

# **Catchment in Crisis – a project funded by the National Lottery Heritage Fund from the Our Heritage programme 2018-2019**

## **Evaluation**

### **Introduction**

The Catchment in Crisis project was designed to raise awareness of the upper reaches of the Ouseburn River. The upper reaches of this 7 mile long watercourse is facing many threats to its water quality and amenity value as a result of historic workings, dredging, rural diffuse pollution from poorly stored nutrients and rapid run off at high rain-fall events and increasing pressure from development for housing and Newcastle Airport. Its water quality is failing the Water Framework Directive's measures for clean, safe water. In response to this river catchment in crisis, Groundwork created a project to increase awareness, learning, skills and knowledge to try and reverse the trend of abandonment and careless management. We have organised open days, guided walks, educational field visits to support the geography, music and literacy curriculums in schools; experts have been training citizens in how to test and monitor water quality and invertebrate life. We have shared our findings and pollution alerts have been made to the Environment Agency as a direct result of the citizen science detective work being carried out on the Ouseburn and its catchment. This important work is set to continue in the safe hands of volunteers who will now be managed by Tyne Rivers Trust.

This evaluation is divided into five parts:

- Community open days and activities
- Education
- Citizen Science and skills
- Legacy
- Conclusion

### **Community Open Days and Activities**

Once the project received the permission to start, conversations began with our main partners – Tyne Rivers Trust, Woolsington Parish Council and Woolsington Residents' Association on where and how we could arrange the programme for community engagement activities. We settled on the venues for the two Catchment Awareness Days – one in Woolsington and one in Callerton, these being the two settlements in the Upper Ouseburn Catchment. Below is a summary from these days.

### **Catchment Awareness Days - June 23<sup>rd</sup> and 24<sup>th</sup> 2018**

Groundwork North East & Cumbria organised two special days in 2018 to raise the profile of the River Ouseburn, to raise the issues of diffuse pollution, point source pollution, development pressure and consider what home owners can do to alleviate some of the pressure on the river, also to learn about the training and recreation opportunities on offer from Catchment in Crisis. The events were organised with help from Tyne Rivers Trust staff attending.

Groundwork provided gazebos, tables, chairs, bunting, banners, flow model, invertebrate printing materials, catchment maps (provided by EA), catchment display (GWK), Groundwork banner, sand trays and natural materials for building rivers, written literature.

Tyne Rivers Trust provided invertebrates, the rain garden model (on loan from Yorkshire Rivers Trust), written literature, banners and flags.

The event was marketed door to door via a flier in Callerton (see below) plus an extra leaflet drop at the Poachers Cottage pub on the day, also by Tweets by Adam Vaughan, @tracinggreen. It was also advertised by email by John Littleton and by talks to Woolsington Residents' Association evening meeting and a Parish Council meeting given by Lesley Silvera in May 2018.

## **What we did**

There were slightly different activities each day:

### **Sat 23<sup>rd</sup> June (sunny and warm), The Oval, Woolsington**

**Attendance was 50+, mix of adults and children, families and older interested people.**

River Dipping with James Stafford, Groundwork NE&C

River Invertebrate Prints with Jane Austen-Walker, GWNE&C

Rain Garden and river invertebrates with Liz Walters of Tyne Rivers Trust

Modular River Surveys with Grant Tregonning, PhD and CinC volunteer of Geography, Urban Sciences Department, Newcastle University

The Ouseburn River Restoration project – what we have done so far and what the plans are for the next 9 months for citizen science, primary education and local involvement and enjoyment led by Lesley Silvera, GWNE&C.

### **Sunday 24<sup>th</sup> June (sunny and very warm, World Cup – England v Panama at 1pm), The Poachers Cottage, Callerton**

**Attendance was 15, mix of adults and children. We also wrote up the life story of a 90 year old resident who shared his insights with us, going back 80 years!**

River Invertebrate Prints with Jane Austen-Walker, GWNE&C

Rain Garden and river invertebrates with Simone Price of Tyne Rivers Trust

Farm Visit offered but no takers, Danielle Anderson-Walker

The Ouseburn River Restoration project – what we have done so far and what the plans are for the next 9 months for citizen science, primary education and local involvement and enjoyment by Lesley Silvera, GWNE&C.

## **Event Conclusion**

The feedback forms returned were very positive; enjoyment of activity and “how well did event meet expectations” both got 5 out of 5, Information about Catchment in Crisis scored 4 out of 5. People want to learn more about Modular River Surveying, about bank stabilisation and about landscape planning to accommodate the new housing areas which are designated for the land surrounding Woolsington – the airport is due for expansion, Woolsington Hall is due for development, new housing and roads are due to be built and the Ouseburn and its tributaries lie in the midst of this.

