



the River Restoration Centre

Working to restore and enhance our rivers

RRC Annual Report April 2016 to March 2017

“The River Restoration Centre champions ‘better rivers’ and promotes the natural capital and social benefits of restoring our river systems for a sustainable future.”

Our vision is naturally functioning, wildlife-rich river systems, valued by people

Reviewing RRC’s strategic direction

At the start of the new financial year, we engaged CASS Centre for Charity Effectiveness to lead a review of the strategic direction and operation of RRC. The organisation has come a long way in 20 years, and this was an opportunity to review that journey and RRC’s place in the current and future river & catchment management arena in a post-Brexit environmental policy landscape.

This six month review resulted in RRC stating a refined Vision and Mission (above) and reaffirming its purpose:

To actively promote the re-establishment of natural processes, features, habitats and biodiversity of a river system, to support others to achieve this by collating knowledge, information and evidence to share best practice throughout the river and catchment management community.

As well as continuing much of the current work, the review highlighted areas of strategic direction that RRC should pursue:

- Build on the existing excellent RRC reputation for expert knowledge, advice, guidance and promotion of best practice river management.
- Align river restoration multiple benefit messages closely with topical catchment management drivers such as Natural Flood Management and Nature Based Solutions.
- Refine and grow the information, data and evidence RRC holds to meet the needs of its members and users.
- Partnering with others, to deliver more efficiently, the wide range of river and catchment related support, advice and services that this growing community demands.
- Strengthen our advocacy role and better report the outcomes.
- Help inform and develop science through knowledge and research, and to apply science to better inform practical management and policy decisions.

- Widen our income base and funding sources to achieve a sustainable business.

This work will inform a revised Business Plan in 2017.

RRC Staff

Managing Director	Martin Janes
Business & Finance Manager	Emma Turner
Science & Technical Mgr	Marc Naura
Restoration Adviser	Jasmine Errey
Centre Administrator	Nicola Mackley
Information Officer	Josh Robins
Local Engagement & Communications Officer	Will Barber/ Rosie Steadman
River Restoration Assistant	Alexandra Bryden



2016/17 saw us say goodbye to Will Barber as Local Engagement & Communications Officer while welcoming Rosie Steadman as his replacement and Alexandra Bryden as River Restoration Assistant supporting the technical team.

RRC Board of Directors

RRC is governed by a Board of Directors selected from across the river management sector:

Fiona Bowles (Chairman)	Andrew Gill
Kevin Skinner (Secretary)	Will Bond
Orlanda Harvey (Vice Chair)	Nicholas Clifford
Dan Alsop	Lawrie Gray

We are always keen to discuss new director appointments. Interest should be expressed to a director or the Managing Director in the first instance.

RRC at Cranfield

The River Restoration Centre is based at Cranfield University in Bedfordshire. We would like to thank Cranfield Water Science Institute and the School of

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Water, Energy and Environment at Cranfield University for their support of RRC.

RRC Membership

RRC continues to receive the support and financial commitment from the UK environment agencies and conservation bodies as Core Funders (logos below).

Corporate Members for the year were:

Cranfield University	Jacobs UK
Royal Haskoning DHV UK	Atkins
Salix River & Wetland Services	AECOM
Ove Arup & Partners	EWH Moore
WSP Developments	South East Water

During the year we welcomed the following new Business Members:

- Ebsford Environmental
- Kingcombe Aquacare
- Blue Engineering
- Pierrepont Estates
- Peter Brett Associates
- Robert Bray Associates
- Test Valley Borough Council

RRC gratefully acknowledges the support of all its Members: Core, Corporate, Business, Trust, Individual and Student.

Core activities

RRC's core activities continue to be an essential component in maintaining our position as the UK's independent information and advice centre for up to date best practice and expertise in river restoration. Core activities are grouped into:

- Information and knowledge exchange;
- Expert technical advice & evaluation;
- Dissemination, training and guidance.

The Business Review found that these key areas reflect well the need across the industry and the strengths of RRC. The challenge for RRC is to continue to grow and develop these much needed and well used services within the changing face of environmental legislation priorities and funding pressures.

