

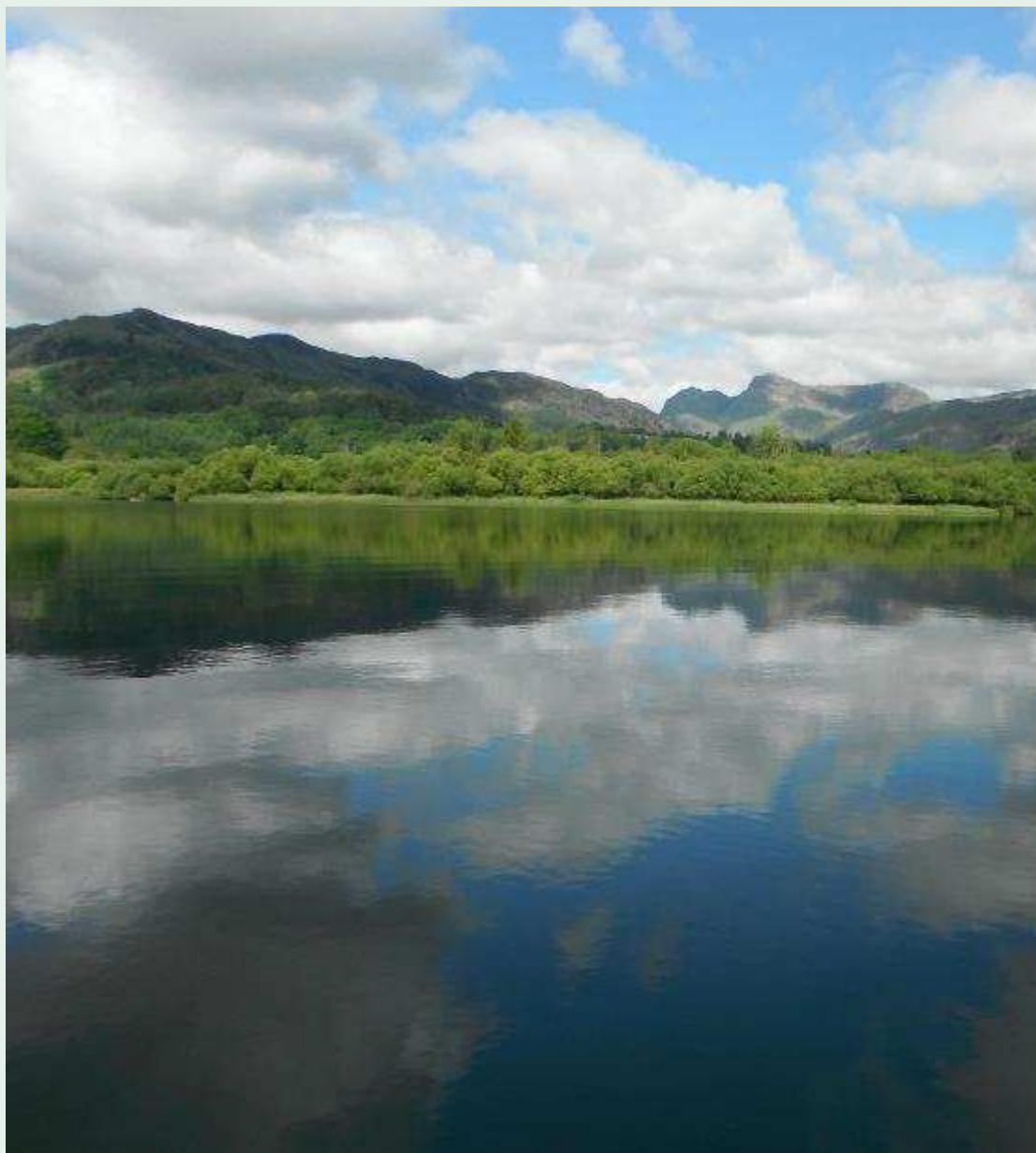
# South Cumbria Rivers Trust

## ANNUAL REPORT 2018



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## Chairman's Report 2018

2018 was a year of many contrasts for SCRT. In the previous Annual Report I mentioned that the pressures and diverse nature of the work carried out by the Trust had increased quite considerably and a more tiered structure was required in the organisation and a significant part of the year was spent in developing a new structure. There were also several staff changes during this time.