Woolsington will make a good venue for the final celebration event but we need to be careful not to clash with major football matches or other events! The format of the event worked well, and the attending staff were very competent and well received by the public but we need to be able to engage/ entertain up to 100 people in future.

## **Recommendations**

The aims and legacy opportunities of the Catchment in Crisis project need to be more clearly stated in future with a few more clear outcomes for people to join in with. There was a flier with 3 events ready to give out but this was overlooked in the busyness of the event.

Next steps – organise some training in Modular River Surveying/ River Fly training or other topics and arrange local visits to gardens in July. Get more staff and volunteers signed up for the River Festival in 2019.

**The flier for the Catchment Awareness Days is shown below:**

Our Catchment in Crisis project is a 12 month project to look at ways to help conserve and learn about the Upper Ouseburn to protect and sustain its water quality and biodiversity for the long term. Local schools will be making an Ouseburn Soundscape, there will be opportunities for volunteering and to learn about river life, guided walks and events, Big Clean Up days and a celebration event in 2019.



Please help us by getting involved and bringing your ideas and views to our first two events:

**11am - 3pm - Sat 23rd June**  
**in Woolsington on riverside green (at The Oval) NE13 8AS**

**11am - 3pm - Sun 24th June**  
**in Callerton, Poacher's Cottage car park NE5 1NQ**

There will be river insect identification, mayfly craft, a flow model, making a river in a tray, a farm visit, catchment information to share and maps to study.

We hope you can join us and look forward to seeing you.

For more information on Catchment in Crisis please email  
Lesley.Silvera@groundwork.org.uk



## Press report for Catchment in Crisis - River Festival 2019 – June 29<sup>th</sup> 2019

On Saturday 29<sup>th</sup> June 2019, 101 people turned out on a glorious warm summer's day to take part in a River Festival on the village green at Woolsington next to the Ouseburn river as part of the Catchment in Crisis project which was funded by the National Lottery Heritage Fund, led by Groundwork and supported by Woolsington Residents' Association (WRA). There was a team of staff from Groundwork, Tyne Rivers Trust, Mountfield Primary School (North Kenton), Newcastle University's National Green Infrastructure Facility and Envirotech Ltd who came together to present activities and information about rivers, rain water, flooding, invertebrate health checks, volunteering, citizen science and child friendly play activities. Dorothy Muxworthy, Chair of the WRA, opened the event with the unveiling of a superb sculpture made by Alison Ashton with help from children from Mountfield Primary in North Kenton and Cheviot Primary at Newbiggin Hall Estate, both schools were involved in the art workshops led by Alison and Mountfield school children also visited the Ouseburn as part of a river investigation study with Tyne Rivers Trust and Groundwork.

Lesley Silvera, the project leader said *"The aim of this project is to raise the profile of the Ouseburn and how important it is as a wildlife corridor and green lung for the city and also to realize how vulnerable it is from many different sources of pollution along its length. We've had a fantastic response from people in Woolsington who have come forward to take part in citizen science, committing to measure water quality in the river Ouseburn, also to pick litter, improve bankside habitat and contribute to community learning and awareness. We are indebted to our funders - the National Lottery Heritage Fund and to our mentors at the Environment Agency and to our partners at Tyne Rivers Trust and Newcastle University's National Green Infrastructure Facility"*.

Mountfield's Year 5 teacher, Laura Collins said, *"this has been an amazing project, giving the children real experiences with real outcomes that benefit their communities. Making them really think about their own impact and influence on the world around them and the inter-connectivity of our ecosystems. It gave them the opportunity to engage with a variety of agencies, allowing them to explore future work opportunities."*

Here are some of the photos of the event displays and the participants –



Figure 1: Dorothy Muxworthy, Chair of Woolsington Residents' Group unveiling the "Body of Running Water" artwork



Figure 2: Artwork from Mountfield and Cheviot Primary Schools



Figure 3: Adjusting the rood on the sustainable urban drainage house model



Figure 4: Laura Collin, Year 5 teacher from Mountfield Primary School explains what the Catchment in Crisis River project has done for her Year 5 class



Figure 5: Event group enjoying the ambience



Figure 6: Sustainable Urban Drainage House model being demonstrated; note the "garden and green roof" on the left!



