

**DAERA Directed Agri-Food and Biosciences Institute (AFBI) Research Work Programme 2019/20**





# Background

The Evidence and Innovation Strategy updated for 2015-17 (EIS)1 sets out the overarching framework for research and development to underpin evidence-based policy and delivery, and to promote innovation in agri-food, fishing, forestry and other rural businesses. It provides the framework for funding the Department’s policy-relevant and industry-relevant research and innovation.

Whilst the EIS sets out a framework for research, the detailed evidence and innovation activities are co-ordinated through four Programme Management Boards (PMBs), which align broadly to the EIS Strategic Goals.

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| **EIS Goal** |  | **PMB** |
| **Goal 1:** To help the Agri-Food Industry Prepare for Future Market Opportunities and Economic Challenges | **PMB1:** Performance in the Marketplace |
| **Goal 2:** To Improve the Lives of Farmers and Other Rural Dwellers, Targeting Resources where they are most needed | **PMB2:** Informing Policy and Improving the Lives of Farmers and Other Rural Dwellers |
| **Goal 3:** To enhance Animal Fish and Plant Health and Animal Welfare on an all-Ireland basis | **PMB3**: Animal and Plant Health and Animal Welfare |
| **Goal 4:** To Help Deliver Improved Sustainable Environmental Outcomes  | **PMB4:** Sustainable Environment |

1 See<https://www.daera-ni.gov.uk/publications/evidence-and-innovation-strategy-updated-2015-17>

1. **Programme Development**

One of the major roles and responsibilities of each PMB is to review, identify and prioritise investment in evidence gathering or innovation support activity in light of policy needs and/or evidence gaps. Evidence and innovation needs are identified by DAERA on an ongoing basis, informed by both informal and formal engagement with stakeholders.

This process ensures the development of an evidence and innovation programme that is appropriately aligned to policy needs, provides a robust evidence base for future policy development, implementation and review and/or supports industry innovation within the scope of DAERA’s policy interests.

An overarching Evidence and Innovation Priorities Group (**EIPG**), to which the PMBs report, is responsible for making the final decisions on the overall priority assigned to evidence and innovation requirements and, ultimately, the activities that will be funded in any particular year. EIPG is seeking to achieve a balanced research programme.

In this document, each of the PMBs include clustered evidence needs in key areas.

Approved proposals agreed through this annual process form part of the work programme delivered by AFBI for DAERA[[1]](#footnote-1).

# DAERA Directed AFBI Research Work Programme

# Our priority needs are set out in the sections that follow.

* It is anticipated that AFBI will submit Full Format Proposals (FFP) to address each of the Evidence and Innovation needs identified. If AFBI is not able to address a particular evidence need due to capacity or capability reasons, it should highlight this to DAERA at the earliest opportunity;
* Proposals should reflect AFBI’s current and foreseeable capacity and capability and AFBI’s Corporate Plan 2018-2022;
* Proposals falling outside our Evidence and Innovation needs will not be considered;
* FFPs must reflect the actual costs anticipated for the project. Costs should be profiled as accurately as possible and not simply spread evenly through the duration of a project;
* The associated timetable and evaluation procedures are provided at Annex A.

**Liaison with DAERA Policy**

* Further information on each priority need can be obtained from the nominated DAERA Policy Lead. AFBI Project Leaders with an interest in responding to an Evidence and Innovation Need are encouraged to contact the nominated DAERA Policy Lead at an early stage. Contact details are listed at **Annex B**;
* To facilitate early discussion, outline proposal(s) may be submitted by the AFBI Project Leader to the DAERA Policy Lead using the Concept Note pro-forma which is available on the DAERA website. This step is not mandatory;
* A FFP should be completed for each proposed submission.The template form can be obtained from the DAERA website. This template changes year on year and Project Leads should ensure that the latest version is completed. The AFBI Project Leader should work closely with the DAERA Policy Lead to ensure that the proposal is the correct fit for the Evidence and Innovation Need identified. It should be noted that the FFP forms the Economic Appraisal for the proposal.

**Co-Funding Opportunities**

* AFBI Project Leaders should seek to identify and pursue potential co-funding. The co-funder(s) and value of their contribution should be clearly identified in the FFP templates.

