

Ballinlee Green Energy Ltd.

Chapter 6 Biodiversity

Appendix 6A: Statement of Competency

Woodrow Ref: P00012353

Date: September 2025

COMMERCIAL IN CONFIDENCE



woodrow
APEM Group

Appendix 6A: Statement of Competency

APEM Group Woodrow, trading as Woodrow Sustainable Solution Limited, is an established and accomplished environmental consultancy committed to delivering robust ecological assessment services for clients in the private and public sectors. APEM Group - Woodrow provides an in-house team of ecologists and environmental professionals whose primary specialisms include botany, habitats, birds, bats, mammals, invertebrates, and aquatic ecology. The company's investment in high-quality technology, including field equipment and software, and the use of applications like Survey123 forms throughout all survey types ensures reliability and confidence in our work. APEM Group Woodrow staff are fully conversant with wildlife legislation in both Ireland and the UK, and work to exacting standards, according to established guidelines issued by the Chartered Institute of Ecology and Environmental Management (CIEEM).

Chapter 6 Biodiversity – Team Competencies

Maeve Maher McWilliams – Associate Director – Project Manager

Maeve is an Associate Director for Woodrow. Maeve has over 13 years' experience on complex EIAs and mitigation design for infrastructure and development projects across Ireland, Northern Ireland, and Scotland. Maeve has been involved in projects across several sectors such as renewable energy; linear infrastructure; flood relief schemes and port developments; tourism and recreation; residential, pharmaceutical, and data centre developments. Included in this list are over twenty onshore wind energy projects in Ireland and Northern Ireland, and associated substations and onshore grid connections. Maeve has provided advice and recommendations throughout project lifetimes from inception and due diligence, right through to the planning process and into post-planning compliance and secondary consents. As a field ecologist Maeve is skilled in multidisciplinary surveys, habitat surveys, bat surveys, mammal surveys, and specialises in ornithology surveys. As a project manager and ecologist, Maeve directs, manages and authors large scale EIA Reports (EIARs) biodiversity chapters including ornithology chapters for wind energy projects.

Qualifications:

BSc (Hons) Biological Sciences, Queen's University Belfast, 2008

MSc Evolutionary and Behavioural Ecology, University of Exeter, 2010

Jason Guille – Associate Director – Impact Assessment Contributor

Jason Guille is an Associate Director with Woodrow and has co-authored and reviewed this report. Jason has over 15 years' experience in ecological assessment and holds a BSc in Marine Biology/Oceanography from the University of Wales, Bangor and a HND in Coastal Conservation with Marine Biology from Blackpool and Fylde College. Jason has a wide range of experience in the preparation of Environmental Impact Assessment Reports, Appropriate Assessment Screening reports and Natura Impact Statements. Jason was the lead ecologist on a range of projects in the UK, including large scale infrastructural schemes. Since moving to Ireland, he has been lead ecologist / author (EIAR, EclA, AA Screening reports and NIS's) for a number of projects including historic landfill remediation works, urban planning applications and commercial regeneration sites.

Qualifications:

BSc (Joint Hons) Marine Biology/Oceanography, University of Wales, Bangor, 2005

Dr Michael Dobson – Associate Director

Dr Michael Dobson FLS MCIEEM is a freshwater biologist with over 35 years' experience. He spent 20 years as a research scientist, specialising in ecology and management of rivers and freshwater wetlands throughout Europe and East Africa, along with developing biotic indices for river quality assessment in Central America. He was Director of the Freshwater Biological Association for six years before joining APEM in 2013, working initially in the limnology and water quality team before setting up its dedicated invasive species team in 2019 and moving to APEM Ireland in 2022. Mike has written many peer-reviewed papers in ecology and biogeography, along with two undergraduate textbooks for Oxford University Press (both in their second editions) and seven identification guides to freshwater invertebrates of Britain and Ireland. He has extensive experience of survey design, data analysis and reporting, including publication and verbal reporting for non-technical audiences. He has written and reviewed Habitats Directive assessments in both Ireland and the UK.

Qualifications:

BSc (Hons) Biology. University of Southampton 1985

PhD in freshwater ecology. Queen Mary University of London 1990

Adrian Walsh – Ecologist

Adrian is an Ecologist with APEM Group Woodrow. He has completed an honours BSc with a focus on Zoology and an MSc in Wildlife Conservation and Management at University College Dublin. He is a Qualifying Member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

At Woodrow, Adrian undertakes a variety of surveying including terrestrial mammals, bats and extensive ornithology monitoring. He has also authored many Ecological Impact Assessments and Appropriate Assessment Screenings. He has used a variety of surveying techniques and equipment including longworth, novel and the Mostela camera trapping techniques to survey small mammals, reptile refugia mats and various newt surveying techniques including torchlight surveys and egg searches. He is also an avid ornithologist and volunteers as a surveyor for Birdwatch Ireland for the Irish Wetland Bird Survey (I-WeBS) and the Countryside Bird Survey (CBS).