The Director and staff have stepped up to the challenges that all of these changes presented and the year finished with a modified structure in place that is working well.

One of our major projects: the freshwater pearl mussel project came to an end in 2018 after 3 most productive years. The considerable work carried out on the Brathay, Dubbs Beck and the Kent (and its tributaries) has provided much valuable information and opportunity for further projects of this nature.

Work on Coniston and its catchment (another of our major projects) continues with really good results and public engagement: the members of staff have all been industrious in their efforts and it has shown in the outcomes to date.

Our aquatic environment had a challenging year in 2018 with extremes of weather that have become a more regular feature of our climate. The north west of England was not spared these challenges. Analysis of data over the last 100 years and produced in early 2019 indicate that this increased variability is indeed the prologue to longer-term changes. Increases in rainfall amounts and intensities were again notable in the northwest of England as were extended periods of drought.



## Chairman's Report 2018

**Continued..**

Fish mortalities, algal blooms and near-record temperatures were all characteristics of 2018. Again a major effort was needed by staff to cope with the environmental issues that occurred as a result.



At the same time UK Government was producing its 25 year plan for the environment with many challenging targets within its pages. For SCRT this is a landmark with long-term targets being set for water quality and for species abundance. The rigours of the weather provided a real challenge to the objectives of the 25 year plan and SCRT is (and will be) examining its strategy in view of the contradictions in aspirations and reality.

For Staff, the Executive and Trustees 2018 was a busy year and I would like to thank everyone concerned for making that extra effort. The Patrons' evening and the skimming competition on Windermere were highlights of the year. I look forward to 2019 as another interesting and fruitful year.

***Roger Sweeting***

## Treasurer's Report 2018

2018 year was a consolidation year for the Trust and was difficult year of transition. Having said this the turnover was similar to the previous year at £532,873. The year also saw some considerable project work being carried out and total expenditure amounted to £573,951 and so showed a deficit of £41,078, but the reserves held by the Trust enabled the Trust to maintain this level of activity.



The first phase of the Bannisdale project began this year. This is a major re-aligning of the river in this upper valley of the Kent Catchment. Our involvement is to co-ordinate the work with the farmer, contractor and funding parties and including the use of funds held by the Trust under the River Restoration Project and also the Countryside Stewardship Scheme run by Natural England. This was a difficult project and one of the largest carried out by the Trust. The results have been very positive, fulfilling a number of benefits for both river habitat, and flood alleviation.

The Heritage Lottery Funded Scheme in the Coniston and Crake Catchment is now well under way and we have two members of staff fulltime on this major three year project. Much work has been done to carry out river habitat improvement schemes with river restoration work, stock exclusion by fencing the smaller becks and streams and tree planting. In addition, there has been considerable community involvement and education both within schools and the wider community. One of the key objectives has been to educate on the proper use of septic tanks and the management of these. These are a major contributors to increasing phosphate levels in the water courses in the catchment and so the management of these privately owned systems is vital for the wellbeing of the aquatic environment.



## Treasurer's Report 2018

### Continued..

The Trust has also been involved in many other areas throughout our total catchment and is working closely with the Environment Agency, Natural England, The Lake District National Park and many other local organisations to promote our work. One of the focuses has been with the flood alleviation and we are looking to carry out a number of new schemes, which will help with this, as well as improving the habitat.

Much attention has been given to looking at the future funding streams for future years, as some of the streams we have used in the past are beginning to cease or change. Our liaison with all groups and companies will play an important part of this as we move to a new funding environment.

As the move to the new offices at the Refinery in the Clock Tower Business Centre has bedded in, we have had various adjustments to make. This has been a very time consuming and taken the focus away from our key work. We are now in a stronger position and have a very dedicated and professional staff to move the Trust forward to the next stage of our development.

