



Candidate Information Booklet

Higher Scientific Officer - Soil Scientist – 32 Month Fixed Term Contract

IRC292431

Completed Application Forms must be submitted no later than 12 noon on
Friday 24th March 2023

Contents

.....	2
Recruitment overview	3
Environment and Marine Sciences Division	5
About the Agri-Environment Branch.....	6
Job Background.....	10
Eligibility Criteria	Error! Bookmark not defined.
Shortlisting Criteria.....	Error! Bookmark not defined.
Person Specification	12
Interview Criteria.....	13

Communication between HRConnect and you

HRConnect will issue competition communications electronically. Please ensure you check your email account regularly, to make sure that you don't miss any important communications.

Please update us with any changes to your email address and home address to ensure you are fully informed at all times.

Equal opportunities

Agri-Food and BioSciences Institute (AFBI) is an equal opportunities employer and has been awarded the Bronze Charter Mark in recognition for our commitment towards Gender Diversity and Inclusion in the workplace. All appointments will be made strictly on the basis of merit. If you have any queries with regard to this recruitment process or require any documentation in an alternative format, please contact HRConnect via email Recruitment@HRConnect.nigov.net or call 0800 1 300 330.

We would particularly welcome applications from females and those from a Roman Catholic background.

Feedback - AFBI is committed to providing feedback to assist the development of current and future applications.

Recruitment overview

Thank you for your interest in our organisation. At AFBI you will find a fantastic team spirit and a commitment to the development of both you and your skills so that you can choose to have a long-term career with us.

This Candidate Information Booklet offers specific information to applicants.

Please read this document carefully in advance of submitting your application and retain it for reference throughout the recruitment process.

At AFBI, we take great pride in the work we undertake. All AFBI employees are appointed on merit on the basis of fair and open competition.

We wish you every success in your application!

Important dates - It is intended that interviews for this post will take place in AFBI HQ, Newforge Lane, Belfast during week commencing Monday 10th April 2023.

Compulsory documentation - It is compulsory that all candidates invited to attend an assessment and/or interview, bring sufficient identification. Your attendance may not be permitted in instances where identification cannot be shown.

You want to change the world. So do we.

[Agri-Food and BioSciences Institute \(AFBI\)](#) is a leading provider of scientific research and services to government, non-governmental organisations and commercial organisations. We are sponsored by our key stakeholder, the Department of Agriculture Environment and Rural Affairs (DAERA).

Our customers include a range of local, national and international commercial companies, Northern Ireland and UK Departments, Agencies and associated bodies in the European Union.

As a leading institute of research, we tackle the complex challenges of our industry through purpose-driven science. We are a community with a common goal: to leave the world better than we found it. Are we ambitious? Definitely. Are our ambitions achievable? Absolutely. AFBI has been defying scientific boundaries to create measurable, scalable and enduring solutions to agri-food and marine science complexities in Northern Ireland - and beyond - since 2006.

We are delighted that you are considering joining us.

Of all the many factors that come together to make AFBI what it is, nothing is more important than our employees. Every area of our service delivery is underpinned by a number of dedicated teams working in synchrony to ensure the provision of scientific excellence. Across our four divisions, every team member, from those on the scientific front to those working behind the scenes in one of our offices, plays an essential role in delivering our long tradition of excellence, whilst helping to propel future discoveries.

Together we are better.

Our People Vision is to:

Attract, empower and grow purpose-driven staff with the passion and capability to pursue excellence, embrace technology and cultivate innovation and change.

This is how we do great science.

Great people. Great science.

Environment and Marine Sciences Division

Environment and Marine Sciences Division (EMSD) is a new science division, which has been established following a review of AFBI's organizational structure. The decision to establish this new division reflects the increasing importance and amount of scientific work undertaken by AFBI in the agri-environment, marine and aquatic ecosystems areas. This division will focus on evidence based science, which is key to addressing significant environmental challenges whilst ensuring the sustainable use of natural resources and the future prosperity of the agri-food sector.

A key priority of this division is to deliver on a high impact and quality integrated programme of research spanning from 'the soil to the sea'.

EMSD Branches

Agri-Environment Branch interfaces between intensive livestock production, and environmental management and regulation. This includes investigating the impacts of agricultural land use practices on soil, water and air, and identifying ways of optimizing land-based livestock production.