Qualifications:

BSc (Hons) Zoology. University of Galway. 2018

MSc Wildlife Conservation and Management. University College Dublin. 2020

Patrick Power – Ecologist (Bat Technical Lead)

Patrick Power is an ecologist with Woodrow. Patrick has completed a BSc in Forestry, BSc (Hons) in land management in Forestry with Waterford Institute of Technology and a PGCert in Wildlife Biology and Conservation with Edinburgh Napier University. His work with Woodrow is focused on bat data analysis including bat call identification and bat roost/habitat suitability surveys. Patrick has developed a high level of proficiency with Kaleidoscope and BatExplorer, the analysis software used to assess bat calls and activity. Patrick also possesses Reptile, mammal, and woodland tree surveying skills. Patrick currently has a licence to survey bat roosts from the Department of Housing, Local Government and Heritage.

Qualifications:

BSc in Forestry. Waterford Institute of Technology. 2014

BSc (Hons) in Land Management in Forestry. Waterford Institute of Technology 2016.

PG Certificate in Wildlife Biology and Conservation. Edinburgh Napier University. 2023

Kevin O'Reilly – Ecologist (Bat specialist)

Kevin O'Reilly obtained a First Class Honours degree in Business and Law at University College Dublin before training and qualifying as a Solicitor with the Law Society of Ireland. He is currently completing a master's research project in environmental management and GIS with Ulster University with a focus on bats and street lighting. Kevin has also undertaken several volunteer projects to gain valuable experience in habitat surveying techniques and knowledge of environmental management and the flora and fauna of protected species in Ireland and abroad. Since joining Woodrow, Kevin has undertaken bat surveys including static detector deployment and roost surveys and worked on several large-scale developments. Kevin is a qualifying member of CIEEM and holds a full bat derogation licence issued by NPWS.

Qualifications:

BBL Bachelor of Business and Law – University College Dublin, 2016

Professional Practice Courses I & II – The Law Society of Ireland, 2019

PgDip Environmental Management with GIS – Ulster University, 2023

Róisín O Connell – Ecologist (Bat specialist)

Róisín O'Connell is an ecologist with Woodrow. Róisín has completed a B.Sc. in Environmental Science at Atlantic Technological University in Sligo. Her final year thesis involved carrying out aquatic macrophyte surveys of lough Doon in County Leitrim. Her work with Woodrow is focused on bat data analysis including bat call identification and bat roost/habitat suitability surveys. Róisín has developed a high level of proficiency with Kaleidoscope and BatExplorer, the analysis software used to assess bat calls and activity. Róisín also possesses marine and freshwater habitat survey skills from her time studying at ATU. Since joining Woodrow, Róisín has authored multiple bat activity reports and coordinated the bat surveys conducted at Woodrow in 2022. Róisín is a Qualifying member of CIEEM and holds a licence to survey bat roosts from the Department of Housing, Local Government and Heritage.

Qualifications :

BSc (Hons) Environmental Science. Atlantic Technical University Sligo 2020.

Louise Gannon BSc (Hons) – Ecologist (Bat specialist)

Louise Gannon is an ecologist with Woodrow. Louise has completed a B.Sc. in Environmental Science. Her main experience lies in conducting protected species surveys for bats (preliminary roost assessments, emergence/re-entry surveys and activity transect surveys), as well as the deployment of static bat detectors and reporting on the same. She also conducts bat call analysis using Kaleidoscope and BatExplorer, the analysis software used to assess bat calls and activity. She also has experience in conducting otter, badger, and red squirrel surveys. Louise is a licenced bat surveyor and a Qualifying member of CIEEM.

Qualifications:

BSc (Hons) Environmental Science. Atlantic Technical University Sligo 2020.

Bruno Mels – Ecologist and Data Coordinator – Data analysis for this assessment.

Bruno Mels is an Ecologist and Data Coordinator at Woodrow. He is also a digital illustrator, having designed and created various information boards for UNESCO world heritage sites in the Seychelles. Bruno has a vast amount of experience mapping with both ArcGIS and QGIS, as well as data management using Excel and Access. He is also experienced in undertaking habitat suitability modelling, and statistical analysis and modelling using R and Maxent. He is also competent in modelling species population trends using Stella.

Qualifications:

MSc in Biology – Biodiversity: conservation & restoration. University of Antwerp. 2012 – 2015

BSc in Biology. University of Ghent. 2009 - 2014

Conn Barry – Data Coordinator.