***Dickon Knight***



## Director's Report 2018

As reported in the Chairs' assessment, a significant part of 2018 was spent making adaptations; the first was in respect of a new experimental management system for SCRT. This involved the planning, establishment and monitoring of a new system aimed at improving performance by focussing and sharing more project and management responsibility among the staff. As with many experiments we didn't get all the wins we had hoped for at the first attempt but there were some very encouraging results to build on. We have since developed these and in hand with a number of readjustments of staff and redefinitions of roles we now have a system that works extremely well and is very popular with the team. Additionally, we now also have an extra tier in our structure which provides staff with an opportunity to progress within the business. So, I'm happy to report that the experiment is closed.



Also in 2018 we continued to prioritise the work of the South Cumbria Catchment Management Group (CMG). We adapted our approach by establishing a delivery focussed work group, the Project Working Group (PWG). The PWG, works in support of the strategy focussed CMG, by identifying opportunities to aid Communities at Risk of flooding through the collaboration of members of delivery focussed organisations. This has been a very encouraging development and bodes well for ongoing collaboration to consider projects that both address flood concerns and gain environmental wins for the communities of South Cumbria.

Linked to the above was the commencement of a new DEFRA initiative to establish Natural Flood Management projects in Cumbria. As you will read later SCRT completed one project shortly before Christmas 2018 on Bell beck near to Troutbeck Bridge. This project has been very well received by the residents downstream of the project site who are at risk of flooding and we will be following this with other similar work across south Cumbria in 2019.

## Director's Report 2018

### Continued..

The Chair's report again picks up a number of other 2018 project highlights which I will not repeat here and about which you can read more later. However, his focus on the climate and its impact on the water quality of south Cumbria and the species and habitats it supports is one area that is of huge concern and needs repeating. Set against a backdrop of economic difficulties and uncertainties that Brexit continues to fuel there will be no bigger global challenge for all of us in the decades to come. At a local level we are witnessing the continued deterioration of water quality in our lakes and the decline of iconic species which include Arctic char and Atlantic salmon. 2019 will not begin to see an improvement but SCRT will be working hard to effect change.

As we now prepare for these challenges it leaves me to say thank you to the team at SCRT who make all we do possible. I would also like to thank all SCRT's Trustees, Patrons and our magnificent volunteers for all their energy, dedication and hard work.

I sincerely hope that you will enjoy the insight in to our work that the following pages provide. As always, please let us know if you have any questions or comments to make- we are keen to hear them.

***Peter Evoy***





WORKED WITH 4 SCHOOLS



NUMBER OF SCHOOL CHILDREN  
ENGAGED: 190



239 VOLUNTEERS  
ENGAGED

WORKED ON 8  
FLOOD RISK  
MANAGEMENT  
SCHEMES



# 2018 IN NUMBERS

38 EVENTS/  
SHOWS/DEMO  
DAYS

795 TREES  
PLANTED



2.35KM RIVER  
OPENED UP TO  
FISH

3 FISH BARRIERS  
REMOVED

23.9 KM RIVER HABITAT IMPROVED

BUSINESSES  
ENGAGED: 7

375 VOLUNTEER  
DAYS



3 RIVER CLEAN EVENTS



GO TEAM!

# Natural Flood Management (NFM)

**Creating Woodland   Slowing run off   Creating wetlands   Managing upland drainage   Bank Restoration**  
**Restoring rivers   Managing land and soil**

Ever since Storm Desmond in 2015, DEFRA set up the Cumbria Flood Partnership to focus on flood management projects in Cumbria. One of the focused areas is Natural Flood Management and the techniques this encompasses; to reduce flooding by working with natural features and processes to store or slow down flood waters.

SCRT have been looking at about eleven locations in the South Lakes where NFM could have considerable alleviation effects on flooding.

## Bell Beck

In December 2018, we installed ten Large Woody— debris Dams on Bell Beck in woodland downstream of the A592.

The LWDs are designed to mimic the woody debris dams which form naturally when trees or woody debris fall into a watercourse. They cause water flowing down the beck at great velocity to be forced out onto the flood plain by the timber dams more readily and more often, thereby slowing the water

in-channel and increasing the volume of water retained on the land.

Woody debris is also known to promote aquatic biodiversity.

Different designs of LWD have been installed at Bell Beck, from large single logs, to brash bundles wired to smaller logs and branches.