Figure 7: Stencilling river invertebrates onto cloth bags



Figure 8: Event stand



Figure 9: Building a section of a river



Figure 10: catching the run-off from the hard house

## Guided Walks

We offered two walks in August 2018 which were advertised in Callerton, Woolsington and Westerhope however there were no takers, therefore a different approach was taken for 2019. We decided to work with local groups – walkers, golfers, historians to generate interest and share findings from our work. This has been the least subscribed part of the project with a take up of about 40 people in total. The Westerhope golfers declined after long negotiations. However, in 2019, we

worked with the Newcastle Search Group in 2019 working out of Westerhope Institute, the Newburn local history group and Woolsington Residents Group in order to get people interested in guided walks in the area. 34 people attended from the Search Groups (July and August 2019) – these are older people who feel isolated and need companionship and support in trying out new walks and who enjoy learning new things. Their response was motivating – they really enjoyed learning about the water quality mitigation measures installed and how the river is now being monitored. In Woolsington, 6 people came out to pick litter and be trained in chemical analysis of the river (August 2019).

In addition, a volunteer helped check the walking routes and spent time clearing brambles and litter from some of the access routes in the upper catchment.

The rights of way stiles, gates and signs around Callerton and Westerhope were upgraded by Newcastle City Council in spring 2019 independently of our project but further to discussions with the Newcastle City Council rights of way officer. In addition, the fairly newly established Walbottle Waggonway Association has installed some very interesting information panels on the old waggonway overlooking the Ouseburn Upper Catchment and also some attractive benches – these have helped make a very attractive walking route accessible and interesting and were used by the Search group on the Catchment in Crisis walks.

## **Community Bird Box Building in October half term 2018**

This was a fun and well supported activity morning where parents and grandparents brought children along to make bird boxes so that they were ready to go up in autumn for birds to test them well before nesting season next spring. We had 8 children and 8 adults attending and a warm review from two of the adults; we also did pumpkin carving as it was the right time of year and a draw for the children:

*Hi Lesley*

*Thanks for the event today. Olly really enjoyed it.*

*He enjoyed making his pumpkin and meeting the other children.*

*So thanks again.*

*Stacey*

*31/10/18*

*“Congratulations for arranging yet another successful community event in Woolsington! I’ve already received some positive feedback from both adults and children.*

*A few of the younger ones are expecting eggs to be laid in the boxes by tomorrow!*

*Also, the parents were very grateful that they were given the chance to meet other residents who were in a similar situation.*

*I would also like to thank you for all the time and effort that you personally give to these projects. I can assure you it is greatly appreciated and is instrumental to developing a positive community spirit.”*

*31/10/18*



## Community Litter Picks

In 2018, at the first litter pick, we collected 14 bags of litter and had a very enjoyable morning complaining about the ungrateful people who dump their rubbish in this lovely place.

In 2019, at the 2<sup>nd</sup> litter pick we collected 10 bags of litter and combined it with some citizen science training, a guided walk and a catch up on what's been happening in the catchment – a very productive Saturday morning!

## Education Days

There were several elements to the educational offer; we set out to create some original artwork and a musical Soundscape, together with some interesting river field visits and a set of newly created river learning sessions in schools (very messy and good fun). We wanted to showcase the musical work at the Catchment Meetings that we attend with about 20 professional organisations and we wanted to show off the artistic representation of the river at our River Festival event and also at schools and libraries. We linked the education work to the curriculum needs of the schools we worked with. Some wanted us to support vocabulary, some music, some wanted an overall project idea to work on and so on.

We worked with 6 schools, 240 pupils, 6 head teachers, 8 teachers and 12 classroom assistants. The children used iPads, recording equipment, maps and exercises outside the classroom and inside they used a flow model (on loan from North Pennines AONB), a Sustainable Urban Drainage House model (built by one of our volunteers), they 'built' river sections in a tray and generally had a lot of fun and hopefully learnt a lot too. We worked with really good collaborators – Tyne Rivers Trust who helped with the sites visits, river sampling and dipping and created nice add-ons such as Salmon in the Classroom, and we worked with good artists who came up with wonderful final pieces of work.

The Ouseburn Soundscape is here: <https://ouseburnsoundscape.wordpress.com/>

We chose two schools in areas of high need (high take up of free school meals) close to the Ouseburn – North Fawdon and Farne Primary Schools to work with Ken Patterson, Musician and former Music Advisor to Newcastle Schools Music Department to create a Soundscape for the

Ouseburn. Lesley Silvera from Groundwork introduced the project with an afternoon of hands-on river activities in school – with a flow model, setting up a catchment, building a river in a tray. This was followed up by Ken who organised field trips with Lesley to look at the river's source, the river as it flows through Callerton, Woolsington, Brunton, Kenton, downstream to the Lower Ouseburn to the mighty River Tyne. The children loved this work; taking pictures on the iPads, excitedly chatting about what they could see and hear.