Conn holds an MSc in Environmental Resource Management. His academic background has made him familiar with environmental law & policy, ecosystem services, GIS and data analysis. Conn has also undertaken field work concerning hen harriers and red grouse, both of which are priority conservation species in the Republic of Ireland. Since joining Woodrow, Conn has been involved in a wide range of projects such as Phase 1 surveys, bat roost and transect surveys, terrestrial mammal surveys and community outreach programmes. He is a Qualifying member of CIEEM and is undertaking a course in wildflower identification with Atlantic Technological University Sligo.

Qualifications:

MSc – Environmental Resource Management, University College Dublin, 2021

BA History & English, Trinity College Dublin, 2017

James O'Connor – Senior Ecologist

James is a senior ecologist with Woodrow, who holds a PhD in aquatic sciences with a primary technical specialism in freshwater ecology. He has prior experience monitoring wild bird populations with BirdWatch Ireland and is heavily involved in ornithological work as part of his role with Woodrow. James also regularly conducts mammal surveys, particularly for otter and badger. He is the first author of several peer-reviewed academic research papers and has contributed to reports disseminating key research findings to state agencies such as the Irish Environmental Protection Agency (EPA) and Irish county councils. His reporting experience includes contributions to EIARs for wind farm developments, the production of AA Screening and NIS reports, and various technical reports.

Qualifications:

BSc Agriculture and Environmental Management, ATU Galway, 2013.

MSc Applied Environmental Science, University College Dublin, 2015.

PhD Aquatic Sciences, ATU Galway, 2021.

Bláithín Ní Ainín – Principal Freshwater Ecologist

Dr Bláithín Ní Ainín has 20 years of practical experience in leading and managing water and environmental related projects and programmes in Ireland and Australia. She has broad ranging experience including surveying and sampling rivers and lakes across Ireland (particularly using macroinvertebrate communities to determine water quality), in conducting complex research and analysis as well as impact assessment on the effects of agricultural and industrial activities on receiving waterways, and in strategy development, producing high-quality technical reports. Bláithín has extensive skills in the fields of: Water resources assessment and management; River basin and catchment management and planning; Biological monitoring (particularly for water quality); Freshwater ecosystem health and ecological status assessment (especially for the Habitats and Water Framework Directive); Design and implementation of freshwater ecological fieldwork; River and wetland ecology, restoration and management and freshwater invasive species impacts, control and management. She has worked for the Local Authority Waters Programme in Ireland and the East Gippsland Catchment Management Authority, in Australia as well as working as a Consultant Freshwater Ecologist.

Qualifications:

BSc (Hons) Environmental Biology. University College Dublin 2000

MSc Environmental Science. Trinity College Dublin 2004

PhD in Freshwater Ecology. Trinity College Dublin 2010

Adon McFarlane – Senior Freshwater Ecologist

Adon is a freshwater biologist, specialising in protected species. He is an experienced field scientist, with extensive skills in the fields of freshwater habitat assessment; freshwater pearl mussel survey; white-clawed crayfish survey, macroinvertebrate survey, fish habitat assessment and electrofishing survey. He has built up skills in the collection of data both in the field and laboratory, analysis of data using statistical software programs such as R, BORIS, RAVEN and Minitab, creation of distribution maps using GIS. Adon has very strong technical skills in both freshwater and marine laboratory and fieldwork instrumentation and equipment usage. Adon has worked on a number of ecological reports, including Appropriate Assessments, Ecological Impact Assessments (EclIA), Preliminary Ecological Appraisal Reports (PEAR) and Invasive Species Reports.

Qualifications:

BSc (Hons) Applied Freshwater and Marine Biology. Galway Mayo Institute of Technology (2011 – 2015).

PhD in Aquatic Science. Marine and Freshwater Research Centre, Galway Mayo Institute of Technology. (2015-2020).

Jenny Kiely – Ecologist

Jenny is an Ecologist at APEM Group Woodrow, holding a BSc (Hons) in Ecology and Environmental Biology from University College Cork. She has extensive experience in field work across terrestrial and freshwater environments, including kick sampling, diatom sampling, fish habitat mapping, and Freshwater Pearl Mussel surveys. Jenny has significant experience in bat ecology, having conducted

bat roost/habitat suitability surveys, nighttime bat walkover surveys, and bat static detector deployments for large-scale developments. She has a high level of proficiency with acoustic analysis software, including Kaleidoscope, Bat Explorer, and Anabat Insight. Jenny has completed training courses on Stage 1 & 2 surveying for freshwater pearl mussels (*Margaritifera margaritifera*) and Biological Water Quality Assessment by the Q-value method. She has a comprehensive understanding of the impact assessment process and Irish and EU wildlife legislation, having coauthored several ecological reports.