**Closing Date**

* The proposal window closes on **25th October 2019** and all FFP(s) received up to this date will be scrutinised by PMBs;
* Concept notes will not be accepted as a substitute for FFPs; and
* All completed forms should be submitted via the AFBI central contact point to:-

e&i@daera-ni.gov.uk

**Assessment and Approval Process**

* All FFPs will be scrutinised and, where appropriate, challenged by DAERA Policy Leads and DAERA Chief Scientific Adviser’s Office. AFBI should answer any queries promptly;
* FFPs may be selected at random for assessment by DAERA Resource Economics Branch. AFBI should answer any queries promptly;
* All FFPs will be assessed, scored and ranked by PMBs;
* EIPG will provide final approval for proposals. Approval will be subject to a satisfactory economic appraisal (mostly within the FFP) and proposals must have a sound scientific basis;
* EIPG will seek to achieve a balance across all PMBs and preference will be given to proposals that demonstrate a holistic, inter-disciplinary approach to addressing the priority need(s) and/or attract co-funding from another source;
* **Work cannot start until EIPG signs off the proposal; and**
* **The outcome of this process is referred to as the DAERA Directed AFBI Research Work Programme 2019/20. Publicity or marketing of any of the proposals must acknowledge DAERA as the core funder.**

# Evidence and Innovation Needs

Evidence and Innovation needs to be addressed for each Programme Management Board and Strategic Research follow (pages 5-16).

**PMB 1 - PERFORMANCE IN THE MARKETPLACE**

The overall objective of PMB 1 is to identify and prioritise evidence gathering and innovation support activity to promote the sustainable economic development of the local agri-food, fisheries and forestry industries. In order to inform policy development and delivery, it is paramount that there is a sound understanding of the complex social, political and economic interactions which affect the operating environment in which these industries function.

PMB 1 aims to achieve this objective through the delivery of evidence and innovation projects in 9 themed areas as outlined in the Evidence and Innovation Strategy updated for 2015-2017 (EIS 2015-2017):

Evidence and Innovation Research Needs Areas:

1. Evaluate impact of policy changes on the sector;
2. Sustainable and competitive production evidence;
3. Sustainable and competitive production innovation;
4. Efficient use of resources;
5. Novel and innovative products and processes;
6. Production sustainability in energy resource technologies;
7. Improving forest productivity and exploiting opportunities;
8. Competitiveness and sustainability of fisheries and aquaculture; and
9. Responding to climate change – adaptation and mitigation.

| **PMB 1 Evidence and Innovation Needs** | **Guideline Duration** | **DAERA Policy Lead** |
| --- | --- | --- |
| **Increased resource use efficiency in production systems.**Research is required on the evaluation of measures to increase resource use efficiency of production in all sectors and enhance environmental outcomes and animal welfare through: achievement of market-led efficiencies; and/or increased use of sustainable resources; and/or new developments in precision agriculture; and/or animal or plant genetic improvement; and/or precision in nutrient inputs (e.g. nitrogen and phosphorus) in farming systems and/or addressing endemic diseases | 2-3 years | **Nichola Connery/ Don Morrow** |
| **Desk based scoping studies** **Health and safety on-farm** A literature review is required on the genetics of cattle temperament and the potential for selection for improvement in behavioural characteristics.**Autonomous vehicles** A literature review is required to evaluate the potential benefits of extended use of GPS for improving performance and precision in grass and grass silage production. This desk-based study will also be required to scope the use of autonomous vehicles on dairy farms for field/yard operations. **Selenium and iodine status**A literature review is required of current knowledge relating to the selenium and iodine status of soils and livestock and livestock products in NI including spatial variability. | 1 year1 year1 year | **Albert Johnston****Don Morrow, / Nichola Connery** **Albert Johnston** |
| **Soil and growing medium management.** Research is required to consider innovative approaches to soil management which will improve soil management and potentially achieve reduction in compaction and other soil health issues. Proposals are invited which could lead to improved precision of fertiliser use/ nutrient utilisation in a local context. | 1-3 years | **Don Morrow / Nichola Connery** |
| **Future Agriculture Policy Framework**Research is required to evaluate the impact of policy changes on the resilience of farm businesses. Research is required to consider what barriers exist to long term land leasing, and what can be done to encourage long term leases. | 1.5 years2 years | **Nichola Connery/ Joyce McCormick****Albert Johnston** |
| **Labour resource efficiency**Research is required on NI dairy farm labour to gather evidence on the labour units per cow/litre and consider the factors affecting variations, to benchmark labour efficiency, and to evaluate approaches to improve labour efficiency.This study should include an evaluation of farming equipment such as automatic calf feeders, cubicle bedders, milk buggies, robotic milkers and robotic scrapers; in commercial on-farm settings.  | 2 years | **Don Morrow / Nichola Connery** |
| **Precision allocation of grass in a grazing system** Desk-top research is required to examine how virtual fencing could be employed as a tool for precision allocation of herbage in grazing systems, including the animal welfare aspects and effectiveness of using animal collars as virtual fencing. This research should consider how sensitive habitats, with a particular emphasis on upland farms, could be managed to achieve an optimal balance between livestock productivity and environmental footprint. | 2 years | **Don Morrow / Nichola Connery** |
| **On-farm Anaerobic Digestion (AD) systems**Desk-based research is required to consider the potential for on-farm AD systems to meet dairy enterprise energy needs. | 1 year | **Don Morrow / Nichola Connery** |
| **Responding to climate change – prolonged periods of high rainfall**Research is required to develop a decision making model to assist farmers and advisers manage grass during periods of high rainfall to maintain production efficiency and protect the environment (to include associated slurry application and storage considerations). This project should build on the work of the current E&I project 17/1/15.  | 3 years | **Albert Johnston / Nichola Connery** |