We have also installed monitoring equipment, such as; pressure transducers and time lapse cameras. These will help monitor the water heights behind the structures, indicating the success of the LWDs and help us plan/adapt for future NFM work.





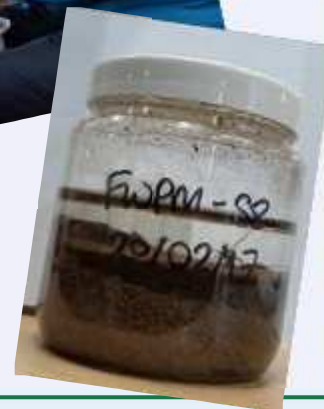
# Freshwater Pearl mussel project comes to a close

After over three years our £1.5Million BIFFA funded Fresh Water Pearl Mussel project has come to completion after it began back in 2015.

The project, that set out to PROTECT, SECURE and RESTORE Freshwater Pearl Mussels across

England, consisted of five partner organisations, including South Cumbria Rivers Trust to work at reversing the decline of this critically endangered species across the country. Some results:

- 7 new licences granted- This allowed for an increase in survey effort which in turn improved collective knowledge of the species.
- The project completed 161 public events to increase engagement and awareness, which reached approx. 3789 people.
- There have been 270 volunteer tasks, that generated 8047 hours of hard work on behalf of the species.
- A wide collaborative project, engaging; community groups, schools, individuals, education organisations and funders.
- River habitat improvements, including; 112,912 metres of river surveyed across 107 sites, 525,271 metres of river bank fenced, 3,421 metres of bank stabilisation across 24 sites, 4,388 trees planted, 11 sites improved for flow regime & gravel habitat. and 81,355 metres managed for Invasive Non-Native Species.



**DUBBS Beck completion!**  
This year, we completed a FWPM project that included the removal of approx. 820 metres of re-  
vetment.  
We then carried out fencing and tree planting.  
Please see the [2017 Annual Report](#) for further information.



## Monitoring Water Quality

Water quality monitoring within our catchments helps assess the environmental parameters that are affecting individual sites and in turn directs further project work. We do this by measuring temperature, conductivity, dissolved oxygen, turbidity, pH, sediment transfer data, phosphorus, heavy metals concentrations and assessing flow characteristics.

**8** new volunteers were trained in 2018. This meant there were still **43** active volunteers, equalling that of 2017, yet, the number of sites being surveyed across South Cumbria increased to **57** in total.

[Click here for the Riverfly Report 2018](#)

This year, there were **25** Electrofishing survey sites across South Cumbria.

[Click here for the Electrofishing report 2018](#)

*We undertook some sampling in the rivers and becks in our catchment to assess the movement of non-native signal crayfish using eDNA techniques.*

## Algae Training

In September, we ran a training session on Algae identification. The technique used was a new one for us; RAPPER (Rapid Assessment of PeriPhyton Ecology in Rivers). The technique is a relatively new method of assessing macroalgae which consists of; surveying a stream bed estimating algal growth cover, identifying the genus in a lab and then estimating the risk of excessive nutrients (eutrophication) based on the cover and composition of the algae. This technique allows volunteers to simply identify algae and we hope to use the techniques for future monitoring projects, by getting volunteers actively involved in data collection.

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### What Lies Beneath— Barrow Community Events

In 2017, we successfully bid for a grant from 'Tesco Bags for Help' to run community engagement workshops in and around the Barrow area. In 2018, we organised two events: 1) a litter pick event with members of the Barrow Community Centre with riverfly engagement in the afternoon and 2) a Family Fun Day in Dalton, with arts and crafts and riverfly.



### Cumbria Freshwater Invasive Non-Native Species Initiative (CFINNS)

For most of 2018, our invasive officer was working on the RAPID (Reducing And Preventing IAS Dispersal) LIFE project led by the Animal and Plant Health Agency. This 3 year project will pilot an innovative approach to Invasive Alien Species (IAS) management in freshwater aquatic, riparian and coastal environments across England. To facilitate this approach,

England has been divided into 5 regions – one of which is the North.

This report has now been submitted with workshops to be run in 2019 that will deliver biodiversity training and highlight the importance of stopping the spread of non-native species.



