

Creating healthy and resilient river systems across Scotland: prioritising research and development gap opportunities for river woodlands.

Section 1: Project Overview

Introduction

The Centre of Expertise for Waters (CREW) intends to commission a **capacity building project** within CREW's **Hydrological Extremes, Coasts and Risk Management theme** to inform riparian and floodplain management and restoration in Scotland.

Background & knowledge gap

SEPA's River Basin Management Plan (RBMP) monitoring programme revealed that over 50% of riparian vegetation on Scotland's baseline river network is in poor condition, without any trees or shrubs. Restoring Scotland's river woodlands is a priority and supports action to address the twin crisis of climate change and biodiversity decline and is a key candidate for funding under nature finance initiatives as a nature-based solution. Re-establishing a national network of river woodlands, informed by better quantified information, will result in improved river corridors, riparian habitats and riverscapes.

The [Scottish Forestry Strategy 2019-2029](#) highlights the opportunities to manage Scotland's forests and woodlands to enhance the environmental benefits they provide, which include helping to manage water quantities in times of flooding or water scarcity, protecting and improving water quality, reducing soil erosion and improving slope stability. River woodlands are a key part of delivering on these opportunities.

As part of the Scottish Wildlife Trust (SWT)/ SEPA Riverwoods initiative, SEPA led on a major review of the scientific evidence underpinning the claims of benefits delivered by river woodlands, to enable investment in new and extended river woodlands, and thereby improved river corridors, riparian habitats and riverscapes. The [Riverwoods evidence review](#) identified over 50 research gaps in the evidence base, across all areas benefiting environment, people and society. The scientific and technological evidence needs are reflected at a European level by [CONVERGES](#), a European collaboration working on riparian ecosystems. The CONVERGES network [resource outputs](#), plus two key papers¹ are of particular relevance to this project. This project will build on these key resources by bringing science and practitioners together to co-create solutions and policy recommendations.

¹ [Bringing the margin to the focus: 10 challenges for riparian vegetation science and management - Rodríguez-González - 2022 - WIREs Water - Wiley Online Library \(14\) \(PDF\) Riparian Zones—From Policy Neglected to Policy Integrated \(researchgate.net\)](#)

Aim and key objectives

The overall aim of this project is to prioritise the research and development (R&D) gap opportunities identified in the [Riverwoods evidence review](#) for creating healthy and resilient river systems through improved riparian and floodplain management in Scotland, and identify opportunities to address these gaps to enable investment in new and extended river woodlands, and improved/restored riverscape environments.

Through **consultation with relevant stakeholders² via workshops, focus groups and interviews**, the project will:

- Define criteria for prioritising R&D gaps;
- Review and update (to include omissions) the R&D gaps identified in the [Riverwoods evidence review](#), assess for overlaps of gaps between benefits and dependencies, and group into overarching themes;
- Assess the R&D gaps in terms of business requirements and policy development needs with feasibility analysis with consideration of the barriers to R&D implementation and solutions;
- Identify relevant commencing and recently commenced research³ that might address any of the evidence gaps;
- Create a database which will inform a final prioritised list for policy, scientific and financial and delivery use;
- Highlight links between research gaps and policy needs for Scottish Government and nature finance to support on the ground delivery;
- Consider how the project methodology could be applied to catchment and cross-slope woodlands and other habitat types (e.g., wetlands) supporting healthy and resilient river systems;
- Produce recommendations for mechanisms⁴ for addressing individual gaps.

