Space project has involved surveys, mapping work, data collection and stakeholder and public engagement events, all focused on 5 themes:

- Assets and Asset Management
- Mooring Strategy and Navigation
- Regeneration & Development
- Water quality & Environmental Enhancement
- Recreation and Leisure
The River Avon corridor is undergoing significant redevelopment of brownfield sites and is the focus for major new development in Bath. With this comes real opportunities to revitalise the River Avon and Kennett & Avon Canal waterways, for people and nature.

The Water Space project has gathered data, mapped information, and generated ideas to work with the community and public, private and voluntary bodies to identify 35 projects and project ideas to revitalise the waterways. The final draft is available below, following amendments made after the public consultation:

The Water Space Study includes opportunities to create moorings, improve green spaces and parks, enhance biodiversity, realise safe access for sport and leisure and improve public spaces and paths. Of the 35 projects – some are project ideas which have funding, others are part-funded, and some are just a concept.

Projects include smaller scale volunteer activities as well as bigger items and schemes which could be delivered or funded by new development or delivered on land owned by the partners.

The project ideas include:
• The development of the River Avon Park – connecting people with riverside green spaces by creating a new city park.
• Improved slipways, moorings and related boating facilities.
• Improvements to the waterways.
• Projects to re-wild the river and improve habitats for species like otters and bats.
• River taxi and arts projects.

Alongside the project, River Avon Festival of Nature in 2016 and 2017, saw more than 7,000 local people attending environment and arts events and activities to celebrate our waterways.

The innovative approach taken has led to the project being identified by the Royal Town Planning Institute as one of the top 8 projects in the UK to improve the natural environment. The project also received the 2017 award for best spatial planning project, and the best project in the South West region from the Royal Town Planning Institute.

The next stage will be to work with local groups and partners to identify which are the priority projects, develop funding bids and realise the best opportunities to deliver the vision to revitalise our waterways.
Summary

Canal & River Trust continues to recognise the importance of the contributions made by each of the HLF funding partners. Without this support the gap between current expenditure and ‘Steady State’ would grow and inevitably non-essential activities such as vegetation maintenance and towpath refurbishment could be reduced in scope or curtailed.

A loss of amenity would be counter-productive to all parties involved; the Canal and River Trust remains committed to working constructively with its Partners.

2018 will see a new direction for Canal & River Trust as we move towards becoming a Waterways and Wellbeing Trust with the introduction of a new logo.

Mark Evans, Waterway Manager
Kennet & Avon Waterways
June 2018