*Poaka beck, Duddon and Levers Water catchment investigations* — SCRT have been conducting risk assessment exercises to collect information and report on diffuse pollution in these catchments, in partnership with United Utilities. Walk over surveys, land owner engagement and monitoring have all contributed to a number of suggested actions, including further soil testing, increasing buffer strips and supporting farm infrastructure. These will all be developed with the support of local landowners.

### Elterwater

We continue to monitor Elterwater as part of our three year project to assess the effects of the pipeline installed into the middle basin. This was to try and reverse the nutrient rich water, by mixing in fresh water from the river. Please follow the link for more information about the ongoing work: <https://scrt.co.uk/what-we-do/habitat-improvement/water-quality/>

### Balsam Bashing!

Every year our volunteers organise and run 'Balsam Bashing events' in and around our catchments. The aim is to eradicate the non-native, rapidly growing Himalayan Balsam from our area. If left, it smothers native species and can erode riverbanks. Over 20 bashes took place in 2018, with 50 volunteers carrying out over 580 hours of balsam bashing. More events will take place in summer 2019, so keep an eye on our website for chances to attend a bash!







## CROSTHWAITE—ALL STEAM AHEAD!!!!

Crosthwaite has been a major project for SCRT in 2018. Funded through the Winstar & Gilpin project as well as rod licence revenue from the Environment Agency. To top it off, it was then match funded through the WWF Netherland Dam removal scheme. The campaign was set up to crowd-fund for the project, with a minimum of £10,000. to raise. We successfully reached our target making it the first barrier removal to be funded by crowdfunding.

The aim of the project was to remove 280 metres of culvert to allow fish, invertebrates and other wildlife to develop a new habitat where it was previously unavailable. The local school have really got behind the project, with the landowner agreeing that the de-culvert be used for educational purposes for the local school children. This will allow children to grow up with a wonderful new resource and learn about the environment and natural river processes.

After the culvert was removed, Matt Carroll the delivery officer, then fenced off the area and added a convenient footpath and planted trees that will attract even more wildlife to the area.



# CaBA—Catchment Based Approach

## Becks to Bay (South Cumbria Catchment partnership)

During 2018, activity on CaBA has been a bit different, largely due to the requirements from the Catchment Management Groups (CMGs). Increased activity on CMGs has led to a reduced and different approach for CaBA with the drive to merge. As part of this, we have chaired four CMG meetings and four Project Working Group (PWG) meetings; the PWG meetings are more of a reflection of our catchment partnership; the delivery group. As such, no formal CaBA meetings have been held. There has still largely been a flood focus however, this has been considered in the context of wider benefits and themes linked with Becks to Bay.

This focus has been undertaken in a strategic manner, reviewing the communities at risk and collating evidence to inform decision making and to prioritise where to focus initial activity, allowing the group to develop a pipeline of projects in the short, medium and long term.

Activity has continued to be publicised and captured on the Becks to Bay website: (<https://btob.scrt.co.uk/>). The website has continued to be updated and actions captured on the action tables.

Since the new Becks to Bay website was launched in 2017, the engagement and activity in 2018 has seen a particular focus on trying to engage more partners with Becks to Bay and to share more partnership information and so our social media activity increased from last year. There is still a way to go before there is a fully integrated information sharing system in place.

CaBA also supports our Riverfly and Electrofishing programmes. In 2018, What's in our Beck? was launched, a riverfly engagement project that involved communities in Barrow and Dalton interested in finding out about and assessing water quality.





## 2018– The first SIX months delivery year

*To improve water quality, habitat and biodiversity in the Coniston and Crake catchment area, through conservation activities and community engagement.*

### DELIVERY

*Large Woody Debris at Bouthray Bridge. LWDs were installed to create fish refuse sites. Follow the link to watch a quick video: <https://ccc.scrt.co.uk/blog/creating-fish-refuge-sites/>*

#### *Buried Becks*

*Water Park - Deculverting & creation of a new watercourse, approx. 150m long. A buffer strip was then created and trees planted; both also fantastic for habitat. Thurston reconnection – Thurston's de-culvert work has come to a close after it first began in 2016. <https://ccc.scrt.co.uk/buried-becks-thurston-outdoor-education-centre/>*