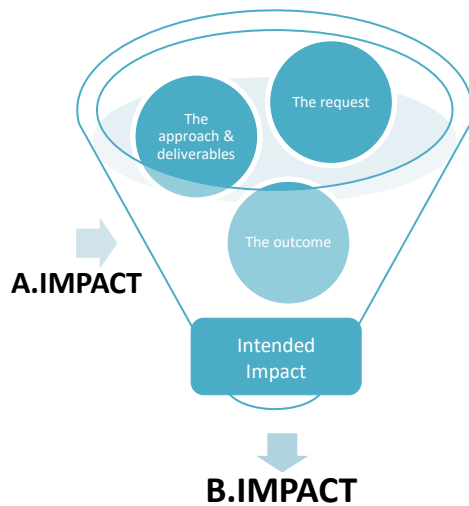
² Stakeholders for this project are interdisciplinary across the science, finance and business interface and could include academics, businesses, investors, practitioners, those restoring river woodlands, and potential river woodland beneficiaries.

³ In Scotland and wider if relevant.

⁴ E.g., Integrated, inter-disciplinary approaches for research collaborations, funding, and land-use management.

Intended impact

There are multiple pathways for a project to achieve impact, and multiple factors that can impact the project’s ability to achieve what it intends to do; both along the project lifecycle (A.IMPACT) and beyond project completion (B.IMPACT) (Figure 1).



- **The request:** the problem/ gap that has been identified that drives the project.
- **The approach & deliverables:** the ‘methods’ that explain how the request is being answered and the ‘outputs’ that are tangible products delivered by the project.
- **The outcome:** this is directly correlated to the findings; this is short to mid-term change because of the research.
- **Intended impact:** Explicitly what this project intends to achieve to address, which is connected to the request.
- **Along impact:** the conditions and causal factors that can influence the project during its life cycle.
- **Beyond impact:** more significant wider change that occurs at a longer timescale following the project’s completion.

Figure 1: Pathways to impact

Along Impact (A.Impact):

These stakeholders are anticipated to be a key influence and be involved in this project:

- Scottish Government
- SEPA
- NatureScot
- Scottish Forestry
- Forest and Land Scotland
- Scottish Water
- Forest Research (development of Woodland Water Code)
- Scottish Wildlife Trust Riverwood Initiative Team
- Riverwood Initiative Groups and partners
- Riverwoods Implementation Group – Tweed Forum, Fisheries Management Scotland
- Riverwood Science Group
- Riverwoods Finance Group
- Riverwoods Investment Readiness Pioneer projects – Saving Scotland’s Rainforest Alliance
- Scottish Nature Finance Pioneers network
- Research institutes
- Higher Education Institutes
- Local Authorities and links with landscape architects
- National Park authorities
- Highland Rewilding

- Scotland – The Big Picture
- Woodland Trust
- Marine Directorate
- Fishery Trusts
- Fisheries Management Scotland
- Scottish Enterprise
- Scottish Business Advisory Group (SBAG)

Beyond Impact (B.Impact):

Beyond the project, deliverables (see following section) will be used to:

- Support investment in nature-based solutions for healthy river systems and riverwoods.
- Understand business investment needs in terms of evidence and identify opportunities for R&D trials with a link to practical restoration and demonstration sites on the ground.⁵
- Help with strategic targeting of solutions to address environmental pressures.
- Increase collaborative partnerships and interdisciplinary working in this field to enable practical works on the ground and improve efficiencies in targeting research priorities for business and policy.
- Develop integrated approaches for creating healthy and resilient river systems in Scotland and ensure monitoring and compliance to approved restoration standards.
- Inform the monitoring framework for Riverwoods.

The project will also further strengthen the evidence base to build a business case for financial investment in Riverwoods demonstrators; directly support the Riverwoods Investment Readiness Pioneers; and support improvement of classification criteria for SEPA's morphological condition assessment under River Basin Management Plans (RBMPs). In the longer term, the projects deliverables will aid wider nature-based solution work beyond river wood types, including wetlands, peatlands, and agroforestry.