Information & Knowledge Exchange

Best practice restoration and management

We have continued to improve and add to the National River Restoration Inventory (NRRI). There are now over

4,650 projects. As part of our continued improvements to the NRRI, we have transferred the data to an Access database, allowing us to manage and analyse the data more effectively. RRC continues to be responsible for moderating all RiverWiki case studies that are added in the UK, while also acting as an administrator for the website, on behalf of the European Centre for River Restoration (ECRR). The UK-specific RiverWiki data is routinely downloaded and added to the NRRI database.

There are 649 projects from the UK (up from 594 last year) and 1022 in total (up from 963 last year) on the RiverWiki which has over 7,500 registered users.



These data are used to compile information on a wide range of river restoration, working with natural processes and best practice river management works for a range of organisations, including the SNH led IUCN River Restoration and Biodiversity report (UK and Ireland), Natural Flood Management (NFM) costs and examples for SEPA/Scottish Government and flood risk mitigation costs, and NFM examples, for EA FCRM.

RRC Bulletin

The RRC Bulletin has continued to be published monthly (with the exception of March and December), with a special edition in August. The Bulletin is sent out to a readership of over 2,950 and is an effective way of synthesising both internal and external information, and sharing news on activities and events nationwide.

In the last year, bulletins signposted many new reports and documents including: SEPA's Local Flood Risk Management Plans in June, DEFRA's Catchment Partnership Fund Reports in July, IUCN's River Restoration and Biodiversity Report, A Report on Strategic Planning led by WWF, Outputs from the SNIFFER Flood Risk Management Conference in February, the EA's report on Catchment process modelling working with natural processes, and RAFTS' library of guidance on Managing River Restoration.

The RRC Bulletins also feature news and events. We have publicised a number of PhD opportunities from Universities such as Nottingham Trent, Leeds, Aberdeen, Bristol, Loughborough and Plymouth.

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Events such as the Rivers Trust Autumn Conference, the Riverfly Conference, London Rivers Week, Clean-Up days with Thames21, and the WTT Conservation Awards, have been featured. News and Job opportunities from Arup, cbec, EA, Wye & Usk Foundation, Salix and Forestry Commission have been included as well as volunteer and citizen science opportunities.

The Bulletin has also been a great way to publicise internal news and events, particularly the Annual Conference, Training Courses, Member Site Visits, and any staff changes. Community Engagement updates now have a dedicated section in each monthly bulletin, promoting community training events and guidance material including factsheets and videos. RRC web pages such as the new Science Digest page, Community Engagement page, the RiverWiki and updates to the Projects Map have also featured in the Bulletin.

RRC web-based resources

The number of visitors to the RRC website has increased steadily and significantly overall over the last year.



The unique visitors in the 2016/2017 financial year were higher in every month compared to the 2015/2016 year. There was a 48% increase in unique visitors and 63% increase in total visitors.

We are continuing to develop the site so that it is essential for anyone involved in river restoration. The communications news, events and blog pages are continually improved, and the page layouts are routinely updated. With continued funding from the Esmée Fairbairn Foundation for a second year, the Community Engagement webpages are being monitored, updated and added to with relevant news, events and guidance.

Communication, events and media

Complementing the website and bulletin, we actively promote new developments, key activities and best practice.

We have attended events, conferences and international meetings including:

- Environment Agency FBG conference, Birmingham,
- 1st Polish conference on River Restoration and maintenance, Krakow,
- EA NFM monitoring and evaluation workshop, Birmingham,
- IUCN “River Restoration & Biodiversity” report launch, Windermere,
- Defra Flood & Coast, Telford
- Sniffer & Scottish Government FRM conference, Edinburgh,
- NERC Fine sediment workshop, Plymouth.

Or through social media routes:

- RRC now has over 3129 followers on Twitter, an increase of 682 over the year. Monthly average of 12 tweets (from 18, Apr 2014 - Mar 2015 and 37, Apr 2015 - Mar 2016) and 12,450 impressions (from 9,000 Apr 2014 - Mar 2015 and 31,000 Apr 2015 - Mar 2016).
- An increase of 281 ‘likes’ on Facebook to 1,023. Posts with examples from the Manual of Techniques have been popular on Facebook with the most popular reaching 6,819 users.
- There are 789 followers of the RRC LinkedIn profile which is 6.5 new followers per month on average this year.
- RRC’s Flickr account is being promoted on other social media accounts as a useful tool to view up to date river restoration images and to showcase RRC’s image archive of projects, techniques and events.