**PMB 2 – Informing Policy And Improving the lives of farmers and other rural dwellers**

A key objective of PMB 2 is to build the evidence base to inform the Department’s broad rural policy agenda. In particular, it is seeking to use research to develop a more robust and sophisticated understanding of the social and economic characteristics of rural areas, with a particular focus on identifying the specific needs of disadvantaged groups and what this means for the development and equitable delivery of government policy for both the farming and non-farm sector. A second key objective of PMB 2 is to commission cross-cutting economic research that will provide a deeper insight into the impact of policy options right across the Department’s remit and inform future policy development on agri-food industry competitiveness, animal health and welfare and environmental sustainability.

PMB 2 aims to achieve this objective through the delivery of evidence and innovation projects in 10 themed areas as outlined in the Evidence and Innovation Strategy updated for 2015-2017 (EIS 2015-2017):

Evidence and Innovation Research Needs Areas:

#### Understanding and evaluating socio-economic challenges, needs and potential of traditional land and marine-based industries and appropriate policy responses;

#### Identifying the particular challenges, needs and potential of rural and fishing communities and appropriate policy responses;

1. Using economic modelling frameworks to develop and test policy interventions and to assess their impacts;
2. Evaluating the costs and benefits to the economy of animal and plant disease prevention and control;
3. Understanding the economic value of improving environmental footprint in land and marine-based industries;
4. Understanding how best to affect behavioural changes within the agri-food, forestry and fishing sectors;
5. Understanding how best to maximise the returns from education and technology transfer;
6. Understanding how best to embed economic sustainability into rural policy interventions, including the role of innovative solutions, new technologies and social enterprise;
7. Evaluating the potential of innovation and new technologies (ICT) to deliver better social and economic outcomes in rural areas; and
8. Responding to climate change – adaptation and mitigation.