Qualifications:

BSc (Hons) Ecology and Environmental Biology, University College Cork. 2023

Tanushree Munda – Freshwater Ecologist

Tanushree has an International Master of Science in Marine Biological Resources (IMBRSea), based on research focused on life history strategies in marine mammals. She has since specialised in freshwater ecology and has undertaken macrobenthic surveys in India, as well as working with freshwater turtles, dolphin, and crocodile. She has been involved in various Environmental Impact Assessment (EIA) projects in India, particularly in mangrove and wetland ecosystems. She has worked closely with fishing communities to understand the challenges posed by unplanned development and fisheries management. Her work with Woodrow focuses on aquatic macroinvertebrate identification, bat acoustic data analysis, and field work for the above.

Qualifications:

BSc (Environmental Science), First Class Honours, University of Pune, India. 2011 – 2014.

MSc Ecology & Environment Studies, First class, Nalanda University, India. 2015-2017.

International Master of Science in Marine Biological Resources (IMBRSea), Cum laude, Ghent University, Belgium. 2022-2024.

Former Woodrow Staff that worked on the Project:

Oisín O Sullivan – Senior Ecologist & Technical Lead on bat surveys

Oisín O’Sullivan is a former senior ecologist with Woodrow. Oisín has completed a B.Sc. in Ecology and Environmental Biology at University College Cork. His final year thesis involved bat surveys of urban habitats in Cork City. His work as a graduate ecologist with Woodrow was focused on bat data analysis including bat call identification and bat roost/habitat suitability surveys. Oisín has developed a high level of proficiency with Kaleidoscope, Ecobat and BatExplorer, all of which are analysis software used to assess bat calls and activity. During his time with Woodrow, Oisín’s work involved coordinating, surveying, analysing data, and writing summary bat activity reports for all onshore wind developments that Woodrow has worked on in the 2021-2024 survey seasons. This also involved the use of R to provide data on bat activity relative to weather conditions with the goal of informing curtailment as a mitigation measure. During 2022 Woodrow began undertaking offshore bat surveys including Oisín as a technical lead on these projects. These surveys involved the long-term recording of activity on

islands and headlands to record migration events. Oisín is a Qualifying member of CIEEM and holds a license to survey bat roosts from the Department of Housing, Local Government and Heritage.

Qualifications:

BSc (Hons) Ecology and Environmental Biology. University College Cork 2020

Rachel Irwin – Senior Agri-Ecologist & Habitat Surveyor

Rachel Irwin, BSc (Hons), QCIEEM is an Agri-ecologist who has more than six years' professional experience working within the environmental sector in both Ireland and the UK. She holds a PhD awarded through the Teagasc Walsh Scholarship Programme with her research focusing on promoting agroforestry uptake on Irish dairy and drystock farms by engaging farmers and stakeholders and by fostering behavioural change. Rachel also has a proven track-record in communicating and negotiating with farmers on conservation matters including liaising with governments, groups and communities. As part of Woodrow, Rachel also undertook botanical surveying and monitoring in conjunction with protected species surveys such as bats, otter, badger, red squirrel and herptofauna. She has also presented the findings of her PhD research at various national and international conferences and is competent in report writing, having published various publications in peer-reviewed scientific journals.

Qualifications:

BSc (Hons) Zoology with Conservation. Bangor University. 2018

Level 6 Specific Purpose Certificate in Farming. Teagasc (Distance Ed.). 2022

PhD Walsh Scholar. University College Dublin. 2020-Present

Frederico Hintze – Ecologist (Bat specialist)

Frederico Hintze (FH) was an Ecologist working with Woodrow. He holds a B.Sc. in Biology-Geology and an M.Sc. in Ecology from the University of Minho (Portugal), as well as a PhD in Animal Biology from the Federal University of Pernambuco (Brazil). FH's passion for bat research and monitoring began during his undergraduate thesis in 2009. For his master's thesis, he focused on assessing the impact of agricultural dams on bat populations in Northeastern Portugal. During his PhD, FH utilized bioacoustics and species distribution modelling to enhance the understanding of the distribution of Neotropical bat species. Subsequently, FH's post-doctoral work led him to the world's largest iron ore mine in Carajás, Pará, Brazil, where he aimed to characterize the vocalizations of Amazonian bats and assess the impacts of mining on bat populations. Throughout his career, FH has actively participated in more than 10 Environmental Impact Assessment (EIA) projects in Portugal, covering various topics such as dams, wind farms, roads, and transmission lines. He also served as the coordinator of the Bioacoustics Committee at the Brazilian Bat Research Society. In addition to his academic contributions, FH has authored over fifteen scientific publications and sampling event datasets, showcasing his expertise in the field. As an ecologist with Woodrow, FH's work focuses on bat data analysis, including bat call identification, bat roost/habitat suitability surveys, and report writing and review. He possesses a high level of proficiency and experience with various analysis software used to assess bat calls and activity.

Qualifications:

BSc in Biology-Geology. University of Minho - Portugal 2011.

MSc in Ecology. University of Minho - Portugal 2014.

PhD in Animal Biology. Federal University of Pernambuco – Brazil 2020.