



UNIVERSITY OF  
LINCOLN

## UNIVERSITY OF LINCOLN JOB DESCRIPTION

<b>JOB TITLE</b>	Post-Doctoral Research Associate in Economics of Groundwater Salinisation				
<b>DEPARTMENT</b>	College of Health & Science (Department of Geography, School of Life and Environmental Sciences)				
<b>LOCATION</b>	Lincoln Campuses				
<b>JOB NUMBER</b>	CHS111	<b>GRADE</b>	7	<b>DATE</b>	April 2024
<b>REPORTS TO</b>	Dr Daniel Magnone				

### CONTEXT

Salinisation of agricultural lands is a global challenge and one that is likely to affect the UK over the coming century. One area at risk is the Fens of the East of England which produces 11% of the agri-food economy in 4% of agricultural lands. Both sea-level rise and water abstraction can increase the risk of salinisation of groundwaters and both are set to increase as Climate Change progresses. It is estimated that the cost to Lincolnshire from salinisation could be up to £100 million across the county but this estimate is subject to multiple assumptions which needs to be better understood.

This 24-month PDRA position in Economics of Salinisation at the University of Lincoln will contribute to the understanding of the economic consequences of groundwater salinisation in the under-researched shallow groundwater system of the UK Fens. The successful candidate will come with an understanding of agricultural and environmental issues around groundwater salinisation.

The PDRA will join the Project Groundwater research team at Lincoln which consists of four ECRs all working on linked projects to support knowledge creation of the physical, social and economic challenges from groundwater salinisation in Greater Lincolnshire.

The PDRA will be a member of the Coasts and Catchments Research Group within the Department of Geography and larger School of Life and Environmental Sciences. The appointee will work closely with colleagues from Lincoln International Business School and across interdisciplinary research teams.

This project is part of the wider £7 million Defra Innovative Resilience funded Project Groundwater: Lincolnshire co-ordinated by Lincolnshire County Council. The work will deliver both cutting edge groundwater science and develop solutions to the challenges faced by local communities.

For informal enquiries please contact Dr Daniel Magnone ([dmagnone@lincoln.ac.uk](mailto:dmagnone@lincoln.ac.uk), PI).

### JOB PURPOSE

The Post-Doctoral Research Associate is responsible for conducting research on the project, as directed by the Principal Investigator, and is expected to operate with a significant degree of autonomy.

The post holder may be required to help supervise the work of more junior researchers.

## KEY RESPONSIBILITIES

### Literature Surveys

Undertake literature surveys and other investigations and prepare reports as required.

### Programme of Research

Undertake a programme of research under the direction of the Principal Investigator. Research tasks will include (but are not restricted to):

- Sourcing datasets of Lincolnshire crops.
- Calculating yield impacts from salinisation.
- Work alongside others in the research team to underpin economic scenarios utilising a physical basis.
- Calculating and predict impact on Lincolnshire's agricultural and wider community from salinisation flooding.
- Make recommendations to protect Lincolnshire from salinisation threats.

Lead in the production of high-quality research outputs, including reports, papers, and other publications of national/international standing.

### Project Management

Perform project management activities, planning, scheduling, monitoring, and reporting on progress of research projects.

### Liaison and Networking

Identify and liaise with internal and external collaborators, and with colleagues in the Department, maintaining positive and effective working relationships.

### Internal Research Activities

Participate in and help to organise internal research activities, including seminars, research meetings and conferences.

### Continuous Professional Development

Undertake continuous professional development activities.

### Grant Applications

Contribute to the production of grant applications.

**In addition to the above, undertake such duties as may reasonably be requested and that are commensurate with the nature and grade of the post.**

## ADDITIONAL INFORMATION

### Scope and dimensions of the role

We seek an individual with a proven track record in agricultural and/or environmental economics and ideally experience of working in saline systems.

The candidate must be able to demonstrate their ability to develop and maintain relationships with a number of stakeholders including in the public sector. The candidate should also be able to work independently, manage their own time and set their own goals.

The successful candidate will have a proven track record in leading and contributing to the generation and publication of quality peer-reviewed published journal articles and the dissemination of research at both specialist science conferences as well as at events aimed at the general non-specialist public and/or non-academic professionals.

### Key working relationships/networks

Internal	External
<ul style="list-style-type: none"><li>• Principal Investigator</li><li>• Others in the research team</li><li>• Head of School</li></ul>	<ul style="list-style-type: none"><li>• Research collaborators</li><li>• Sponsors and clients</li></ul>



**UNIVERSITY OF LINCOLN  
PERSON SPECIFICATION**

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<b>Selection Criteria</b>	<b>Essential (E) or Desirable (D)</b>	<b>Where Evidenced Application (A) Interview (I) Presentation (P) References (R)</b>
<b>Qualifications:</b>		
PhD or equivalent (good candidates may be accepted with a PhD pending, subject to publication record)	<b>E</b>	<b>A</b>
Extensive knowledge specific to project/area	<b>E</b>	<b>A/I</b>
<b>Experience:</b>		
Extensive experience of relevant research methods	<b>E</b>	<b>A/I</b>
Authorship of research outputs of national/international standing	<b>E</b>	<b>A/I</b>
Experience of research in specific project area	<b>E</b>	<b>A/I</b>
<b>Skills and Knowledge:</b>		
Experience and capability of working in the field, either independently or within a multidisciplinary team	<b>E</b>	<b>A/I</b>
Ability to develop economics datasets	<b>E</b>	<b>A/I</b>
Knowledge of environmental or agricultural economics	<b>E</b>	<b>A/I</b>
Excellent written communication, including the ability to write reports and research outputs	<b>E</b>	<b>A/I</b>
Ability to prioritise own workload and work to specified deadlines under pressure	<b>E</b>	<b>A/I</b>
Ability to communicate complex subjects orally	<b>E</b>	<b>A/I</b>
Skills specific to project/area	<b>E</b>	<b>A/I</b>
<b>Competencies and Personal Attributes:</b>		
Flexible approach to workload	<b>E</b>	<b>I</b>
Ability to work on own and as part of a team	<b>E</b>	<b>I</b>
Enthusiasm and commitment	<b>E</b>	<b>I</b>

**Essential Requirements** are those, without which, a candidate would not be able to do the job. **Desirable Requirements** are those which would be useful for the post holder to possess and will be considered when more than one applicant meets the essential requirements.

<b>Author</b>	DM	<b>PBP</b>	AH
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