⁵ E.g. [Upper Tay Catchment Communities \(communitychoices.scot\)](https://communitychoices.scot), [The River Ericht Catchment Regeneration Initiative \(communitychoices.scot\)](https://communitychoices.scot)

Deliverables

With consideration of the project aim and key objectives, the following deliverables are required:

1. Stakeholder engagement plan to be developed at the start of the project⁶ with support from CREW and to include:
 - Stakeholder Exploration (*Stakeholder contact list to be developed with project steering group assistance*)
 - Stakeholder mapping (*Consideration of stakeholder influence: interest to the project*)
 - Stakeholder communication strategy
2. Stakeholder workshops (*approx. 2 in person*), focus groups (*approx. 2-3*) and interviews (*approx. 5-7*)⁷
3. Workshop/focus group report (*max 15 pages, excluding annexes and the bibliography*)
4. External database of prioritised R&D listings from Annex 1 of [Riverwoods evidence review](#) which includes:
 - Results from the prioritisation process (with key stakeholder input)
 - Funding mechanisms (for on-going work and for gaps)
5. A final report of 20-30 pages, excluding annexes and the bibliography, and including:
 - Executive Summary
 - Cover image(s) with associated photo credits
 - Engagement plan
 - Methodology (including criteria for prioritisation)
 - Results (Including a final prioritised list for policy, scientific, financial and delivery use)
 - Analysis⁸
 - Conclusions
 - A concise set of recommendations which should highlight:
 - which research is of priority;
 - agreed mechanisms in which the prioritised R&D can be taken forward in relationship to research consortiums, partnerships, and funding;
 - how the R&D are/can be applied to practical restoration such as the incorporation of research trials on restoration demonstration sites in Scotland.
6. Policy brief (max 6 pages, excluding annexes and the bibliography)
7. A plain English summary of aims and results (*up to 1 page*)
8. Website summary (*200 words*)
9. A in-person dissemination event with key stakeholders present

Meetings

- Project Steering Group meetings at key milestones throughout the project lifecycle⁹ (*approximately 4*)
- Impact and communication meeting at the start of the project (*additional meetings throughout the project if needed*)

⁶ While the engagement plan is developed at the start of the project, the plan will be utilised and adapted throughout the project.

⁷ This project would benefit from expert facilitation of workshops, focus groups and interviews.

⁸ To include feasibility analysis as mentioned in key objectives.

⁹ Please note, CREW requests a brief written update c. two weeks prior to project steering group meetings.

Section 2: Further information for applicants

Project management

Day-to-day communication will be between the research/review team (the contractor) and a CREW Project Manager and is likely to involve short catchups as agreed.

Project steering group

A small group including representatives of Scottish Government and its delivery partners plus a CREW representative will form part of the Project Steering Group. If needed the project steering group will meet with the preferred bidder for a pre-contract meeting and provide feedback on the bidder's proposed approach.

Anticipated timescale

The pre-contract start-up meeting will take place approximately **wb.30st October 2023**. The project will commence **mid-end of November 2023**. The workshop/focus group report should be submitted by **September 2024**, with all the remaining project outputs signed off by the CREW Director by **28th February 2025**.

Funding

The maximum amount of funding available exclusive of VAT (where applicable) is **£195,000**

This includes an associated costs (excluding sub-contractor) budget of: **£7,000**

- Travel and subsistence
- Project Steering Group Meetings (*approx. 4 including 1 in-person*)
- In-person workshops (*approx. 2*)
- Focus Groups (*approx. 2-3*)
- Interviews (*approx. 5-7*)
- One in-person dissemination event

Submitting a proposal

Please send a completed CREW application form addressing the project requirements.

A copy of expectations and the award criteria are provided below for reference.

Proposals need to be submitted procurement@crew.ac.uk for evaluation **by Monday 2nd October, 15:00**. We aim to notify the successful bidder by **23rd October**.

Please contact procurement@crew.ac.uk by **Monday 25th September** if you would like any clarification on any of the above. You should highlight any potential conflicts of interest in your proposal. For queries about what may constitute a potential conflict of interest please contact the CREW Deputy Manager (Nikki.Dodd@hutton.ac.uk).

