

**Research Associate / Fellow:
Environment, Economy and Society**

Recruitment Pack

UHI | NORTH HIGHLAND



Summary

JOB TITLE: Research Associate / Fellow: Environment, Economy and Society

SECTION: Environmental Research Institute (ERI)

SCALE POINT RANGE: £31,066 - £33,641 (Postdoctoral Research Associate) or £36,467 - £39,420 (Research Fellow)

TERM: Open-ended appointment (subject to probationary period)

START DATE: Negotiable, available immediately

PENSION: Local Government Superannuation Scheme

ANNUAL LEAVE: 31 days + 14 days public holidays

RESPONSIBLE TO: Dr Benjamin Williamson

CLOSING DATE: 6 March 2023

The Environmental Research Institute (ERI) is part of UHI North Highland, Thurso, one of the academic partners of UHI. Our mission is to 'provide dynamic leadership in research, innovation and education that advances understanding and informs management of our natural environment'. Located in Thurso, on the north coast of Scotland and close to many outstanding natural environments, the ERI is engaged in research, knowledge exchange and education across the areas of 'energy' (renewable energy and the environment); 'pollution' (understanding environmental contamination and developing sustainable solutions); 'peatlands' (linking carbon, water, biodiversity and climate) and 'society' (connecting environment, economy and society).

The ERI's 'Society' theme seeks to articulate our work on environmental sciences to address societal and economic needs across the three 'pillars' of sustainability, carbon economics and the circular economy. Issues affecting rural, remote, coastal and island regions and their communities are of particular interest and the theme is a key mechanism through which the ERI supports the core UHI mission of having "a transformational impact on the prospects of our region, its economy, its people and its communities". The theme provides a conduit through which the ERI can respond to the Scottish Government aim of creating "a more successful country with opportunities for all of Scotland to flourish through increased wellbeing, and sustainable and inclusive economic growth through good quality, green jobs and ensure a fair and just transition to net-zero, leaving no-one behind".

We now seek to appoint a highly motivated Research Associate or Research Fellow to contribute to the 'Society' theme. The post will provide an exciting opportunity to contribute to current projects and develop new areas of activity.

The successful candidate researcher will be based at the purpose-built 'Centre for Energy and the Environment' in Thurso, and will contribute to teams at the ERI, UHI North Highland, and UHI with the shared mission of having a "transformational impact on the prospects of our region, its economy, its people and its communities".



Research Associate / Fellow: Environment, Economy and Society

Job Description

The successful candidate will:

Lead delivery of existing project commitments in the ERI 'Energy' and 'Society' themes, and the development of ERI's portfolio of socioeconomic research. This will include:

- Delivery of socioeconomic, social acceptance, and supply chain mapping research for net-zero aviation in the Highlands and Islands of Scotland as part of the SATE project ([link](#))
- Delivery of socioeconomic, social impact, and social acceptance research of renewable energy transition in the Western Isles of Scotland as part of the ROBINSON project ([link](#))

Contribute to development of ERI's portfolio of socioeconomic research, through new project formulation, grant capture and KE activity. Current priorities include:

- Sustainability & renewable energy
- 'OneHealth'
- Green finance
- Plastics and society
- Circular economy
- Sustainable and regenerative land use

Publish work in high impact peer-reviewed journals (and contribute to the University's next REF submission).

Contribute to teaching activity at undergraduate and postgraduate level on sustainability, net-zero, renewable energy, and community development.

Where appropriate contribute to knowledge exchange and external engagement activity.



Key Duties

Research:

- Make an effective and innovative contribution to the development of multi- and inter-disciplinary environmental research, exploiting knowledge exchange and commercial opportunities.
- Generate internationally recognised outputs of originality and scientific insight.
- Contribute to income generation at the ERI through grant capture, commercial activity or knowledge exchange activity in line with strategic objectives.



Management:

- Provide effective and expert supervision of research students, and line management of staff (where required).
- Contribute to development and implementation of ERI, UHI North Highland and UHI policies & strategies.
- Provide effective budget management for specific projects or areas of research.