| **PMB 2 Evidence and Innovation Needs** | **Guideline Duration** | **DAERA Policy Lead** |
| --- | --- | --- |
| **Attitudinal Survey of EFS Participants and Non-Participants**Research is required to survey and evaluate changes in attitudes and farm practice behaviours of Environmental Farming Scheme (EFS) agreement holders. In addition, a counterfactual survey of changes in attitudes and farm practice behaviours of non-EFS agreement holders is also neededThrough training and support during their EFS agreement, it is envisaged that farmers will have a greater understanding of sound management practice on their own farms, and will change their farming practices in a positive way, thus ensuring the retention of environmental benefits beyond the life of the scheme. In relation to this, the evaluation of the previous scheme, the NI Countryside Management Scheme, identified that there were attitudinal and behavioural changes towards caring for the environment as a result of participation in the scheme. Therefore, an important element of EFS monitoring and evaluation will be a survey of changes in attitudes and farm practice behaviours of those within the EFS scheme, accompanied by an appropriate counterfactual assessment. This research will feed into the overall EFS Monitoring and Evaluation Framework. | 2 years | **David Garrett** |
| **Tackling Behavioural Attitudes of Farmers re Education Progression.** Research is required to identify and recommend the most appropriate tools to change behavioural attitudes of farmers towards education progression and continuing professional development.This research would consider ways to assist the development of incentivisation and communications to encourage more disengaged farmers to participate further in education and CPD activities. Increasing numbers of farmers engaged in education and CPD is expected to drive productivity, resilience, improved environmental performance and sustainability on their holding, thus meeting the objectives of the DAERA Knowledge Framework. | 1 year | **Zita Hale/****Ian McCluggage** |
| **The efficient and effective use of capital grants to increase agricultural productivity and sustainability**Research is required to inform policy on the structure and content of potential investment aid, which would maximise the potential uptake and outcomes for the NI agricultural sector.Future policy is seeking ways in which we can increase NI agricultural productivity, recognising that there are different productivity challenges in each agricultural sub-sector, and that gains in productivity cannot be at the expense of environmental sustainability. Farm businesses may need access to targeted investment aid that supports innovation and new technology uptake.  | 1.5 – 2 years | **Brenda Cunning** |
| **Sustainable dairy production**Research is required on whole farm modelling to evaluate the effects of market, policy and farming system factors on the economic and environmental performance of dairy production systems in NI.  | 3 years | **Don Morrow/ Nichola Connery** |

**PMB 3 - ANIMAL AND PLANT HEALTH AND ANIMAL WELFARE**

The overall objective of PMB3 is to develop a strategic approach to protecting animal and plant health and animal welfare supported by sound scientific evidence. Information, gathered through targeted research, on the wider implications of animal / plant disease control strategies and interventions and animal welfare issues is needed to evaluate and inform the direction of future policy within Northern Ireland and to inform discussions with other Government bodies.

PMB 3 aims to achieve this objective through the delivery of evidence and innovation projects in 8 themed areas as outlined in the Evidence and Innovation Strategy updated for 2015-2017 (EIS 2015-2017):

Evidence and Innovation Research Needs Areas:

1. Improving detection and control of endemic animal diseases;
2. Understanding risks to aquaculture and fish health;
3. Assessing and improving animal welfare;
4. Animal disease horizon scanning – emerging risks;
5. Improving diagnosis and surveillance of plant pests and disease;
6. Costs, benefits and risk profile of animal and plant disease prevention and control strategies
7. New techniques/approaches to disease prevention and control; and
8. Responding to climate change – adaptation and mitigation.

| **PMB 3 Evidence and Innovation Needs** | **Guideline Duration** | **DAERA Policy Lead** |
| --- | --- | --- |
| **Antimicrobial resistance (AMR)**Research is required to establish a baseline of antimicrobial product use in each of the livestock sectors in NI. Collaboration with other research organisations and stakeholders will be required. Research is required to understand the knowledge and attitudes of animal keepers and veterinarians in relation to antibiotic use, AMR and vaccinations with a particular focus on changing behaviours. This work should develop a better understanding of decisional processes when using antimicrobials and help inform policies and preventative actions plans where appropriate. This work should include surveys to assess changes in awareness and understanding of AMR by animal keepers over time. | 1-2 years1-3 years | **Jim Blee****Jim Blee** |
| **Development of new diagnostic tools for livestock disease (animal health and welfare)**Research on the development of rapid diagnostic tools and assess the impact of various rapid diagnostics on infection management for endemic diseases by farmers and vets (excluding bTB which previous projects have considered). | 3 years  | **Jim Blee** |
| **Integrated model for plant health disease prevention and control**Research is required to follow on from a scoping study on this topic (18/3/19), to develop an integrated model for plant health disease prevention and control. | 2 years | **Diane Stevenson** |
| **Bee health** Research is required on the identification and possible impact of non-endemic & non-notifiable pests and diseases of imported honey bees and bumble bees on native Irish bee species. | 2 years | **Diane Stevenson** |
| **Plant health risk from imports** Research is required to identify and evaluate new techniques and approaches for surveillance and control of plant health risks for consignments entering Northern Ireland. | 3 years  | **Diane Stevenson** |
| **Animal health risk from imports**Research is required to identify and evaluate new techniques and approaches for surveillance and control of animal health risk for consignments entering Northern Ireland. | 3 years | **Jim Blee**  |