Teaching and Research

RRC staff delivered a series of lectures and presentations at Cranfield University and at conferences. We are also hosting Chiara Magliozzi who is undertaking a three year Marie Curie International Training Network (ITN) programme of research into the hyporheic zone and river restoration, at Cranfield University.

RRC participated in the development of research proposals with NERC on NFM, catchment planning and Environmental Risk to Infrastructure.

We have, with SEPA & EA, initiated a Science Research Digest process and literature reviews on: 2D Modelling and River Restoration which is published on the website; and Deflector effectiveness which is being drafted.

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Technical Advice and Evaluation

Strategic steering and working groups

RRC is respected for its impartial and independent expert advice. We continue to provide significant input at the EU/UK/national strategic level:

- UK River Prize lead partner/administrator - UK
- CaBA Catchment Data User Group - England
- Natural Flood Management steering group – Scotland
- IUCN river restoration review steering group – UK/RoI
- SSSI river restoration programme board - England
- European Centre for River Restoration board - Europe
- Water Environment Fund adviser – Scotland
- CEN workshop on river hydromorphology

These roles allow us to inform, influence and support national and international policy, strategies & initiatives.

River Don feasibility study

Environment Agency and RRC delivered a collaborative project on identifying opportunities for river restoration and habitat creation on the River Don, a tributary of the Tyne near Newcastle. A rapid survey was conducted following a detailed desktop assessment where aerial photos were used in combination with GIS and modelled data. Hydromorphological pressures, constraints and opportunities were displayed in an interactive map online ([link](#)).



River Lark structures assessment

The Environment Agency contacted the RRC to assess weirs and lock structures on the River Lark in Suffolk. For most of its length the Lark suffers from physical modifications that have left it unnaturally straight, wide, deep and embanked, with poor instream habitat diversity and floodplain/longitudinal connectivity.

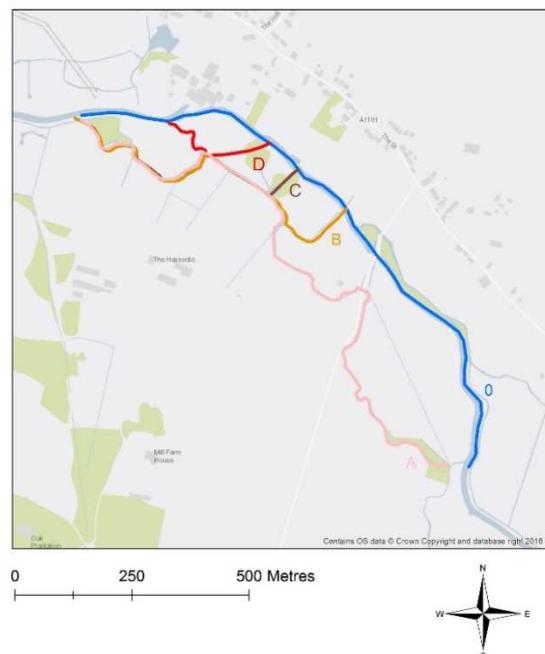


In this partnership project, RRC, the Environment Agency and the River Lark Catchment Partnership worked together to assess the 20 most downstream of the structures and identify opportunities for river restoration or improvement work around structures.

Icklingham sluice removal/bypass option appraisal

In 2017, we carried out a high level appraisal into the options open to the Environment Agency with respect to the future of Icklingham Mill Sluice on the River Lark in Suffolk. The present structure, owned and maintained by the Environment Agency, is in poor structural condition and would require significant capital expenditure to keep it going. Following a survey of the river and discussions with the landowner, we proposed a series of costed options, from repairing the sluice, creating short bypass channels, to restoring the Lark through 1500m of palaeo-channels still visible on the floodplain and on first edition OS maps.