Fisheries and Aquatic Ecosystems Branch conducts research and development, monitoring and technology transfer in the area of marine fisheries stock assessment, coastal zone science, biological oceanography, marine ecosystem health, and freshwater fisheries stock assessment.

This job role sits within the Agri-Environment Branch.

About the Agri-Environment Branch (AEB)

Agri-Environment Branch (AEB) is one of two Branches within the Environment and Marine Sciences Division (EMSD). The aims of the Branch are to develop and sustain an integrated research effort with national and international recognition on nutrient management within agricultural systems, focusing particularly on the needs of Northern Ireland, thereby

- Developing sustainable practices within a competitive industry
- Providing a scientific basis for government policy and
- Enhancing the quality of the environment.

Environmental research in the Branch addresses land and nutrient management issues to make appropriate and efficient use of resources, while protecting the environment. The integrated research effort covers the impact of agriculture on air, soil, water quality and biodiversity. The outputs of this research have provided much of the scientific basis for the development of DAERA policy in soil and nutrient management in Northern Ireland for example the Nitrates Action Programme, Phosphorus Regulations and Water Framework Directive. The Branch undertakes basic, strategic and applied research for DAERA and other government departments and agencies, as well as commercial organisations.

Research programmes are in place within the Branch to address issues affecting the Northern Ireland Agri-food industry in relation to nutrient use efficiency, water quality, soil health, biodiversity, ammonia and greenhouse gas emissions, bioenergy and the circular economy.

Our research is currently delivered via five research programmes:

1. Air Quality & Climate Change
2. Catchment Sciences
3. Sustainable Soil Nutrient Management
4. Soil Biogeochemistry & Terrestrial Ecology
5. Agri-Environmental Technologies.

Land-Use, Agriculture and Bioenergy Measures for the Abatement of Climate Change and inclusion in Marginal Abatement Cost Curve analyses (LABMACC) project

Land-Use, Agriculture and Bioenergy Measures for the Abatement of Climate Change and inclusion in Marginal Abatement Cost Curve analyses (LABMACC) project seeks to quantify N₂O emission mitigation and enhance carbon sinks via altered land management or land-use and closing farm nutrient loops. The project aims to refine national emission factors and enable farmers to receive credit for emissions reduction. It will also evaluate the economics of mitigation measures and help develop farmer decision support tools. The project will generate new projections of GHG emissions towards 2050 and will identify the pathways for agricultural to become climate neutral by 2050.

Job Information and Employee Benefits

There is currently an opportunity for a fixed term 32-month contract to be filled at Higher Scientific Officer Grade. Working within the Soil Biogeochemistry and Terrestrial Ecology research programme in AFBI's Agri-Environment Branch (AEB), the post holder will report to the Principal Scientific Officer.

A reserve list will exist and will be held for a period of 12 months from the date of interview, to cover any similar vacancies which may arise.

Salary

Currently the salary for the post will be within the range £32,328 - £33,459 within which pay increases will be on an incremental basis provided staff performance reports are satisfactory.

Starting salary will be at the minimum of the scale.

Working Hours

The successful candidate will normally be required to work 5 days each week, totalling 37 hours. AFBI operates a flexi working system.

Location

The successful candidate will be based at AFBI Newforge, 18a Newforge Lane, Belfast, BT9 5PX, however, they may, on occasion, also be expected to work at other sites in Northern Ireland as required.

Hybrid working can also be considered.

Travel

The post will require access to a form of transport which will permit the successful candidate to meet the requirements of the post in full.

Pre-employment checks

Pre-employment checks consist of a qualification check and an AccessNI check. The security check required for this post is basic level. HRConnect will provide your details to Experian who will undertake this check. This is a two-part process during which all communications will be issued to you electronically.

Annual Leave

In addition to the usual public and privilege holidays, there is an annual leave allowance of 25 days, increasing to 30 after five year's satisfactory service.

Probationary Period

The post holder will serve 12 months' probation in the new post. This will commence from the date of appointment. At the end of the probation period a formal review will be conducted.

Professional Development

We believe in our employees and understand the importance of investing in ongoing development. Support for professional development will always be considered.

Employee Benefits

AFBI offers employees an unrivalled benefits package. For further information please click [here](#).

Further Information

Further Information about the post may be obtained from Emma Horner, Workforce Planning on 02890 255333.