Networking and engagement:

- Develop an effective and responsive network of academic and research organisations and where applicable, commercial, stakeholder, business or public services organisations.
- Build new collaborations and partnerships in response to emerging challenges or opportunities.
- Take on an ambassadorial role using available opportunities and contribute to public engagement and outreach activities.

Teaching:

- Contribute to curriculum development and teaching / training as opportunity permits.

Other duties temporarily or on a continuing basis, as may reasonably be required, commensurate with the grade.



Person specification

Required

We welcome applications from candidates with a PhD and/or equivalent experience in relevant disciplines including social sciences, environmental or resource economics, circular economy, environmental management and stewardship, renewable energy, 'OneHealth' etc.

Candidates should be able to demonstrate evidence of:

- an emerging (Research Associate) or established (Fellow) track record in project delivery and/or publication and/or grant capture
- working in an issue-driven multidisciplinary environment
- collaboration or partnership with academics, businesses and stakeholders

Experience of learning and teaching, knowledge exchange, sustainable development or commercialisation is welcomed.

Appointment may be made at Postdoctoral Research Associate or Research Fellow grades according to experience and track record.

Experience can be exemplified by:

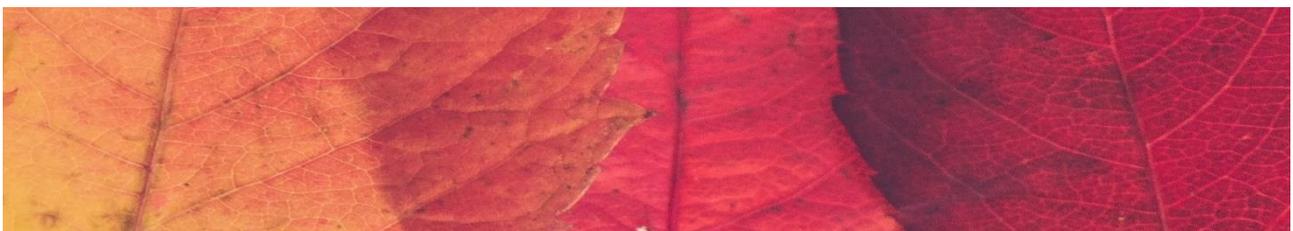
- Research outputs (papers, presentations, etc.)
- Research grants and/or knowledge exchange and innovation activity
- Contributing to postgraduate supervision
- Commercial or consultancy activity

Applicants should have:

- Strong IT skills, including use of Microsoft Office suite
- A willingness to work flexibly across different area and disciplines
- Effective communication skills and comfortable interacting with stakeholders, so must be self-disciplined, well organised and able to present themselves in a professional manner with the ability to prioritise a busy and varied workload

Desirable:

- Experience of academic teaching
- Experience of instigating new collaborations or developing partnerships
- Experience working on or managing collaborative, multi-institutional projects
- A relevant professional qualification or membership
- An ability to think creatively, and to advance innovative ideas
- Experience of commercial or consultancy practice
- Experience of presenting to stakeholders
- A full driving licence is desirable



About the area

Caithness & Sutherland

The North Highlands is home to Scotland's most famous drive - the North Coast 500, and to one of our most famous destinations - John O'Groats. It is no surprise that when people discover Caithness and Sutherland they want to stay.



The landscape is breath-taking, featuring iconic mountains and flat rolling moorlands. High tech companies sit side-by-side with vibrant, innovative SMEs. The area is also home to Scotland's portal to the final frontier. The A'Mhoine Peninsula will become the UK's first space port, from where rockets carrying satellites will be launched into space in the near future.



Back on earth, the Beatrice offshore wind project, based in Wick, is a leading example of development in the green energy sector, with the recent ScotWind plans announced around the coast of Scotland. Decommissioning of the former nuclear power plant at Dounreay has seeded many supply chain opportunities in the region. Rolls Royce, Subsea 7 and BT are among the global companies investing in employment in the far north of Scotland.



With the world famous Royal Dornoch golf course and an internationally recognised surf spot around the Thurso East reef, the area is a draw for outdoor sports enthusiasts. With beautiful beaches and bays, wildlife, high hills and big skies, the region of Caithness and Sutherland has much to offer.