**PMB 4 - SUSTAINABLE ENVIRONMENT**

The overall objective of PMB 4 is to address the environmental considerations which are major factors in health and wellbeing. Such issues include climate change, pollution, air / water quality, bio-diversity, waste management and protection of the landscape and natural resources. The main focus of evidence gathering and innovation support activity is to gain a better understanding of the issues surrounding environmental sustainability and climate change mitigation and the potential economic value attached to their effective management and exploitation. A better appreciation of the interaction between land/marine based industries and the natural environment and the regulatory compliance within and between these industries will help promote enhanced policy making and regulatory capabilities.

PMB 4 aims to achieve this objective through the delivery of evidence and innovation projects in 7 themed areas as outlined in the Evidence and Innovation Strategy updated for 2015-2017 (EIS 2015-2017):

Evidence and Innovation Research Needs Areas:

1. Understanding and improving the environmental footprint of the agri-food industry;
2. Assessing and improving the impact of agri-environment programmes;
3. Understanding the environmental impact of changes in agricultural land use patterns and intensity;
4. Sustainable manure and nutrient management;
5. Assessing and improving sustainable fisheries and aquaculture;
6. Delivering resilient forests, crops and amenity horticulture in a changing climate; and
7. Responding to climate change – adaptation and mitigation.

| **PMB 4 Evidence and Innovation Needs** | **Guideline Duration** | **DAERA** **Policy Lead** |
| --- | --- | --- |
| **Review of Water Catchment Modelling for NI**Research is required to review water catchment modelling for NI, to include model identification; data availability and needs, and policy/statutory relevance. The outputs should provide DAERA with recommendations for future development and implementation of catchment models for Northern Ireland. | 18 months | **Wendy McKinley** |
| **River restoration pilot project** Research is required to undertake a proof of concept pilot project using the findings from E&I project 18/4/08, to consider whether river restoration at a local level is effective in improving and enhancing natural flood risk management in conjunction with delivering NASCO and Water Framework Directive requirements. Evidence gathered on planning, negotiating, implementing and monitoring a pilot over a three year period would inform future mitigation under Environmental Farming Scheme and flood risk management policy. | 3 years | **Wendy McKinley/ Seamus Connor** |
| **Impact of emerging pollutants (antimicrobial products, plastics, chemicals) on NI water environment**A one year scoping study is required to consider the impact of emerging pollutants (antimicrobial products, plastics, chemicals) on NI water environment through novel/screening monitoring techniques and application in intensively monitored pilot catchments | 1 year | **Noel Bell** |
| **Remediation of Mubouy Road waste site**Research is required to carry out site specific field trials to assess the viability of an environmental cap as a remediation option for the Mobuoy Road waste site. | 2-3 years | **Nicole McArthur/ Theresa Kearney** |
| **Exploring trade-offs between agricultural and environmental targets to deliver an ‘appropriate’ balance of ecosystem services which provide the greatest good for society”.** Research is required to determine how the challenges of delivering current environmental targets relating to water quality, air quality and biodiversity can be met whilst simultaneously ensuring profitable productive farming.A one year desk study to examine the information and data currently available on various aspects of the environment and assess what changes in farming practices would be required to deliver the current environmental quality targets, and conversely, what impacts on the environment further growth of agricultural production will have if pursued. | 1 year  | **Brian Ervine** |
| **Applying an ecosystems framework approach to beef and sheep farming in the hills and uplands to investigate the synergies and trade-offs that exist between production and other ecosystems services**Research is required to inform future agri-environment policy.The one year scoping study will investigate how beef and sheep production systems can be adapted to increase environmental benefits including, but not limited to, increasing carbon sequestration and storage, improving water quality entering water courses, slowing water flow of the hills, and improving habitat to support biodiversity. Adaptions are envisaged to focus on natural capital solutions and changes to farm management practices that will, whenever possible, also improve the productivity and resilience of the production system.  | 1 year | **Paul Caskie** |
| **Impact of future climate change scenarios on the Northern Ireland coastal habitats** Research is required to consider the impact of future climate change scenarios on the Northern Ireland coastal habitats and identify the risks to coastal assets (MPAs, infrastructure and heritage), and identify the adaptation measures that need to be taken. | 2 years | **Colin Armstrong/ Claire Vincent** |
| **Impact of future climate change scenarios on the Irish sea ecosystem** Research is required to consider the impacts of ocean acidification and higher water temperatures on Irish Sea ecosystems and identify the adaptation measures that need to be taken. | 2 years | **Colin Armstrong/ Claire Vincent** |
| **Future climate change scenarios on the Northern Ireland fishing and aquaculture industry** Research is required to assess the impact of future climate change scenarios on the Northern Ireland fishing and aquaculture industry, and identify the adaptation measures that need to be taken. | 2 years | **Paddy Campbell** |
| **Impacts of future Climate change** Research is required on the risks to salmon ova due to groundwater upwelling (high temp and low dissolved O2), which is likely to become more frequent in future years with climate change forecasts predicting reduced springtime/summertime flows; higher air temp and drier summer periods.This research should consider the potential to develop a citizen science project (e.g., Marine Scotland’s River Temperature Monitoring Network project). | 3 years | **Art Niven/****Greg McCleary** |
| **Impact of fish discards ban on Irish sea commercial fisheries**Research is required to consider the potential impact on Irish Sea commercial fish stocks and wider marine ecosystem of landing unwanted by-catch from Irish Sea commercial fisheries rather than returning by-catch to the sea in the area of capture.  | 2 years | **Paddy Campbell** |
| **Understanding changes in biodiversity and ecosystem services in NI peatlands**Research is required to develop a better understanding of human-induced effects on biodiversity and ecosystem service delivery in NI peatlands. Research should also consider potential for livestock grazing as a tool for restoration of sensitive sites. | 2 years | **Sara McGuckin/****Richard Gray**  |