For information on how the recruitment process will be managed and for further recruitment and selection resources, please click [here](#).

For information on our equal opportunities, please click [here](#).

Job Background

The main duties of the post-holder will be as follows:

1. Delivery of research project

To deliver research to meet the objectives of the new DAFM-DAERA LABMACC project associated with the investigation of soil ecosystems, greenhouse gas measurements and the characterization of soil chemical, physical and biological properties to provide data that support all major project deliverables.

This research area is set to expand with the demand for agriculture to deliver on public environmental goods. The work area is largely driven by the policy requirements of DAFM and DAERA and contributes to a better understanding of the impact that human activities can have on soil health with the aim to improve the long-term sustainability of agricultural soils.

In collaboration with other research scientists, the post-holder will carry out field and laboratory work aimed to collect soil and plant data to support multiple lines of investigation. A high level of technical competence and organisational skill is essential, and the capability to solve logistical problems as they arise and use time effectively to deliver field and laboratory work.

The post-holder will have a good track record of working in a soil and plant laboratory setting dealing with a variety of tasks associated with soil chemical, physical, biological analyses and/or soil CO₂ fluxes.

2. Data interpretation, scientific paper writing and science dissemination

To carry out the accurate collection and collation of research data. To prepare and analyse datasets as required and effectively summarize key findings. The post-holder will have significant experience in gathering and analysing data and drafting scientific papers. The post-holder will have excellent communication skills and a proven ability to present research findings at local, national and international meetings and conferences would be advantageous.

3. To manage staff and resources

To manage technical support and other staff to maximise their efficiency and delivery of tasks in compliance with all appropriate AFBI health and safety and staff management practices. To ensure that all staff and research procedures are compliant with ISO9001 in terms of standard operating procedures, risk management and related issues.

Engagement with a range of stakeholders will also be an important aspect of the post. In addition, it will also be necessary to demonstrate professional development in relevant areas of conducting a research project.

This list is not exhaustive, and the successful candidate will be required to carry out other duties as allocated by management.

Eligibility Criteria

Applicants must, by the closing date for applications provide evidence in their application form that they meet the following eligibility criteria.

- 1a. BSc degree in soil, agriculture, environmental science, ecology, biogeochemistry or another appropriate science-related discipline plus one years' post qualification experience working in a field or laboratory setting in a scientific environment.

OR

- 1b. Two A-Level passes in science-based subjects plus at least four years' post qualification working in a field or laboratory setting in a scientific environment.

AND

2. Research experience involving advanced methods in the field or laboratory for investigations for agriculture, environmental science or a related field.
3. Experience in data analysis, results interpretation and paper writing on topics associated within a scientific environment.
4. Experience in project management, report writing, and organisational skills within a scientific environment.

Shortlisting Criteria

In addition, applicants should be aware that after an eligibility sift, should it be necessary to shortlist candidates to go forward to interview, the following shortlisting criteria will be used, in the order listed:

1. Post graduate qualification (Msc or PhD) in soil, agriculture, environmental science, ecology, biogeochemistry or another appropriate science-related discipline.
2. 3 year's research experience investigating soil ecosystems, GHG emissions or Carbon Sequestration and evidence of understanding of field and laboratory methods to collect, process and analyse soil samples.

Person Specification

This position is analogous to Staff Officer Level in the NICS.

Candidates will be expected to demonstrate the skills and competencies set out in the Essential Criteria. In addition, they will also be required to demonstrate competency in Professional Knowledge & Skills pertaining to this post together with the skills and competencies set out in the Northern Ireland Civil Service (NICS) competency framework at Level 3 for the purpose of personal and professional development.

Selection panels will design questions to test the applicant's knowledge and experience in each of the above areas and award marks accordingly.

You should refer to the behaviours listed under level 3 of the relevant competence areas.

To view the NICS Competency Framework, please click [here](#).

Interview Criteria

In addition to satisfying the eligibility criteria and shortlisting criteria (if applicable) applicants will also be expected to display the following qualities and skills at interview-

1. Professional skills and Knowledge

Marks available: 60 Minimum Standard: 36

2. Collaborating and Partnering

Marks available: 10 Minimum Standard: 6

3. Managing a Quality Service

Marks available: 10

4. Leading & Communicating

Marks available: 10

5. Making Effective Decisions

Marks available: 10

Total marks available: 100

Overall pass mark: 60 (60%)