Thurso



Thurso (population c. 8000) is a long-established town with origins dating back to Viking times when it was an important Norse settlement, the major gateway to mainland Scotland (its name comes from the Norse, from *Thorsa* meaning *Thor's River*). Thurso later grew to become a market town and was noted for its trade with Scandinavian and Baltic ports from as early as the 14th century.



Situated on the Pentland Firth in the beautiful, sheltered Thurso Bay it is the most northerly town on the Scottish mainland. The bay sweeps from Holborn Head in the west to Dunnet Head in the east. Thurso has a fine harbour, beach and looks out over the Firth to the Orkney Island of Hoy and the famous towering Old Man of Hoy (a 449-foot sea stack on Hoy). Just west of Thurso lies Scrabster, the main ferry port for Orkney.

For a town of its size, Thurso has numerous amenities including:

- A vibrant local shopping centre
- Three primary schools and one secondary school, and a college of further and higher education (UHI North Highland)
- Several hotels, lively bars and restaurants
- Leisure facilities including gyms and a swimming pool, tennis & squash courts, yoga studio, and a cinema
- Clubs and societies including dancing, drama, walking, kayaking, surfing, sailing, music, community greenhouse, etc.
- Railway, bus, ferry connections and Wick airport within 30 minutes

Further information

[Things to do | Venture North \(venture-north.co.uk\)](http://venture-north.co.uk)

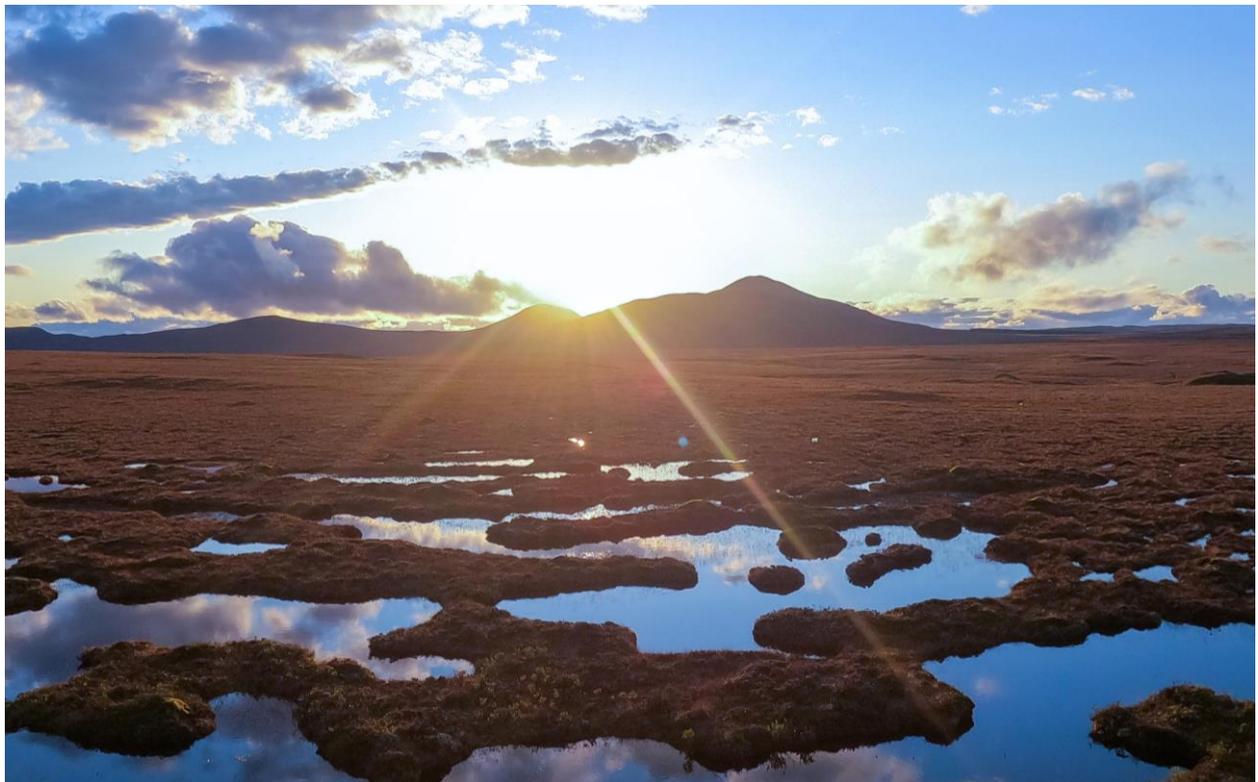
[Things to Do & Tourist Guide, North Caithness | Venture North \(venture-north.co.uk\)](http://venture-north.co.uk)