*Gravel cleaning- Training was carried out with a big blue bottomless barrel, suction hoses and pumps in order to clean gravels. Silt was removed from some short stretches at Langholme and Greenholme becks with the hope of improving spawning success.*

*Following on from this, volunteers joined us for some counting redds training, to differentiate between trout and salmon redds. This work will map spawning areas for future monitoring and gravel cleaning in the future.*

*Restoring reedbeds - Root sods and reed shorts trials were undertaken in over 250 m2 at Water Park. Reedbeds are very important for providing good habitat for various species as well as acting as sediment traps.*





## 2018– The first SIX months delivery year

*To improve water quality, habitat and biodiversity in the Coniston and Crake catchment area, through conservation activities and community engagement.*

### Engagement

*Birds, Bats and Biodiversity– Making bird boxes! The team had sessions with the community in Coniston as well at John Ruskin school, making bird boxes. People decided to either take home a bird box or make one for the project itself. We hope to do this again in 2019.*

*Hoathwaite Family Fun Day– We arranged a drop in event at the campsite, for families, locals and visitors. The event was busy with mini-beasts, pond dipping, stone-skimming and the famous salmon run! The National Trust joined the event too!*

*Art workshop– In August, exciting art workshops were arranged with Jackie Hadwin; Torver based watercolour artist. This is to encourage locals to learn about aquatic wildlife and the wider importance of biodiversity in the catchment as well as producing art work that can be used as interpretative materials, e.g. interpretation boards, within the project.*

*In December eighteen Year 6 children helped us plant 150 willow whips/rods along the edge of the River Crake. The children cut the rods from two existing willow trees, snipped them into 40-50cms lengths then pushed them into the ground. Once established the willows should help to stabilise the riverbanks, add shade and provide additional habitats for invertebrates and birds. Some volunteers also helped plant more willow whips along the Crake, totalling 350 in all!*



*YSI monitoring and litter pick with volunteers*



*Freshwater community dipping events*



# River Restoration

*The aim of river restoration is to consult with landowners, bodies and organisations to deliver restoration projects.*

*The Cumbria River Restoration is a rolling three-way river restoration programme delivering innovative river restoration remedies across three SSSI/SAC catchments in Cumbria, in partnership with the West Cumbria Rivers Trust, Eden Rivers Trust, South Cumbria Rivers Trust and Natural England. Flood Defence Grant in Aid (FD GIA) is now supporting the programme within its 6-year Medium Term Plan.*



We have identified and developed targeted projects aimed at restoring natural or near-natural hydro morphological processes. This is what we have achieved in 2018;

On an upland tributary of the River Kent, we started our largest river restoration project to date. The project has been split into different phases, with phase one implementing a reintroduction of a river back to its original paleochannel.

Additionally, the work will involve the removal of revetment currently hindering the river from moving, allowing the river to meander naturally as well as the infilling of the current channel. Engineered Wood Structures (EWS) will be added to kick start this movement. Changes to the land management and riparian planting will be a huge ecological enhancement and improve the biodiversity in and around the river.

We are also conducting feasibility studies on weir structures on the River Kent SSSI/SAC. Ecological, geomorphological and structural assessments are being carried out in order to identify feasible options in relation to either full removal of these structures, weir modification or not doing anything at all. We will be using the results to guide discussions and move forward with appropriate action in regards to structures on the River Kent.



# SCRT news

Matt Carroll was welcomed to SCRT at the end of March 2018.

He is a project officer working with a lot of different projects!

His main project, other than Fresh

Water Pearl Mussels is the Winster and Gilpin project!



*We are also welcoming another member of staff, called Rachael. Rachael started in July as a projects support officer for the Trust, as well as taking on administration tasks, publicity and everything in between.*

**Welcome David.**

**David was recruited at the beginning of December 2018, to take over the Natural Flood Management projects and River Restoration. David has worked for Eden Rivers Trust in the past bringing a wealth of experience and knowledge with him. Best of luck David!**



**Goodbye and good luck!**

**We just wanted to say good bye to two members of the SCRT team.**

**MIKE STURT— Technical Officer**

**MEREDITH REVILL— Project Support**