Icklingham Sluice - River Lark Diversion Options



Flood Risk and Biodiversity Improvements

We have provided support to Thrift Farm in Buckinghamshire following talks with Bucks County

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Council.



The farm is vulnerable to flooding and has an over-widened and degraded channel running through it. It has been suggested that Thrift Farm narrow the channel with coir rolls to re-establish marginal vegetation and investigate the potential for flood bunds in adjacent fields to address these issues.

Local Engagement & Communications work

RRC are in receipt of a 2 year grant from the Esmée Fairbairn Foundation to fund our local engagement & communications work aimed specifically at UK trusts, partnerships and community groups.

Our aim is to empower people to become river champions, develop and strengthen knowledge and understanding to underpin good practise and influence the UK policy decision making process to increase the capability and capacity of 3rd sector organisations. We offer both desk based and on-site technical advice and support, run free training courses and develop guidance materials through the production of introductory factsheets and videos.

RRC launched the River Champion recognition award in February 2017.

'River Champions' seeks to celebrate the outstanding efforts of individuals contributing to river restoration in their area. It aims to recognise those dedicating time outside of their day-to-day roles to contribute toward improving rivers for wildlife and people.

The funding commenced in August 2015 and will run until July 2017.



Training & Guidance

RRC 2016 Annual Network Conference

"Planning, delivery and evaluation of our rivers: challenges and choices". This two day conference was held at the Imperial Hotel, Blackpool with just under 300 delegates, 41 presentations, 5 workshops and a

site visit. The conference was well supported with 17 sponsoring organisations providing highly sought after discounted places to smaller trusts, students and voluntary groups.

The feedback was excellent with 95.3% of attendees saying it met their expectations (3.1% not answering).

Thanks to our conference sponsors

AECOM, Alaska, Ambrose Environmental Solutions, ARUP, APEM, cbec eco-engineering, CH2M, E-fish, Five Rivers Environmental Contracting, frog environmental, JBA consulting, Land & Water Services, OHES Environmental, Penny Anderson Associates, Royal HaskoningDHV, Salix, Thomson Ecology

2016 UK River Prize

In 2016, RRC again ran the UK River Prize following on from the success of 2015. The awards dinner was held in Blackpool with over 250 delegates attending.

There were four finalists who were selected from 14 applicants. These were:

- River Aller and Horner Water
- Allt Lorgy (Spey Catchment)
- River Wandle
- Eden, Derwent and Kent (Cumbria Rivers)



The overall winners were the Rivers Eden, Derwent and Kent (Cumbria Rivers). They were awarded the Nigel Holmes Trophy and £5,000 at the UK River Prize Awards Dinner, which was held during the 2016 RRC Conference.

Thanks to the supporters of the 2016 UK River Prize

Arup, Environment Agency, Rivers Agency, Northern Ireland Environment Agency, University of Dundee, Natural Resources Wales and Scottish Environment Protection Agency

Site visits

A programme of four site visits offered the opportunity for RRC members to view and discuss ongoing projects. This year the four were the River Prize finalists:

- Holnicote Estate, West Somerset – July 6th
- River Wandle, London – August 25th
- Allt Lorgy (Spey Catchment), Scottish Highlands – September 16th
- 2016 UK River Prize Winner Cumbria River Restoration Strategy – November 8th

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Training courses

Introduction to Hydromorphology for River Restoration and NFM - Wilmslow, 22nd February 2017

The course provided an introduction to hydromorphology for river restoration and natural flood management for practitioners. It combined presentations on hydrology and geomorphology with case study exercises and fieldwork. It was attended by 37 participants from various organisations and charities.

As part of the Esmée Fairbairn programme of work, we ran three free training courses for Catchment Partnership members, trusts, partnerships and community groups:

River Restoration Project Delivery – How to assess, plan and deliver projects - Sundridge, Kent, May 2016

This course gave an introduction on how rivers behave, key issues to identify within rivers and techniques to restore them, as well as demonstrations of easy monitoring techniques. There was also a site visit to the Sundridge weir bypass project with SE Rivers Trust.

River Restoration Project Delivery – How to assess, plan and deliver projects - Cookstown, Northern Ireland September 2016

The same template was delivered here as the above course. There were two site visits to Tulnacross silt remediation works and Lissan Water trout nursery.