[Venture North Discovery: Summer in Caithness & Sutherland - YouTube](https://www.youtube.com/watch?v=...)

[Venture North to Caithness & Sutherland - YouTube](https://www.youtube.com/watch?v=...)

Key Terms and Conditions of Employment

Hours of Work	A full-time working week is one of 35 hours. This may include evening and weekend work, where required.
Holidays	A full year's holiday entitlement is 31 days. In addition, there are 14 days public holidays of which 10 are taken at Christmas and 2 at Easter, the remaining 2 are treated as floating.
Salary	To be negotiated within advertised range, i.e., £31,066 - £33,641 (Postdoctoral Research Associate) or £36,467 - £39,420 (Research Fellow)
Location	The position is planned to be based at the ERI in Thurso although you may be required to work from other sites as appropriate to the duties. There may be the possibility of flexible remote-working arrangements – please indicate this in your application if it is of interest.
Pension	You will be contractually enrolled into the Local Government Superannuation Scheme. Further details are available on joining.
References / PVG Scheme	For external candidates, appointment will be subject to references and admission to the PVG Scheme.



Further information

The following websites may be useful in providing further information.

The University of the Highlands and Islands: <http://www.uhi.ac.uk/>

UHI North Highland: <http://www.northhighland.uhi.ac.uk/>

The Environmental Research Institute (ERI): <http://www.eri.ac.uk/>

The ERI's Strategic Plan 2022-25 is provided as an attached document to this pack. Key elements of the strategy are presented below

For further information on this position, please contact Dr Benjamin Williamson, leader of ERI's 'Energy' research group: benjamin.williamson@uhi.ac.uk

Completing the Application Form

Please read the application form thoroughly and complete it electronically (preferred) or in black ink. Please ensure that you complete all sections.

Where answers require additional detail, this should be provided on a continuation sheet and attached to the form.

A current CV and covering letter should also be provided in addition to the application form.

The information that you provide in your application form & other supporting information is the only information we will use in deciding whether or not you will be short listed for interview. Your application will be treated in the strictest confidence.

References

Please give the name, address, telephone number and email address (if known) of two referees, including your existing or last employer, to whom reference may be made in support of your application concerning your professional ability and performance at work. References will only be taken up for short-listed candidates.

Please ensure your referees are able to respond promptly as no appointment will be made without receipt of satisfactory references.

Please note that any offer of employment will be conditional upon receipt of satisfactory references from your current/last employer or academic institution, unless advised otherwise.

Submitting your application

Completed applications must be returned by the closing date indicated Applications (preferably by e-mail) should be sent to NHCHR@uhi.ac.uk

Or: Human Resources, North Highland College-UHI, Ormlie Road, Thurso, Caithness, Scotland KW14 7EE.

We will acknowledge receipt of completed applications by e-mail. Written acknowledgement of completed applications will only be provided where requested and where a stamped addressed envelope is enclosed with your application for this purpose.

We will contact you concerning your application once shortlisting has been completed.

Key dates

The closing date for receipt of applications is 6 March 2023.

Interviews are planned for 13 March 2023 onwards.

Initial interviews may be conducted online.

Starting date for successful candidates: Starting date may be negotiated – the position is available immediately (subject to receipt of satisfactory references and securing PVG Scheme membership via Disclosure Scotland).

The Environmental Research Institute



The Environmental Research Institute (ERI) is based in Thurso, Scotland and is part of the University of the Highlands and Islands, North Highlands. Since 1999 our multidisciplinary team has sought to transcend scientific boundaries to undertake and promote high-calibre research, innovation, and education in the environmental sciences that 'makes a difference'. We aspire to excellence in all we do.