Expectations

No.	Criteria	Descriptor
1	Duration	The proposed duration will align closely to the details provided in the anticipated timescales section of the specification.
2	Staff time and effort	The proposed allocation of staff time and effort is appropriate and includes all deliverables. The proposal must also provide a commitment that named staff members will be available to work on the contract if the bid is successful.
3	Project costs	The estimated breakdown of project costs is realistic and inclusive of all deliverables.

Award criteria

No.	Criteria	Descriptor
1	Understanding the project ask and policy background	The proposal should include an introduction which demonstrates a clear understanding of the project requirements. This should include an understanding of the policy background and the supporting role of this project; the need for this research; the project aim; and how the proposal will address this aim.
2	Proposed methodology	The proposal should demonstrate a high quality and workable methodology, including: how the evidence will be identified, reviewed and assessed; consulting relevant stakeholders and/or experts where appropriate (via an engagement plan) to address the key questions/objectives and produce all the deliverables in the timescales required. It should explain the suitability, robustness and limitations of the proposed methodology.
3	Milestones	The project milestones are logical, practical and include all deliverables.
4	Project Management	The staff, resources and expertise are appropriate for conducting the proposed project. The proposal should name the project lead and outline their project management experience.
5	General and specific topic expertise and experience	The proposal should provide details of individual staff members who will work on this project and demonstrate how they will meet the project requirements, specifically: <ul style="list-style-type: none"> - general research experience and expertise; - specific experience and expertise on creating healthy and resilient river systems using natural based solutions- specifically river woodland types as defined in the Riverwoods Evidence Review.
6	General communication and deliverables	The proposal should describe the approach to producing the deliverables, which will be published on the CREW website. It should detail who will take lead responsibility for report-writing and overall report quality. It should provide examples of reports, workshops and focus groups in which they have been involved.
7	Quality assurance	The proposal should provide details of quality assurance procedures to demonstrate how the contract will be continuously delivered to a high standard. It should specifically address issues of quality control at different stages of the project, including evidence gathering, analysis and report writing. It should include a timetable for delivery of tasks, project milestones and allocation of staff and staff time against each task, covering the duration of the contract.
8	Risk	The proposal should provide a risk assessment matrix detailing any risks identified in relation to the delivery of this contract, and proposed mitigation measures to minimise their probability and impact, focused particularly on risk to completion on time.

Annex A. Relevant reports, studies and policies

- [The riverwoods evidence review](#) (including annex 2)
- Woodland for [Water](#) report
- Scottish Forestry/ Scottish Government planting targets for native woodlands
- Scottish Government Net Zero targets
- Scottish Biodiversity Strategy woodland and freshwater objectives
- [Woodlands for Riparian Benefits Forestry Grant Scheme enhancement](#)
- Revised agricultural funding mechanisms
- Rural land Use Partnerships
- Biodiversity policies in National Planning Framework 4
- Restoration objectives in River Basin management Plans
- Integration of riparian vegetation into morphological condition assessments under WFD
- [\(4\) \(PDF\) Riparian Zones—From Policy Neglected to Policy Integrated \(researchgate.net\)](#)
- [Bringing the margin to the focus: 10 challenges for riparian vegetation science and management - Rodríguez-González - 2022 - WIREs Water - Wiley Online Library](#)
- Riverwoods Finance Group concept paper
- [Riverwoods Investment Readiness Pioneers | Riverwoods](#)
- [Riverwoods Investment Readiness Pioneers - Learning Reflections & Toolkit | Riverwoods](#)
- [TreesAI: Unlocking system barriers to finance Nature-based Solutions | by Dark Matter | Dark Matter Laboratories \(darkmatterlabs.org\)](#)
- UK Forest Standards
- [UKFS Practice guide: Designing and managing forests and woodlands to reduce flood risk.](#)
- Scottish beaver strategy
- Wild Salmon Strategy
- Scottish Land-use strategy
- SEPA's Position statement on land protection