Understanding Your River – Identifying issues and opportunities for river restoration - Forkhill, Northern Ireland, February 2017

This was a bespoke follow-up training course after a request by a participant at the Cookstown course (above) to educate and engage their local community in river restoration, and create a network of people who will monitor and share information about their local river.

Workshops

Workshop on 2D modelling and river restoration - September 2016, Cranfield

Following our review of the use of 2D hydraulic models for river restoration and habitat management, we ran a workshop at the 4th British Hydrological Society International Conference. We discussed with practitioners the benefits and limitations of using 2D models for river restoration and habitat enhancement work.

CEN workshop on hydromorphology - Rome, 10-11th November 2016

The RRC participated in a CEN workshop aimed at modifying/updating the 2004 EU CEN standard on hydromorphological assessment. The workshops gathered representatives from several EU countries some of which were involved in the production of the first version of the standard. The original standard was recommended for assessing hydromorphology under the Water Framework Directive.

Guidance / publications

NERC Green approaches in river engineering – support framework and examples

This document supports the implementation of green infrastructure with decision support tools and case studies from across the UK. The free e-book can be downloaded at [HR Wallingford's website](#). RRC was able to support HR Wallingford by providing case studies and images from the NRRRI database which holds over 4,600 projects.

Science Digest on 2D modelling and river restoration

We produced and published on our website a 'Science Digest' on river restoration and 2D modelling. The document provides practitioners with a short summary of the most recent scientific papers and case study examples of the applications of 2D hydrodynamic models to river restoration schemes. Each article is briefly summarised and the major findings or points of methodology are described. A summary of the literature is provided at the beginning of the Science Digest. Readers are invited to comment on papers and add case studies and published literature to the digest using the [River Restoration and 2D hydraulic model](#) group we set up on Mendeley.

2016 IUCN "River Restoration & Biodiversity" report

RRC provided material, images and examples, as well as helping to steer the direction of this SNH managed, IUCN branded and CREW (James Hutton Institute of Scottish Government) delivered publication. The 100 page report sets out the context and history of rivers across the UK and RoI, management and the need for, and benefit of, river restoration. The report provides 20 recommendations to policy makers and strategy managers for better integration of biodiversity and wider multiple benefits arising from restoring the inherent natural processes of our river systems.

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Financial Summary

RRC has had a steady year, achieving the financial targets that enable the objectives outlined in the Business Plan to be delivered, whilst actively committing retained funds to carry out the review process.

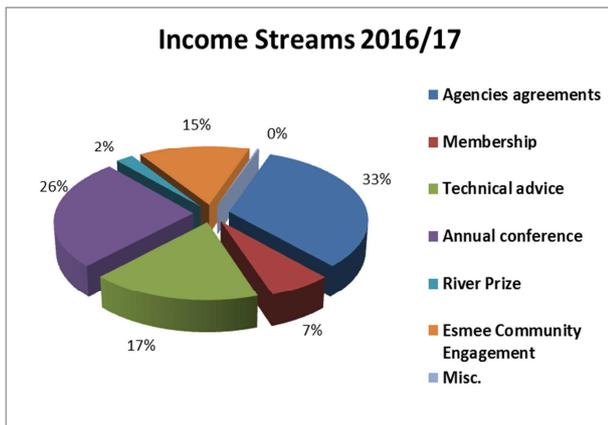
Setting secure longer term agreements with the government agencies continues to prove difficult; however existing agreements with core funders were successfully renegotiated or maintained.

Training courses, site visits and the annual conference all continue to be very well supported, however we did perceive a decline in the availability of external funds for RRC to support project delivery, technical advice and guidance.

Combined with the reduced availability of funds, RRC was also in a period of significant internal change, with new staff starting and developing their roles, whilst the management team were working hard with the Board to implement the review of the business.