**Strategic Research**

In addition to fixed duration E&I projects, DAERA funds a number strategic research projects which are intended to address long term evidence and innovation needs. These projects involve the collection, maintenance and analysis of long term data sets. Strategic projects are reviewed every 3 years, and a decision is made on future continuance.

New strategic research proposals are requested in the areas outlined below.

| **Strategic Evidence and Innovation Needs** | **Guideline Duration** | **DAERA** **Policy Lead** |
| --- | --- | --- |
| **Economic model development and maintenance** Research is required to develop and maintain the suite of AFBI economic models (e.g. the FAPRI model).  | 3 years  | **Paul Keatley** |
| **Development of a genotypic and phenotypic livestock database (incl. a biobank)**Research is required to develop and maintain a genotypic and phenotypic livestock database of all farm animals at AFBI Hillsborough.  | 3 years  | **Steven Johnston** |

**Annex A**

1. **Timetable**

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| --- | --- |
| **Date** | **Activity** |
| **9th August 2019** | Proposal window opens  |
| **25th October 2019** | Latest date for FFP(s) submission |
| **November/December 2019** | FFP(s) assessed & scored by PMBs and Science Advisory Branch |
| **December 2019/January 2020** | EIPG makes final decision on approval of project(s) |
| **From January - March 2020** | Commissioning of approved projects |

1. **Evaluation criteria**

# PMBs will provide a final scoring for each proposal received, based on the following criteria (not in order of importance).

* Ability of objectives to meet policy needs;
* Scientific quality;
* Evidence of collaboration with other scientific groups / industry;
* Provision of additional information to that already known in this area;
* Appropriate project management including risk management;
* Appropriate milestones and deliverables;
* Clear strategy for knowledge exchange;
* Potential for co-funding from other sources; and
* Value for Money.
	1. **Additional information**
* FFP forms should be completed in **Arial font size 12.**
	1. **Feedback**
		+ Feedback on unsuccessful proposals will be coordinated by DAERA Science, Evidence and Innovation Policy Division and passed to a central contact in AFBI. DAERA Policy leads will not provide feedback to AFBI Project Leaders directly.