We seek to advance scientific understanding of contemporary environmental issues using our proximity to outstanding natural resources combined with state-of-the-art facilities. We advance our goals through development of networks with strong, strategic partnerships and

collaborations with academic, commercial and stakeholder organisations within regional, national and international contexts.

We aim to ensure that our work has tangible value to society, helping address new societal, economic and policy challenges related to use and management of the natural environment and its resources, and responding to changes in the environmental, organisational, financial and political landscapes. In doing so, we seek to contribute to the University mission of having a transformational impact on the region's economy, people and communities (strategic-plan-2021-25.pdfuhi.ac.uk).

Our Vision:

A natural environment that is healthy, sustainable and valued by all

Our Mission:

To provide dynamic leadership in research, innovation and education that advances understanding and informs management of our natural environment

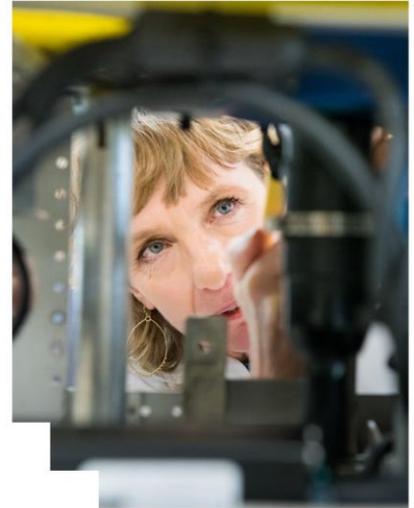


Our Strategic Priorities

As part of UHI North Highland, our strategic priorities are:

- + **Research:** To develop a vibrant culture of research that is recognised for its regional impact & international excellence
- + **Learning and Teaching:** To provide students with outstanding and relevant learning opportunities
- + **Partnerships:** To develop our partnerships to maximise our impact on regional redevelopment

And our cross-cutting themes are 'Sustainability' and 'Net zero' and Enterprise. The UHI North Highland Strategic plan may be found here: [NHC-UHI-Strategic-Plan-2021-2025.pdf](#)



Our Values

We value research, learning and teaching and partnership activity that is:

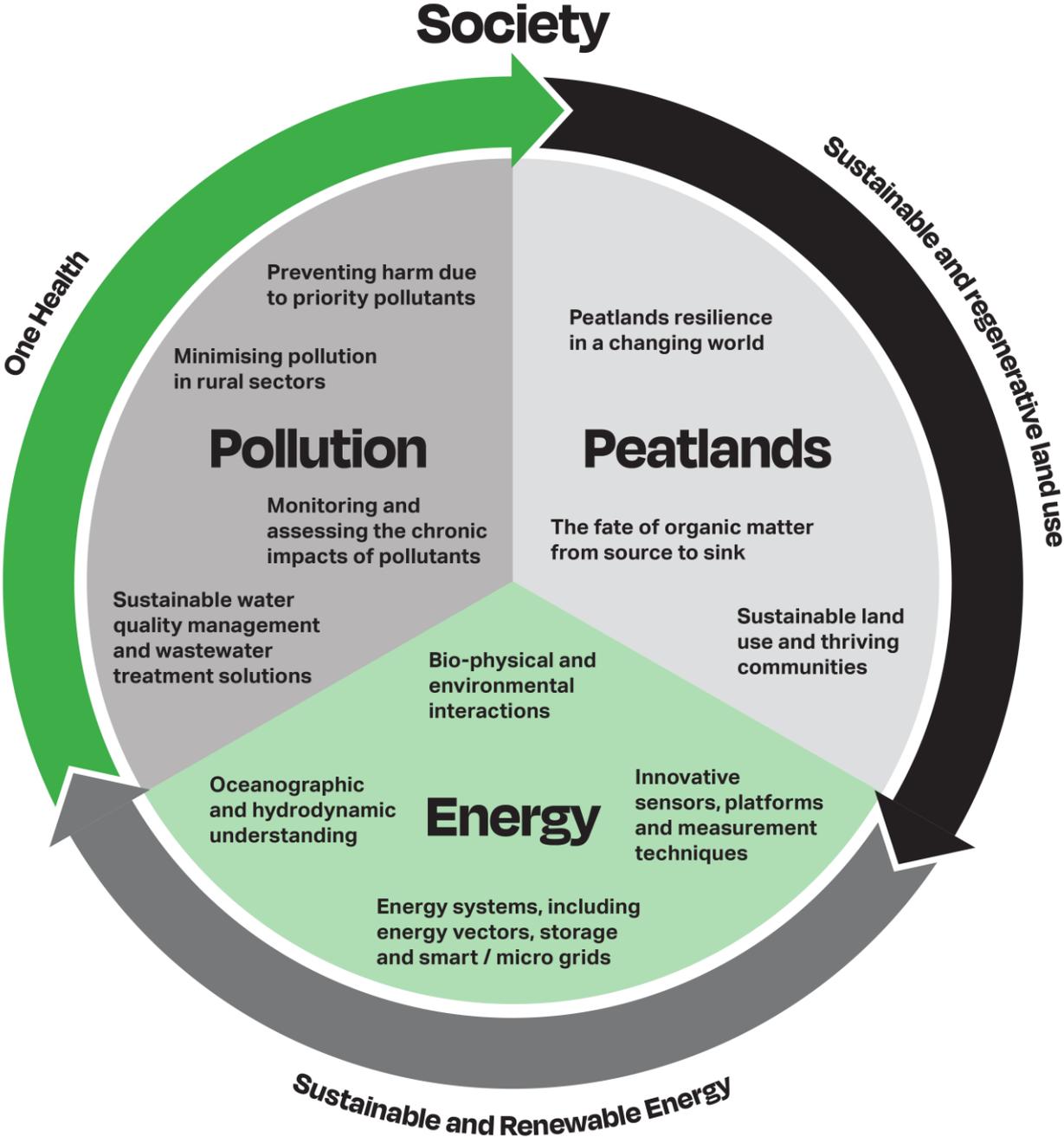
- + **Aspirational** - characterised by excellence at all levels
- + **Relevant** - addressing contemporary environmental issues and ensure that policy, management and legislative decision making is informed by robust, high-quality science
- + **Recognised** – regionally, nationally, and internationally for quality and reliability
- + **Distinctive** – capitalising on the scientific strengths of the ERI and its partners and on the outstanding and often unique environmental assets of the region
- + **Innovative** – bring new knowledge and creative thinking into practice
- + **Inter- and multi-interdisciplinary** – an environment devoid of disciplinary boundaries and well adapted to addressing issues and solving problems
- + **Collaborative** – forming effective working relationships regionally, nationally and internationally with key partners from the academic, business, stakeholder and educational sectors



Our Themes

ERI activity is focused on the following issue-driven, interdisciplinary themes:

- + **Energy:** Renewable energy and the environment
- + **Pollution:** Understanding environmental contamination and developing sustainable solutions
- + **Peatlands:** Linking carbon, water, biodiversity and climate
- + **Society:** Connecting environment, economy and society



Energy

Renewable energy and the environment

The promise of renewable energy is huge, from reaching emissions targets to contributing to blue growth. Along with this promise comes the pressing need to understand how energy harnessed from wind, waves and tides will impact the environment. Sustainable use of these resources will play a key role in achieving the Scottish Government's ambitious renewable energy and carbon emission targets. Our philosophy of "research where the resource is" means ERI is ideally situated, yet our research has international reach and impact. We actively seek and develop effective collaborations and partnerships, within regional, national and international settings.

Our team integrates in-situ measurement, environmental survey, experimental, modelling and remote-sensing approaches. These provide new insights relevant to renewable energy, but

also ecosystem functioning and anthropogenic impacts more generally within the fields of marine biology, behavioural ecology and oceanography.

We promote understanding of closely coupled social and economic issues, with a focus on rural and island communities. We are proud to contribute to the prospects of northern Scotland, supporting sustainable industries that can have a transformational impact on the prospects of our region, its economy, its people and its communities. We continue to incorporate new environmental understanding into integrated sustainability assessments and models at community, local and regional scales. We also explore the interdependencies of adjacent sectors such as nuclear energy, oil and gas, and aquaculture, including leading Energy Knowledge Exchange and Innovation activities across UHI.