Susan Bennison, Class Teacher from Farne Primary said the following about making the Soundscape *"The children really enjoyed the Ouseburn Soundscape project - children always learn well through practical experience and through visiting sites along the Ouseburn they were able to learn about the physical features of a river and think about how it can affect the area in which they live, and how the people living in this area can have an impact on the river. The children enjoyed using different musical instruments to make sounds to accompany the video, singing songs and using ICT to record images, sounds and videos along the Ouseburn which they then incorporated into their own interactive book on an ipad. The project enabled the children to meet a number of the National Curriculum requirements for geography; it gave them experience of fieldwork that deepened their understanding of geographical processes. Through learning about the Ouseburn, they were able to describe and understand key aspects of physical geography, including rivers and the water cycle and gain an understanding of human geography, with some insight into land use and the importance of natural resources with the need to control flooding and pollution.*

*Through linking the project to our work on Brazil and South America and comparing the Ouseburn to the Amazon in South America they were able to understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom and a region within North or South America.*

*Thank you for a fabulous experience for the children - it is fantastic to be able to see their work displayed on a website which they can share with their parents and family."*



Of the field visits and work in classroom, Aimee Palmer, Teacher of Year 5 from Stocksfield Avenue Primary School said: *"Both Year 5 classes from our school were lucky enough to participate in a visit to the Ouseburn. The session was very informative - we learnt about areas surrounding the site, how people can support their local rivers and how we can monitor the levels of pollution through gathering kick samples. The children enjoyed collecting and classifying invertebrates and prompted great discussions back in the classroom. My teaching partner and I felt that the session was beneficial to the children as it provided them with real-life links, as well as links with the National Curriculum. A big thank you from all of Year 5."*

*The only feedback that I would give for improvement would be to try to get the activities started a bit sooner - I think some of the children were getting a bit chilly when sitting. Maybe the session mixed with mini plenaries would enhance this. Thank you again to both of you."*

Rebecca Armstrong, Teacher of Year 5 from Stocksfield Avenue Primary School said of the Rivers day on 18th October 2018: *"I thought the session was very educational and you and Simone were able to engage the children with the various activities very well. I loved the way that you used practical resources to show the children each process and the children were able to tell me all about them as they had remembered. The only critical things that I can think of is that it would have been lovely to have seen some work on the water cycle although I know that you ran out of time and this was not your fault. I'm not sure if my classroom was too small but a session in the hall may have been easier logistically and would have given the children more room to see each activity. Thank you again for a really wonderful session!"*

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In concluding the education section of this report, we were satisfied that the rivers activities were at the right level and gave the children an interesting and challenging introduction to rivers work, with some great outputs in the form of the Soundscape and the Artwork. Teachers told us that they would borrow some of the ideas about introducing new vocabulary and they loved the models that we took in to their schools. Mountfield Primary have expressed a wish to work with us in the coming months, they were so pleased with the project.

## **Citizen Science and Skills**

We organised the following water sampling training days:

"Adopt a Stream" – this is chemical analysis training of river water led Tyne Rivers Trust and had a take up of 11 people.

RiverFly – this is invertebrate monitoring and was led by Tyne Rivers Trust and attracted 9 people.

These courses have attracted 20 volunteers to come forward for training. There are various aspects of the Citizen Science part of the project which have proved more difficult to deliver than envisaged:

- finding suitable people willing to commit to technical training in their own time, nb. the training demands a good level of observation skills, literacy, numeracy and capability
- finding people willing to commit to regular water sampling once they have received the training
- finding suitable safe spots of people to take water samples from the Ouseburn



Each course offered extremely high levels of technical training and competence from TRT together with the offer of good equipment and PPE. The courses are regulated by the EA and they, in turn, demand a very high standard of training to vouchsafe the records they receive from trained citizen science volunteers.

Feedback from Simone Price, Adopt a Stream Project Officer for Tyne Rivers Trust:

*“Catchment in Crisis has enabled Tyne Rivers Trust to engage with communities in more urban areas of the Tyne catchment, we have been able to work with urban school children from disadvantaged areas and to understand what they know and how they feel about their river environments, this has given us a fantastic insight and lots of ideas for future work with schools to encourage children to appreciate their outdoor environments. It was wonderful to show young people and indeed adults what might live in their rivers and why it is important to keep rivers healthy. Some of them had never been in a river before. We have been able to establish a group of riverfly and water quality monitoring volunteers within the Ouseburn catchment meaning with their help we will receive regular data on the health of the river and we look forward to continue to work with them going forward. This has also been a fantastic opportunity to work with Groundwork North East and share expertise and resources, coming together to raise awareness and improve the area.”*

In addition to water quality monitoring training, one of our volunteers built a Sustainable Urban Drainage Model House for use in schools. We have used this at 6 events and is now regularly loaned out to Tyne Rivers Trust for their work too.