**Annex B**

**DAERA Contact Details**

|  |  |  |  |
| --- | --- | --- | --- |
| **DAERA Contact** | **Division/Branch** | **Tel. No** | **E-mail** |
| Albert Johnston  | Agri-Food Support Branch | 02894 426948 | Albert.Johnston@daera-ni.gov.uk |
| Art Niven | Inland Fisheries | 02890 569797 | Arthur.Niven@daera-ni.gov.uk |
| Brenda Cunning  | Future Capital Support Policy | 02890 524009 | Brenda.Cunning@daera-ni.gov.uk |
| Brian Ervine  | Environmental Farming  | 02890 525570 | Brian.Ervine@daera-ni.gov.uk |
| Claire Vincent | Marine Strategy and Licensing | 02890 569250 | Claire.Vincent@daera-ni.gov.uk |
| Colin Armstrong | Marine Conservation and Reporting | 02890 569235  | Colin.Armstrong@daera-ni.gov.uk |
| David Garrett | Environmental Farming  | 02890 524567 | David.Garrett@daera-ni.gov.uk |
| Diane Stevenson | Plant Health Policy  | 02866 343012 | Diane.Stevenson@daera-ni.gov.uk |
| Don Morrow  | Intensive Livestock & Crops  | 02894 426845 | Don.Morrow@daera-ni.gov.uk |
| Greg McCleary | Water Management | 02892 633442 | Greg.McCleary@daera-ni.gov.uk |
| Ian McCluggage  | Agri-business Development  | 02894 426760 | Ian.McCluggage@daera-ni.gov.uk |
| Jim Blee | Animal Disease Control & Trade Policy | 02877 449074 | Jim.Blee@daera-ni.gov.uk |
| Joyce McCormick | Brexit Division | 02890 378625 | Joyce.McCormick@daera-ni.gov.uk |
| Nichola Connery | Agri-Food Policy Branch | 02890 569396 | Nichola.Connery@daera-ni.gov.uk |
| Nicole McArthur | Regulation Unit  | 02887 442315 | Nicole.McArthur@daera-ni.gov.uk |
| Noel Bell | Water Chemistry | 02892 623077 | Noel.Bell@daera-ni.gov.uk |
| Norman Henderson | Chief Scientific Adviser’s Office | 02877 442229 | Norman.Henderson@daera-ni.gov.uk  |
| Paddy Campbell | Sea Fisheries Policy & Grants  | 02844 618007 | Paddy.Campbell@daera-ni.gov.uk |
| Patrick Boylan | Chief Scientific Adviser’s Office | 02890 541700 | Patrick.Boylan@daera-ni.gov.uk |
| Paul Caskie | Agri-Environment Policy Development | 02890 524427 | Paul.Caskie@daera-ni.gov.uk |
| Paul Keatley | Economics and Evaluation Branch | 02890 524063 | Paul.Keatley@daera-ni.gov.uk |
| Paul McHenry | Beef & Sheep Development | 02894 426922 | Paul.McHenry@daera-ni.gov.uk |
| Richard Gray | Biodiversity and Conservation Science | 02890 569685 | Richard.Gray@daera-ni.gov.uk |
| Sara McGuckin | Director of Natural Environment | 02890 569375 | Sara.McGuckin@daera-ni.gov.uk |
| Seamus Connor | Chief Fisheries Officer | 02890 569465 | Seamus.Connor@daera-ni.gov.uk |
| Steven Johnston  | Beef & Sheep Development | 02894 463748 | Steven.johnston@daera-ni.gov.uk |
| Theresa Kearney | Regulation Unit  | 02890 569352 | Theresa.Kearney@daera-ni.gov.uk |
| Wendy McKinley | Water Assessment, Data & Evidence  | 02892 623089 | Wendy.McKinley@daera-ni.gov.uk |
| Zita Hale  | Policy Development Branch | 02890 378511 | Zita.Hale@daera-ni.gov.uk |

1. See <http://www.legislation.gov.uk/nisi/2004/3327/article/6/made> [↑](#footnote-ref-1)