Our priorities are:

Renewable energy and the environment – investigating renewable energy ecological and bio-physical interactions to inform pre- and post-consent monitoring, cumulative impact and strategic environmental assessment. This is underpinned by increased understanding of marine vertebrate ecology using techniques such as telemetry/bio-logging, remote sensing and observation to investigate ecosystem effects, understanding of mechanisms, predator-prey interactions and environmental drivers of behaviour and biodiversity.

Oceanographic and hydrodynamic understanding – in-situ, remote-sensing and modelling approaches across scales (temporally and spatially) to inform renewable energy resource measurement, knowledge of metocean conditions, flow-structure interactions (e.g., wakes) and ecological drivers. This includes wave-current interactions, and advanced understanding of turbulent flow, with implications for renewable energy device design, placement and operation.

Innovative sensors, platforms and measurement techniques – development and application of novel cross-cutting approaches and technologies to gain new environmental insights including drones, hydroacoustics, sensor fusion, computer vision, machine learning and techniques for exploiting large datasets. Innovative engineering solutions underpin our environmental science priorities and assist forthcoming science requirements by enabling cutting-edge environmental research.

Energy systems, including energy vectors, storage and smart or micro grids – supporting optimal use of intermittent renewables into grid and off-grid applications, including remote / island communities and developing countries, for a socially and economically sustainable energy transition, and aspects of social licence and community engagement.

Pollution

Understanding environmental contamination and developing sustainable solutions

A myriad and ever-increasing range of anthropogenic contaminants are now present in our environment. We seek to assess the fate, behaviour, and impacts of pollutants (from source-to-sink), and work on a wide range of priorities including emerging contaminants, marine plastics, pharmaceuticals, and heavy metals.

Our research seeks to not only quantify the presence of pollution, but to understand its risks to and impacts on biodiversity, working at the molecular, individual and population level. Our work sits firmly within the wider global "One Health" agenda, which recognises that the health and wellbeing of humans, biota, and the environment are all closely interconnected and interdependent. As such, holistic transdisciplinary solutions are needed.

We continuously work to promote globally sustainable solutions to complex pollution related problems, engaging with a diverse range of stakeholders and collaborators to apply fundamental and world leading research to real world challenges. Our research aims to inform and affect environmental protection policy at the international scale.

ERI leads the UHI's WaterHub knowledge exchange team which addresses contemporary challenges in drinking water provision, wastewater treatment and resource management in rural and sparsely populated regions of Scotland, and in similar regions elsewhere in Europe and around the world.



Our priorities are:

Sustainable water quality management and wastewater treatment solutions - Novel and 'circular' wastewater treatment solutions, the repurposing of waste for use in water treatment, developing engineered adsorption technology, low-cost and sustainable approaches (including constructed wetlands), resource (i.e., nutrient) recapture, recovery, and reuse.

Monitoring and assessing the chronic impacts of pollutants - Novel 'biomonitoring' techniques (i.e., to assess emerging risks, such as from antimicrobial resistance); eDNA metabarcoding to quantify community level impacts of pollutants; remote sensing and citizen science approaches to support large-scale monitoring assessment.

Development of new ecotoxicity tools involving model organisms and developing testing systems at the micro-, meso- and macrocosm scale; facilitating assessment at various trophic levels and toxicity endpoints.



Minimising pollution in rural sectors - Working closely with sectors such as agriculture, forestry, conservation, and game management to minimise the impacts of pollution on the environment through activities such as deforestation or afforestation, windfarm construction, hunting and the use of agrochemicals.

Preventing harm due to priority pollutants - Developing cross-sector partnerships to seek to prevent priority pollutants entering the environment through changes in practice (i.e., in pharmaceutical prescribing), and through promoting greater recovery, recycling and re-purposing (i.e., of waste plastics).