We also offered a scything training course led by John Grundy which could only take 3 people and that was the number we got. The participants loved the day and enjoyed the hard work but realistically, we are not sure how often scything will be used in future. However, each trainee is now

linked to John Grundy's mailing list and he sends out periodic invitations to participate further in refresher days where there is an open invitation to trainees.

*"Once again, many thanks for organising this activity.*

*Found it fascinating from onset and realise we have much to learn, particularly setting up the snath and adjusting the angle of the blade, not to mention sharpening, honing and peening (you missed that bit) but, don't worry, john gave me a leaflet outlining all aspects, which I will pass on to you.*

*We cleared a reasonable area, largely through Pete, though our wind rows aren't quite upto competition standard yet!*

*Can see how this could benefit the management and maintenance of a number of areas in Woolsington - particularly those designated as high bio diversity value. "*



## Legacy

There are now dedicated volunteers who are capable of analysing water quality in the Ouseburn either through chemical analysis or invertebrate numbers. One result of this is that a pollution incident was reported by one of our trainees on Friday 19<sup>th</sup> April 2019 in Abbotsford Wood. This was reported to the EA who came out, inspected the site, took samples and installed straw bales to try to mitigate the pollution flowing into the tributary.

We have also demonstrated community activities in and around Woolsington, using Thumpas Bar which is a Sports Club bar but which is adequate for small community events. We've also used the Poachers Cottage Car park in Callerton for one of our Catchment in Crisis Days in 2018. But Callerton and Woolsington both lack community centres or halls and have no obvious public meeting places which has proved to be a challenge.

Six local schools have had an introduction to safe sites to take children for field work and a school activity pack has been produced. Some of the teachers have told us that they will borrow some of the teaching and demonstration techniques demonstrated. The Artwork created by Mountfield and Farne called 'A Body of Running Water' has recently toured to High Heaton and City Library in Newcastle where it has had a lot of praise and positive comments. It was unveiled in front of about 100 people at the River Festival in Woolsington by Dorothy Muxworthy of Woolsington Residents' Association.

In addition to the main aims of the project, the Catchment in Crisis work has helped to support Woolsington Residents' Association and Woolsington Parish Council in developing an ambitious Biodiversity Action Plan for the entire parish. We have participated in meetings with the Newcastle City Council Ecologist and green spaces team to support Woolsington Residents' Association in ways to practically demonstrate how to make small changes to increase the biodiversity of the whole Parish of Woolsington, including Callerton, Newbiggin Hall Estate and Kenton Bank. The group successfully drew down a small grant to develop a wildflower seeded plot on the public verge beside a nursing home in Newbiggin Hall as a pilot project working with Farne School.

One of the leading research associates Eleanor Starkey from the Newcastle University's National Green Infrastructure Facility participated in our River Festival Event at Woolsington in June 2019 and as a result of this, has requested to work with us in our river engagement work in future to test the impact of citizen scientists on the environment. This is a really good outcome for the Ouseburn and the Tyne and we are delighted to be trusted partners in this important piece of work (funded by EA and possibly, in future by the Natural Environment Research Council).

## Conclusion

The Catchment in Crisis project delivered good outcomes and outputs within a 20 month time frame in the upper catchment of the Ouseburn. The project took 6 months longer to complete than was originally envisaged but we needed to engage more citizen scientists at the right time of year (June/ July) to take up the on-the-ground training to monitor tributaries where there is no equipment in place to check for water quality. The project progressed relatively smoothly with a good partnership developing between Groundwork, Woolsington Residents' Association and Tyne Rivers Trust.

The good news is that there are now very active, competent and reliable citizen scientists who can challenge events and anecdotes about the river by producing data and visual evidence when water quality is being compromised by poor practice and wanton pollution incidents. In addition, the project has delivered two very successful arts projects delivered by two conscientious and responsive artists who made the schools and community elements of the project really outstanding. We are very pleased with the in-school results and also the outreach elements that we've achieved with both of these. The community events were successful and helped build community know how and cohesion.

Parcels of land within the Upper Ouseburn catchment are being built upon at a rapid rate and we expect that the increased knowledge, training and awareness that this project has enabled us to deliver will help to go some way to protect the Upper Ouseburn, its natural habitats, the river channel, its tributaries, the riverbanks and the life within the river. But the pressures on the catchment are immense and although this project has delivered on its targets, there is no place for complacency.

Lesley Silvera

Sept 2019