Income

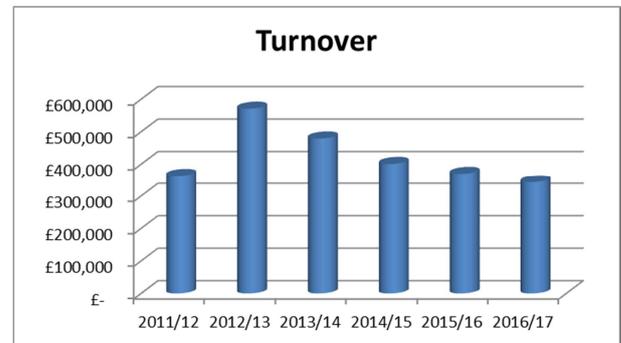
At its core, RRC provides support and advice to its members. Income generated through statutory agency agreements, membership and events all fund this activity. This helps to maintain the RRC as a permanent accessible resource for river managers and practitioners.



The more variable activity, year on year, is the degree to which UK river practitioners require local 'project' and national 'programme' specific technical advice and assessment. In this period RRC supported 24 programmes and projects with direct independent technical and expert input. This generated £60,145 of income, down 48.5% on the previous year, principally due to lower availability of senior technical staff, while support for the Esmée Fairbairn Foundation funded community engagement project was up by 50% and the increase in annual network conference attendance

generated a welcome additional 20% of income compared to the previous year.

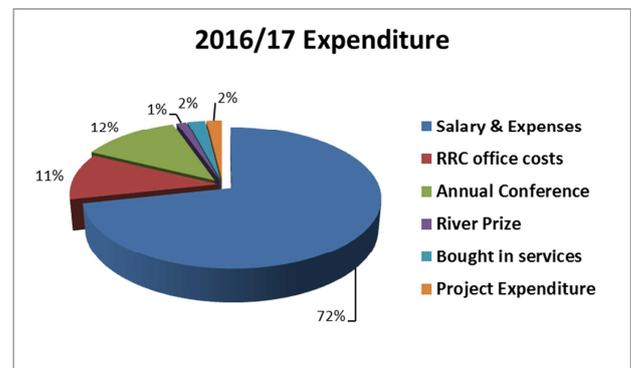
Following on from the political uncertainty and budgetary cuts experienced by this sector during 2014/15 and 2015/16, RRC turnover continues to remain good relative to our organisation's size.



RRC turnover and employment levels have stabilised at a level similar to that of 2012, prior to the unusual spike in government funds made available (WFD GiA and EU LIFE Restore).

Costs

As an organisation RRC is very cost effective with 72% invested directly in the staff resource.



The small bought-in-services element includes costs associated with updates to the NRRI, RRC website and annual accounts while the project expenditure includes RRC expert advisors that provide support to various project activities carried out throughout the year. The office cost figure relates to rent and insurance for the RRC office space as usual, but with 60% attributable to the RRC Business Review consultant costs.

RRC core activities

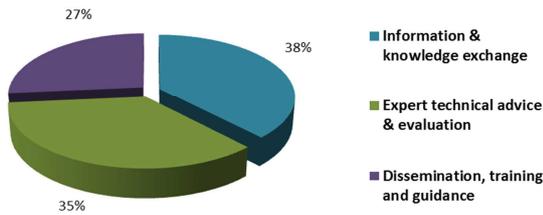
The core activities continue to be evenly split across the three RRC business areas:

- Information & knowledge exchange;
- Expert technical advice & evaluation;
- Dissemination, training and guidance.

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2016/17 Delivery of Core Activities



Information & knowledge exchange combines the core role of RRC as an information and advice centre using its resources such as the NRRI and RiverWiki to ensure the UK has a central point of contact for evidence and best practice river restoration.

The expert technical advice & evaluation element emphasises the ongoing need for independent trusted advice offered by RRC staff and expert advisors.

Moreover, dissemination, training and guidance represents input into publications, the still very successful RRC conference, site visits, other RRC events and training courses together with the regular updates to the website, monthly bulletins and enhanced use of social media to inform our network.

These three core areas combine to enable RRC to continue to provide a broad range of outputs to support the needs of river managers, RRC subscribers, members and agencies. Across this range RRC is able to be proactive as well as respond to current needs and priorities.

Retained Income

As a not-for-profit organisation RRC maintains a provision representing approximately six months' operating costs, to ensure financial stability for growth and to maintain cash flow.

Martin Janes
Managing Director
June 2017



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