Peatlands

Linking carbon, water, biodiversity and climate

Peatlands may cover about 3% of the global land area but contain 25% of the global soil carbon stock: that is twice the amount found in the world's forests. In Scotland, peatland soils cover around 20% of the land area holding an estimated 1600 million tonnes of carbon and the Scottish Government's climate change plan 2018-2032 update aims to restore at least 250,000 hectares of degraded peatland by 2030.

Healthy peatlands act not only as important carbon sinks, but contain rich habitat and biodiversity, including a wide range of threatened and endemic species; improve water quality and reduce flooding risk; and provide grazing land and recreational spaces.

The ERI benefits from unrivalled access to The Flow Country peatlands of Caithness and

Sutherland: covering 4000 km², they represent largest expanse of blanket bog in Europe and a site of global significance. The Flow Country is also a changing landscape where large-scale restoration and infrastructure development are rolled out at pace, and where climate extremes like wildfires and droughts have become more frequent.

Our research seeks to provide underpinning evidence that can drive changes in policy and practice to ensure a resilient future for the Flow Country peatlands and rivers, and a just transition for its people. The ERI also facilitates access to the Flow Country for researchers from across the UK and abroad and coordinates the Flow Country Research Hub, a network of >60 organisations and stakeholders with an interest in the Flow Country peatlands.

Our priorities are:

Peatlands resilience in a changing world -

Using a combination of field-based monitoring, controlled experiments, remote-sensing and modelling to assess how peatland biodiversity and processes respond to the compounding effects of land use and climate change, including droughts and wildfires.

Working across disciplines and scales to build evidence on the nexus of environmental and societal changes associated with peatland management.

The fate of organic matter from source to sink -

Using a range of field and lab-based techniques to characterise organic matter and to measure carbon exchange between the terrestrial pool, freshwater ecosystems and the atmosphere.

Applying analytical chemistry to assess how land use change on peat-dominated catchments (restoration, wind farm construction) alters water quality and biodiversity in freshwater systems.



Sustainable land use and thriving communities -

Contributing to the development of innovative solutions where peatland management can support climate change mitigation, economic growth, circular economy and just transition for rural highland communities.

Providing expertise to assess the economic and societal impacts linked with peatland degradation, restoration, and conservation, from the local scale to the international context.

Society

Connecting environment, economy and society



The ERI's fourth theme seeks to articulate our work on environmental sciences to address economical and societal needs across the three 'pillars' of sustainability, carbon economics and the circular economy. Issues affecting rural, remote, coastal and island regions and their communities are of particular interest and the theme is a key mechanism through which the ERI supports the core UHI mission of having 'a transformational impact on the prospects of our region, its economy, its people and its communities'.

The theme provides a conduit through which the ERI can respond to support 'Green Recovery' efforts post-Covid and post-Brexit, and the Scottish Government aim of creating 'a more successful country with opportunities for all of Scotland to flourish through increased wellbeing, and sustainable and inclusive economic growth through good quality, green jobs and ensures a fair and just transition to net-zero, leaving no-one behind'.

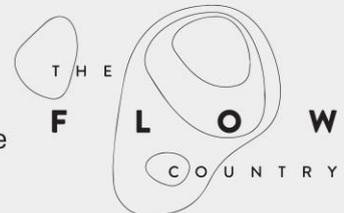
Our priorities are:

'OneHealth' - recognises that the health of humans, the environment, and animals are closely interdependent and interconnected. This includes close partnership with key public sector agencies through the OneHealth Breakthrough Partnership in reducing the environmental impacts of healthcare.



Plastics and Society - analysis of plastic use, disposal and damage caused to the environment and to ecosystems with emphasis on solutions that contribute to the circular economy.

Sustainable and regenerative land use - understanding the economic and societal impacts linked with land use and land-use change, especially peatland degradation, restoration and conservation both in Scottish (e.g., Highland estates, traditional land use and its cultural importance and international contexts). The ERI is a partner in the Flow Country Partnership taking forward the possible listing of the Flow Country as a World Heritage Site.



Sustainability and Renewable Energy - assessment of sustainability issues surrounding both mature and developing renewable energy technologies with foci on marine energy, off- & onshore wind, off-grid and community energy systems.

